# CHAPTER Human Machine Interface



Featured Products in this Chapter

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and Keyboard Arm	P. 606
► SYSPEND™ VL-Motion Arm,	
Type 4	P. 608
► SYSPEND™ VHD – Motion Arm,	
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## **HMI Product Selection Guide Overview**

## **HMI Product Selection Guide**

			HMI Enclosures			
			No Enclosure (Flatscreen monitor)	INLINE HMI	CONCEPT HMI	Stainless Steel HMI (CS480)
Suspension Product		Application				-
SYSPEND Monitor & Keyboard Arm	•	Provides vertical height adjustment for flat screen monitors	•			
SYSPEND VL-Motion Arm	10	Provides vertical height adjustment for loads up to 100 lbs in NEMA Type 4 and 12 environments			•	
SYSPEND VHD-Motion Arm		Provides vertical height adjustment for loads up to 125 lbs. in NEMA Type 4 and 12 environments			•	
SYSPEND VHDS-Motion Arm	I Per	Provides vertical height adjustment for loads up to 125 lbs. in NEMA Type 4 environments				
COMPACT Series 1	5	Provides vertical height adjustment for small enclosures/components up to 30 lbs in NEMA Type 12 environments		•		
COMPACT Series 2	100	Supports loads up to 101 lbs. in NEMA Type 12 environments		•	•	
SYSPEND 281-MAX		Supports loads up to 281 lbs. in NEMA Type 12 environments			•	
COMPACT Series 4 System 80		Supports loads up to 337 lbs. in NEMA Type 12 environments				
CS480	160 160	Supports loads up to 89 lbs. in NEMA Type 4X environments				•
CS600	0 / A B &	Supports loads up to 134 lbs. in NEMA Type 4X environments				
4x4 Pedestals	L	Straight, angled, bolt- down and pedestals with legs		•	•	
6x6 Pedestals	1	Straight and angled pedestals.				
8x8 Pedestals	L	Straight, angled, bolt- down and pedestals with legs				
8x8 Stainless Steel Pedestal	1	Straight pedestal with legs				



## **HMI Product Selection Guide Overview**

	HMI Enclosures					
Stainless Steel HMI (CS600)	CC4000	CC3000	CC2000	Consolets	PROLINE® Sloped Front	
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## INLINE® HMI, Type 4



#### **Industry Standards**

UL 508A Listed; Type 4, 12; File No. E61997 cUL Listed per CSA C22.2 No. 94; Type 4, 12; File No. E61997

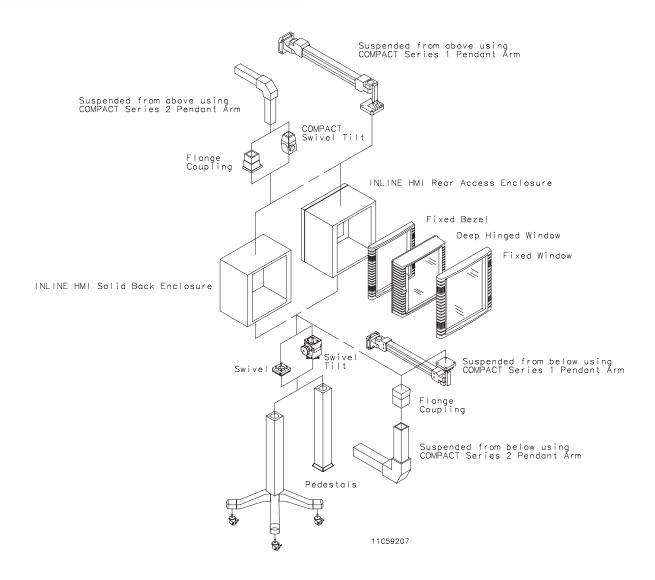
NEMA/EEMAC Type 4, 12 CSA File Number 42186: Type 4, 12 IEC 60529, IP66

#### **Application**

Practical functionality is the signature feature of all INLINE® HMI enclosures. With multiple options that allow for many different configurations, these enclosures are highly adaptable and useful in applications where a protective housing is required for small HMI devices.

#### **Finish**

RAL 7035 textured light-gray polyester powder paint inside and out over pretreated surfaces. Optional panels are white.



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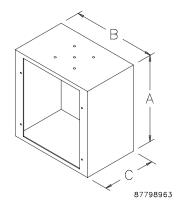


## **Solid-Back Body**

Solid-Back Body is 16 gauge steel with open front. Front is configured to install optional fixed bezel, deep-hinged window or fixed window. Panels or DIN rails mount on studs in the rear of the enclosure. Ground stud furnished. Drill points on enclosure mark location for pendant or pedestal mounting.

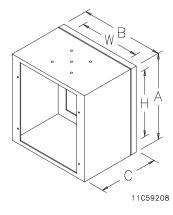
#### Bulletin: C3

Catalog Number	AxBxC mm/in.	Description	Product Weight (lb.)
LLB161612	166 x 160 x 102	Solid-Back Body	2.7
	6.54 x 6.30 x 4.00		
LLB252512	250 x 250 x 102	Solid-Back Body	5.0
	9.84 x 9.84 x 4.00		



## **Rear-Access Body**

Enclosure body is 16 gauge steel with rear-access door. Open front is configured to install optional fixed bezel, deep-hinged window or fixed window. Rear door, furnished with foam-in-place gasket and quarter-turn latch (standard slotted insert), accepts most INLINE® door accessories. Ground stud furnished. Drill points on enclosure mark location for pendant or pedestal mounting.



			Rear Door Opening	
Catalog Number	AxBxC mm/in.	Description	mm/in.	Product Weight (lb.)
LLBR161612	166 x 160 x 120	Rear Access Body	148 x 142	3.4
	6.54 x 6.30 x 4.72		5.82 x 5.58	
LLBR252512	250 x 250 x 120	Rear Access Body	232 x 232	5.7
	9.84 x 9.84 x 4.72		9.13 x 9.13	

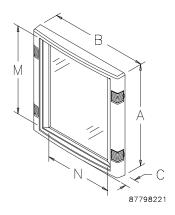


#### **Fixed-Window Kit**



Aesthetic die-cast frame has .125-in.-thick clear polycarbonate window. Preassembled kit is secured to front opening of enclosure by mounting screws. Window frame caps conceal mounting screws. Frame has RAL 7035 light-gray textured polyester powder paint finish.

Bulletin: C3



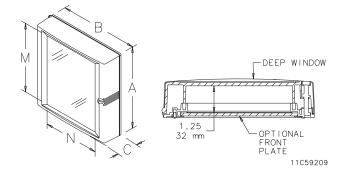
		Window Size M x N	
Catalog Number	AxBxC mm/in.	mm/in.	Product Weight (lb.)
LWF1616	166 x 160 x 17	136 x 100	1.5
	6.54 x 6.30 x 0.67	5.35 x 4.30	
LWF2525	250 x 250 x 17	220 x 200	2.7
	9.84 x 9.84 x 0.67	8.65 x 7.84	

## **Deep-Hinged Window**



Clear molded polycarbonate window has a 31.8-mm (1.25-in.) clear space between enclosure front opening and window surface. Space also accommodates equipment mounted on optional front plate. Window kit is hinged on left side with a 140-degree door opening and a quarter-turn slotted latch. Includes mounting hardware for window and optional front plate. Die-cast backing plate has a black polyester powder finish. This kit can be used as an accessory window kit on other Hoffman enclosures.

Bulletin: C3



		Window Size M x N			
Catalog Number	AxBxC mm/in.	mm/in.	Accepts Front Plate	Product Weight (lb.)	
LWHD1616	166 x 160 x 41	139 x 112	LFP1616	1.5	
	6.54 x 6.30 x 1.64	5.47 x 4.43			
LWHD2525	250 x 250 x 41	223 x 202	LFP2525	2.8	
	9.84 x 9.84 x 1.64	8.78 x 7.97			

Purchase front plate separately.

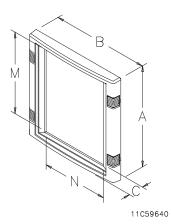


#### **Fixed HMI Bezel**



Aesthetic die-cast bezel frame accepts front plate or plates with HMI cutout. Includes gasket and mounting hardware. Furnished frame caps conceal mounting screws. Bezel has RAL 7035 light-gray textured polyester powder paint finish.

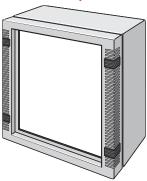
Bulletin: C3



		Window Size		
		MxN		
Catalog Number	AxBxC mm/in.	mm/in.	Accepts Front Plate	Product Weight (lb.)
LBF1616	166 x 160 x 17	136 x 109	LFP1616	1.4
	6.54 x 6.30 x 0.67	5.35 x 4.30		
LBF2525	250 x 250 x 17	220 x 200	LFP2525	2.4
	9.84 x 9.84 x 0.67	8.65 x 7.84		

Purchase front plate separately.

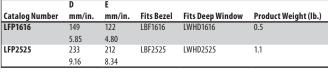
## Front Plate, INLINE®



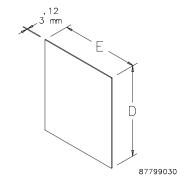
Aluminum plate is .125-in. thick. Front Plate mounts to inside of bezel or deep-hinged window. Order blank or pre-cut for HMI. (Gasket and mounting hardware are included with bezel.)

Hoffman can provide pre-configured front plates to meet your specific requirements. Contact your local Hoffman Sales Representative for more information.

Bulletin: C3

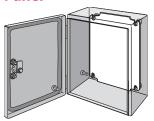


Purchase deep window separately.





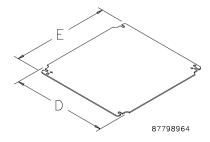
#### **Panel**



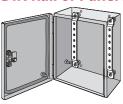
Panel is 12 gauge steel and fits solid back body enclosures only. Panels are painted white.

Bulletin: A54P

	D	E		1
Catalog Number	mm/in.	mm/in.	Fits INLINE HMI Enclosure	Product Weight (lb.)
LP1515	131	131	LLB161612	0.7
	5.16	5.16		
LP2520	231	181	LLB252512	1.8
	9.09	7.13		



## **DIN Rail or Panel Mounting Brackets**



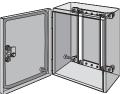
Brackets provide a mounting framework for installing DIN rails or a panel. Rails (or panel) attach to the brackets and the brackets are bolted directly to the enclosure. Brackets are offset to permit additional space in front of or behind mounted equipment. Brackets are plated 12 gauge steel.

#### **Bulletin: A54Y**

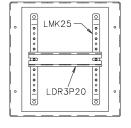
Catalog Number	Fits INLINE HMI Enclosure	Product Weight (lb.)
LMK15	LLB161612	0.5
LMK20	LLB252512	0.6
LMK25	LLB252512	0.7

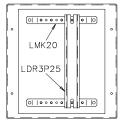
LMK20 fits horizontally. LMK25 fits vertically.

## **DIN Type Rails**



Rails furnish mounting surfaces for DIN3 mount snap-on devices. Rails attach vertically or horizontally to mounting brackets. Kit includes 4 rails, mounting hardware and installation instructions. **Bulletin: A54Y** 





87799016

Catalog Number	Fits INLINE HMI Enclosure	Product Weight (lb.)
LDR3P15	LLB161612	0.4
LDR3P20	LLB252512	0.5
LDR3P25	LLB252512	0.7

LDR3P20 fits horizontally. LDR3P25 fits vertically.

#### **Lock Inserts**



Lock Inserts can replace the standard slotted quarter-turn latch. Inserts have chrome finish. Key included. **Bulletin: A54Y** 

Catalog Number	Description	
LLKSM7	Square 7 mm	
LLKSM8	Square 8 mm	
LLKDB	Daimler Benz	
LLKDBM3	Double bit 3 mm	
LLKSS	Slotted screw	



## **Wing Knob Latch**

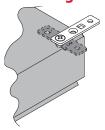


Wing Knob Latch can replace the standard slotted, quarter-turn latch on all hinged-cover and window-cover enclosures. Latch is black die-cast zinc. Includes two keys and installation instructions. Reduces UL Type rating from 4 or 4X to 12.

Bulletin: A54Y

Catalog Number	Product Weight
LLKWK	0.2 lb.

## **Mounting-Bracket Kit**



Kit is field-installable on all solid-back-body enclosures. Hardware included. Four brackets per kit.

Bulletin: A54SY, A54Y

Catalog Number	Description
LMFK	Plated steel mounting-bracket kit
LMFKSS	Type 316L stainless steel mounting-bracket kit

## **Grounding Kit**



Grounding Kit provides means to attach a grounding conductor to the enclosure. Kit includes two insulated copper wires with a ring terminal at each end, all installation hardware and instructions.

#### **Bulletin: A54Y**

Catalog Number	Product Weight
LLGK	0.2 lb.

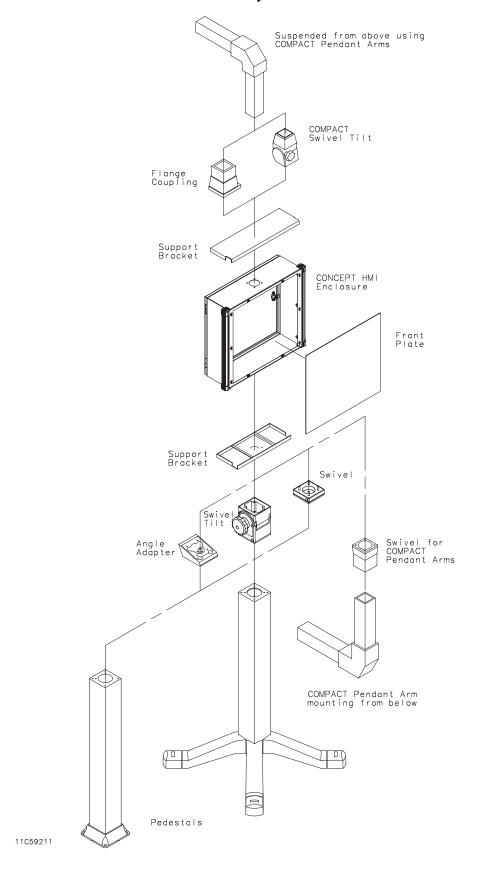


## **CONCEPT® HMI Overview**



hese human-machine interface (HMI) enclosures are appropriate for applications incorporating flat-screen devices, pushbuttons and other similar devices. Available in three depths, the system's capability for pendent or pedestal mounting offers exceptional design flexibility. Accessory colors are available to match the most popular HMI devices.







## **CONCEPT® HMI, Type 4**



#### **Industry Standards**

UL 508A Listed; Type 4, 12; File Number E61997 cUL Listed per CSA C22.2 No. 94; Type 4, 12; File No. E61997

NEMA Type 4, 12 IEC 60529, IP66

#### **Application**

A traditional landscape-oriented HMI enclosure made of light-gray steel, the CONCEPT® HMI is unique among HMI enclosure systems when you need a range of customization options. This pendant- or pedestal-mounted system has many possible configurations and modifications, including a removable front plate that makes it easy to install HMI components and the ability to accommodate cutouts anywhere on the enclosure.

- Pre-drilled hole in top for pendant arm mounting
- Pedestal mounting when enclosure is inverted
- Integral handle extrusions have a comfort grip that extends the length of the profile; standard color black
- Four additional accent colors (blue, purple, red, turquoise) for integral handle extrusions and end caps match the most popular operator interface color schemes
- Hinged rear corner-formed door has a single-point latch, seamless foam-in-place gasket and panel studs
- Aluminum front plate

#### **Specifications**

- Body manufactured from 14 gauge steel
- Front plate is .125-in. aluminum
- Grounding stud on body; bonding provision on door
- Simple easy-to-remove and install hinge pins with built-in captive
- · High-torque threadless studs and fasteners on door

Enclosure body and front plate have RAL 7035 light-gray polyester powder paint finish. Standard handle extrusions and end caps have RAL 9005 black polyester powder paint finish.

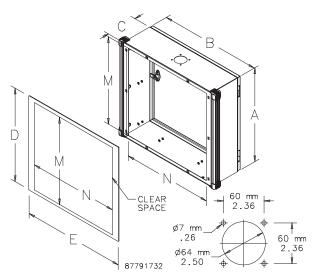
#### Accessories

See also Accessories. **Industrial Corrosion Inhibitors** Thermoplastic Data Pocket Electric Heater **Compact Cooling Fans** Touch-Up Paint

#### **Modification and Customization**

Hoffman excels at modifying and customizing products to your specifications. Contact your local Hoffman sales office or distributor for complete information.

#### Bulletin: C2



#### Standard Product CONCEPT HMI Enclosures with Black Extrusions

			Front	Front	Front	Front	Front	Front	Front	Front	
			Opening	Opening	Opening	Opening	Plate	Plate	Plate	Plate	Product
Catalog Number	AxBxC mm	AxBxC in.	M (mm)	M (in.)	N (mm)	N (in.)	D (mm)	D (in.)	E (mm)	E (in.)	Weight (lb.)
CP253512	250 x 350 x 120	9.84 x 13.78 x 4.72	210	8.27	280	11.02	250	9.86	361	14.22	10.5
CP304012	300 x 400 x 120	11.81 x 15.75 x 4.72	260	10.24	330	12.99	330	12.99	411	16.19	14.9
CP323512	325 x 350 x 120	12.80 x 13.78 x 4.72	285	11.22	280	11.02	325	12.81	361	14.22	16.5
CP354512	350 x 450 x 120	13.78 x 17.72 x 4.72	310	12.20	380	14.96	350	13.79	461	18.16	20.0
CP354518	350 x 450 x 180	13.78 x 17.72 x 7.09	310	12.20	380	14.96	350	13.79	461	18.16	22.3
CP354530	350 x 450 x 300	13.78 x 17.72 x 11.80	310	12.20	380	14.96	350	13.79	461	18.16	26.9
CP374012	375 x 400 x 120	14.76 x 15.75 x 4.72	335	13.19	330	12.99	375	14.78	411	16.19	20.0
CP405012	400 x 500 x 120	15.75 x 19.69 x 4.72	360	14.17	430	16.93	400	15.76	511	20.13	24.3
CP405018	400 x 500 x 180	15.75 x 19.69 x 7.09	360	14.17	430	16.93	400	15.76	511	20.13	26.5
CP405030	400 x 500 x 300	15.75 x 19.69 x 11.80	360	14.17	430	16.93	400	15.76	511	20.13	30.9
CP424512	425 x 450 x 120	16.73 x 17.72 x 4.72	385	15.16	380	14.96	425	16.75	461	18.16	23.9
CP424518	425 x 450 x 180	16.73 x 17.72 x 7.09	385	15.16	380	14.96	425	16.75	461	18.16	25.8
CP424530	425 x 450 x 300	16.73 x 17.72 x 11.80	385	15.16	380	14.96	425	16.75	461	18.16	30.2
CP455512	450 x 550 x 120	17.72 x 21.65 x 4.72	410	16.14	480	18.90	450	17.73	561	22.10	28.6
CP455518	450 x 550 x 180	17.72 x 21.65 x 7.09	410	16.14	480	18.90	450	17.73	561	22.10	31.0
CP455530	450 x 550 x 300	17.72 x 21.65 x 11.80	410	16.14	480	18.90	450	17.73	561	22.10	35.8
CP475012	475 x 500 x 120	18.70 x 19.69 x 4.72	435	17.13	430	16.93	475	18.72	511	20.13	28.0



			Front	Front	Front	Front	Front	Front	Front	Front	
			Opening	Opening	<b>Opening</b>	Opening	Plate	Plate	Plate	Plate	Product
Catalog Number	AxBxC mm	AxBxC in.	M (mm)	M (in.)	N (mm)	N (in.)	D (mm)	D (in.)	E (mm)	E (in.)	Weight (lb.)
CP475018	475 x 500 x 180	18.70 x 19.69 x 7.09	435	17.13	430	16.93	475	18.72	511	20.13	30.2
CP475030	475 x 500 x 300	18.70 x 19.69 x 11.80	435	17.13	430	16.93	475	18.72	511	20.13	34.6
CP486012	480 x 600 x 120	18.90 x 23.62 x 4.72	440	17.32	530	20.87	480	18.90	611	24.06	32.2
CP486018	480 x 600 x 180	18.90 x 23.62 x 7.09	440	17.32	530	20.87	480	18.90	611	24.06	34.6
CP486030	480 x 600 x 300	18.90 x 23.62 x 11.80	440	17.32	530	20.87	480	18.90	611	24.06	39.4
CP525512	525 x 550 x 120	20.67 x 21.65 x 4.72	485	19.09	480	18.90	525	20.68	561	22.10	32.5
CP525518	525 x 550 x 180	20.67 x 21.65 x 7.09	485	19.09	480	18.90	525	20.68	561	22.10	34.9
CP525530	525 x 550 x 300	20.67 x 21.65 x 11.80	485	19.09	480	18.90	525	20.68	561	22.10	39.7
CP556012	555 x 600 x 120	21.85 x 23.62 x 4.72	515	20.28	530	20.87	555	21.86	611	24.06	36.8
CP556018	555 x 600 x 180	21.85 x 23.62 x 7.09	515	20.28	530	20.87	555	21.86	611	24.06	38.8
CP556030	555 x 600 x 300	21.85 x 23.62 x 11.80	515	20.28	530	20.87	555	21.86	611	24.06	43.6

#### Standard Product CONCEPT HMI Enclosures with Blue Extrusions

		1	Front	Front	Front	Front	Front	Front	Front	Front	
			Opening	Opening	Opening	Opening	Plate	Plate	Plate	Plate	Product
Catalog Number	AxBxC mm	AxBxCin.	M (mm)	M (in.)	N (mm)	N (in.)	D (mm)	D (in.)	E (mm)	E (in.)	Weight (lb.)
CP253512B	250 x 350 x 120	9.84 x 13.78 x 4.72	210	8.27	280	11.02	250	9.86	361	14.22	10.5
CP304012B	300 x 400 x 120	11.81 x 15.75 x 4.72	260	10.24	330	12.99	330	12.99	411	16.19	14.9
CP323512B	325 x 350 x 120	12.80 x 13.78 x 4.72	285	11.22	280	11.02	325	12.81	361	14.22	16.5
CP354512B	350 x 450 x 120	13.78 x 17.72 x 4.72	310	12.20	380	14.96	350	13.79	461	18.16	20.0
CP354518B	350 x 450 x 180	13.78 x 17.72 x 7.09	310	12.20	380	14.96	350	13.79	461	18.16	22.3
CP354530B	350 x 450 x 300	13.78 x 17.72 x 11.80	310	12.20	380	14.96	350	13.79	461	18.16	26.9
CP374012B	375 x 400 x 120	14.76 x 15.75 x 4.72	335	13.19	330	12.99	375	14.78	411	16.19	20.0
CP405012B	400 x 500 x 120	15.75 x 19.68 x 4.72	360	14.17	430	16.93	400	15.76	511	20.13	24.3
CP405018B	400 x 500 x 180	15.75 x 19.68 x 7.09	360	14.17	430	16.93	400	15.76	511	20.13	26.5
CP405030B	400 x 500 x 300	15.75 x 19.69 x 11.80	360	14.17	430	16.93	400	15.76	511	20.13	30.9
CP424512B	425 x 450 x 120	16.73 x 17.72 x 4.72	385	15.16	380	14.96	425	16.75	461	18.16	23.9
CP424518B	425 x 450 x 180	16.73 x 17.72 x 7.09	385	15.16	380	14.96	425	16.75	461	18.16	25.8
CP424530B	425 x 450 x 300	16.73 x 17.72 x 11.80	385	15.16	380	14.96	425	16.75	461	18.16	30.2
CP455512B	450 x 550 x 120	17.72 x 21.65 x 4.72	410	16.14	480	18.90	450	17.73	561	22.10	28.6
CP455518B	450 x 550 x 180	17.72 x 21.65 x 7.09	410	16.14	480	18.90	450	17.73	561	22.10	31.0
CP455530B	450 x 550 x 300	17.72 x 21.65 x 11.80	410	16.14	480	18.90	450	17.73	561	22.10	35.8
CP475012B	475 x 500 x 120	18.70 x 19.68 x 4.72	435	17.13	430	16.93	475	18.72	511	20.13	28.0
CP475018B	475 x 500 x 180	18.70 x 19.68 x 7.09	435	17.13	430	16.93	475	18.72	511	20.13	30.2
CP475030B	475 x 500 x 300	18.70 x 19.69 x 11.80	435	17.13	430	16.93	475	18.72	511	20.13	34.6
CP486012B	480 x 600 x 120	18.90 x 23.62 x 4.72	440	17.32	530	20.87	480	18.90	611	24.06	32.2
CP486018B	480 x 600 x 180	18.90 x 23.62 x 7.09	440	17.32	530	20.87	480	18.90	611	24.06	34.6
CP486030B	480 x 600 x 300	18.90 x 23.62 x 11.80	440	17.32	530	20.87	480	18.90	611	24.06	39.4
CP525512B	525 x 550 x 120	20.67 x 21.65 x 4.72	485	19.09	480	18.90	525	20.68	561	22.10	32.5
CP525518B	525 x 550 x 180	20.67 x 21.65 x 7.09	485	19.09	480	18.90	525	20.68	561	22.10	34.9
CP525530B	525 x 550 x 300	20.67 x 21.65 x 11.80	485	19.09	480	18.90	525	20.68	561	22.10	39.7
CP556012B	555 x 600 x 120	21.85 x 23.62 x 4.72	515	20.28	530	20.87	555	21.86	611	24.06	36.8
CP556018B	555 x 600 x 180	21.85 x 23.62 x 7.09	515	20.28	530	20.87	555	21.86	611	24.06	38.8
CP556030B	555 x 600 x 300	21.85 x 23.62 x 11.80	515	20.28	530	20.87	555	21.86	611	24.06	43.6

## Standard Product CONCEPT HMI Enclosures with Purple Extrusions

			Front	Front	Front	Front	Front	Front	Front	Front	
			Opening	Opening	Opening	Opening	Plate	Plate	Plate	Plate	Product
Catalog Number	AxBxC mm	AxBxCin.	M (mm)	M (in.)	N (mm)	N (in.)	D (mm)	D (in.)	E (mm)	E (in.)	Weight (lb.)
CP253512P	250 x 350 x 120	9.84 x 13.78 x 4.72	210	8.27	280	11.02	250	9.86	361	14.22	10.5
CP304012P	300 x 400 x 120	11.81 x 15.75 x 4.72	260	10.24	330	12.99	330	12.99	411	16.19	14.9
CP323512P	325 x 350 x 120	12.80 x 13.78 x 4.72	285	11.22	280	11.02	325	12.81	361	14.22	16.5
CP354512P	350 x 450 x 120	13.78 x 17.72 x 4.72	310	12.20	380	14.96	350	13.79	461	18.16	20.0
CP354518P	350 x 450 x 180	13.78 x 17.72 x 7.09	310	12.20	380	14.96	350	13.79	461	18.16	22.3
CP354530P	350 x 450 x 300	13.78 x 17.72 x 11.80	310	12.20	380	14.96	350	13.79	461	18.16	26.9
CP374012P	375 x 400 x 120	14.76 x 15.75 x 4.72	335	13.19	330	12.99	375	14.78	411	16.19	20.0
CP405012P	400 x 500 x 120	15.75 x 19.68 x 4.72	360	14.17	430	16.93	400	15.76	511	20.13	24.3
CP405018P	400 x 500 x 180	15.75 x 19.68 x 7.09	360	14.17	430	16.93	400	15.76	511	20.13	26.5
CP405030P	400 x 500 x 300	15.75 x 19.69 x 11.80	360	14.17	430	16.93	400	15.76	511	20.13	30.9
CP424512P	425 x 450 x 120	16.73 x 17.72 x 4.72	385	15.16	380	14.96	425	16.75	461	18.16	23.9
CP424518P	425 x 450 x 180	16.73 x 17.72 x 7.09	385	15.16	380	14.96	425	16.75	461	18.16	25.8
CP424530P	425 x 450 x 300	16.73 x 17.72 x 11.80	385	15.16	380	14.96	425	16.75	461	18.16	30.2
CP455512P	450 x 550 x 120	17.72 x 21.65 x 4.72	410	16.14	480	18.90	450	17.73	561	22.10	28.6
CP455518P	450 x 550 x 180	17.72 x 21.65 x 7.09	410	16.14	480	18.90	450	17.73	561	22.10	31.0
CP455530P	450 x 550 x 300	17.72 x 21.65 x 11.80	410	16.14	480	18.90	450	17.73	561	22.10	35.8
CP475012P	475 x 500 x 120	18.70 x 19.68 x 4.72	435	17.13	430	16.93	475	18.72	511	20.13	28.0
CP475018P	475 x 500 x 180	18.70 x 19.68 x 7.09	435	17.13	430	16.93	475	18.72	511	20.13	30.2
CP475030P	475 x 500 x 300	18.70 x 19.69 x 11.80	435	17.13	430	16.93	475	18.72	511	20.13	34.6
CP486012P	480 x 600 x 120	18.90 x 23.62 x 4.72	440	17.32	530	20.87	480	18.90	611	24.06	32.2
CP486018P	480 x 600 x 180	18.90 x 23.62 x 7.09	440	17.32	530	20.87	480	18.90	611	24.06	34.6
CP486030P	480 x 600 x 300	18.90 x 23.62 x 11.80	440	17.32	530	20.87	480	18.90	611	24.06	39.4
CP525512P	525 x 550 x 120	20.67 x 21.65 x 4.72	485	19.09	480	18.90	525	20.68	561	22.10	32.5
CP525518P	525 x 550 x 180	20.67 x 21.65 x 7.09	485	19.09	480	18.90	525	20.68	561	22.10	34.9
CP525530P	525 x 550 x 300	20.67 x 21.65 x 11.80	485	19.09	480	18.90	525	20.68	561	22.10	39.7
CP556012P	555 x 600 x 120	21.85 x 23.62 x 4.72	515	20.28	530	20.87	555	21.86	611	24.06	36.8
CP556018P	555 x 600 x 180	21.85 x 23.62 x 7.09	515	20.28	530	20.87	555	21.86	611	24.06	38.8
CP556030P	555 x 600 x 300	21.85 x 23.62 x 11.80	515	20.28	530	20.87	555	21.86	611	24.06	43.6



#### Standard Product CONCEPT HMI Enclosures with Red Extrusions

			Front	Front	Front	Front	Front	Front	Front	Front	
			Opening	<b>Opening</b>	<b>Opening</b>	Opening	Plate	Plate	Plate	Plate	Product
Catalog Number	AxBxC mm	AxBxC in.	M (mm)	M (in.)	N (mm)	N (in.)	D (mm)	D (in.)	E (mm)	E (in.)	Weight (lb.)
CP253512R	250 x 350 x 120	9.84 x 13.78 x 4.72	210	8.27	280	11.02	250	9.86	361	14.22	10.5
CP304012R	300 x 400 x 120	11.81 x 15.75 x 4.72	260	10.24	330	12.99	330	12.99	411	16.19	14.9
CP323512R	325 x 350 x 120	12.80 x 13.78 x 4.72	285	11.22	280	11.02	325	12.81	361	14.22	16.5
CP354512R	350 x 450 x 120	13.78 x 17.72 x 4.72	310	12.20	380	14.96	350	13.79	461	18.16	20.0
CP354518R	350 x 450 x 180	13.78 x 17.72 x 7.09	310	12.20	380	14.96	350	13.79	461	18.16	22.3
CP354530R	350 x 450 x 300	13.78 x 17.72 x 11.80	310	12.20	380	14.96	350	13.79	461	18.16	26.9
CP374012R	375 x 400 x 120	14.76 x 15.75 x 4.72	335	13.19	330	12.99	375	14.78	411	16.19	20.0
CP405012R	400 x 500 x 120	15.75 x 19.68 x 4.72	360	14.17	430	16.93	400	15.76	511	20.13	24.3
CP405018R	400 x 500 x 180	15.75 x 19.68 x 7.09	360	14.17	430	16.93	400	15.76	511	20.13	26.5
CP405030R	400 x 500 x 300	15.75 x 19.69 x 11.80	360	14.17	430	16.93	400	15.76	511	20.13	30.9
CP424512R	425 x 450 x 120	16.73 x 17.72 x 4.72	385	15.16	380	14.96	425	16.75	461	18.16	23.9
CP424518R	425 x 450 x 180	16.73 x 17.72 x 7.09	385	15.16	380	14.96	425	16.75	461	18.16	25.8
CP424530R	425 x 450 x 300	16.73 x 17.72 x 11.80	385	15.16	380	14.96	425	16.75	461	18.16	30.2
CP455512R	450 x 550 x 120	17.72 x 21.65 x 4.72	410	16.14	480	18.90	450	17.73	561	22.10	28.6
CP455518R	450 x 550 x 180	17.72 x 21.65 x 7.09	410	16.14	480	18.90	450	17.73	561	22.10	31.0
CP455530R	450 x 550 x 300	17.72 x 21.65 x 11.80	410	16.14	480	18.90	450	17.73	561	22.10	35.8
CP475012R	475 x 500 x 120	18.70 x 19.68 x 4.72	435	17.13	430	16.93	475	18.72	511	20.13	28.0
CP475018R	475 x 500 x 180	18.70 x 19.68 x 7.09	435	17.13	430	16.93	475	18.72	511	20.13	30.2
CP475030R	475 x 500 x 300	18.70 x 19.69 x 11.80	435	17.13	430	16.93	475	18.72	511	20.13	34.6
CP486012R	480 x 600 x 120	18.90 x 23.62 x 4.72	440	17.32	530	20.87	480	18.90	611	24.06	32.2
CP486018R	480 x 600 x 180	18.90 x 23.62 x 7.09	440	17.32	530	20.87	480	18.90	611	24.06	34.6
CP486030R	480 x 600 x 300	18.90 x 23.62 x 11.80	440	17.32	530	20.87	480	18.90	611	24.06	39.4
CP525512R	525 x 550 x 120	20.67 x 21.65 x 4.72	485	19.09	480	18.90	525	20.68	561	22.10	32.8
CP525518R	525 x 550 x 180	20.67 x 21.65 x 7.09	485	19.09	480	18.90	525	20.68	561	22.10	34.9
CP525530R	525 x 550 x 300	20.67 x 21.65 x 11.80	485	19.09	480	18.90	525	20.68	561	22.10	39.7
CP556012R	555 x 600 x 120	21.85 x 23.62 x 4.72	515	20.28	530	20.87	555	21.86	611	24.06	36.8
CP556018R	555 x 600 x 180	21.85 x 23.62 x 7.09	515	20.28	530	20.87	555	21.86	611	24.06	38.8
CP556030R	555 x 600 x 300	21.85 x 23.62 x 11.80	515	20.28	530	20.87	555	21.86	611	24.06	43.6

## Standard Product CONCEPT HMI Enclosures with Turquoise Extrusions

			Front	Front	Front	Front	Front	Front	Front	Front	
			Opening	Opening	Opening	Opening	Plate	Plate	Plate	Plate	Product
Catalog Number	AxBxC mm	AxBxCin.	M (mm)	M (in.)	N (mm)	N (in.)	D (mm)	D (in.)	E (mm)	E (in.)	Weight (lb.)
P253512T	250 x 350 x 120	9.84 x 13.78 x 4.72	210	8.27	280	11.02	250	9.86	361	14.22	10.5
CP304012T	300 x 400 x 120	11.81 x 15.75 x 4.72	260	10.24	330	12.99	330	12.99	411	16.19	14.9
CP323512T	325 x 350 x 120	12.80 x 13.78 x 4.72	285	11.22	280	11.02	325	12.81	361	14.22	16.5
CP354512T	350 x 450 x 120	13.78 x 17.72 x 4.72	310	12.20	380	14.96	350	13.79	461	18.16	20.0
CP354518T	350 x 450 x 180	13.78 x 17.72 x 7.09	310	12.20	380	14.96	350	13.79	461	18.16	22.3
CP354530T	350 x 450 x 300	13.78 x 17.72 x 11.80	310	12.20	380	14.96	350	13.79	461	18.16	26.9
CP374012T	375 x 400 x 120	14.76 x 15.75 x 4.72	335	13.19	330	12.99	375	14.78	411	16.19	20.0
CP405012T	400 x 500 x 120	15.75 x 19.68 x 4.72	360	14.17	430	16.93	400	15.76	511	20.13	24.3
CP405018T	400 x 500 x 180	15.75 x 19.68 x 7.09	360	14.17	430	16.93	400	15.76	511	20.13	26.5
CP405030T	400 x 500 x 300	15.75 x 19.69 x 11.80	360	14.17	430	16.93	400	15.76	511	20.13	30.9
P424512T	425 x 450 x 120	16.73 x 17.72 x 4.72	385	15.16	380	14.96	425	16.75	461	18.16	23.9
P424518T	425 x 450 x 180	16.73 x 17.72 x 7.09	385	15.16	380	14.96	425	16.75	461	18.16	25.8
CP424530T	425 x 450 x 300	16.73 x 17.72 x 11.80	385	15.16	380	14.96	425	16.75	461	18.16	30.2
CP455512T	450 x 550 x 120	17.72 x 21.65 x 4.72	410	16.14	480	18.90	450	17.73	561	22.10	28.6
P455518T	450 x 550 x 180	17.72 x 21.65 x 7.09	410	16.14	480	18.90	450	17.73	561	22.10	31.0
P455530T	450 x 550 x 300	17.72 x 21.65 x 11.80	410	16.14	480	18.90	450	17.73	561	22.10	35.8
CP475012T	475 x 500 x 120	18.70 x 19.68 x 4.72	435	17.13	430	16.93	475	18.72	511	20.13	28.0
P475018T	475 x 500 x 180	18.70 x 19.68 x 7.09	435	17.13	430	16.93	475	18.72	511	20.13	30.2
P475030T	475 x 500 x 300	18.70 x 19.69 x 11.80	435	17.13	430	16.93	475	18.72	511	20.13	34.6
P486012T	480 x 600 x 120	18.90 x 23.62 x 4.72	440	17.32	530	20.87	480	18.90	611	24.06	32.2
P486018T	480 x 600 x 180	18.90 x 23.62 x 7.09	440	17.32	530	20.87	480	18.90	611	24.06	34.6
P486030T	480 x 600 x 300	18.90 x 23.62 x 11.80	440	17.32	530	20.87	480	18.90	611	24.06	39.4
P525512T	525 x 550 x 120	20.67 x 21.65 x 4.72	485	19.09	480	18.90	525	20.68	561	22.10	32.5
P525518T	525 x 550 x 180	20.67 x 21.65 x 7.09	485	19.09	480	18.90	525	20.68	561	22.10	34.9
P525530T	525 x 550 x 300	20.67 x 21.65 x 11.80	485	19.09	480	18.90	525	20.68	561	22.10	39.7
P556012T	555 x 600 x 120	21.85 x 23.62 x 4.72	515	20.28	530	20.87	555	21.86	611	24.06	36.8
P556018T	555 x 600 x 180	21.85 x 23.62 x 7.09	515	20.28	530	20.87	555	21.86	611	24.06	38.8
CP556030T	555 x 600 x 300	21.85 x 23.62 x 11.80	515	20.28	530	20.87	555	21.86	611	24.06	43.6

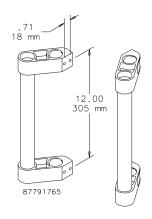


## **Accessory Handle Kit**



Install handles on the integral handle extrusions or the bottom of the enclosure. Handle is 13.40-in. long and can be cut down to fit smaller enclosure sizes. Aluminum tube has RAL 9005 black polyester powder paint finish. Plastic ends are RAL 9005 black. Kit includes one pair of handles and all mounting hardware.

Bulletin: C2



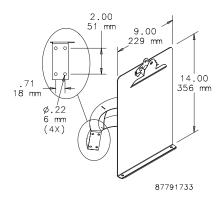
Catalog Number	Description	Product Weight (lb.)
CHDLK	One pair of handles and mounting hardware	1.7

## **Clipboard/White Board**



The Clipboard/White Board can be installed on either handle extrusion. All mounting hardware and installation instructions are included. Finished with white paint. Dry-erase markers can be used on the front writing surface.

Bulletin: C2

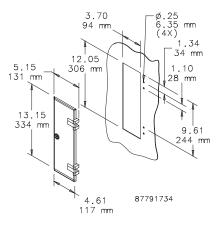


Catalog Number	Description	Product Weight (lb.)
CCLPBRD	Clipboard and mounting hardware	2

## **Drive Access Door**



Drive door can be installed only on enclosures to access internal disk drives. Key-locking latch is included. An installation template is included in the installation instructions. All installation hardware is included. RAL 7035 light-gray polyester powder paint finish. Hinges have RAL 9005 black polyester powder paint finish. Maintains NEMA Type 12 rating. Cannot be used on 120-mm deep enclosures.



Catalog Number	Description	Product Weight (lb.)	
CDACCDR	Door and installation hardware	1.7	

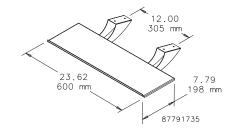


## **Keyboard Tray**



The Keyboard Tray mounts under the enclosure for a keyboard and mouse. All mounting hardware is included. The tray has RAL 7035 light-gray polyester powder paint finish.

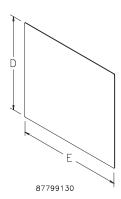
Bulletin: C2



Catalog Number	Description	Product Weight (lb.)
CKBT	Keyboard tray and mounting hardware	3.2

## **Replacement Front Plate**

Aluminum plate is .125-in. thick. Finish is RAL 7035 light-gray polyester powder paint. Mounting hardware is included. Bulletin: C2



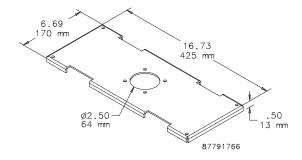
			Fits Enclosure	·
	D	E	AxB	
Catalog Number	mm/in.	mm/in.	mm/in.	Product Weight (lb.)
CPFP2535	250	361	250 x 350	1.7
	9.84	14.22	9.84 x 13.78	
CPFP3040	300	411	300 x 400	2.4
	11.81	16.19	11.81 x 15.75	
CPFP3235	325	361	325 x 350	2.3
	12.80	14.22	12.80 x 13.78	
CPFP3545	350	461	350 x 450	3.1
	13.78	18.16	13.78 x 17.72	
CPFP3740	375	411	375 x 400	3.0
	14.76	16.19	14.76 x 15.75	
CPFP4050	400	511	400 x 500	3.9
	15.75	20.13	15.75 x 19.68	
CPFP4245	425	461	425 x 450	3.8
	16.73	18.16	16.73 x 17.72	
CPFP4555	450	561	450 x 550	4.8
	17.72	22.10	17.72 x 21.65	
CPFP4750	475	511	475 x 500	4.7
	18.70	20.13	18.70 x 19.68	
CPFP4860	480	611	480 x 600	5.6
	18.90	24.06	18.90 x 23.62	
CPFP5255	525	561	525 x 550	5.6
	20.67	22.10	20.67 x 21.65	
CPFP5560	555	611	555 x 600	6.5
	21.85	24.06	21.85 x 23.62	

## **Support Bracket**

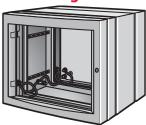
Support Bracket provides extra rigidity in 180-mm-deep enclosures that are either pendant- or pedestal-mounted. The bracket mounts in the top or bottom of the enclosure; drilling is required (drill points included on enclosure). The support bracket is not required for 120-mm-deep enclosures.

Bulletin: C2

Catalog Number	Description	Product Weight (lb.)		
CSB180	One bracket per package	1.8		



## **Grounding Kit**



Subject to change without notice

Kit provides a means of attaching a grounding conductor to an enclosure. Kit consists of two insulated copper wires with all installation hardware and instructions included.

Catalog Number
CCGK



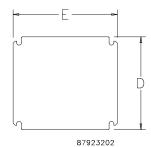
## **Door Panels**



## **CONCEPT® HMI System and Accessories**

Use CONCEPT® HMI Door Panels for mounting in the rear door of a CONCEPT HMI enclosure. Constructed of 14 gauge steel and painted white; conductive panels have a galvanized finish.

Bulletin: CWP



Catalog Number	Туре	Gauge	D (mm)	D (in.)	E (mm)	E (in.)
CP2535	Steel	14	131	5.18	232	9.14
CP2535G	Conductive	12	131	5.18	232	9.14
CP3040	Steel	14	181	7.15	282	11.11
CP3040G	Conductive	12	181	7.15	282	11.11
CP3235	Steel	14	206	8.13	232	9.14
CP3235G	Conductive	12	206	8.13	232	9.14
CP3545	Steel	14	232	9.12	332	13.08
CP3545G	Conductive	12	232	9.12	332	13.08
CP3740	Steel	14	256	10.10	282	11.11
CP3740G	Conductive	12	256	10.10	282	11.11
CP4050	Steel	12	281	11.09	382	15.04
CP4050G	Conductive	12	281	11.09	382	15.04
CP4245	Steel	12	306	12.07	332	13.08
CP4245G	Conductive	12	306	12.07	332	13.08
CP4555	Steel	12	331	13.05	432	17.01
CP4555G	Conductive	12	331	13.05	432	17.01
CP4750	Steel	12	356	14.04	382	15.04
CP4750G	Conductive	12	356	14.04	382	15.04
CP4860	Steel	12	361	14.23	482	18.98
CP4860G	Conductive	12	361	14.23	482	18.98
CP5255	Steel	12	407	16.01	432	17.01
CP5255G	Conductive	12	407	16.01	432	17.01
CP5560	Steel	12	436	17.19	482	18.98
CP5560G	Conductive	12	436	17.19	482	18.98



## **Stainless Steel HMI System and Accessories**

## Stainless Steel HMI Enclosures, Type 4X



#### **Industry Standards**

UL 508A Listed; Type 4, 4X, 12; File No. E61997 cUL Listed per CSA C22.2 No. 94; Type 4, 4X, 12; File No. E61997

IEC 60529, IP66

#### **Application**

A favorite with the food and pharmaceutical industries, these stainless steel, front-door control enclosures are ideal for applications that require corrosion resistance and the suspension of process and control equipment for easy cleaning.

Use these enclosures with the CS480 and CS600 Pendant Arm Systems.

#### **Specifications**

- Enclosure constructed of 1.5-mm Type 304 stainless steel
- Front door constructed of 1.5-mm Type 304 stainless steel
- Polyurethane foam gaskets
- Front door hinged on side
- Facilities for installing mounting plates
- Stainless steel safety latch mounted at side, away from protected
- Can be mounted from top or bottom

**Bulletin: CCR6** 

#### Standard Product

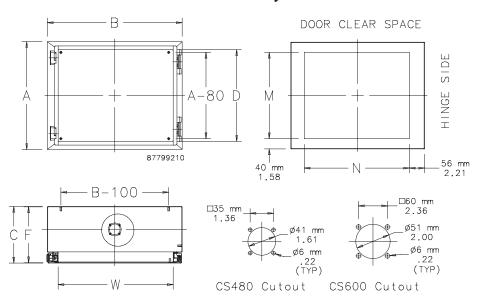
			Use with Pendant Arm			,				Door Clear Space	Door Clear Space	Mounting
Catalog Number	AxBxC mm	AxBxC in.	System	D (mm)	D (in.)	W (mm)	W (in.)	F (mm)	F (in.)	M x N (mm)	M x N (in.)	Plate
CCC48S302513	300 x 250 x 130	11.81 x 9.84 x 5.12	CS480	240	9.45	177	6.96	125	4.90	220 x 140	8.66 x 5.51	CCCP3025
CCC48S303513	300 x 350 x 130	11.81 x 13.78 x 5.12	CS480	240	9.45	277	10.86	125	4.90	220 x 240	8.66 x 9.45	CCCP3035
CCC48S354016	350 x 400 x 160	13.78 x 15.75 x 6.30	CS480	290	11.42	327	12.86	155	6.08	270 x 290	10.63 x 11.42	CCCP3540
CCC60S354016	350 x 400 x 160	13.78 x 15.75 x 6.30	CS600	290	11.42	327	12.86	155	6.08	270 x 290	10.63 x 11.42	CCCP3540
CCC48S404016	400 x 400 x 160	15.75 x 15.75 x 6.30	CS480	340	13.39	327	12.86	155	6.08	320 x 290	12.59 x 11.42	CCCP4040
CCC60S404016	400 x 400 x 160	15.75 x 15.75 x 6.30	CS600	340	13.39	327	12.86	155	6.08	320 x 290	12.59 x 11.42	CCCP4040
CCC48S405021	400 x 500 x 210	15.75 x 19.69 x 8.27	CS480	340	13.39	427	16.80	205	8.05	320 x 390	12.59 x 15.35	CCCP4050
CCC60S405021	400 x 500 x 210	15.75 x 19.69 x 8.27	CS600	340	13.39	427	16.80	205	8.05	320 x 390	12.59 x 15.35	CCCP4050
CCC48S455521	450 x 550 x 210	17.72 x 21.65 x 8.27	CS480	390	15.35	477	18.77	205	8.05	370 x 440	14.57 x 17.32	CCCP4555
CCC60S455521	450 x 550 x 210	17.72 x 21.65 x 8.27	CS600	390	15.35	477	18.77	205	8.05	370 x 440	14.57 x 17.32	CCCP4555
CCC48S505521	500 x 550 x 210	19.69 x 21.65 x 8.27	CS480	440	17.32	477	18.77	205	8.05	420 x 440	16.54 x 17.32	CCCP5055
CCC60S505521	500 x 550 x 210	19.69 x 21.65 x 8.27	CS600	440	17.32	477	18.77	205	8.05	420 x 440	16.54 x 17.32	CCCP5055
CCC48S605521	600 x 550 x 210	23.62 x 21.65 x 8.27	CS480	540	21.26	477	18.77	205	8.05	520 x 440	20.47 x 17.32	CCCP6055
CCC60S605521	600 x 550 x 210	23.62 x 21.65 x 8.27	CS600	540	21.26	477	18.77	205	8.05	520 x 440	20.47 x 17.32	CCCP6055
CCC60S605530	600 x 550 x 300	23.62 x 21.65 x 11.81	CS600	540	21.26	477	18.77	295	11.60	520 x 440	20.47 x 17.32	CCCP6055

#### **Pendant Cutout**

Catalog Number	Pendant Cutout	Weight (lb.)	Weight (kg)
CS480			
CCC48S302513	CS480	14.00	6.4
CCC48S303513	CS480	14.00	6.4
CCC48S354016	CS480	16.00	7.3
CCC48S404016	CS480	20.00	9.1
CCC48S405021	CS480	26.00	11.8
CCC48S455521	CS480	28.00	12.7
CCC48S505521	CS480	30.00	13.6
CCC48S605521	CS480	32.00	14.5
CS600			
CCC60S354016	CS600	16.00	7.3
CCC60S404016	CS600	20.00	9.1
CCC60S405021	CS600	26.00	11.8
CCC60S455521	CS600	28.00	12.7
CCC60S505521	CS600	30.00	13.6
CCC60S605521	CS600	32.00	14.5
CCC60S605530	CS600	36.00	16.3



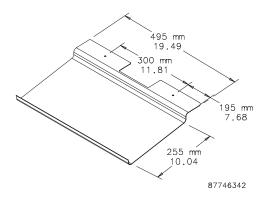
## **Stainless Steel HMI System and Accessories**



## **Keyboard Shelf**

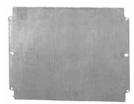


Shelf is for 350-mm and wider enclosures. Stainless steel. 10-degree slope. Mounting hardware included. Enclosure machining required. Bulletin: CCR6Y



Catalog Number	Description	Weight (lb.)
CCSSKBT	Keyboard shelf	4.9

## **Mounting Plate**



## **Handles**



Plate is for mounting equipment on the rear panel. Made of 3-mm plated steel. Mounted using pins on the rear panel.

#### **Bulletin: CCR6Y**

Catalog Number	Height (mm)	Height (in.)	Width (mm)	Width (in.)	Weight (lb.)
CCCP3025	230	9.06	170	6.69	2.0
CCCP3035	230	9.06	270	10.63	2.0
CCCP3540	280	11.02	320	12.60	3.0
CCCP4040	330	12.99	320	12.60	3.0
CCCP4050	330	12.99	420	16.54	4.0
CCCP4555	380	14.96	470	18.50	5.0
CCCP5055	430	16.93	470	18.50	6.0
CCCP6055	530	20.87	470	18.50	7.0

Handles are stainless steel for mounting on enclosure sides. Mounting hardware included. Enclosure machining required. (Handles are not required to use the SYSPEND® VHDS-Motion Arm.) Bulletin: CCR6Y

Catalog Number	Description	Weight (lb.)
CCSSHDL	Handles for CC480/600 enclosures	5.0



## CC2000, Type 12



#### **Industry Standards**

UL 508A Listed; Type 12; File No. E61997 cUL Listed per CSA C22.2 No. 94; Type 12; File No. E61997

NEMA/EEMAC Type 12 IEC 60529, IP55 DIN 40050

#### Standard Product

## **CC2000 HMI System**

#### **Application**

CC2000 is the perfect solution for housing flat and touch screen HMI devices in applications where accessories are unnecessary, and simplicity and stylish attractiveness are important. This easy-to-use enclosure is ideal for housing simple devices that contain their own controls.

#### **Specifications**

- Extruded Type 6063 aluminum top and sides provide a quality appearance and internal flexibility
- · Body is available hinged or solid
- · Rear doors can be hinged on either the right or left side
- Integral mounting system has extruded screw channels to facilitate easy component installation
- Each size accommodates a range of flat screen HMI devices
- · Oil-resistant gasket attached with oil-resistant adhesive
- · High thermal conductivity for superior heat dissipation

#### Finish

Enclosure vertical components are clear anodized aluminum; horizontal components are painted RAL 7043 gray aluminum. Aluminum front plates and rear doors have a clear anodized brushed finish.

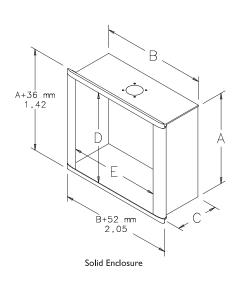
**Bulletin: CC2** 

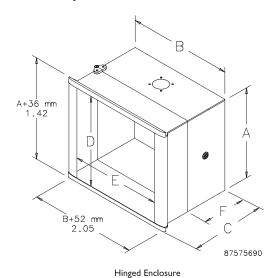
			Usable Area	Depth			
			DxE	F	Cutout	Weight	
Catalog Number	AxBxC mm/in.	Body Style	mm/in.	mm/in.	Size	(lb.)	
CC376129	375 x 615 x 290	Solid	300 x 540	_	60	32	
	14.76 x 24.21 x 11.42		11.81 x 21.26	_			
CC466129	465 x 615 x 290	Solid	390 x 540	_	60	35	
	18.46 x 24.21 x 11.42		15.35 x 21.26	_			
CC616129	615 x 615 x 290	Solid	540 x 540	_	60	39	
	24.21 x 24.21 x 11.42		21.26 x 21.26	_			
CC616151	615 x 615 x 518	Solid	540 x 540	_	80	72	
	24.21 x 24.21 x 21.57		21.26 x 21.26	_			
CC376518	375 x 465 x 180	Hinged	300 x 390	127	60	22	
	14.76 x 18.46 x 7.09		11.81 x 15.35	5.00			
CC464618	465 x 465 x 180	Hinged	390 x 390	127	60	24	
	18.46 x 18.46 x 7.09		15.35 x 15.35	5.00			

Cutout is for flange coupling only. Other components can be used if they have the same hole size.

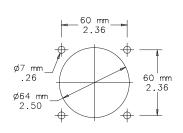


## CC2000 HMI System





80 mm 3.15 ø7 mm .26 80 mm 3.15 Ø91 mm 3.58



Ν

Pendant Cutout

## **Front Plate**

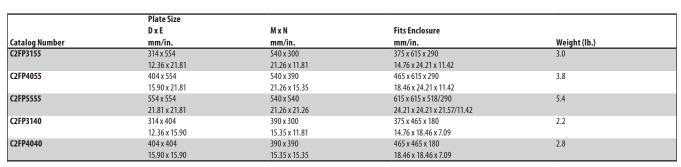




Hoffman can provide pre-configured front plates to meet your specific requirements. Contact your local Hoffman Sales Representative for more information.

**Bulletin: CC2** 

brushed finish.



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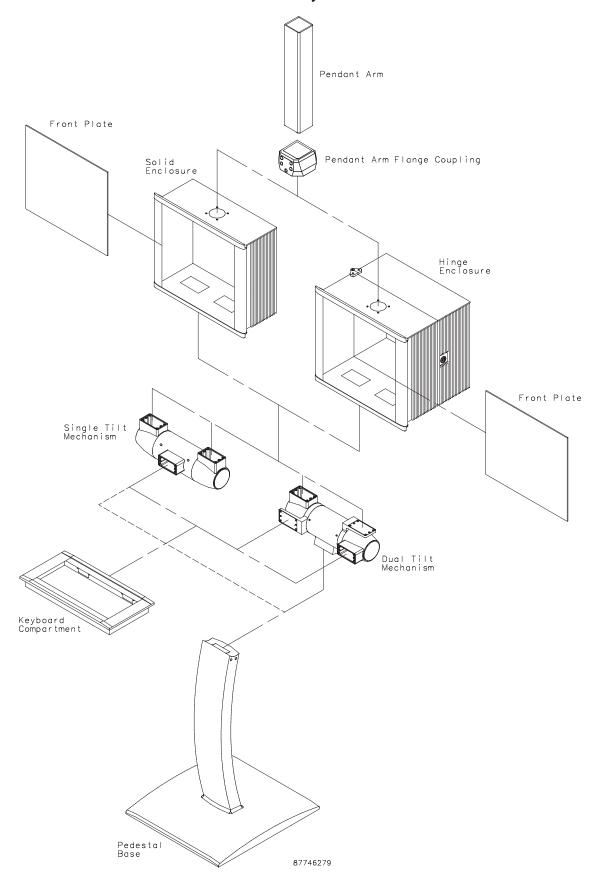


#### **CC4000 HMI Overview**



his attractive family of human-machine interface (HMI) enclosures sets a new standard for visual appeal coupled with design flexibility and ease of use. It's available in two body styles, three configurations and eight sizes. The system's capability for pendant or pedestal mounting, with or without a keyboard provision, offers exceptional design flexibility. Extruded aluminum top and sides provide a quality look while offering superior heat dissipation. Hinged body models provide extra depth and allow rear access. The single- and dual-tilt mechanisms give the operator control over adjustment and ergonomic positioning of the enclosure and/or keyboard, depending on configuration. The tilt mechanisms are the only additional components required for mounting the enclosure on a pedestal and for adding a keyboard compartment with either pedestal or pendant mounting.







#### CC4000, Type 12





#### **Industry Standards**

UL 508A Listed; Type 12; File No. E61997 cUL Listed per CSA C22.2 No. 94; Type 12; File No. E61997

NEMA/EEMAC Type 12 IEC 60529, IP55 **DIN 40050** 

#### **Application**

Choose from various body styles, configurations and mounting options. The keyboard and/or enclosure tilts to be ergonomic and comfortable.

#### **CC4000 Enclosures**

All body sizes and styles are available for pendant or pedestal mounting with or without a keyboard. Hinged and solid bodies are available in the sizes shown in the table. Hinged bodies offer extra depth and rear access. Rear aluminum screw cover is standard.

#### **Pendant-Mount Enclosures**

Use in pendant-mounting applications where keyboard compartment is not required.

Cutout in top for mounting with pendant arm.

#### **Pendant-Mount Enclosures with Keyboard Compartment** Capability

Use in pendant-mounting applications where a keyboard compartment is required.

- Cutout in top for mounting with pendant arm
- Cutout on bottom for keyboard tilt mechanism
- Order tilt mechanism and keyboard compartment separately

Use in pedestal mounting applications with the CPCC4 Pedestal, either with or without a keyboard.

- Tilt mechanism required for connecting enclosure and pedestal
- Cutout on bottom for tilt mechanism mounting
- Order tilt mechanism and keyboard compartment (if needed) separately

#### **Specifications**

- Extruded Type 6063 aluminum top and sides provide a quality appearance and internal flexibility
- Body is available hinged or solid
- Optional rear covers can be hinged on either the right or left side
- Integral mounting system has extruded screw channels to facilitate easy component installation
- Each size is designed to accommodate a range of flat-screen HMI devices
- Oil-resistant gasket attached with oil-resistant adhesive
- · High thermal conductivity for superior heat dissipation

Enclosure vertical components are clear anodized aluminum; horizontal components are painted RAL 7021 black aluminum. Steel front plates have RAL 7035 gray polyester powder paint finish. Stainless steel front plates have a brushed finish. Aluminum rear covers have a clear anodized brushed finish.

#### Accessories

**Bulletin: CC4** 

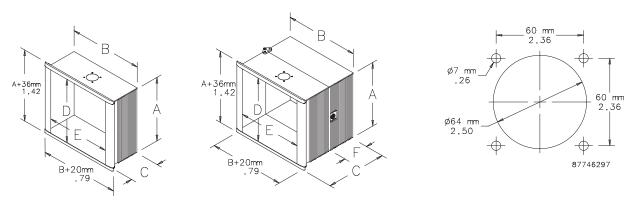
See the Accessories. **Keyboard Compartment** Lift-Off Hinge Kit Pedestal Hinged Rear Cover Tilt Mechanism

#### **Pedestal-Mount Enclosure**

#### Standard Product Pendant Mount Enclosures

	1	1		Usable Area	Usable Area		1	Product
Catalog Number	AxBxC mm	AxBxC in.	Body Style	D x E (mm)	D x E (in.)	F (mm)	F (in.)	Weight (lb.)
CCC284014PN	280 x 400 x 140	11.02 x 15.75 x 5.51	Solid	185 x 275	7.28 x 10.83	_	_	16.4
CCC334014PN	330 x 400 x 140	12.99 x 15.75 x 5.51	Solid	235 x 275	9.25 x 10.83	_	_	17.5
CCC456029PN	450 x 600 x 290	17.72 x 23.62 x 11.42	Solid	355 x 475	13.98 x 18.70	_	_	44.0
CCC334026HPN	330 x 400 x 268	12.99 x 15.75 x 10.55	Hinged	235 x 275	9.25 x 10.83	128	5.04	30.0
CCC425326HPN	425 x 530 x 268	16.73 x 20.87 x 10.55	Hinged	330 x 405	12.99 x 15.94	128	5.04	41.0



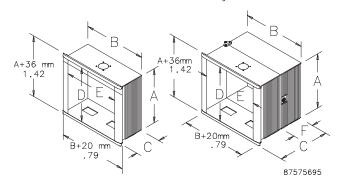


## Standard Product Pendant Mount Enclosures with Keyboard Compartment Capability

				Usable Area	Usable Area				Product
Catalog Number	AxBxC mm	AxBxC in.	Body Style	D x E (mm)	D x E (in.)	F (mm)	F (in.)	Tilt Mechanism	Weight (lb.)
CCC284014PNK	280 x 400 x 140	11.02 x 15.75 x 5.51	Solid	185 x 275	7.28 x 10.83	_		CTKBC	16.4
CCC456029PNK	450 x 600 x 290	17.72 x 23.62 x 11.42	Solid	355 x 475	13.98 x 18.70	_	_	CTKBC	44.0
CCC334026HPNK	330 x 400 x 268	12.99 x 15.75 x 10.55	Hinged	235 x 275	9.25 x 10.83	128	5.04	CTKBC	30.0
CCC425326HPNK	425 x 530 x 268	16.73 x 20.87 x 10.55	Hinged	330 x 405	12.99 x 15.94	128	5.04	CTKBC	41.0

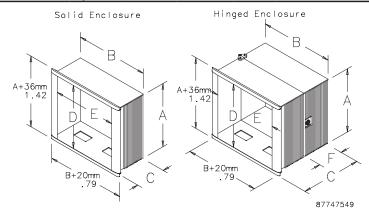
Solid Enclosure

Hinged Enclosure



#### Standard Product **Pedestal Mount Enclosures**

								Tilt Mechanism	Tilt Mechanism	
Catalog Number	AxBxC mm	AxBxC in.	Body Style	D x E (mm)	D x E (in.)	F (mm)	F (in.)	Without Keyboard	With Keyboard	Weight (lb.)
CCC284014PD	280 x 400 x 140	11.02 x 15.75 x 5.51	Solid	185 x 275	7.28 x 10.83	_	_	CTKBC	CTKBCP	16.4
CCC334014PD	330 x 400 x 140	12.99 x 15.75 x 5.51	Solid	235 x 275	9.25 x 10.83	_	_	CTKBC	CTKBCP	17.5
CCC456029PD	450 x 600 x 290	17.72 x 23.62 x 11.41	Solid	355 x 475	13.98 x 18.70	_	_	CTKBC	CTKBCP	44.0
CCC334026HPD	330 x 400 x 268	12.99 x 15.75 x 10.55	Hinged	235 x 275	9.25 x 10.83	128	5.04	CTKBC	CTKBCP	30.0
CCC425326HPD	425 x 530 x 268	16.73 x 20.87 x 10.55	Hinged	330 x 405	12.99 x 15.94	128	5.04	CTKBC	CTKBCP	41.0



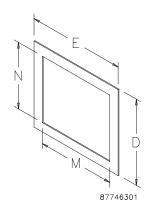


#### **Front Plate**



Front Plates are 14 gauge steel with RAL 7035 light-gray polyester powder paint finish. Stainless steel front plates have a brushed finish. Hoffman can provide pre-configured front plates to meet your specific requirements. Contact your local Hoffman Sales Representative for more information.

Bulletin: CC4



#### Standard Product CC4000 Front Plate

	1	Panel Size	Panel Size	Usable Area	Usable Area	1		Product
Catalog Number	Steel Type	D x E (mm)	D x E (in.)	N x M (mm)	N x M (in.)	Fits Enclosure (mm)	Fits Enclosure (in.)	Weight (lb.)
C4FP2840	Steel	219 x 309	8.62 x 12.17	185 x 275	7.28 x 10.83	280 x 400 x 140/200	11.02 x 15.75 x 5.51/7.87	3.5
C4FP2840SS	Stainless Steel	219 x 309	8.62 x 12.17	185 x 275	7.28 x 10.83	280 x 400 x 140/200	11.02 x 15.75 x 5.51/7.87	4.0
C4FP3340	Steel	269 x 309	10.59 x 12.17	235 x 275	9.25 x 10.83	330 x 400 x 140/200/268	12.99 x15.75 x 5.51/7.87/10.55	4.0
C4FP4253	Steel	364 x 439	14.33 x 17.28	330 x 405	12.99 x 15.94	425 x 530 x 200	16.73 x 20.87 x 7.87	6.5
C4FP4253SS	Stainless Steel	364 x 439	14.33 x 17.28	330 x 405	12.99 x 15.94	425 x 530 x 200	16.73 x 20.87 x 7.87	7.5
C4FP4560	Steel	389 x 509	15.31 x 20.04	355 x 475	13.98 x 18.70	450 x 600 x 290	17.72 x 23.62 x 11.42	8.0
C4FP4560SS	Stainless Steel	389 x 509	15.31 x 20.04	355 x 475	13.98 x 18.70	450 x 600 x 290	17.72 x 23.62 x 11.42	9.0

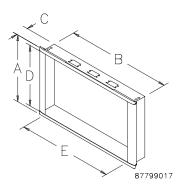
#### Standard Product CC4000 Precut Front Plate

				Panel Size	Panel Size			Product
Catalog Number	Steel Type	Manufacturer	Model	D x E (mm)	D x E (in.)	Fits Enclosure (mm)	Fits Enclosure (in.)	Weight (lbs)
C4CSK2840F2SS	Stainless Steel	Allen-Bradley	PanelView 550	219 x 309	8.62 x 12.17	280 x 400 x 140/200	11.02 x 15.75 x 5.51/7.87	4.0
C4CSK2840F3SS	Stainless Steel	Allen-Bradley	PanelView 550/600TS	219 x 309	8.62 x 12.17	280 x 400 x 140/200	11.02 x 15.75 x 5.51/7.87	4.0
C4CSK3340F1SS	Stainless Steel	Eaton Cutler-Hammer	PanelMate 1500	269 x 309	10.59 x 12.17	330 x 400 x 140/200/268	12.99 x 15.75 x 5.51/7.87/10.55	4.4
C4CSK3340F2SS	Stainless Steel	TCP	Quickpanel Mono EL	269 x 309	10.59 x 12.17	330 x 400 x 140/200/268	12.99 x 15.75 x 5.51/7.87/10.55	4.4
C4CSK3340F4SS	Stainless Steel	Allen-Bradley	PanelView 550KP	269 x 309	10.59 x 12.17	330 x 400 x 140/200/268	12.99 x 15.75 x 5.51/7.87/10.55	4.4
C4CSK3340F5SS	Stainless Steel	Allen-Bradley	PanelView 550/600TS	269 x 309	10.59 x 12.17	330 x 400 x 140/200/268	12.99 x 15.75 x 5.51/7.87/10.55	4.0
C4CSK4253F1SS	Stainless Steel	Eaton Cutler-Hammer	PanelMate 3000 TP	364 x 439	14.33 x 17.28	425 x 530 x 200/268	16.73 x 20.87 x 7.87/10.55	7.5
C4CSK4253F2SS	Stainless Steel	Eaton Cutler-Hammer	PanelMate 3000 TS	364 x 439	14.33 x 17.28	425 x 530 x 200/268	16.73 x 20.87 x 7.87/10.55	7.5
C4CSK4253F4SS	Stainless Steel	Ann Arbor	INX	364 x 439	14.33 x 17.28	425 x 530 x 200/268	16.73 x 20.87 x 7.87/10.55	7.5
C4CSK4253F6SS	Stainless Steel	Allen-Bradley	PanelView 900KP	364 x 439	14.33 x 17.28	425 x 530 x 200/268	16.73 x 20.87 x 7.87/10.55	7.5
C4CSK4253F7	Steel	Allen-Bradley	PanelView 1000TS	364 x 439	14.33 x 17.28	425 x 530 x 200/268	16.73 x 20.87 x 7.87/10.55	6.5

## **Keyboard Compartment**



Keyboard Compartment has same construction and finish as enclosure bodies. Fits pendant-mount bodies when used with the CTKBC Single Tilt; fits pedestal-mount bodies when used with the CTKBCP Dual Tilt Mechanism.



		Opening Size D x E	
Catalog Number	AxBxC in./mm	mm/in.	Product Weight (lb.)
CKBC26535	11.81 x 19.68 x 2.08	190 x 427	11.4
	300 x 500 x 52	7.48 x 16.81	
CKBC26605	11.81 x 22.44 x 2.05	190 x 495	12.0
	300 x 570 x 52	7.48 x 19.49	

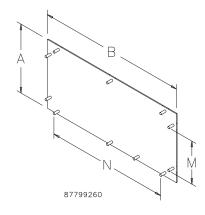


## **Keyboard Front Plate**



Plate is 14 gauge steel finished with RAL 7035 light-gray textured polyester powder paint or Type 304 stainless steel with a brushed finish. Available blank or with TIP NEMA 4 Keyboard. Includes mounting hardware.

Bulletin: CC4



		'					Product
		Size	Size	Usable Area	Usable Area	Fits Keyboard	Weight
Catalog Number	Description	A x B (mm)	A x B (in.)	M x N (mm)	M x N (in.)	Compartment	(lb.)
C4KBFP2653	Blank Steel	203 x 439	7.99 x 17.28	169 x 405	6.65 x 15.94	264 x 530	3.7
C4KBKP2653	With Keyboard Steel	203 x 439	7.99 x 17.28	169 x 405	6.65 x 15.94	264 x 530	5.7
C4KBFP2660	Blank Steel	203 x 509	7.99 x 20.04	169 x 475	6.65 x 18.70	264 x 600	4.1
C4KBKP2660	With Keyboard Steel	203 x 509	7.99 x 20.04	169 x 475	6.65 x 18.70	264 x 600	6.1

#### **Tilt Mechanism**





Allows operator to adjust enclosure and keyboard for maximum convenience and comfort. Cast aluminum construction. RAL 7035 light-gray polyester powder paint finish.

Single tilt connects enclosure with keyboard in pendant-mount applications or enclosure with pedestal in floor-mount applications.

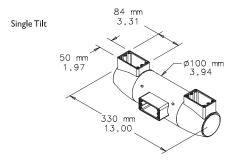
Allows 20 degrees maximum enclosure tilt back when pedestal

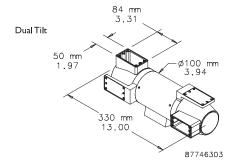
- Allows 20 degrees maximum enclosure tilt back when pedestal mounted
- Allows keyboard to adjust from horizontal to 45 degrees down when pendant mounted

Dual tilt connects pedestal, enclosure and keyboard.

- Allows 20 degrees maximum enclosure tilt back
- Allows keyboard to adjust infinitely between enclosure and pedestal

Catalog Number	Type	Use With	Product Weight (lb.)
CTKBC	Single	Pendant mount with keyboard,	5.8
		Pedestal mount without keyboard	
CTKBCP	Dual	Pedestal mount with keyboard	6.6





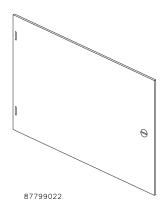


## **Hinged Rear Cover**



Mount rear covers with hinge on left or right side of enclosure. One or two quarter-turn latches, depending on size. Made of 3-mm-thick aluminum with a clear anodized brushed finish. Mounting hardware and grounding kit included.

Bulletin: CC4



		Fits Enclosure	
Catalog Number	Number of Latches	mm/in.	Product Weight (lb.)
CCH2840	One	280 x 400	2.2
CCH3340	One	330 x 400	2.6
CCH4253	Two	425 x 530	4.3
CCH4560	Two	450 x 600	5.0

## Lift-Off Hinge Kit



Use when quick removal of the rear section of a hinged enclosure is desired. Contains one set of hinges to convert the hinges on the enclosure to a lift-off configuration.

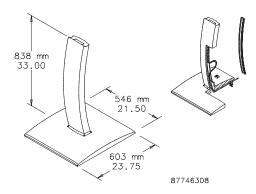
#### **Bulletin: CC4**

Catalog Number	Description	Product Weight (lb.)
CHLOCC4	Lift-off Hinge Kit	0.2

## **Pedestal**



Pedestal can be bolted to the floor or mounted on accessory swivel casters. Center channel is 2 x 3 in. with rear access strip for routing wires. Requires single or dual tilt for enclosure mounting. Finished with RAL 7035 light-gray polyester powder paint.



Catalog Number	Description
CPCC4	Two-piece cast aluminum



#### **Bolt-Down Kit**



## **CC4000 HMI System and Accessories**

Use Bolt-Down Kit to securely mount pedestal to the floor. Kit includes four brackets and mounting hardware.

**Bulletin: CC4** 

Catalog Number	Description
CPBDK	Bolt Down Kit

## **Swivel Casters for Pedestal Base**



Casters mount to the bottom of a pedestal base. Kit includes four casters and mounting hardware.

**Bulletin: CC4** 

		Installed	Installed	Wheel	Wheel	Load Rating	Load Rating
Catalog Number	Description	Height (mm)	Height (in.)	Dia. (mm)	Dia. (in.)	Per Set (kg)	Per Set (lb.)
CPCC4SC	Four swivel casters	100	3.9	75	3.0	180	400

## **Levelers for Pedestal Base**



Mount levelers to the bottom of a pedestal base where leveling is required. Kit contains four levelers and mounting hardware. Cannot be used with casters or in bolt-down installations.

Catalog Number	Description	
CPCC4L	Four levelers for pedestal base	



# PROLINE® Sloped-Front HMI, Type 4, 4X, 12



#### **Industry Standards**

#### **Painted versions:**

UL 508A Listed; Type 12: File No. E61997 cUL Listed per CSA C22.2 No. 94; Type 12: File No. E61997

NEMA/EEMAC Type 12 IEC 60529, IP55

#### Stainless steel versions:

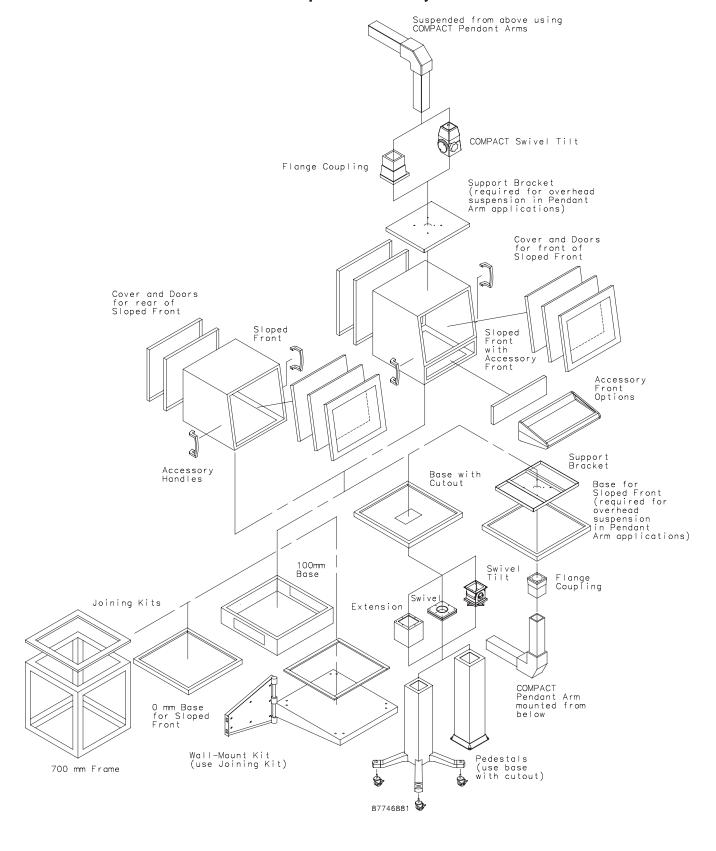
UL 508A Listed; Type 4, 4X, 12: File No. E61997 cUL Listed per CSA C22.2 No. 94; Type 4, 4X, 12: File No. E61997

NEMA/EEMAC Type 4, 4X, 12 IEC 60529, IP66

## **Application**

A truly modular, build-your-own system for CRT monitors and keyboards, the PROLINE® Sloped-Front HMI System's foundation is extremely adaptable for nearly any application. Add one or more of the many possible fronts, backs, mounting options, doors and bases to the core frame to build an enclosure that meets your design specifications.







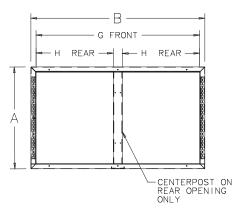
## **Sloped Front**

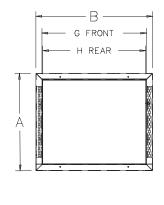
Enclosure is available in three heights—400, 500 and 700 mm. Full-front opening for door/cover options has a 5-degree slope. Rear opening(s) for door and cover options. Optional PROLINE® Frame Shelf or PROLINE Grid System is recommended to provide a stationary platform for supporting deep equipment. The open bottom is suitable for joining the top to a 700-mm-tall PROLINE frame. The bottom of the 600 x 600-mm sizes can be joined through a cutout base to a pedestal or pendant arm system. A support bracket accessory allows the 600 x 600-mm sizes to be suspended from an overhanging pendant arm. Sloped-front enclosures are Type 304 stainless steel or 14 gauge steel with a RAL 7035 light-gray textured polyester powder paint finish.

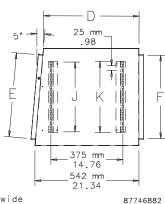


Bulletin: P9, P9S

				Nominal Size	Front Opening	Rear Opening	Internal Mounting	Internal Mounting	
		D		AxBxC	ExG	FxH	J	K	Product
Catalog Number	AxB mm/in.	mm/in.	Description	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Weight (lb.)
PST466	407 x 608	507	Steel	400 x 600 x 600	339 x 536	336 x 564	225	225	44.0
	16.04 x 23.94	19.96			13.36 x 21.11	13.21 x 21.11	8.86	8.86	
PST566	507 x 608	498	Steel	500 x 600 x 600	440 x 536	435 x 536	325	325	46.7
	19.98 x 23.94	19.61			17.31 x 21.11	17.13 x 21.11	12.80	12.80	
PST766	707 x 608	481	Steel	700 x 600 x 600	641 x 536	636 x 536	525	525	59.9
	27.85 x 23.94	18.92			25.22 x 21.11	25.02 x 21.11	20.67	20.67	
PST766SS	707 x 608	481	Stainless Steel	700 x 600 x 600	641 x 536	636 x 536	525	525	68.0
	27.85 x 23.94	18.92			25.22 x 21.11	25.02 x 21.11	20.67	20.67	
PST786	707 x 808	481	Steel	700 x 800 x 600	640 x 736	636 x 736	525	525	66.0
	27.85 x 31.81	18.92			25.22 x 28.98	25.02 x 28.98	20.67	20.67	
PST7126	707 x 1208	481	Steel	700 x 1200 x 600	641 x 1136	636 x 536	525	525	82.0
	27.85 x 47.56	18.92			25.22 x 44.73	25.02 x 21.11	20.67	20.67	







1200 mm wide

800 mm wide

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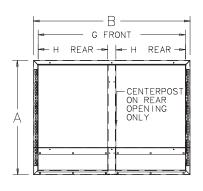
## **Sloped Front with Accessory Opening**

Enclosure is available in two heights: 500 mm and 700 mm. Upper front opening for door/cover options has a 5-degree slope. Lower section is suitable for keyboard or other front options. Rear opening(s) for door and cover options. The internal mounting hole pattern accommodates most PROLINE® internal accessories. Optional PROLINE Frame Shelf or PROLINE Grid System provides a stationary platform for supporting deep equipment. The open bottom is suitable for joining the top to a 700-mm PROLINE frame. The bottom of the 600 x 600-mm sizes can be joined through a cutout base to a pedestal or pendant arm system. A support bracket accessory allows the 600 x 600-mm size to be suspended from an overhanging pendant arm. Sloped fronts with accessory opening are Type 304 stainless steel or 14 gauge steel with RAL 7035 textured light-gray polyester powder paint finish.

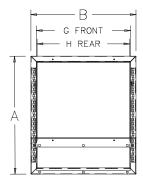




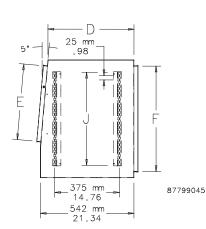
	'			Nominal Size	Front Opening	Rear Opening	Internal Mounting	Internal Mounting	'
		D		AxBxC	ExG	FxH	J	K	Product
Catalog Number	AxB mm/in.	mm/in.	Description	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Weight (lb.)
PST5A66	682 x 608	498	Steel	500A x 600 x 600	440 x 536	611 x 536	500	500	59.0
	26.85 x 23.94	19.61			17.31 x 21.11	24.04 x 21.11	19.69	19.69	
PST5A86	682 x 808	498	Steel	500A x 800 x 600	440 x 736	611 x 736	500	500	64.0
	26.85 x 31.81	19.61			17.31 x 28.98	24.04 x 28.98	19.69	19.69	
PST5A126	682 x 1208	498	Steel	500A x 1200 x 600	440 x 1136	611 x 536	500	500	86.0
	26.85 x 47.56	19.61			17.31 x 44.73	24.04 x 21.11	19.69	19.69	
PST7A66	882 x 608	481	Steel	700A x 600 x 600	641 x 536	811 x 536	700	700	70.0
	34.72 x 23.94	18.92			25.22 x 21.11	31.91 x 21.11	27.56	27.56	
PST7A86	882 x 808	481	Steel	700A x 800 x 600	641 x 736	811 x 736	700	700	73.0
	34.72 x 31.81	18.92			25.22 x 28.98	31.91 x 28.98	27.56	27.56	
PST7A126	882 x 1208	481	Steel	700A x 1200 x 600	641 x 1136	811 x 536	700	700	111.0
	34.72 x 47.56	18.92			25.22 x 44.73	31.91 x 21.11	27.56	27.56	



1200 mm wide Sloped Top with Accessory Front



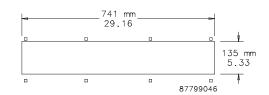
600 mm wide Sloped Top with Accessory Front



Accessory Front Opening Dimensions

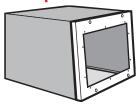
541 mm
21.28

135 mm
5.33





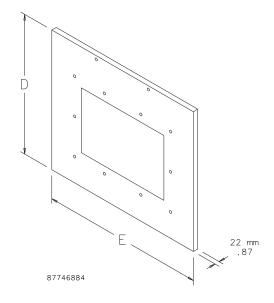
## **Covers with HMI Cutout for Upper Front** of Sloped Fronts



Covers with HMI cutouts are secured to the front opening of a PROLINE® Sloped Front with semi-flush cover screws along the top and bottom cover edges. Use PROLINE Frame Shelf or PROLINE Grid Straps and Plates to support human-machine interface. Ground stud and mounting hardware are included. Seamless foam-in-place gasket assures a watertight and dusttight seal. 16 gauge steel cover finish is RAL 7035 textured light-gray polyester powder paint. Optional tamper-resistant cover screws are available.

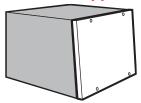
Hoffman can provide pre-configured covers to meet your specific requirements. Contact your local Hoffman sales office or distributor for more information.

Bulletin: P9



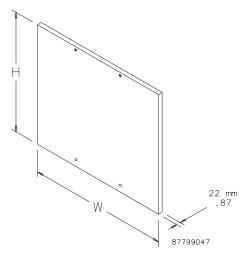
		-			DxE		
<b>Catalog Number</b>	Manufacturer	Model for Manufacturer	Approx. HMI Weight (lb.)	Approx. HMI Weight (kg)	mm/in.	Fits Sloped front	Product Weight (lb.)
PCSK56F6	Allen-Bradley	PanelView 1200e/1400e Keypad	46	20.9	504 x 592	500 x 600 and 500A x 600	13.0
					19.86 x 23.30		

## **Covers for Upper Front of Sloped Fronts**



Solid 16 gauge steel covers are secured to the front opening of a PROLINE® Sloped Front with semi-flush cover screws along the top and bottom cover edges. Ground stud and mounting hardware are included. Seamless foam-in-place gasket assures a watertight and dusttight seal. Covers are Type 304 stainless steel or 16 gauge steel with a RAL 7035 light-gray textured polyester powder paint finish. Optional tamper-resistant cover screws are available.

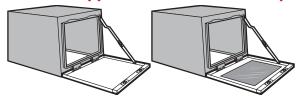
Bulletin: P9, P9S



		Cover Size	Cover Size	
Catalog Number	Description	H x W (mm)	H x W (in.)	Product Weight (lb.)
PCS46F	Steel	406 x 592	15.98 x 23.30	13.0
PCS56F	Steel	506 x 592	19.93 x 23.30	14.0
PCS58F	Steel	506 x 792	19.93 x 31.17	17.0
PCS58FSS	Stainless Steel	506 x 792	19.93 x 31.17	23.0
PCS512F	Steel	507 x 1192	19.93 x 46.92	25.0
PCS76F	Steel	707 x 592	27.84 x 23.30	15.5
PCS76FSS	Stainless Steel	707 x 592	27.84 x 23.30	19.5
PCS78F	Steel	707 x 792	27.84 x 31.17	20.5
PCS712F	Steel	707 x 1192	27.84 x 46.92	30.0



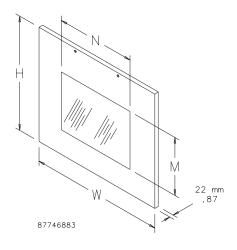
## **Doors for Upper Front of PROLINE® Sloped Fronts**



Solid 16 gauge steel doors are available with or without windows. Doors are hinged at lower edge and have quarter-turn latches. A stop arm assembly holds the door at 95 degrees (horizontal) from its closed position. Standard latch and insert options are available. Ground stud and mounting hardware are included. Seamless polyurethane foam-in-place gasket assures watertight and dusttight seal.

Window doors feature a maximum size .25-in.-thick polycarbonate window with a smoke-gray tint. Window is field-replaceable. Finish is RAL 7035 textured light-gray polyester powder paint or Type 304 stainless steel.

Bulletin: P9, P9S



#### **Solid Doors for Upper Front**

		Door Size	Door Size	
Catalog Number	Description	H x W (mm)	HxW(in.)	Product Weight (lb.)
PDS46F	Steel	404 x 592	15.91 x 23.30	14.0
PDS56F	Steel	504 x 592	19.86 x 23.30	15.0
PDS56FSS	Stainless Steel	504 x 592	19.86 x 23.30	21.5
PDS58F	Steel	504 x 792	19.86 x 31.17	18.0
PDS58FSS	Stainless Steel	504 x 792	19.86 x 31.17	24.0
PDS512F	Steel	504 x 1192	19.86 x 46.92	26.0
PDS76F	Steel	705 x 592	27.77 x 23.30	16.5
PDS76FSS	Stainless Steel	705 x 592	27.77 x 23.30	20.5
PDS78F	Steel	705 x 792	27.77 x 31.17	21.5
PDS712F	Steel	705 x 1192	27.77 x 46.92	31.0

#### **Window Doors for Upper Front**

		Door Size	Door Size	Window Size	Window Size	
Catalog Number	Description	H x W (mm)	H x W (in.)	M x N (mm)	M x N (in.)	Product Weight (lb.)
PDW46F	Steel	404 x 592	15.91 x 23.30	254 x 432	10.00 x 17.00	14.0
PDW56F	Steel	504 x 592	19.86 x 23.30	362 x 432	14.25 x 17.00	15.0
PDW56W16	Steel	504 x 592	19.86 x 23.30	254 x 318	10.00 x 12.50	15.0
PDW58F	Steel	504 x 792	19.86 x 31.17	362 x 635	14.25 x 25.00	18.0
PDW58FSS	Stainless Steel	504 x 792	19.86 x 31.17	362 x 635	14.25 x 25.00	24.0
PDW76F	Steel	705 x 592	27.77 x 23.30	559 x 432	22.00 x 17.00	16.5
PDW76W21	Steel	705 x 592	27.77 x 23.30	330 x 432	13.00 x 17.00	16.5

## **Upper Front Door Accessories**

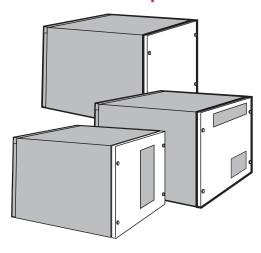
These accessories provide a variety of latch configurations for PROLINE® sloped front doors.

Bulletin: A54Y, P9

Catalog Number	Description
LLKSM7	7-mm-square key insert
LLKSM8	8-mm-square key insert
LLKDBM3	Double-bit key insert with 3mm pin
LLKDB	Daimler Benz key insert
LLKSS	Slotted key insert
LLKWK	One wing knob latch and two keys
PSTL0	One flush key lock and two keys

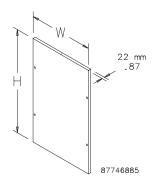


### **Covers for Rear of Sloped Fronts**



Cover fits rear opening of PROLINE® Sloped Fronts and is secured with semi-flush cover screws along right and left cover edges. Use PROLINE Frame Shelf or PROLINE Grid Straps to support the operator interface. Seamless foam-in-place gasket assures watertight and dusttight seal. Ground stud and mounting hardware are included. Optional tamper-resistant screws are available. Covers are Type 304 stainless steel or 16 gauge steel finished with RAL 7035 textured lightgray polyester powder paint.

Bulletin: P9, P9S



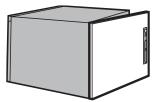
#### **Solid Covers**

		Cover Size	Cover Size	Product
Catalog Number	Description	H x W (mm)	HxW(in.)	Weight (lb.)
PCS46R	Steel	405 x 596	15.96 x 23.47	13.0
PCS56R	Steel	506 x 596	19.92 x 23.47	14.0
PCS76R	Steel	596 x 706	23.47 x 27.79	17.0
PCS76RSS	Stainless steel	596 x 706	23.47 x 27.79	23.0
PCS78R	Steel	706 x 796	27.79 x 31.35	20.5
PCS5A6R	Steel	679 x 597	26.75 x 23.51	15.0
PCS5A6RSS	Stainless steel	679 x 597	26.75 x 23.51	21.0
PCS5A8R	Steel	679 x 796	26.75 x 31.35	19.0
PCS7A6R	Steel	879 x 596	34.62 x 23.47	18.0
PCS7A8R	Steel	879 x 796	34.62 x 31.35	24.0

#### Covers with Cutouts for Hoffman Side Mount 13 Series Air Conditioner

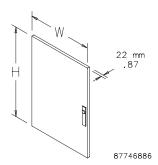
		Cover Size	Cover Size	Product	
Catalog Number	Description	H x W (mm)	H x W (in.)	Weight (lb.)	
PCSK7A6ACR	Steel	879 x 596	34.62 x 23.47	18.0	

### **Doors for Rear of PROLINE® Sloped Tops**



Rear doors are side-hinged. The hinges are hidden and provide 130-degree door swing. Optional PROLINE® 180-Degree Hinge Kit is available (see PROLINE Solid Rear Door Accessories in this section). Doors can be hinged from left or right. Door includes two-point latching with a flush slotted quarter-turn insert. Standard PROLINE handle and insert options are available for retrofit (see PROLINE Solid Rear Door Accessories in this section). Use PROLINE Frame Shelf or PROLINE Grid Straps to support the operator interface. Ground stud and mounting hardware are included. Seamless foam-in-place gasket assures a watertight and dusttight seal. Covers are Type 304 stainless steel or 16 gauge steel finished with RAL 7035 textured light-gray polyester powder paint.

Bulletin: P9, P9S



				Product
		Door Size	Door Size	Weight
Catalog Number	Description	H x W (mm)	H x W (in.)	(lb.)
PDS46R	Steel	405 x 592	15.96 x 23.30	10.0
PDS56R	Steel	506 x 592	19.91 x 23.30	12.0
PDS76STR	Steel	706 x 592	27.79 x 23.30	15.0
PDS76RSS	Stainless Steel	706 x 592	27.79 x 23.30	19.5
PDS78STR	Steel	706 x 792	27.79 x 31.17	19.5
PDS5A6R	Steel	679 x 592	26.75 x 23.30	14.5
PDS5A8R	Steel	679 x 792	26.75 x 31.17	19.0
PDS7A6R	Steel	879 x 592	34.62 x 23.30	18.0
PDS7A8R	Steel	879 x 792	34.62 x 31.17	24.0



### **Solid Rear Door Accessories**

Accessories listed here are designed for use with PROLINE  $^{\!\circ}$  Sloped Front Rear Doors.

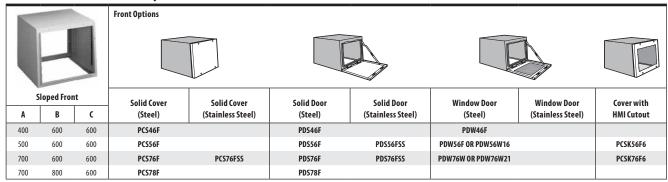
See PROLINE Accessories in the Modular Enclosure Systems chapter.

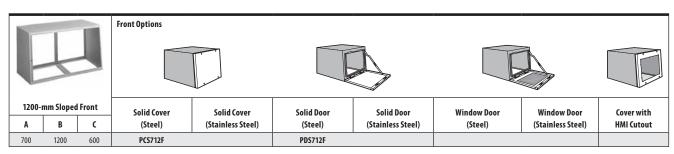
Catalog Numbers	Description
Key Inserts	
PKOTM7	7-mm triangle
PKOTM8	8-mm triangle
PKOTM65	CNOMO
PKOSM7	7-mm square
PKOSM8	8-mm square
PKODBK3	Double-bit with 3mm pin
PKODB	Daimler Benz
PKOATT	AT&T
Flush Handle	
PSHKBL	One handle and two keys
Data Pockets	
ADP1	Small data pocket
ADP2	Large data pocket

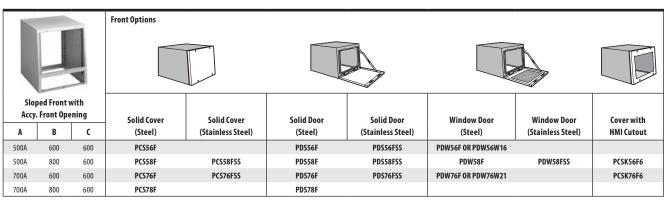


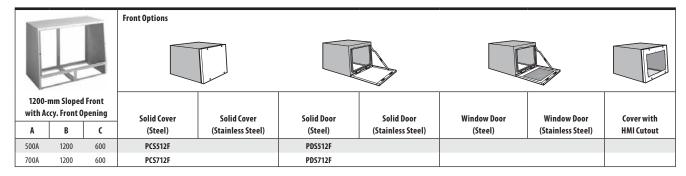
### PROLINE® Sloped-Front HMI Enclosure System Selection Matrix: Front and Rear Options

#### **Selection Matrix: Front Options**



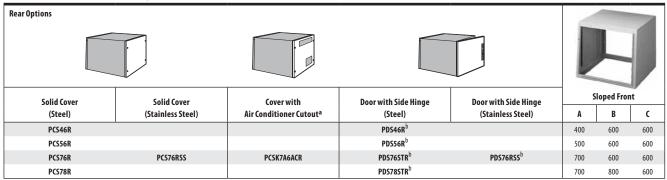








#### **Selection Matrix: Rear Options**



Rear Options							
						1	
Solid Cover	Solid Cover	Cover with	Door with Side Hinge	Door with Side Hinge	1200-	mm Sloped	Front
(Steel)	(Stainless Steel)	Air Conditioner Cutout <sup>a</sup>	(Steel)	(Stainless Steel)	Α	В	c
PCS76R	PCS76SS	PCSK7A6ACR	PDS76STR <sup>b</sup>	PDS76RSS <sup>b</sup>	700	1200	600

Rear Options						L	
Solid Cover (Steel)	Solid Cover (Stainless Steel)	Sloped Front with Accy. Front Opening  A B C					
		Air Conditioner Cutout <sup>a</sup>	(Steel)	(Stainless Steel)	A		(00
PCS5A6R	PCS5A6RSS		PDS5A6R <sup>D</sup>		500A	600	600
PCS5A8R			PDS5A8R <sup>b</sup>		500A	800	600
PCS7A6R	PCS7A6RSS	PCSK7A6ACR	PDS7A6R <sup>b</sup>		700A	600	600
PCS7A8R			PDS7A8R <sup>b</sup>		700A	800	600

Rear Options							
				×			
Solid Cover	Solid Cover	Cover with	Door with Side Hinge	Door with Side Hinge	1	mm Sloped ccy. Front O	
(Steel)	(Stainless Steel)	Air Conditioner Cutout <sup>a</sup>	(Steel)	(Stainless Steel)	Α	В	C
PCS5A6R	PCS5A6RSS		PDS5A6R <sup>b</sup>		500A	1200	600
PCS7A6R	PCS7A6RSS	PCSK7A6ACR	PDS7A6R <sup>b</sup>		700A	1200	600

<sup>&</sup>lt;sup>a</sup>For Hoffman Side-Mount 13 Series air conditioners.

<sup>&</sup>lt;sup>b</sup>Door hinged on side. Two-point latching with slotted insert. Other handle options are available. See Accessories for Sloped Front HMI Enclosures in this section.



### **Full Subpanels**



Subpanels are 12 gauge steel, have flanges on all sides and are painted white (conductive panels are plated). They can be mounted in PROLINE® frame bases and HMI sloped fronts at any depth in 25-mm increments using optional grid straps. All mounting hardware is included. **Bulletin: P20** 



	Conductive					
Catalog Number	Panel	H (mm)	H (in.)	W (mm)	W (in.)	Fits
PPF76	PPF76G	585	23.03	530	20.87	500A x 600 and 700 x 600
PPF78	PPF78G	585	23.03	730	28.74	500A x 800 and 700 x 800
PPF712		585	23.03	1130	44.49	500A x 1200 and 700 x 1200

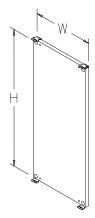
### **Partial Subpanels**



A-T-O

Partial Subpanels are 12 gauge steel, have flanges on all sides and are painted white (conductive panels are plated). They can be positioned vertically in .88-in. increments and can also be positioned in PROLINE® frame bases and HMI sloped fronts at 25-mm increments using optional grid straps. All mounting hardware is included.

**Bulletin: P20** 



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	Conductive					
Catalog Number	Panel	H (mm)	H (in.)	W (mm)	W (in.)	Fits
PPP46	PPP46G	360	14.17	530	20.87	All 600-mm-wide HMIs
PPP48	PPP48G	360	14.17	730	28.74	All 800-mm-wide HMIs
PPP412	PPP412G	360	14.17	1130	44.49	All 1200-mm-wide HMIs

### **PROLINE®** Grounding Kit



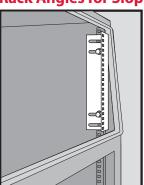
The Grounding Kit allows a PROLINE® enclosure to be grounded to VDE specifications. Includes six 12 gauge wires 411-mm (16.19-in.) long with ring terminations and M6 mounting hardware.

Bulletin: P9

Catalog Number	Wire Size	Length Between Ring Terminals mm/in.	Ring Terminal Hole Diameter mm/in.		
PGK	12 ga.	411	7		
	-	16.19	.29		

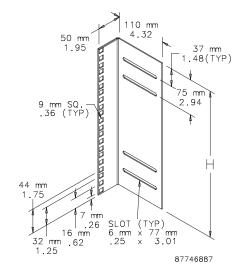


### **Rack Angles for Sloped Fronts**



Symmetrical Rack Angles have through-holes in mounting surfaces for mounting rack equipment. Angles are 14 gauge plated steel. Rack Angles with through-holes accommodate either English or metric cage nuts. Rack Angles are furnished in pairs and comply with ANSI/EIA RS310 rack mounting standards.

Bulletin: P9



		'			Product
Catalog Number	Units	H (mm)	H (in.)	Description	Weight (lb.)
PRA5TH	5	223	8.77	General Purpose Short Section	2.5
PRA7TH	7	312	12.27	Fits Front a back of 400-mm-high HMI	3.5
PRA9TH	9	401	15.77	Fits front of 500/500A and back of 700/500A	4.5
PRA13TH	13	578	22.77	Fits front of 500/500A and back of 700/500A	6.5
PRA17TH	17	756	29.77	Fits back of 700A	8.0

One unit = 1.75 inches (44.4mm).

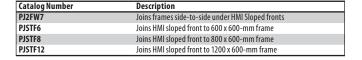
### **Joining Kits**

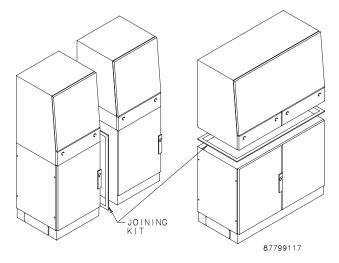


Joining Kits permit joining two 700-mm frames while maintaining an environmental seal. Joining Kit for Side-to-Side Applications (PJ2FW7) fits on either side of the frame.

Top-to-frame Joining Kits permit joining two 700-mm frames while maintaining an environmental seal. Joining Kit for Side-to-Side Applications (PJ2FW7) fits on either side of the frame.allow sloped fronts to be attached to 700-mm PROLINE® frames or to wall-mount kit. Kits available for one sloped front and one frame or one 1200-mm wide sloped front on two joined frames. Kits include gasket and mounting hardware.

Bulletin: P9







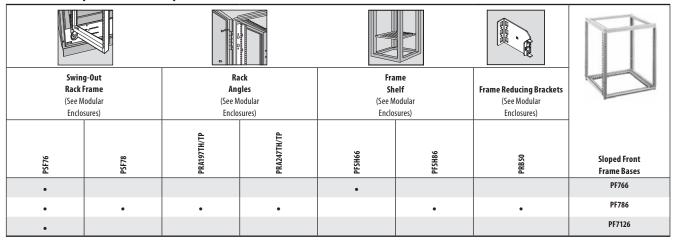
### **PROLINE® Sloped-Front HMI Enclosure System Selection Matrix: Internal Components**

#### **Internal Components for Sloped-Front Frame Base**

										·0°0°	0.0.0								0 0 0 0 0 0 0 0
		Full			Partial			g-Out			Strap				Strap			ling Bar	Center
		<b>Subpane</b> l See Modula			<b>Subpanel</b> (See Modular			el Kit		One (See M	<b>Row</b> lodular			Three				tem	<b>Upright</b> (See Modular
	,	Enclosures		,	ee Moduli Enclosures		· '		Enclos			(See Modular Enclosures)				(See Modular Enclosures)		Enclosures)	
		Linciosures	,		Inclosures	,	Elicio	Jules,	Enclosuresy						Lifeto	sures,	Enclosures/		
Sloped Front Frame Bases	PPF76/PPF76G	PPF78/PPF78G	PPF712	PPP46/PPP46G	PPP48 / PPP48G	PPP412/PPP412G	PSP76	PSP78	PGH1S6	PGH1S7	PGH1S9	PGH1S13	PGH3S6	PGH357	PGH359	PGH3S12	PGS2K	PGS4K	PCU7
PF766	•			•			•			•			•	•			•	•	
PR786					•			•	•						•		•	•	
PF7126			•			•						•	•			•	•	•	•



#### **Internal Components for Sloped-Front Frame Base**



Accessories for Swing-Out Rack Frame Include:	
Guides	PSFG
Rack Panels	A19RP(23 models)
Screw Package	AS1032 or PSM5
Clip Nut Packages	AN1032 or PNM5

Accessories for Rack Angles Include:	
Drawers	A19DR2U and A19DR4U
Drawer Writing Surface	A19WSDR
Guides	PSFG, AG1U5, and AG1U6
Slides	A16SL2U
Fixed Shelf	A19SH5 and A19SH6
Pull-Out Shelf	A19SHP6
Rack Panels	A19RP (23 models)
Screw Package	AS1032 or PSM5
Clip Nut Packages	AN1032 or PNM5



### **Accessory Front Options**







A variety of keyboard compartments and shelves, control compartments and writing surfaces is available in steel finished with RAL 7035 light-gray polyester powder paint or Type 304 stainless steel. Each one is designed to fit into the accessory front opening of the PROLINE® HMI Sloped Front. An access cover is available for applications not requiring a keyboard or controls.

An integrated elastomer keyboard/mouse combination is available on some models of the keyboard shelf accessory. The keyboard has 101 keys. Supplied cables are compatible with USB connections. See Modular Enclosure Systems chapter for keyboard accessory dimensions.

Bulletin: P20, P20PC, P20S

#### **Access Covers**

Catalog Number	Description	Fits	Product Weight (lb.)
PCS6	Steel	600	7.3
PCSA6SS	Stainless Steel	600	9.2
PCS8	Steel	800	7.9

#### **Consolet Compartments**

Catalog Number	Description	Fits	Product Weight (lb.)	
PCC6	Steel	600	30.0	
PCC8	Steel	800	35.0	
PCDS8SS	Stainless steel	800	44.0	

PCDS6SS - See previous table for information on this compartment.

#### 20-Degree Control Compartments

Catalog Number	Description	Fits	Product Weight (lb.)
PC20A6	Steel	600	21.0
PC20A8	Steel	800	26.0
PC20A8SS	Stainless Steel	800	29.0

#### **Keyboard Compartments**

Catalog Number	Description	Fits	Product Weight (lb.)
PKBC6R	Steel	600	42.0
PKBC8R	Steel	800	48.0

#### **Keyboard Shelves**

Catalog Number	Description	Fits	Product Weight (lb.)
PKBS6	Steel	600	20.0
PKBS8	Steel	800	24.0

#### **Keyboard Shelves with Integrated Keyboard/Mouse**

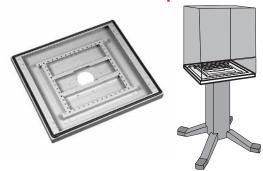
Catalog Number	Description	Fits	Product Weight (lb.)
PEKBMC6	Steel with keyboard	600	21.0
PEKBMC6SS	Stainless steel with keyboard	600	25.0



**Notes** 

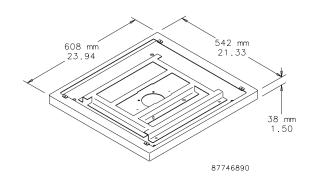


#### **Base with Cutout for Sloped Front**



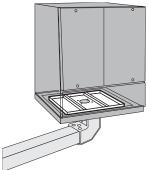
Closes off open bottom of sloped-front enclosures. Also fits Series 4 Pendant Arm Flange Coupling Systems 80 and 80/140. The 14 gauge steel base has a stiffener framework attached to the inside and mounting holes that provide a rigid mounting means for 8.00 x 8.00in. pedestal, pedestal extension, swivel tilt or angle adapter. Base has foam-in-place gasket and RAL 7035 textured light-gray polyester powder paint finish. Mounting hardware is furnished.

Bulletin: P9, P9S



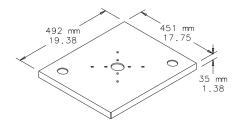
Catalog Number	Description
PBSK66	Steel
PBSK66SS	Stainless Steel

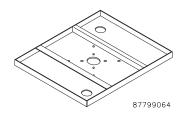
### **Support Bracket**



A Support Bracket is required when suspending a 600-mm wide sloped-front enclosure from above. The rigid bracket mounts inside the enclosure to stiffen its top. Bracket has prepunched holes to fit COMPACT® Pendant Arm Series 4 Systems 50, 60 and 80 flange couplings as well as swivel tilts. Bracket is used as a template to drill holes in sloped front. Bracket is .125-inch-thick aluminum and is furnished with mounting bolts and seals. A support bracket can also be used inside a base for Series 4 System 50, 60 and 80 sloped fronts when mounting from below.

Bulletin: P9

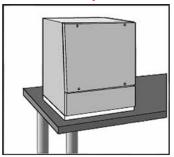




Catalog Number	Description
PTS66	Support Bracket



### **Bases for Sloped Front**

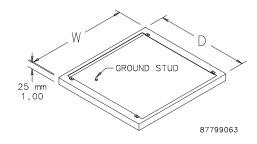


Closes off open bottom of sloped-front enclosures that are table-top mounted or suspended from overhead. Base is 14 gauge steel and has a ground stud provided. Foam-in-place gasket assures a water-tight and dust-tight seal. Steel bases are finished with RAL 7035 textured light-gray polyester powder paint. A top support bracket can be installed inside a 600-mm wide base for reinforcement when a COMPACT® Pendant Arm Series 4 System 50, 60 or 80 is attached from below.

#### Bulletin: P20, P20S, P9, P9S

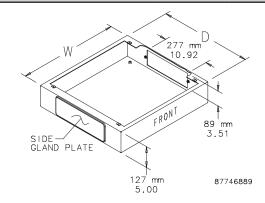
#### 0-mm Base

		D	W
Catalog Number	Description	mm/in.	mm/in.
PBS66	Steel	542	608
		21.34	23.94
PBS86	Steel	542	808
		21.34	31.81
PBS126	Steel	542	1208
		21.34	47.56



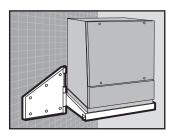
#### 100-mm Base

		D	W	
Catalog Number	Description	mm/in.	mm/in.	
PB166	Steel	559	599	
		22.01	23.58	
PB166SS	Stainless Steel	559	599	
		22.01	23.58	
PB186	Steel	759	599	
		29.88	23.58	



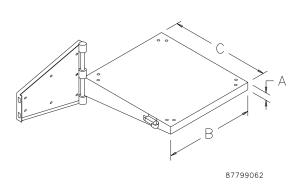
#### **Wall-Mount Kit**





Hinged platform for a PROLINE sloped-front enclosure pivots 90 degrees from wall bracket, allowing complete access to rear of the sloped-front enclosure. The kit can be installed to pivot left or right and locks securely in position against a wall. Pivot pin is removable. Platform can support equipment weighing up to 300 lb. and includes holes to mount 600-mm wide sloped fronts in two positions. RAL 7035 textured light-gray polyester powder paint finish. Includes Top-Unit-to-Frame Joining Kit (catalog number PJSTF6) to provide a watertight and dusttight seal to the sloped front.

Bulletin: P9

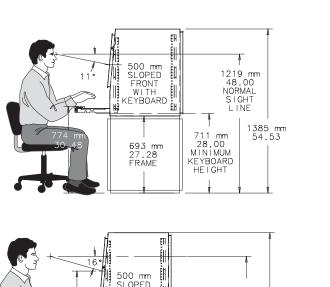


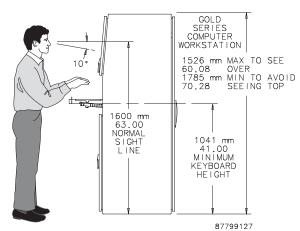
Catalog Number	AxBxC in./mm	Description
PWMK66	2.00 x 24.00 x 26.88	Steel
	51 x 610 x 683	

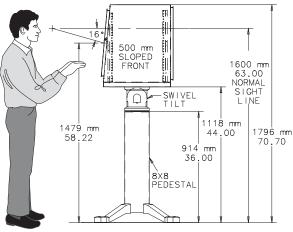


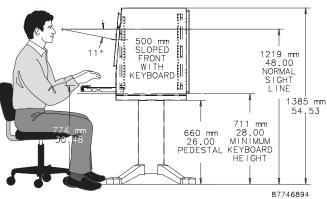
### **Ergonomic Design**

To order the HMI enclosure and accessories that provide an optimum ergonomic design for your operators, we've developed the Ergonomics Reference Guide below. By knowing the height of each piece that is part of the Human-Machine Interface Enclosure System, you can design a workstation that provides optimum effectiveness and safety. The adjustable keyboard and swivel/tilt accessories provide additional ergonomic solutions.











### **Joining Kits**

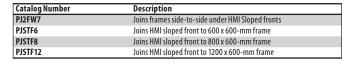


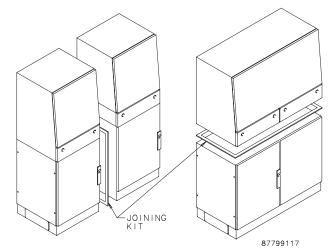
Joining Kits permit joining two 700-mm frames while maintaining an environmental seal. Joining Kit for Side-to-Side Applications (PJ2FW7) fits on either side of the frame.

Top-to-frame Joining Kits permit joining two 700-mm frames while maintaining an environmental seal. Joining Kit for Side-to-Side Applications (PJ2FW7) fits on either side of the frame.allow sloped fronts to be attached to 700-mm PROLINE® frames or to wall-mount kit. Kits available for one sloped front and one frame or one 1200-mm wide sloped front on two joined frames. Kits include gasket and mounting hardware.

A-T-O

Bulletin: P9





### Frame Base for Sloped-Front HMI



Frames are 700-mm tall and sized to allow installation of sloped fronts on top and other equipment below, thus configuring a console suitable for sitting or standing operators. The frame provides joining capability and means for rack, subpanel or grid-system mounting of any type of equipment inside. Frames are available 600-, 800- and 1200-mm wide to fit 600-, 800- and 1200-mm wide to fit 600-, 800- and 1200-mm wide sloped fronts. All frames have two latch/hinge blocks per vertical unit. Requires appropriate frame joining kit. Finish is RAL 7035 textured light-gray polyester powder paint. See Modular Enclosure Systems for additional frame sizes.

## A 1200-mm wide sloped front will accommodate two 600-mm wide frames only if frame Joining K it PJ2FW7 is used.

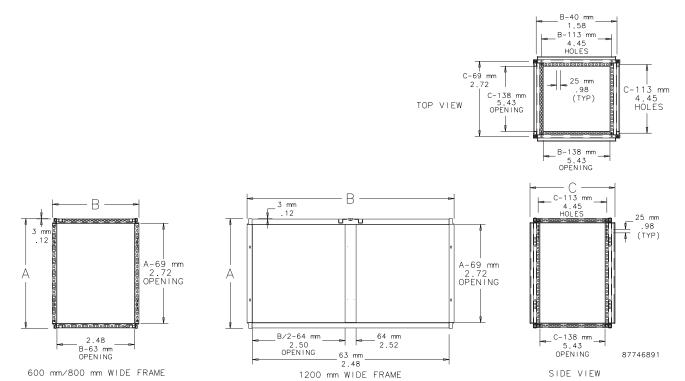
When used in conjunction with sloped fronts, PROLINE® frames provide an excellent solution for configuring and joining multiple consoles into a large control installation. Joining enclosures frameto-frame provides uninterrupted space for wiring and additional equipment. The sloped front and frame can also be used individually as a stand-alone console.

The modular design of the frames provides maximum mounting flexibility. Choose from a variety of door and cover options. A full range of accessories is also available. See the Modular Enclosure Systems chapter for additional external and internal accessories that fit 700-mm-tall frames.

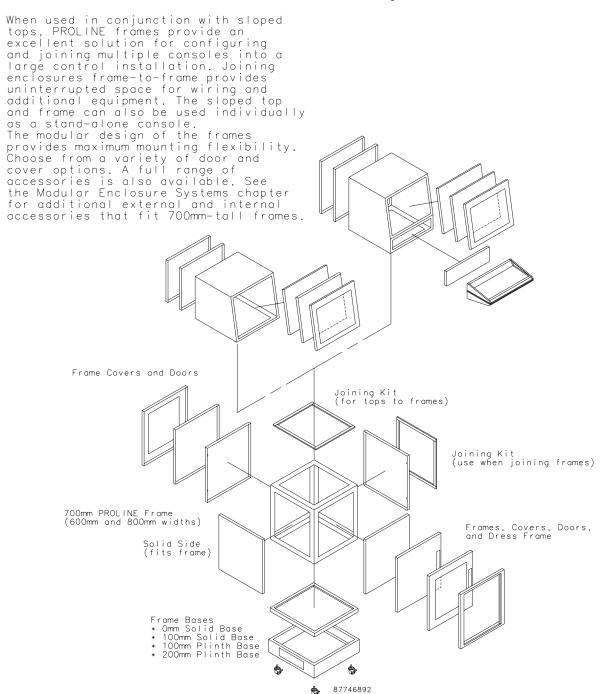
#### Bulletin: P20, P20EM

			Maximum Subpanel Size	
Catalog Number	AxBxC mm/in.	Nominal Frame Size	mm/in.	Maximum Rack Mounting Space
PF766	680 x 599 x 588	700 x 600 x 600	585 x 530	13U
	26.77 x 23.58 x 23.15		23.03 x 20.87	
PF786	680 x 799 x 588	700 x 800 x 600	585 x 530	13U
	26.77 x 31.46 x 23.15		23.03 x 20.87	
PF786HF	680 x 799 x 588	700 x 800 x 600	585 x 530	13U
	26.77 x 31.46 x 23.15		23.03 x 20.87	
PF7126	680 x 1199 x 588	700 x 1200 x 600	585 x 1130	13U x 2
	26.77 x 47.20 x 23.15		23.03 x 44.49	











### SYSPEND® Sanitary HMI System Overview



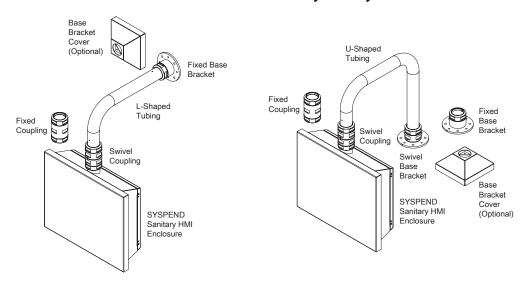


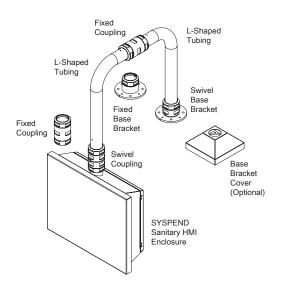


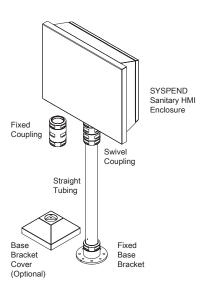
he SYSPEND® Sanitary HMI (Human-Machine Interface) System is a Type 304 stainless steel enclosure series and suspension system designed to enclose, protect and suspend lightweight HMI devices up to a maximum load of 90 lb. (40.8 kg) in NEMA Type 4X environments.

he system features a modular design for application versatility and is specifically designed to meet the demanding needs of sanitary environments. The entire system meets Type 4X and IP69K requirements for high-pressure, high-temperature washdown applications.









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### SYSPEND® Sanitary Suspension System, Type 4X, Overview (continued)



#### **Industry Standards**

Maintains NEMA Type 4, 4X and 12 and IEC IP69K enclosure ratings when properly installed per Hoffman instructions.

#### **Application**

Specifically designed to support the SYSPEND® Sanitary HMI Enclosure in sanitary washdown environments, particularly food and beverage manufacturing. The suspension system supports up to 90 lb. (40.8 kg) at 3.3 ft. (1 m). Its modular design with multiple tube lengths and bent tubes allows for application versatility. The entire system meets Type 4X and IP69K requirements for high-pressure, high-temperature washdown applications.

#### **Features**

- Type 304 stainless steel construction provides corrosion resistance and ease of cleaning
- SYSPEND-LOK™ attachment method prevents tubes from turning and pulling out of fittings and provides a water-tight connection
- Straight, L- and U-shaped tubes available in various lengths to provide design flexibility

- Swivel and fixed couplings provide rigid connection point between tubes or between tube and enclosure
- Swivel and fixed base brackets provide secure attachment to wall, floor or machine with easy leveling capability
- Swivel fittings provide 330-degree rotation
- Optional base bracket cover can be used on wall, floor or machine to cover exposed hardware on fixed base bracket

#### **Specifications**

- Tubes and fittings constructed of Type 304 stainless steel
- SYSPEND-LOK Wrench Head included with each fitting to secure fittings to tubes

External surfaces have a #3 brushed finish

#### **Modification and Customization**

Hoffman excels at modifying and customizing products to your specifications. Contact your local Hoffman sales office or distributor for complete information.



### **SYSPEND® Sanitary Enclosure, Type 4X**







#### **Industry Standards**

UL 508A Listed; Type 4, 4X, 12; File No. E61997 cUL Listed per CSA C22.2 No 94; Type 4, 4X, 12; File No. E61997

NEMA/EEMAC Type 4, 4X, 12 CSA File No. 42186; Type 4, 4X, 12 IEC 60529, IP66, IP69K

#### **Application**

Specifically designed to house process control equipment in sanitary washdown environments, particularly food and beverage manufacturing. The enclosure features many clean design elements and meets Type 4X and IP69K requirements for high-pressure, high-temperature washdown applications.

#### **Features**

- Enclosure provides modern, flat-screen monitor-style aesthetics
- Integrated side handles allow for easy repositioning of enclosure
- Fully concealed gasket area provides complete protection in washdown environments
- 20-degree sloped top facilitates runoff of water and cleaning solutions and prohibits the placement of objects on the top of the enclosure
- Slanted flange trough collar prohibits pooling of fluids along the top edge of the enclosure opening
- Enclosure can be flipped for either pendant or pedestal mounting
- Hinges are shielded by door
- Suspension arm adapter provided with enclosure; provides means of attachment to the SYSPEND® Sanitary Suspension System and SYSPEND VHDS-Motion Arm
- Suspension arm adapter can be installed backwards to provide 40-degree tilt for pedestal applications

- Internal support plate included with each enclosure provides extra rigidity for suspension mounting
- Flat area provided for installing optional H2OMIT™ Vent Drain to provide means of removing condensed moisture from the enclosure
- Optional adapter available for mounting enclosure to the SYSPEND VHDS-Motion arm

#### **Specifications**

- Constructed from 1.2-mm thick (18 gauge) Type 304 stainless steel
- Seams continuously welded and ground smooth
- · One-piece, closed-cell silicone gasket
- Bonding provision on door; grounding stud on body
- Door secured with two stainless steel quarter-turn latches with flush slotted insert
- Panel studs on door fit optional NEMA-style panels
- Furnished hardware kit consists of illustrated instruction sheet, grounding hardware, internal support plate, suspension arm adapter and hardware for attaching the support plate and adapter

#### **Finish**

External surfaces have a #3 brushed finish

#### **Modification and Customization**

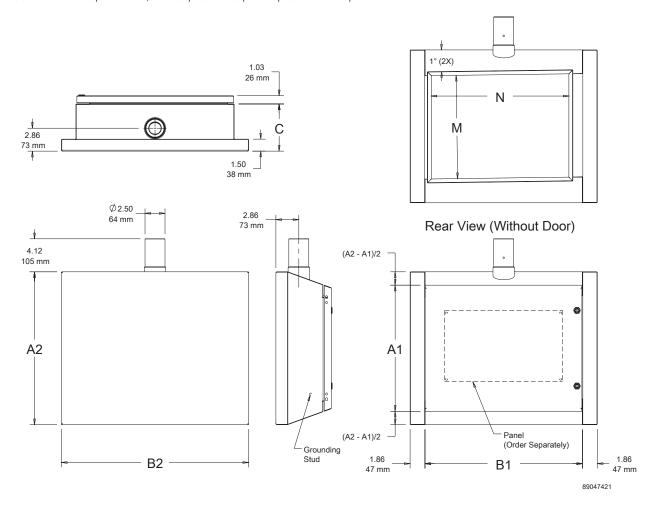
Hoffman excels at modifying and customizing products to your specifications. Contact your local Hoffman sales office or distributor for complete information.



#### **Standard Product**

		A1	B1	A2	B2	MxN	-	ı	
Catalog Number	AxBxC mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Steel Panel	Product Weight (kg)	Product Weight (lb.)
S303015SS	300 x 300 x 150	300	300	385	394	228 x 238	A8P6	6.9	15.3
	11.81 x 11.81 x 5.91	11.81	11.81	15.17	15.53	8.97 x 9.35			
S304015SS	300 x 400 x 150	300	400	385	494	228 x 338	A10P6	8.0	17.7
	11.81 x 15.75 x 5.91	11.81	15.75	15.17	19.46	8.97 x 13.29			
S404015SS	400 x 400 x 150	400	400	485	494	328 x 337	A12P10	9.4	20.7
	15.75 x 15.75 x 5.91	15.75	15.75	19.11	19.46	12.92 x 13.26			
S405015SS	400 x 500 x 150	400	500	485	594	323 x 437	A16P10	10.7	23.6
	15.75 x 19.68 x 5.91	15.75	19.68	19.11	23.40	12.92 x 17.20			
S505015SS	500 x 500 x 150	500	500	585	585	428 x 48	A16P10	12.2	27.0
	19.68 x 19.68 x 5.91	19.68	19.68	23.04	23.40	16.87 x 17.25			
S506015SS	500 x 600 x 150	500	600	585	694	428 x 538	A18P16	13.7	30.2
	19.68 x 23.62 x 5.91	16.68	23.62	23.04	27.34	16.87 x 21.19			
S303020SS	300 x 300 x 200	300	300	421	394	233 x 237	A8P6	7.8	17.2
	11.81 x 11.81 x 7.87	11.81	11.81	16.59	15.53	9.15 x 9.33			
S304020SS	300 x 400 x 200	300	400	421	494	233 x 337	A10P6	9.0	19.9
	11.81 x 15.75 x 7.87	11.81	15.75	16.59	19.46	9.15 x 13.26			
S404020SS	400 x 400 x 200	400	400	521	494	332 x 338	A12P10	10.5	23.1
	15.75 x 15.75 x 7.87	15.75	15.75	20.52	19.46	13.09 x 13.29			
S405020SS	400 x 500 x 200	400	500	521	594	332 x 438	A16P10	11.9	26.2
	15.75 x 19.68 x 7.87	15.375	19.68	20.52	23.40	13.09 x 17.23			
S505020SS	500 x 500 x 200	500	500	621	594	432 x 438	A16P10	13.5	29.8
	19.68 x 19.68 x 7.87	19.68	19.68	24.46	23.40	17.01 x 17.23			
S506020SS	500 x 600 x 200	500	600	621	694	432 x 538	A18P16	15.1	33.3
	19.68 x 23.62 x 7.87	19.68	23.62	24.46	27.34	17.01 x 21.17			

 $Enclosure\ dimensions\ are\ based\ upon\ the\ rear\ door; non-usable\ space\ on\ front\ face\ provides\ required\ area\ for\ heat\ dissipation.$ 





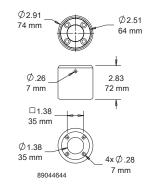
### **SYSPEND® VHDS-Motion Arm Adapter**

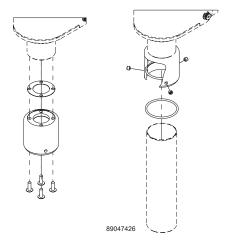


Attaches the SYSPEND Sanitary HMI Enclosure to the VHDS-Motion Arm.

- Type 304 stainless steel
- Attaches with set screws to the SYSPEND Sanitary HMI Enclosure
- Bolts directly to the VHDS-Motion Arm (only campatible with VHDS26 and VHDS36 models with revision level A or greater)

Catalog Number	Description	Weight (kg)	Weight (lb.)
SVHDSA	SYSPEND VHDS-Motion Arm Adapter	.73	1.6



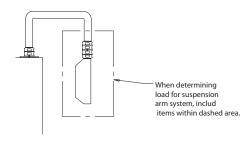


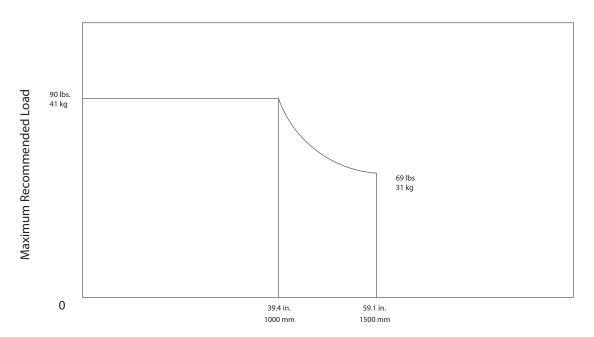


### **System Load Capacity**

The SYSPEND® Sanitary HMI System load graph is the result of load capacity tests. Please contact Hoffman for specific application information.

#### Load Diagram





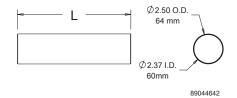
Suspension Arm Length

89054268

#### **Straight Tubing**



- Type 304 polished stainless steel
- Outer diameter of 64 mm (2.50 in.)
- Inner diameter of 60 mm (2.37 in.)
- 2-mm (.06-in.) wall thickness



Catalog Number	L (mm)	L (in.)	Weight (kg)	Weight (lb.)
ST250SS	250	9.84	.45	1.0
ST500SS	500	19.68	1.61	3.55
ST750SS	750	29.53	2.27	5.0
ST1000SS	1000	39.37	2.72	6.0
ST1250SS	1250	49.21	3.88	8.55
ST1500SS	1500	59.06	4.58	10.1



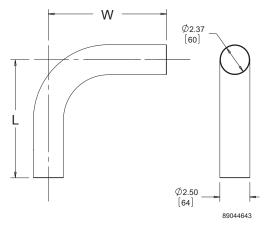
### **L-Shaped Tubing**



- Type 304 polished stainless steel
- Outer diameter of 64 mm (2.50 in.) Inner diameter of 60 mm (2.37 in.)
- 2-mm (.06-in.) wall thickness

Bulletin: VM9

	L	W		
Catalog Number	mm/in.	mm/in.	Weight (kg)	Weight (lb.)
ST250250SS	250	250	1.41	3.1
	9.84	9.84		
ST500240SS	500	240	2.20	4.85
	19.68	9.45		
ST500500SS	500	500	3.28	7.24
	19.68	19.68		
ST1000500SS	1000	500	5.76	12.7
	39.37	19.68		

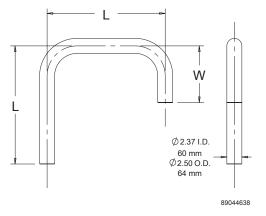


### **U-Shaped Tubing**



- Type 304 polished stainless steel Outer diameter of 64 mm (2.50 in.) Inner diameter of 60 mm (2.37 in.)
- 2-mm (.06-in.) wall thickness

	L	W		'
Catalog Number	mm/in.	mm/in.	Weight (kg)	Weight (lb.)
ST500240500SS	500	240	3.76	8.3
	19.68	9.45		
ST800500800SS	800	500	7.26	16.0
	31.50	19.68		





#### **Swivel Coupling**



- · Provides means of attaching enclosure to tube
- Allows enclosure to rotate 330-degrees
- SYSPEND-LOK™ attachment method prevents tubes from turning and pulling out of fittings and provides a water-tight connection
- Type 304 polished stainless steel
- Includes SYSPEND-LOK Wrench Head for attaching coupling to tubes (strap wrench or spanner wrench that opens to 80 mm or greater can also be used)

**Bulletin: VM9** 



Catalog Number	Description Swivel Coupling	Weight (kg)	Weight (lb.)
SSCSS		4.54 Φ1.69 43 mm	10
	6.07 154 mm	33 mm	
		89044639	

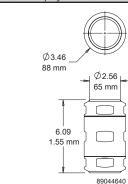
#### **Fixed Coupling**



- Provides secure means of joining two tubes together
- Can also provide attachment of enclosure to tube when enclosure rotation is not desired
- SYSPEND-LOK™ attachment method prevents tubes from turning and pulling out of fittings and provides a water-tight connection
- Type 304 polished stainless steel
- Includes SYSPEND-LOK Wrench Head for attaching coupling to tubes (strap wrench or spanner wrench that opens to 80 mm or greater can also be used)



Catalog Number	Description	Weight (kg)	Weight (lb.)
SFCSS	Fixed Coupling	3.54	7.5





#### **Swivel Base Bracket**



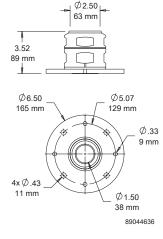


- Provides means of attaching tube to the floor or a machine
- Provides 330-degree rotation
- SYSPEND-LOK™ attachment method prevents tubes from turning and pulling out of fittings and provides a water-tight connection
- Type 304 polished stainless steel
- Includes SYSPEND-LOK Wrench Head for attaching base bracket to tubes (strap wrench or spanner wrench that opens to 80 mm or greater can also be used)
- Includes 4 set screws that provides means of leveling the entire suspension system
- Surface mounting hardware not included

#### Bulletin: VM9







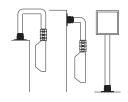
#### **Fixed Base Bracket**





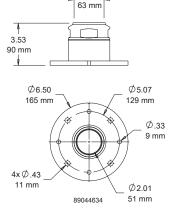
- Provides means of attaching tube to a wall, floor or machine
- Does not provide rotation
- SYSPEND-LOK™ attachment method prevents tubes from turning and pulling out of fittings and provides a water-tight connection
- Type 304 polished stainless steel
- Includes SYSPEND-LOK Wrench Head for attaching base bracket to tubes (strap wrench or spanner wrench that opens to 80 mm or greater can also be used)
- Includes 4 set screws that provide means of leveling the entire suspension system
- Surface mounting hardware not included
- Optional bracket cover available to hide all exposed mounting hardware

#### Bulletin: VM9



Catalog Number	Description	Weight (kg)	Weight (lb.)
SFBBSS	Fixed Base Bracket	3.63	8

Ø2.50

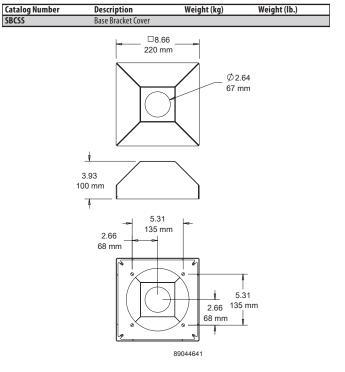




#### **Base Bracket Cover**



- · Covers the fixed base bracket (not compatible with the swivel base bracket)
- Provides means of covering all exposed mounting hardware
- Simply snaps into place over the base bracket
- Type 304 polished stainless steel **Bulletin: VM9**







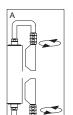
### Notes

PH (763) 422-2211 • FX (763) 422-2600 • hoffmanonline.com



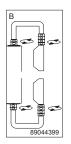
### **SYSPEND® Sanitary HMI Suspension System Configurations**

Select suspension system sizing using the SYSPEND® Sanitary HMI System load capacity chart.



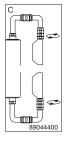


Description	Qty.	Catalog Number
Fixed Base Bracket	1	SSFBBSS
Swivel Coupling	1	SSCSS
U-Shaped Tubing	1	ST500240500SS ST800500800SS



#### В

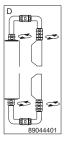
Description	Qty.	Catalog Number
Swivel Base Bracket	1	SSBBSS
Swivel Coupling	1	SSCSS
U-Shaped Tubing	1	ST500240500SS ST800500800SS



C

Description	Qty.	Catalog Number
Fixed Base Bracket	1	SSFBBSS
Fixed Coupling	1	SFCSS
L-Shaped Tubing	2	ST250250SS ST500240SS ST500500SS ST1000500SS
Swivel Coupling	1	SSCSS

Maximum horizontal run is 1500 mm. Refer to system load capacity graph.



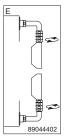
#### D

Description	Qty.	Catalog Number	
Fixed Coupling	1	SFCSS	
L-Shaped Tubing	2	ST250250SS ST500240SS ST500500SS ST1000500SS	
Swivel Base Bracket	1	SSBBSS	
Swivel Coupling	1	sscss	

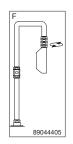
Maximum horizontal run is 1500 mm. Refer to system load capacity graph.





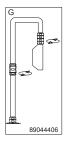


Description	Qty.	Catalog Number	
Fixed Base Bracket	1	SSFBBSS	
L-Shaped Tubing	1	ST250250SS ST500240SS ST500500SS ST1000500SS	
Swivel Coupling	1	SSCSS	



#### F

Description	Qty.	Catalog Number	
Fixed Base Bracket	1	SSFBBSS	
Fixed Coupling	1	SFCSS	
Swivel Coupling	1	SFCSS	
Straight Tubing	1	\$T250\$\$ \$T500\$\$ \$T750\$\$ \$T1000\$\$ \$T1250\$\$ \$T1500\$\$	
U-Shaped Tubing	1	ST500240500SS ST800500800SS	



#### G

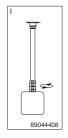
Description	Qty.	Catalog Number	
Fixed Base Bracket	1	SSFBBSS	
Straight Tubing	1	ST250SS ST500SS ST750SS ST1000SS ST1250SS ST1500SS	
Swivel Coupling	2	SSCSS	
U-Shaped Tubing	1	ST500240500SS ST800500800SS	





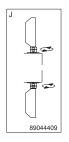
#### Н

Description	Qty.	Catalog Number	
Fixed Base Bracket	1	SSFBBSS	
Straight Tubing	1	\$T250\$\$ \$T500\$\$ \$T750\$\$ \$T1000\$\$ \$T1250\$\$ \$T1500\$\$	
Swivel Coupling	1	SSCSS	



П

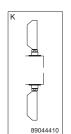
Description	Qty.	Catalog Number	
Fixed Base Bracket	1	SSFBBSS	
Straight Tubing	1	\$T250\$S \$T500\$S \$T750\$S \$T1000\$S \$T1250\$S \$T150\$S	
Swivel Coupling	1	SSCSS	



J

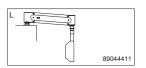
Description	Qty.	Catalog Number
Swivel Base Bracket	1	SSBBSS





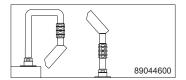


Description	Qty.	Catalog Number
Fixed Base Bracket	1	SSFBBSS





Description	Qty.	Catalog Number
VHDS Motion Arm Adapter	1	SVHDSA



Enclosure adapter can be flipped for angled viewing.



#### SYSPEND® Monitor and Keyboard Arm

#### SYSPEND® Monitor and Keyboard Arm





#### **Application**

Vertical motion pendant arm for mounting a flat screen monitor, keyboard and mouse in industrial environments. Opens up plant floor space by locating the display where it is convenient for the operator. Display and keyboard can be raised and lowered with one hand. Keyboard folds up when not in use.

#### **Features**

- Supports 6-15 lb. loads with an internal gas spring counterbalance
- Provides 12 in. of vertical height adjustment
- Toggle lever locks arm in place when repositioned vertically
- 3 x 3-in. and 4 x-4 in. VESA mounting pattern fits most flat screen
- Arm swivels 340 degrees at monitor end and 180 degrees at mounting end

- Display tilts forward 15 degrees and back 45 degrees to reduce glare
- Folds up within 5 in. of the wall
- Display and keyboard stay level as they travel vertically
- Side cable manager protects cables and cords from pulling or
- Easily installs on a wall or vertical surface
- VELCRO® included to affix keyboard to mounting surface
- · Monitor, keyboard and mouse are not included VELCRO is a trademark of Velcro Industries B.V.

#### **Specifications**

- Aluminum construction
- RAL 7035 light-gray finish
- Gas spring counterbalance

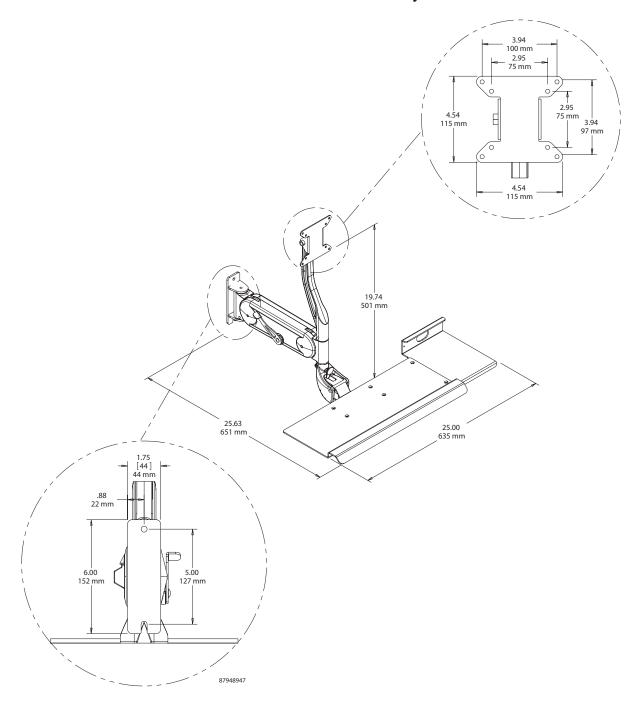
#### **Bulletin: VM5**

#### Standard Product

Catalog Number	AxBxCin./mm	Description	Arm Weight (lb.)	Arm Weight (kg)
VAMONITOR	21.22 x 25.00 x 25.63	SYSPEND Monitor and Keyboard Arm	20.0	9.07
	539 x 635 x 651			



### **SYSPEND® Monitor and Keyboard Arm**





#### SYSPEND® VL-Motion Arm and Accessories

### **SYSPEND® VL-Motion Arm, Type 4**





#### **Industry Standards**

Maintains NEMA Type 4 and 12 and IEC IP66 enclosure rating when properly installed per Hoffman instructions.

#### Application

Vertical motion pendant arm effortlessly lifts, lowers and repositions HMI enclosures in NEMA Type 4 and 12 environments. Gas spring counterbalance can be adjusted for loads of 30-100 lb. Release handle and locking mechanism are ideal for applications where machine vibration is a concern.

#### **Features**

- Field-adjustable gas-spring counterbalance supports loads of 30-100 lbs.
- Gas springs are set to maximum pressure (100 lb. load) and lifting force can be reduced through a sealed access cap in the top of the arm (Lifting force cannot be increased once spring pressure is reduced.)
- Provides 13 in. of vertical height adjustment

- Release handle (included with arm) automatically locks arm in place when repositioned vertically (release handle is required to operate the arm)
- Easily interfaces with Hoffman HMI enclosures using a 60-x-60mm enclosure mounting pattern (enclosure must be ordered separately)
- 1.4-in. internal cable pathway maintains NEMA Type 4 and 12 enclosure rating and protects wires and cables
- Gasketed mounting surfaces at both ends of arm maintain seal integrity
- Enclosure and arm can be swiveled 320 degrees
- Wall-mount, machine-top-mount and post-top-mount options available
- · Optional floorpost available

#### **Specifications**

- Aluminum construction
- RAL 7035 light-gray finish
- · Gas spring counterbalance

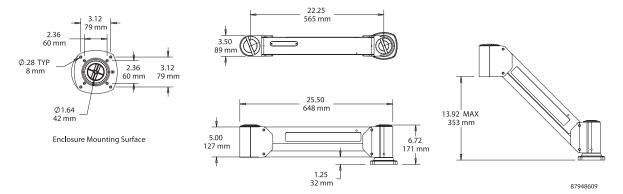
**Bulletin: VM4** 

#### Standard Product

			Wall-Mount	Post-Top-Mount	Machine-Top-Mount	Load	Load	Arm Weight	Arm Weight
Catalog Number	AxBxC in./mm	Descriptiona	Adapter	Adapter	Adapter	Capacity (lbs.)	Capacity (kg)	(lb.)	(kg)
VL22	6.72 x 25.50 x 3.50	VL-Motion Arm, 22-in.	VLWALL	VLPOST	VLMACHINE	30-100	14-45	20.0	9.07
	171 x 648 x 89								

<sup>a</sup>Mounting adapter required. Order separately.

Release handle included with arm.





#### **SYSPEND® VL-Motion Arm and Accessories**

### **Wall-Mount Adapter**

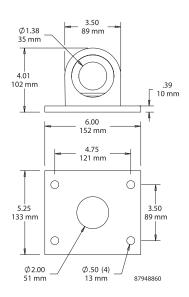


Order separately to install the SYSPEND® VL-Motion Arm on a wall or vertical surface.

- RAL 7035 light-gray polyester powder paint finish
   Includes hardware to mount the adapter to the arm
- Hardware for mounting to the wall is not included

#### Bulletin: VM4

Catalog Number	AxBxC in./mm	Description	Weight (lb.)	Weight (kg)
VLWALL	5.25 x 6.00 x 4.01	VL-Motion Arm Wall-Mount Adapter	8.0	3.63
	133 v 152 v 102			



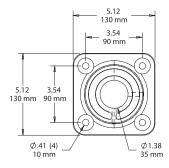
### **Machine-Top-Mount Adapter**

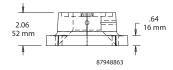


Order separately to install the SYSPEND® VL-Motion Arm on a machine top or horizontal surface.

- RAL 7035 light-gray polyester powder paint finish
- Includes hardware to mount the adapter to the arm
- · Hardware for mounting to a horizontal surface is not included

Catalog Number	AxBxC in./mm	Description	Weight (lb.)	Weight (kg)
VLMACHINE	5.12 x 5.12 x 2.06	VL-Motion Arm	8.0	3.63
	130 x 130 x 52	Machine-Top-Mount Adapter		







# **Post-Mount Adapter**

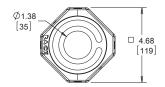


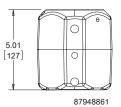
Order separately to install the SYSPEND  $^{\! \circ}$  VL-Motion Arm on a 3.5-in. OD tube.

- RAL 7035 light-gray polyester powder paint finish
- Includes hardware to mount the adapter to the arm and set screws to attach to a tube

Bulletin: VM4

Catalog Number	AxBxC in./mm	Description	Weight (lb.)	Weight (kg)
VLPOST	5.01 x 4.68 x 4.68	VL-Motion Arm Post-Mount Adapter	8.0	3.63
	127 x 119 x 119			





# **Floorpost with Junction Box**

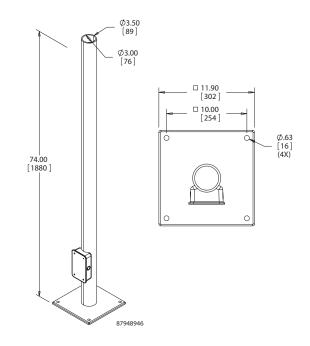


Provides method for mounting the SYSPEND® VL and VHD Motion Arms when a structural surface is not available.

- Heavy-wall 3.5-in. structural tube welded to a 12 x 12 x 3/8-in.-thick baseplate
- Provides a "rough-in" point and pull box for power and network field wiring
- Includes internal CAT5 coupler and finger-safe power terminals
- Two conduit knock-outs can be opened to either 1/2 in. or 3/4 in.
- Fully gasketed 16 gauge cover panel on junction box can be used for additional conduit attachment
- Tough, molded ABS junction box is contoured to fit the post and is fluted into the post to protect cables

Bulletin: VM4

Catalog Number	AxBxC in./mm	Description	Weight (lb.)	Weight (kg)
FLOORPOST	11.90 x 11.90 x 74.00	Floorpost with Junction Box	65.0	29.48
	302 x 302 x 1880			



Subject to change without notice



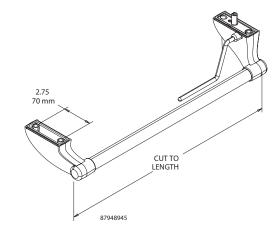
# **Replacement Release Handle**



Replacement release handle for use with the SYSPEND® VL-Motion Arm. (Handle is included with the VL-Motion Arm.) Includes handle end supports with 491 mm (19.3 in.) tube that can be easily cut to length to fit the enclosure.

#### Bulletin: HB1

Catalog Number	AxBxC in./mm	Description
VLHANDLE	3.88 x 1.38 x 19.30	Replacement Release Handle for
	99 x 35 x 490	VL-Motion Arm

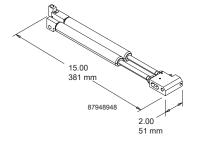


# **Replacement Gas Springs**

Includes instructions for field replacement of gas springs for the SYSPEND® VL-Motion Arm.

#### Bulletin: HB1

Catalog Number	AxB in./mm	Description
VLSPRINGS	2.00 x 15.00	Replacement Gas Springs for VL-Motion Arm
	51 x 381	





# SYSPEND® VHD-Motion Arm, Type 4





#### **Industry Standards**

Maintains NEMA Type 4 and 12 and IEC IP66 enclosure rating when properly installed per Hoffman instructions.

#### **Application**

Heavy-duty vertical motion pendant arm effortlessly lifts, lowers and repositions HMI enclosures in NEMA Type 4 and 12 environments. Two arm lengths are available with field-adjustable counterbalances to support loads up to 125 lb. No release handle is required to operate the arm.

#### **Features**

- 26-in. arm supports loads of 45-125 lb. with 13-in. of vertical height adjustment
- 36-in. arm supports loads of 25-75 lb. with 20-in. of vertical height adjustment
- Field-adjustable gas spring counterbalance allows the user to adjust lifting force by turning an adjustment mechanism under the arm
- Angle of gas springs is adjustable (not the pressure); allows lifting force to be increased or decreased at any time for changes in load

- Tension adjustment at front of the arm provides additional finetuning of lifting force
- No locking enclosure handle required; enclosure stays in place after repositioning
- Easily interfaces with Hoffman HMI enclosures using a 60-x-60mm enclosure mounting pattern (enclosure must be ordered separately)
- 1.3-in. internal cable pathway maintains NEMA Type 4 and 12 enclosure rating and protects wires and cables
- Gasketed mounting surfaces at both ends of arm maintain seal integrity
- Enclosure and arm can be swiveled 330 degrees with swivel stops available in 30-degree increments
- Standard models are available with machine-top mounting (wall-mount and post-mount adapters sold separately)
- · Optional floorpost available

#### **Specifications**

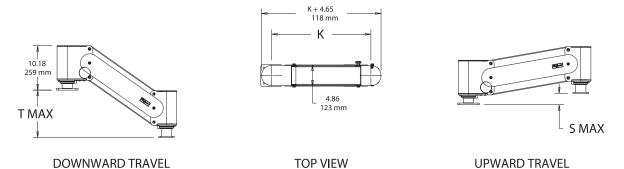
- · Mild steel construction
- RAL 7035 light-gray finish with black end supports
- Gas spring counterbalance

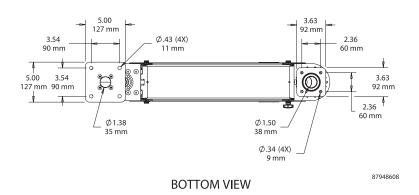
Bulletin: DMID, VM2

#### Standard Product

								Arm			
							Arm	Length			
			Wall-Mount	Post-Mount	Load	Load	Weight		K	S	T
<b>Catalog Number</b>	AxBxC in./mm	Description	Adapter	Adapter	Capacity (lb.)	Capacity (kg)	(lbs.)	mm/in.	mm/in.	mm/in.	mm/in.
VHD26	10.18 x 30.65 x 4.86	VHD-Motion Arm, 26-in. Machine-Top Mount	VHDWALL	VHDPOST	45-125	20-57	54	25	660	76	254
	259 x 779 x 123							26.00	3.00	10.00	
VHD36	10.18 x 40.65 x 4.86	VHD-Motion Arm, 36-in. Machine-Top Mount	VHDWALL	VHDPOST	25-75	11-37	60	27	914	102	406
	259 x 1033 x 123							36.00	4.00	16.00	









# **Wall-Mount Adapter**

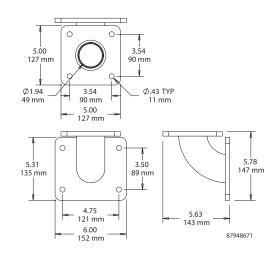


Order separately when installing the SYSPEND® VHD-Motion Arm to a wall or vertical surface.

- RAL 7035 light-gray polyester powder paint finish
- Includes hardware to mount the adapter to the arm
- · Hardware for mounting to the wall is not included

#### Bulletin: VM2

Catalog Number	AxBxC in./mm	Description	Weight (lb.)	Weight (kg)
VHDWALL	5.78 x 5.63 x 5.00	VHD-Motion Arm Wall-Mount Adapter	10.0	4.54
	147 x 143 x 127			



# **Post-Mount Adapter**

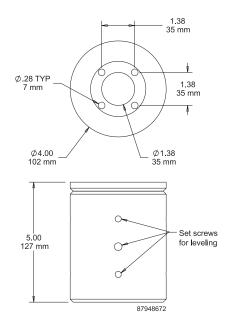


Order separately when installing the SYSPEND® VHD-Motion Arm to a 3.5-in. OD tube.

- RAL 7035 light-gray polyester powder paint finish
- Includes hardware to mount the adapter to the arm and setscrews for mounting to a tube

#### Bulletin: VM2

Catalog Number	AxBxC in./mm	Description	Weight (lb.)	Weight (kg)
VHDPOST	5.00 x 4.00 x 4.00	VHD-Motion Arm Post-Mount Adapter	6.5	2.95
	127 x 102 x 102			





# **Floorpost with Junction Box**

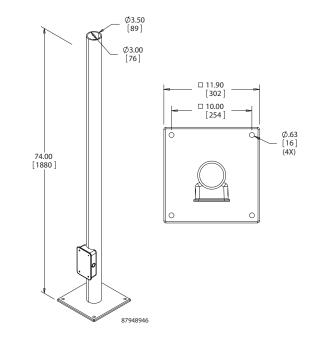


Provides method for mounting the SYSPEND® VL and VHD Motion Arms when a structural surface is not available.

- Heavy-wall 3.5-in. structural tube welded to a 12 x 12 x 3/8-in.-thick baseplate
- Provides a "rough-in" point and pull box for power and network field wiring
- Includes internal CAT5 coupler and finger-safe power terminals
- Two conduit knock-outs can be opened to either 1/2 in. or 3/4 in.
- Fully gasketed 16 gauge cover panel on junction box can be used for additional conduit attachment
- Tough, molded ABS junction box is contoured to fit the post and is fluted into the post to protect cables

Bulletin: VM4





# **Handles**



Accessory handle kits are available to allow for easy repositioning of the enclosure. Handles attach inside enclosure with provided hardware. Handles are not required to use the SYSPEND® VHD-Motion Arm.

#### Bulletin: C2, CC3

Catalog Number	Description	Weight (lb.)
CHDLK	One pair of handles and mounting hardware	1.7



# SYSPEND® VHDS-Motion Arm, Type 4X





#### **Industry Standards**

Maintains NEMA Type 4, 4X and 12 and IEC IP 66 enclosure ratings when properly installed per Hoffman instructions.

#### Application

Heavy-duty, stainless steel vertical motion pendant arm provides corrosion resistance and suspends process and control equipment for easy cleaning. Operators in NEMA Type 4X environments can effortlessly lift, lower and reposition HMI enclosures using the pendant arm's field-adjustable counterbalance.

#### **Features**

- Corrosion resistant stainless steel housing with provisions for water drainage from arm
- 26-in. arm supports loads of 45-125 lb. with 13-in. of vertical height adjustment
- 36-in. arm supports loads of 25-75 lb. with 20-in. of vertical height
- Field-adjustable gas spring counterbalance allows the user to adjust lifting force by turning an adjustment mechanism under the
- Angle of gas springs is adjustable (not the pressure); allows lifting force to be increased or decreased at any time for changes in load

- Tension adjustment at front of the arm provides additional finetuning of lifting force
- No locking enclosure handle required; enclosure stays in place when repositioned
- Easily interfaces with Hoffman HMI enclosures using a 60-x-60mm enclosure mounting pattern (enclosure must be ordered separately; not for use with CS480 enclosures)
- 1.25-in. internal cable pathway maintains Type 4, 4X and 12 enclosure rating and protects wires and cables
- Gasketed mounting surfaces at both ends of arm maintain seal
- Enclosure and arm can be swiveled 330 degrees with swivel stops available in 30 degree increments
- Standard models are available with machine-top mounting (wallmount and post-mount adapters sold separately)
- · Optional floorpost available

#### **Specifications**

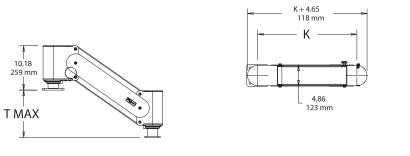
- Type 304 stainless steel construction
- · Gas spring counterbalance

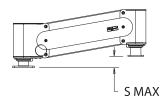
Bulletin: DBB, VM3

							Arm	Arm			
			Wall-Mount	Post-Mount	Load	Load	Weight	Weight	K	S	T
Catalog Number	AxBxC in./mm	Description	Adapter	Adapter	Capacity (lb.)	Capacity (kg)	(lb.)	(kg)	in./mm	in./mm	in./mm
VHDS26	10.18 x 30.65 x 4.86	VHDS-Motion Arm, 26-in. Machine-Top Mount	VHDSWALL	VHDSPOST	45-125	20-57	54	25	26.00	3.00	10.00
	259 x 779 x 123								660	76	254
VHDS36	10.18 x 40.65 x 4.86	VHDS-Motion Arm, 36-in. Machine-Top Mount	VHDSWALL	VHDSPOST	25-75	11-37	60	27	36.00	4.00	16.00
	259 x 1033 x 123								914	102	406

Subject to change without notice

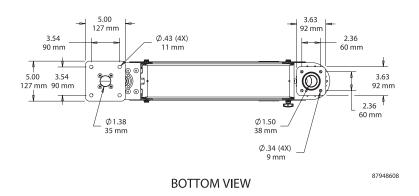






DOWNWARD TRAVEL

TOP VIEW UPWARD TRAVEL





# **Wall-Mount Adapter**

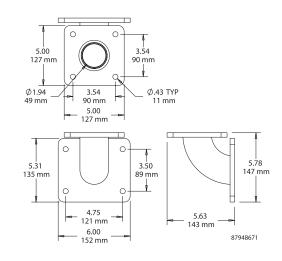


Order separately to install the SYSPEND  $^{\rm @}$  VHDS-Motion Arm on a wall or vertical surface.

- · Type 304 stainless steel
- Includes hardware to mount the adapter to the arm
- Hardware for mounting to the wall is not included

#### Bulletin: VM3

Catalog Number	AxBxC in./mm	Description	Weight (lb.)	Weight (kg)
VHDSWALL	5.78 x 5.63 x 5.00	VHDS-Motion Arm Wall-Mount Adapter	10.0	4.54
	147 x 143 x 127			



# **Post-Mount Adapter**

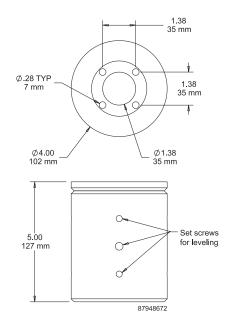


Order separately when installing the SYSPEND  $^{\rm @}$  VHDS-Motion Arm to a 3.5-in. OD tube.

- Type 304 stainless steel
- Includes hardware to mount the adapter to the arm and setscrews for mounting to a tube

#### Bulletin: VM3

Catalog Number	AxBxC in./mm	Description	Weight (lb.)	Weight (kg)
VHDSPOST	5.00 x 4.00 x 4.00	VHDS-Motion Arm Post-Mount Adapter	7.0	3.18
	127 x 102 x 102			





# **Stainless Steel Floorpost with Junction Box**

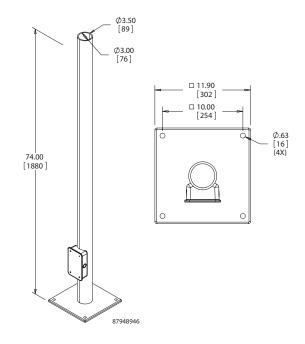


Provides method for mounting the SYSPEND® VHDS-Motion Arm when a structural surface is not available.

- Heavy-wall 3.5-in. structural tube welded to a 12 x 12 x 3/8-in.-thick baseplate
- Provides a "rough-in" point and pull box for power and network field wiring
- Includes internal CAT5 coupler and finger-safe power terminals
- Two conduit knock-outs can be opened to either 1/2 in. or 3/4 in.
- Fully gasketed 16 gauge cover panel on junction box can be used for additional conduit attachment
- Tough, molded ABS junction box is contoured to fit the post and is fluted into the post to protect cables

**Bulletin: VM3** 

Catalog Number	AxBxC in./mm	Description	Weight (lb.)	Weight (kg)
FLOORPOSTSS	11.90 x 11.90 x 74.00 302 x 302 x 1880	Stainless Steel Floorpost with Junction Box	70	31.75



#### **Handles**



Handles are stainless steel for mounting on enclosure sides. Mounting hardware included. Enclosure machining required. (Handles are not required to use the SYSPEND® VHDS-Motion Arm.)

#### **Bulletin: CCR6Y**

Catalog Number	Description	Weight (lb.)
CCSSHDL	Handles for CC480/600 enclosures	5.0



# **COMPACT® Pendant Arm Series 1, Type 12**



#### **Industry Standards**

NEMA/EEMAC Type 12 IEC 60529, IP65 DIN 40050

#### **Application**

Designed for use with INLINE® HMI Enclosures, the Series 1 COMPACT® Pendant Arm provides a flexible and easy-to-use method for mounting and positioning small or lightweight HMI controls and instruments. The COMPACT Pendant Arm is easily attached to a machine or wall and moves both horizontally and vertically to suit the user's needs and preferences.

#### **Specifications**

- · Cast aluminum and extruded aluminum tube
- Four pre-assembled models. One model capable of horizontal and vertical motion. One model capable of horizontal motion. Either model is available in two lengths, 500 mm or 800 mm.
- Internal braking mechanism (vertical motion only) prevents downward "free-fall" motion when locked
- Easily removable snap-on cover provides access to wire containment channel
- Adjustable enclosure mounting. Arm can be configured to mount to top, bottom or back of an enclosure.
- Enclosure mounting plate can be rotated, tilted and locked into desired position
- Handle available as option

#### **Finish**

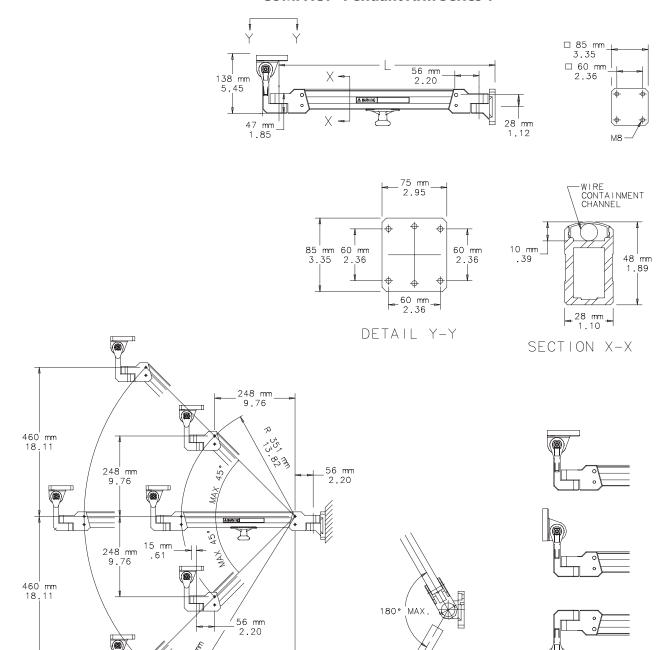
Tube is anodized. Color is silver. Fittings and snap-on cover are RAL 7035 light-gray polyester powder paint.

Bulletin: CS4

#### Standard Product

Catalog Number	Description	L	Maximum Load
CCS1H5V	Vertical and horizontal motion	500 mm	30 lbs.
CCS1H8V	Vertical and horizontal motion	800 mm	15 lbs.
CCS1H5	Horizontal motion	500 mm	30 lbs.
CCS1H8	Horizontal motion	800 mm	15 lbs.





#### **Handle**

Mounts to end of arm in pre-threaded hole. Bulletin: CS4

Catalog Number	Color
CCS1HDL	Black

HORIZONTAL ROTATION

18.11

VERTICAL ROTATION

**ENCLOSURE** 

MOUNTING

POSITIONS

87799131



# **COMPACT® Pendant Arm Series 2, Type 12**



# **Industry Standards**

NEMA/EEMAC Type 12 IEC 60529, IP55 DIN 40050

#### **Application**

COMPACT® Series 2 Pendant Arms allow operators to easily move controls into and out of position as needed, and they are easily mounted to a machine, wall or floor. Offering both superior loadbearing capacity and functional reliability, the COMPACT Series 2 Pendant Arm has a maximum load of 101 lb. (45.8 kg) at 3.3 ft. (1 m) and is recommended for use with INLINE®, CC2000, CC4000 and CONCEPT® HMI enclosures as well as Consolets.

#### **Specifications**

- Cast aluminum couplings and extruded aluminum tubing. Series components provide excellent structural strength.
- Multiple coupling types and three standard tube lengths (500, 1000 and 1500 mm) combine to form numerous configurations as conduits for equipment wiring (see configuration guide)
- Removable access plates simplify cable installation inside fittings
- Heavy duty bearings in all movable joints for convenient, smooth operation and enhanced durability
- · Deep tube fittings in all couplings
- Adjustable set screws allow accurate alignment of supporting tubes
- · Oil-resistant neoprene gasket

#### **Finish**

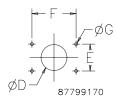
Couplings and access plates have RAL 7035 light-gray polyester powder paint finish. Tubing is anodized aluminum.

#### **Standard Cutout for Mounting**

	Set-Up Joint	Vertical or Horizontal Wall Joint	Flange or Flange Elbow Coupling/Swivel Tilt Straight or 90° Elbow	Wall Flange or Base Bracket	Rotational Base
<b>Dimensions for Cutout</b>	in./mm	in./mm	in./mm	in./mm	in./mm
ØD	1.58	2.76	1.58	<del>-</del>	1.58
	40	70	40	_	40
E	3.54	3.54	2.36	3.54	3.54
	90	90	60	90	90
F	3.54	4.33	2.36	3.54	3.54
	90	110	60	90	90
ØG	0.35	0.35	0.26	0.35	0.35
	9	9	7	9	9

See product drawings for alternate shallow enclosure mounting

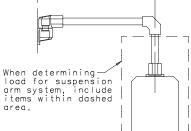
#### Standard Cutout for Mounting



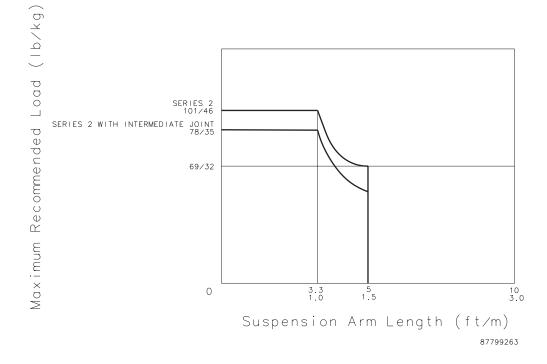
# **System Load Capacity**

The Series 2 pendant arm load graph is the result of load capacity tests. Please contact Hoffman for specific application information.





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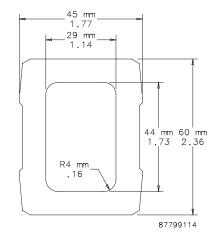


#### **Tubes**



Hollow aluminum extrusion available in 500-, 1000- and 1500-mm lengths. Connection components fastened to support arm with set screws. DIN 59411 and 2395.

Bulletin: CS4



		Length	External Dimensions	Wall Thickness Dimensions			'
Catalog Number	AxBxC in./mm	in./mm	in./mm	in./mm	Inside Cross Section (cm²)	Inside Cross Section (in.2)	Weight (lb.)
CCS2T5	19.68 x 1.77 x 2.36	19.68	1.77 x 2.36	0.31	12.65	1.96	4.5
	500 x 45 x 60	500	45 x 60	8			
CCS2T10	39.37 x 1.77 x 2.36	39.37	1.77 x 2.36	0.31	12.65	1.96	9.0
	1000 x 45 x 60	1000	45 x 60	8			
CCS2T20	59.06 x 1.77 x 2.36	59.06	1.77 x 2.36	0.31	12.65	1.96	14.0
	1500 x 45 x 60	1500	45 x 60	8			

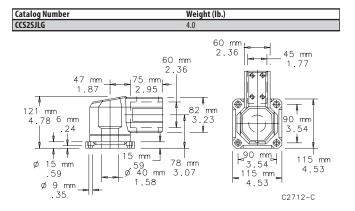
# **Set-Up Joint**



Joint includes access plate for easy wire installation. Turning range of 300 degrees. Cast aluminum with RAL 7035 light-gray polyester powder paint finish. Setscrews, gasket and removable access plate included. Mounting fasteners are not provided.

#### Bulletin: CS4



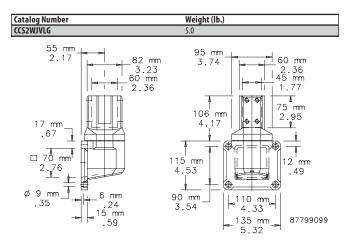


# **Wall Joint (Vertical)**



Vertical joint includes access plate for easy wire installation. Turning range of 300 degrees. Cast aluminum with RAL 7035 light-gray polyester powder paint finish. Setscrews, gasket and removable access plate included. Mounting fasteners are not provided.





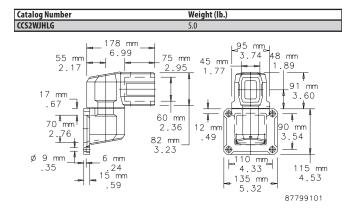


# **Wall Joint (Horizontal)**



Includes access plates for easy wire installation. Turning range of 300 degrees. Cast aluminum with RAL 7035 light-gray polyester powder paint finish. Setscrews, gasket and removable access plates included. Mounting fasteners not provided. Bulletin: CS4





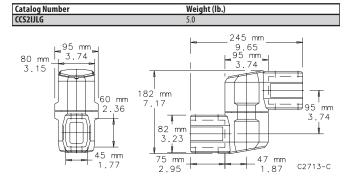
#### **Intermediate Joint**



Joint is cast aluminum with RAL 7035 light-gray polyester powder paint finish. Turning range is 360 degrees with stop. Includes access plates for easy wire installation, installation hardware and gasket. Use of the intermediate joint reduces pendant arm load capacity by 43 percent.



**Bulletin: CS4** 

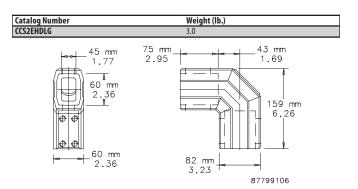


# **Heavy Duty Elbow**



Elbow is made of aluminum with increased wall thickness for additional strength and support. Setscrews for tube adjustment. Cast aluminum with RAL 7035 light-gray polyester powder paint finish. All installation hardware and gasket included.







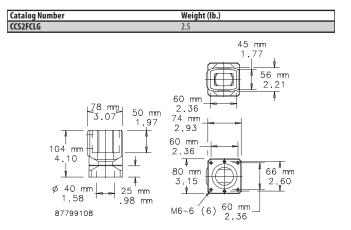
# Flange Coupling



Coupling can rotate 300 degrees. Maintenance-free bearing is steel and polyamide. Cast aluminum with RAL 7035 light-gray polyester powder paint finish. Installation hardware, mounting fasteners and gasket included.

**Bulletin: CS4** 





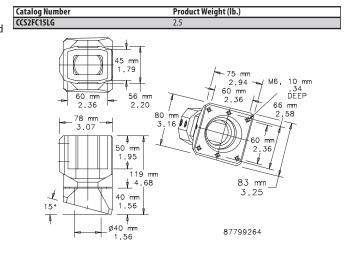
# Flange Coupling, 15-Degree



Coupling can rotate 300 degrees. Maintenance-free bearing is steel and polyamide. Enclosure is mounted at a 15-degree incline angle. Cast aluminum with RAL 7035 lightgray polyester powder paint finish. Installation hardware, mounting fasteners and gaskets included.

**Bulletin: CS4** 





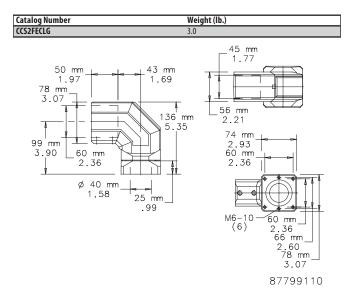
# Flange Elbow Coupling



Subject to change without notice

Turning range of 300 degrees. Maintenance-free bearing is steel and polyamide. Includes access plate for easy wire installation. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Installation hardware, mounting fasteners and gasket included.







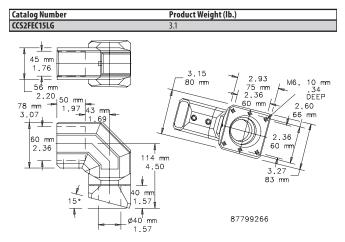
# Flange Elbow Coupling, 15-Degree



Turning range of 300 degrees. Maintenance-free bearing is steel and polyamide. Access plate included for easy wire installation. Enclosure is mounted at a 15-degree incline angle. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Installation hardware, mounting fasteners and gaskets included.

**Bulletin: CS4** 





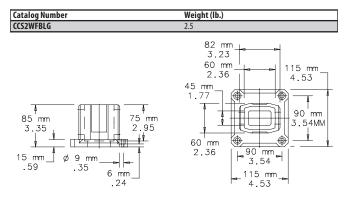
# **Base Bracket/Wall Flange**



Cast aluminum with RAL 7035 lightgray polyester powder paint finish. Set screws and gasket are included. Mounting fasteners are not provided.

**Bulletin: CS4** 





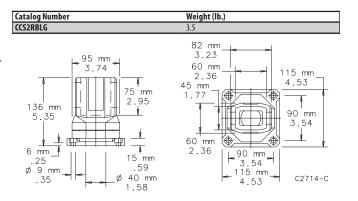
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#### **Rotational Base**



Turning range of 300 degrees. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Setscrews and gasket are included. Mounting fasteners are not provided.







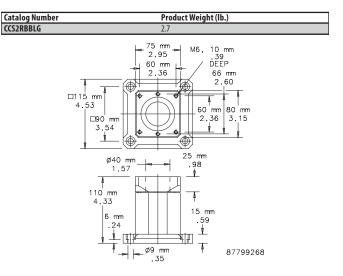
#### **Rotational Base Bracket**



Turning range of 300 degrees. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Setscrews and gaskets are included. Mounting fasteners are not provided.

**Bulletin: CS4** 



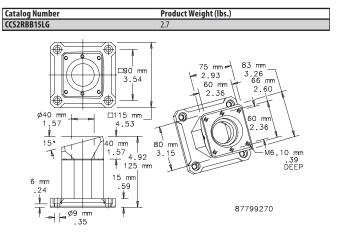


# **Rotational Base Bracket, 15-Degrees**



Turning range of 300 degrees. Enclosure is mounted at a 15-degree incline angle. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Setscrews and gaskets are included. Mounting fasteners are not provided.







### **Swivel Tilt Straight**

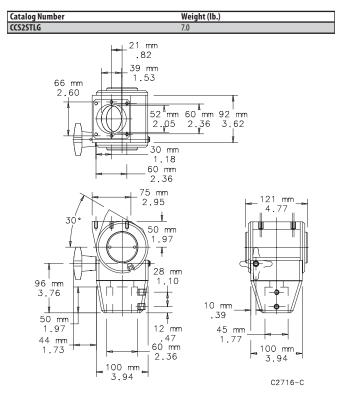


Mounts between pendant arm and HMI enclosure to provide both swivel and tilt options for the machine operator. Swivel allows 300-degree maximum rotation. Tilt allows infinite adjustment from horizontal to 30 degrees. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Installation hardware, mounting fasteners and gasket included.

Maximum load is 66 lb. (30 kg).

**Bulletin: CS4** 





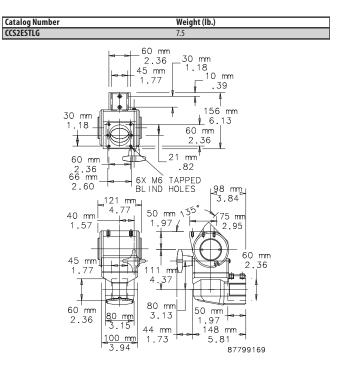
# **Swivel Tilt 90-Degree Elbow**



Mounts between pendant arm and HMI enclosure to provide both swivel and tilt options for the machine operator. A 90-degree elbow is incorporated into this design. Swivel allows 300-degree maximum rotation. Tilt allows infinite adjustment from horizontal to 30 degrees. Cast aluminum finished in RAL 7035 light-gray polyester powder paint. Installation hardware, mounting fasteners and gasket are included.

Maximum load is 66 lb. (30 kg).







Catalog Number

#### **Pedestal Base**

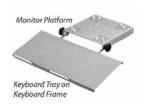


Base is cast aluminum one-piece construction finished with RAL 7035 light-gray textured polyester powder paint. Includes all hardware for attaching tubes.

CCS2PB

**Bulletin: CC3** 

# **Monitor Platform**

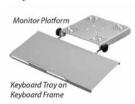


Platform attaches to pendant arm to provide a surface for a monitor. Adjustable stops hold monitor securely in place. Aluminum construction finished with RAL 7042 gray polyester powder paint. Order Monitor Platform, Keyboard Tray and Keyboard Frame separately.

Bulletin: CS4

Catalog Number	Description
CCS1MP	Monitor Platform (Does not include Keyboard Frame or Keyboard Tray)

# **Keyboard Frame**

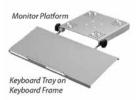


Mounts to monitor platform. Frame locks at desired position by tightening knobs. Chrome plated finish. Order Monitor Platform, Keyboard Tray and Keyboard Frame separately.

**Bulletin: CS4** 

Catalog Number	Description
CCS1KBF	Keyboard Frame only

# **Keyboard Tray**



Tray attaches to keyboard frame. Provides a surface for a PC mouse as well as a platform for a keyboard. Aluminum construction finished with RAL 7042 gray polyester powder paint. Order Monitor Platform, Keyboard Tray and Keyboard Frame separately.

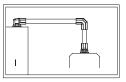
Catalog Number	Description
CCS1KBT	Keyboard Tray only



# Notes

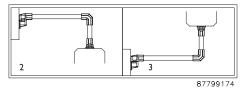


# **COMPACT® Pendant Arm Series 2 Configurations**



Description	Qty.	Catalog Number
Set up joint	1	CCS2SLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or Swivel tilt	1 1	CCS2FCLG CCS2STLG

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# 2 and 3

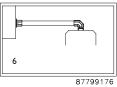
Description	Qty.	Catalog Number
Wall joint (horizontal)	1	CCS2WJHLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or	1	CCS2FCLG
Swivel tilt or	1	CCS2STLG
Flange coupling 15°	1	CCS2FC15LG

# 

#### 4 and 5

Description	Qty.	Catalog Number
Set up joint	1	CCS2SJLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or Swivel tilt	1 1	CCS2FCLG CCS2STLG

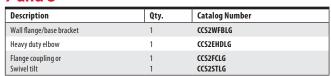
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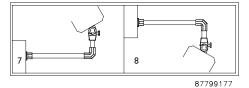


6

Description	Qty.	Catalog Number	
Wall flange/base bracket	1	CCS2WFBLG	
Flange elbow coupling or	1	CCS2FECLG	
90° Swivel tilt or	1	CCS2ESTLG	
Flange elbow coupling 15°	1	CCS2FEC15LG	

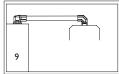
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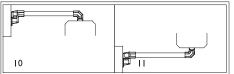
Description	Qty.	Catalog Number
Set-up joint	1	CCS2SJLG
Flange elbow coupling or	1	CCS2FECLG
90° Swivel tilt	1	CCS2ESTLG



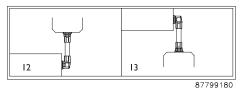
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10 and 11

Description	Qty.	Catalog Number
Wall joint (horizontal)	1	CCS2WJHLG
Flange elbow coupling or	1	CCS2FECLG
90° Swivel tilt	1	CCS2ESTLG



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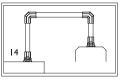


12 and 13

Description	Qty.	Catalog Number
Wall joint (vertical)	1	CCS2WJVLG
Flange coupling or	1	CCS2FCLG
Swivel tilt	1	CCS2STLG



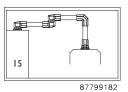
# 14



Description	Qty.	Catalog Number
Rotational base	1	CCS2RBLG
Heavy duty elbow	2	CCS2EHDLG
Flange coupling or Swivel tilt	1 1	CCS2FCLG CCS2STLG

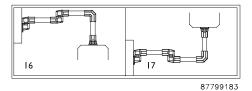
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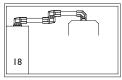
Description	Qty.	Catalog Number
Set up joint	1	CCS2SJLG
Intermediate joint	1	CCS2IJLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or	1	CCS2FCLG
Swivel tilt	1	CCS2STLG

# 16 and 17



Description	Qty.	Catalog Number
Wall Joint (horizontal)	1	CCS2WJHLG
Intermediate joint	1	CCS2IJLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or	1	CCS2FCLG
Swivel tilt	1	CCS2STLG

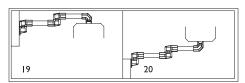
# 18



Description Qty. Catalog Number CCS2SJLG Set up joint Intermediate joint CCS2IJLG Flange elbow coupling or 90° Swivel tilt CCS2FECLG CCS2ESTLG

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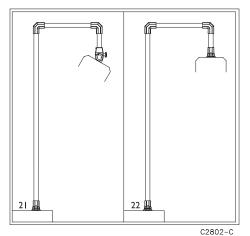
19 and 20



Description	Qty.	Catalog Number
Wall joint (horizontal)	1	CCS2WJHLG
Intermediate joint	1	CCS2IJLG
Flange elbow coupling or	1	CCS2FECLG
90° Swivel tilt	1	CCS2ESTLG

87799185

21 and 22



Description	Qty.	Catalog Number
Wall flange/base bracket	1	CCS2WFBLG
Heavy duty elbow	1	CCS2EHDLG
Flange coupling or	1	CCS2FCLG
Swivel tilt	1	CCS2STLG

- Select pendant system sizing using the COMPACT Series 2 load capacity chart.
   Tube catalog numbers are not included in configuration tables.



# SYSPEND® 281-MAX Suspension System, Type 12





#### **Industry Standards**

Maintains NEMA Type 12 and IEC IP55 enclosure rating when properly installed per Hoffman instructions.

#### **Application**

Variability in system configuration, advanced design and ease of assembly are key requirements when specifying an enclosure suspension system. The SYSPEND® 281-MAX features a modern industrial design, excellent ergonomics and multiple component combinations for an innovative system solution on a modular platform. At 3.3 ft. (1 m) the system supports up to 281 lb. (127.7 kg). Recommended for use with CC2000, CC4000 and CONCEPT® HMI enclosures.

#### **Features**

- System supports up to 281 lb. and allows operators to easily move controls into and out of position
- Multiple modular components available to provide ergonomic, fatigue-free operation
- Clean lines and smooth transitions between tubes and system components provide attractive aesthetics and allow for ease of cleaning
- Tubing provides structural integrity and acts as equipment wiring conduit

- Vertical motion pedestal tubes provide versatile, height-adjustable solutions for pedestal mounting
- Secure attachment with sixfold positive connection between tubes and components along with recessed mounting areas in components; no additional safety drilling required
- Secure connections and easy adjustment of system alignment using tube setscrews, coated with LOCTITE™, that seal threaded
- System design allows for user friendly re-adjustment at any time without disassembling the complete system
- Cable access covers available on all components
- Multiple tube lengths offer system design versatility
- Heavy-duty bearings in all movable joints for convenient, smooth operation and enhanced durability to withstand stresses of repeated use
- Variable torque adjustment available for all rotating components; general adjustment at the bearing with locking handle adjustment on enclosure couplings

#### **Specifications**

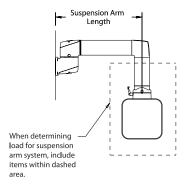
- Silver anodized aluminum tubes
- RAL 9005 black die-cast aluminum components
- · Gray composite cable access covers
- · Oil-resistant neoprene gaskets

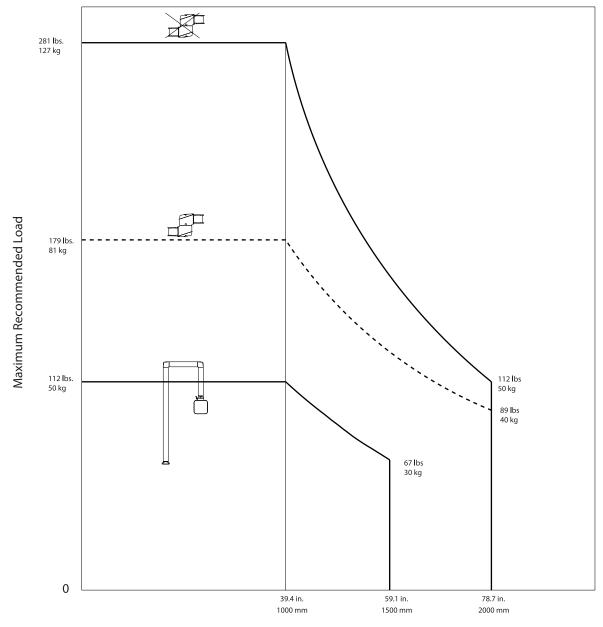


# **System Load Capacity**

The SYSPEND® 281-MAX load graph is the result of load capacity tests. Please contact Hoffman for specific application information.

#### Load Diagram





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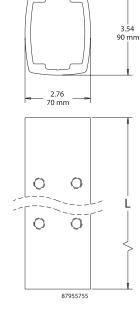
#### **Tubes**



Angled aluminum tubes provide structural integrity and act as conduit for equipment wiring. Tubes attach to system components with 6 setscrews on each end of the tube. (Setscrews are provided with the mating system components, not the tubes.) Setscrews allow for easy adjustment and leveling of the system. Setscrews are provided with LOCTITE™ to seal threaded holes and provide secure connections. Available in 8 standard lengths ranging from 250 mm to 2000 mm. Tubes 750 mm and longer include drilling template to assist with drilling and tapping the holes when the tube is cut to length.

**Bulletin: CS4** 

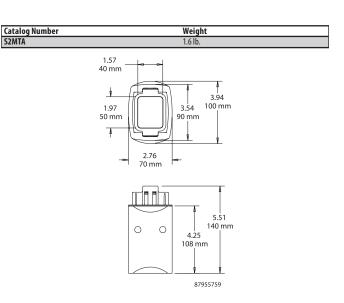
Catalog Number	L (mm)	L (in.)	Weight	
S2MT250	250	9.84	2.8 lb.	
S2MT500	500	19.68	5.4 lb.	
S2MT750	750	29.53	8.2 lb.	
S2MT1000	1000	39.37	11.0 lb.	
S2MT1250	1250	49.21	13.7 lb.	
S2MT1500	1500	59.05	16.5 lb.	
S2MT1750	1750	68.90	19.3 lb.	
S2MT2000	2000	78.74	22.0 lb.	



# **Tube Adapter**



Use a Tube Adapter when the tube is cut to length and it is not desirable to drill and tap new holes in the tube. Adapter attaches to the tube with internal setscrews and provides mounting holes at the end where the tube was cut. RAL 9005 black finish. Die-cast aluminum construction. Includes installation instructions, gasket and hardware for attaching to the tube.





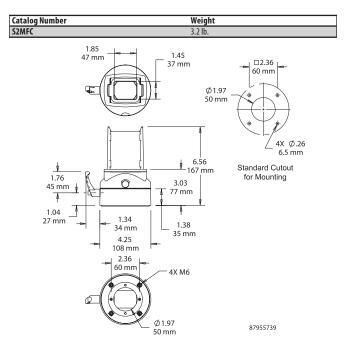
# **Flange Coupling**



Flange Coupling attaches a tube to the enclosure, enabling 300-degree enclosure rotation. Enclosure can be locked in position. Flange Coupling has safety stop and maintenancefree bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes installation instructions, gaskets, tube setscrews and enclosure mounting hardware. **Bulletin: CS4** 



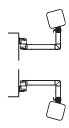


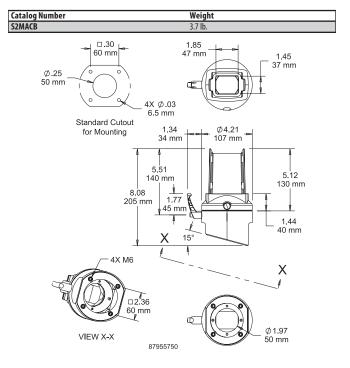


# **Angled Coupling Tilted Back**



Use Angled Coupling Tilted Backward to mount enclosure at a 15-degree backward angle. Enclosure can be rotated 300 degrees and locked in position. Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes installation instructions, gaskets, tube setscrews and enclosure mounting hardware.



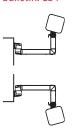


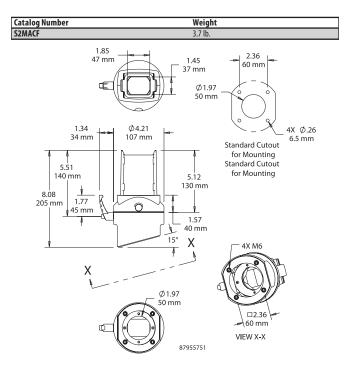


# **Angled Coupling Tilted Forward**



Use Angled Coupling Tilted Forward to mount enclosure at a 15-degree forward angle. Enclosure can be rotated 300 degrees and locked in position. Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes installation instructions, gaskets, tube setscrews and enclosure mounting hardware.





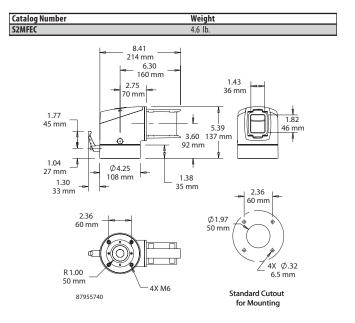
# Flange Elbow Coupling



Flange Elbow Coupling attaches directly to the enclosure for applications where a vertical tube is not required. Enables enclosure to be rotated 300 degrees and locked in position. Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes cable access cover, installation instructions, gaskets, tube setscrews and enclosure mounting hardware.

Bulletin: CS4







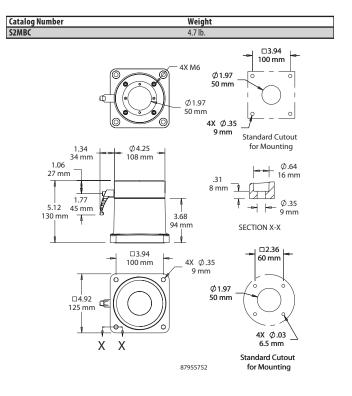
### **Base Coupling**



Base Coupling attaches the enclosure directly to a horizontal surface. Enclosure can be rotated 300 degrees and locked in position. Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Diecast aluminum construction. Includes installation instructions, gaskets and enclosure mounting hardware. Surface mounting hardware not provided.

#### **Bulletin: CS4**





# **Angled Adapter, Stepless 30 Degrees**

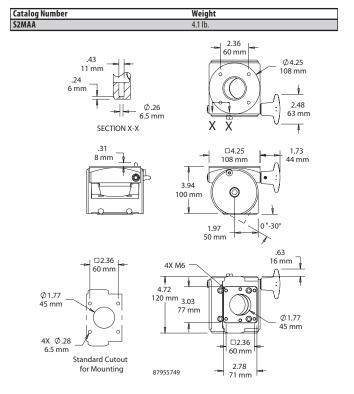


Angled Adapter must be used in conjunction with a coupling (not compatible with S2MFC48). Enclosure angle can be adjusted forward or backward up to 30 degrees. RAL 9005 black finish. Die-cast aluminum construction. Includes installation instructions, gasket and enclosure mounting hardware.

Maximum load bearing capacity is 67

*Ib.* (30.4 kg). Bulletin: CS4





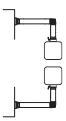


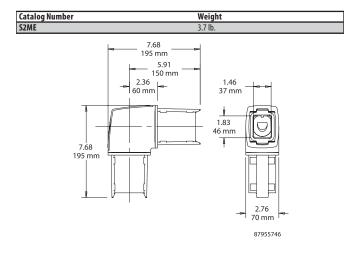
#### **Elbow**



Elbow provides a 90-degree bend in the suspension system. RAL 9005 black finish. Die-cast aluminum construction. Includes removable cable access cover, installation instructions, gaskets and tube setscrews.

#### Bulletin: CS4



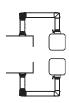


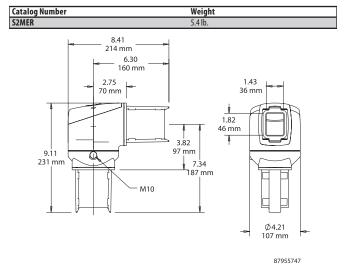
#### **Rotatable Elbow**



Rotatable elbow provides a 90-degree bend in the suspension system and allows the vertical tube to rotate 300 degrees. Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes removable cable access cover, installation instructions, gaskets and tube setscrews.

#### **Bulletin: CS4**





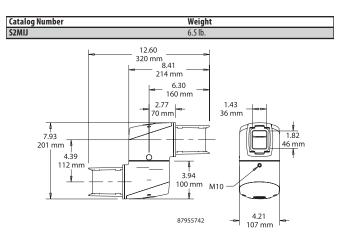
#### Intermediate Joint



Use Intermediate Joint to join two horizontal tubes together for a longer run. Arm can be rotated or turned 300 degrees. Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes two removable cable access covers, installation instructions, gaskets and tube setscrews.

Use of the Intermediate Joint reduces the system load capacity to 179 lb. (81.2 kg) at 3.3 ft. (1 m).







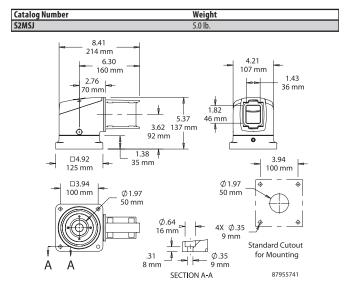
# **Set-Up Joint**



Set-Up Joint mounts suspension system to a horizontal surface. Arm can be rotated or turned 300 degrees. Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes removable cable access cover, installation instructions, gaskets and tube setscrews. Surface mounting hardware not provided.

#### **Bulletin: CS4**



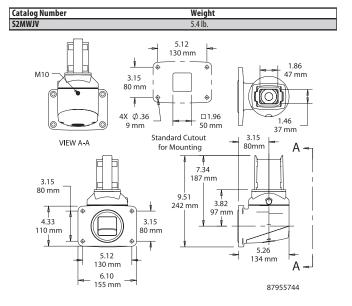


#### **Vertical Wall Joint**



Vertical Wall Joint mounts suspension system to vertical surface and allows tube to extend vertically. Enables arm to be rotated or turned 300 degrees. Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes removable cable access cover, installation instructions, gaskets and tube setscrews. Surface mounting hardware not provided.







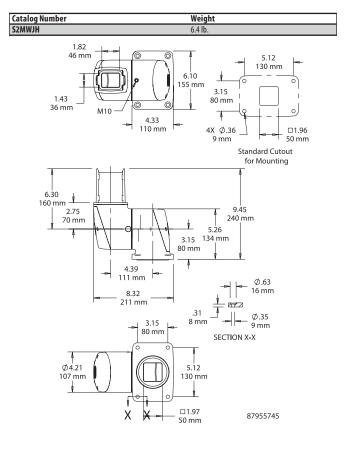
# **Horizontal Wall Joint**



Horizontal Wall Joint mounts suspension system to vertical surface, allowing tube to extend horizontally. Arm can be rotated or turned 300 degrees. Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes two removable cable access covers, installation instructions, gaskets and tube setscrews. Surface mounting hardware not provided.

#### **Bulletin: CS4**

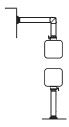


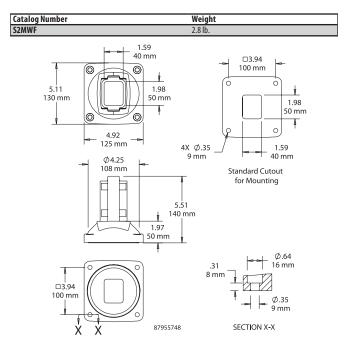


# **Wall Flange**



Wall Flange allows for fixed positioning on a horizontal or vertical surface when rotation is not needed. RAL 9005 black finish. Die-cast aluminum construction. Includes installation instructions, gaskets and tube setscrews. Surface mounting hardware not provided.







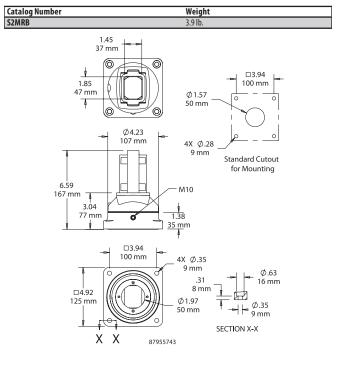
# **Rotary Base**



Rotary Base allows the entire suspension system to rotate at the point of attachment on a horizontal surface. Arm can be rotated or turned 300 degrees. Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes installation instructions, gaskets and tube setscrews. Surface mounting hardware not provided.

#### **Bulletin: CS4**





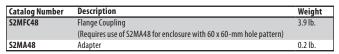
# **48-mm Round Tube Flange Coupling and Adapter**

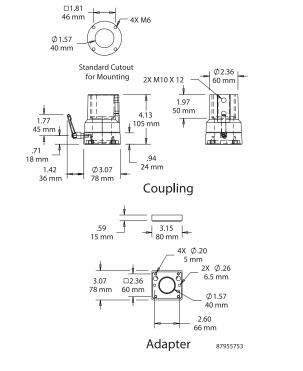


Use Flange Coupling to attach the Vertical Motion Pedestal Tube to the enclosure. Enclosure can be rotated 300 degrees and locked in position. Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes installation instructions, gaskets and enclosure mounting hardware.

Coupling attaches to enclosure using a 48 x 48-mm hole pattern. An adapter is required to attach the coupling to a standard Hoffman HMI enclosure that uses a 60 x 60-mm hole pattern (i.e., required for attaching to CONCEPT® HMI, CC2000, CC4000). Includes safety stop and maintenance-free bearing. RAL 9005 black finish. Die-cast aluminum construction. Includes installation instructions, gaskets and enclosure mounting hardware.







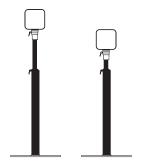


#### **Vertical Motion Pedestal Tubes**

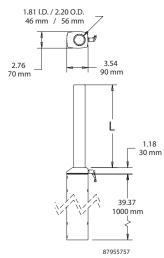


Height-adjustable tubes allow enclosure to be positioned at the optimal viewing height for different operators. Requires the 48-mm Round Tube Flange Coupling (S2MFC48) and Adapter (S2MA48) for attachment to Hoffman enclosures with a 60 x 60-mm hole pattern (i.e., required for attaching to CONCEPT® HMI, CC2000, CC4000).

- Adjustable from 1130 mm (44.49 in.) to 1380 mm (54.33 in.) with internal gas springs
- Four models support loads ranging from 11 to 77 lb. (4.9 to 34.9 kg)
- Height is fixed in place at any position by locking handle
- Cables are separated from gas springs inside the tube
- Internal strain-relief for cables inside the tube
- Can be attached to Small Pedestal Base, Large Pedestal Base, Vertical Wall Joint, Wall Flange, Rotary Base, Elbow or Rotatable Elbow
- Aluminum construction Tube cannot be inverted for overhead mounting on the enclosure. The weight of the coupling, adapter plate, enclosure and internal components must be factored into the load when selecting a tube.



	L Max.	L Min.		
Catalog Number	mm/in.	mm/in.	Load Capacity	Weight
S2M10VP22	350	100	11-22 lb.	15.5 lb.
	13.78	3.94		
S2M10VP37	350	100	22-37 lb.	15.5 lb.
	13.78	3.94		
S2M10VP57	350	100	37-57 lb.	15.5 lb.
	13.78	3.94		
S2M10VP77	350	100	57-77 lb.	15.5 lb.
	13.78	3.94		

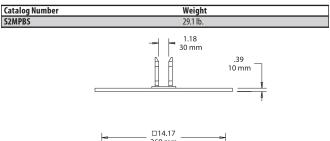


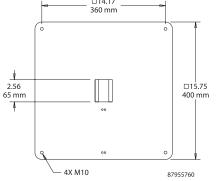


# **Small Pedestal Base**



Tubes attach directly to Small Pedestal Base. RAL 9005 black finish. Constructed from 3/8-in. thick steel plate. Includes installation instructions, gasket and tube setscrews. Surface mounting hardware not provided. Compatible with accessory casters and levelers. Supports loads per Load Rating Graph. Bulletin: CS4



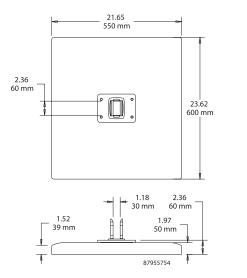


# **Large Pedestal Base**



Tubes attach directly to Large Pedestal Base. RAL 9005 black finish. Cast aluminum construction. Includes installation instructions, gasket and tube setscrews. Surface mounting hardware not provided. Compatible with accessory casters, levelers and bolt-down kit. Supports loads per Load Rating Graph. Bulletin: CS4

Catalog Number	Weight
S2MPBL	25.7 lb.



#### **Bolt-Down Kit**



Use Bolt-Down Kit to securely mount pedestal to the floor. Kit includes four brackets and mounting hardware.

Catalog Number	Description	
CPBDK	Bolt Down Kit	



#### **Swivel Casters for Pedestal Base**



Casters mount to the bottom of a pedestal base. Kit includes four casters and mounting hardware.

**Bulletin: CC4** 

		Installed	Installed	Wheel	Wheel	Load Rating	Load Rating	
Catalog Number	Description	Height (mm)	Height (in.)	Dia. (mm)	Dia. (in.)	Per Set (kg)	Per Set (lb.)	
CPCC4SC	Four swivel casters	100	3.9	75	3.0	180	400	

# **Levelers for Pedestal Base**



Mount levelers to the bottom of a pedestal base where leveling is required. Kit contains four levelers and mounting hardware. Cannot be used with casters or in bolt-down installations.

**Bulletin: CC4** 

Catalog Number	Description		
CPCC4L	Four levelers for pedestal base		

# **Light Signal Adapters**

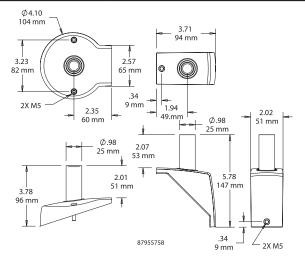


Light signal adapters are available in either round or elbow cover versions and provide a means for attaching signal lights. Signal lights are not included. Gray composite cover caps include a gasket, attachment hardware and post and replace the caps provided with other system components.

**Bulletin: CS4** 



Catalog Number	Description	Weight	
S2MLSAR	Round Cover	0.3 lb.	
S2MLSAE	Rectangular Cover	0.3 lb.	





# **Rotation Limiters**



Rotation limiters can be retro-fit on coupling and joint components and are adjustable in increments of 13.7 degrees. Limits rotation of couplings and joints which nornally rotate 300 degrees. Kit includes ten steel balls, plug and installation instructions.

Bulletin: CS4

Catalog Number	Weight	
S2MRL	0.1 lb.	

# **Tube Hole Plugs**



Plastic hole plugs cover up the set screws in the tubes. Kit includes 50 hole plugs. Hole plugs are not needed to maintain the suspension system's NEMA Type 12 rating but provide an attractive smooth finish for the tube. Gray RAL 9006 color.

Bulletin: CS4

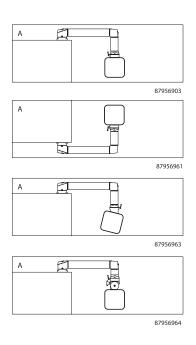
Catalog Number	
S2MTHP	



# **SYSPEND® 281-MAX Suspension System Configurations**

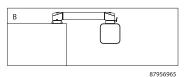
#### **Note to Specifier:**

- 1. Select suspension system sizing using the SYSPEND® 281-MAX load capacity chart.
- 2. Tube catalog numbers are not included in configuration tables.
- 3. There are multiple configurations possible with many of the options shown. Components can be inverted in all cases except for Vertical Motion Pedestal Tube. For illustration purposes, configuration A shows how components can be inverted or used with varying enclosure couplings.



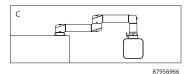


Description	Qty.	Catalog Number
Set-Up joint	1	S2MSJ
Elbow	1	S2ME
Flange Coupling or	1	S2MFC
Angled Coupling (Tilted Back) or	1	S2MACB
Angled Coupling (Tilted Forward)	1	S2MACF
For tilt, add Angled Adapter to coupling	1	S2MAA



# B

Description	Qty.	Catalog Number
Set-Up joint	1	S2MSJ
Flange Elbow Coupling	1	S2MFEC
For tilt, add Angled Adapter to coupling	1	S2MAA

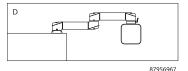


Description	Qty.	Catalog Number
Set-Up joint	1	S2MSJ
Intermediate Joint	1	S2MIJ
Elbow	1	S2ME
Flange Coupling or Angled Coupling (Tilted Back) or Angled Coupling (Tilted Forward)	1 1 1	S2MFC S2MACB S2MACF
For tilt, add Angled Adapter to coupling	1	S2MAA

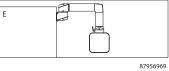


## -

# D



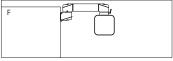
Description	Qty.	Catalog Number
Set-Up joint	1	S2MSJ
Intermediate Joint	1	S2MIJ
Flange Elbow Coupling	1	S2MFEC
For tilt, add Angled Adapter to coupling	1	S2MAA



## Ε

Description	Qty.	Catalog Number
Wall Joint, Horizontal	1	S2MWJH
Elbow	1	S2ME
Flange Coupling or	1	S2MFC
Angled Coupling (Tilted Back) or	1	S2MACB
Angled Coupling (Tilted Forward)	1	S2MACF
For tilt, add Angled Adapter to coupling	1	S2MAA

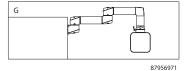
# F



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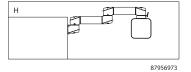
Description	Qty.	Catalog Number
Wall Joint, Horizontal	1	S2MWJH
Flange Elbow Coupling	1	S2MFEC
For tilt, add Angled Adapter to coupling	1	S2MAA

# G



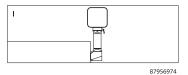
Description	Qty.	Catalog Number
Wall Joint, Horizontal	1	S2MWJH
Intermediate Joint	1	S2MIJ
Elbow	1	S2ME
Flange Coupling or	1	S2MFC
Angled Coupling (Tilted Back) or	1	S2MACB
Angled Coupling (Tilted Forward)	1	S2MACF
For tilt, add Angled Adapter to coupling	1	S2MAA

# Н

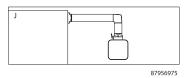


	,		
Description	Qty.	Catalog Number	
Wall Joint, Horizontal	1	S2MWJH	
Intermediate Joint	1	S2MIJ	
Flange Elbow Coupling	1	S2MFEC	
For tilt add Angled Adapter to counling	1	SZMAA	

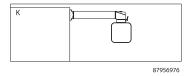


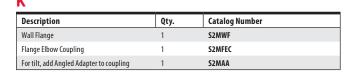


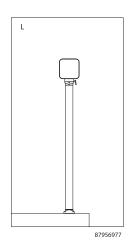
Description Qty. Catalog Number Wall Joint, Vertical S2MWJV S2MFC Flange Coupling or Angled Coupling (Tilted Back) or Angled Coupling (Tilted Forward) S2MACB S2MACF For tilt, add Angled Adapter to coupling S2MAA



Description	Qty.	Catalog Number	
Wall Flange	1	S2MWF	
Elbow	1	S2ME	
Flange Coupling or Angled Coupling (Tilted Back) or Angled Coupling (Tilted Forward)	1 1 1	S2MFC S2MACB S2MACF	
For tilt, add Angled Adapter to coupling	1	S2MAA	

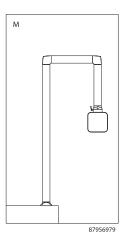






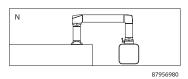
<u> </u>			
Description	Qty.	Catalog Number	
Wall Flange	1	S2MWF	
Flange Coupling or	1	S2MFC	
Angled Coupling (Tilted Back) or	1	S2MACB	
Angled Coupling (Tilted Forward)	1	S2MACF	
For tilt, add Angled Adapter to coupling	1	S2MAA	





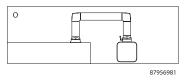
#### M

Description	Qty.	Catalog Number
Wall Flange	1	S2MWF
Elbow	2	S2ME
Flange Coupling or	1	S2MFC
Angled Coupling (Tilted Back) or	1	S2MACB
Angled Coupling (Tilted Forward)		S2MACF
For tilt, add Angled Adapter to coupling	1	S2MAA



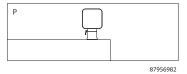
# N

Description	Qty.	Catalog Number
Wall Flange	1	S2MWF
Rotary Elbow	1	S2MER
Elbow	1	S2ME
Flange Coupling or Angled Coupling (Tilted Back) or Angled Coupling (Tilted Forward)	1 1 1	S2MFC S2MACB S2MACF
For tilt, add Angled Adapter to coupling	1	S2MAA



# 0

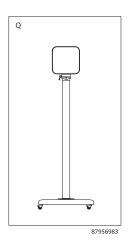
Description	Qty.	Catalog Number
Rotary Base	1	S2MRB
Elbow	2	S2ME
Flange Coupling or	1	S2MFC
Angled Coupling (Tilted Back) or	1	S2MACB
Angled Coupling (Tilted Forward)	1	S2MACF
For tilt, add Angled Adapter to coupling	1	S2MAA



#### P

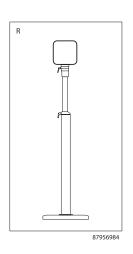
Description	Qty.	Catalog Number
Base Coupling	1	S1MBC
For tilt, add Angled Adapter to coupling	1	S2MAA



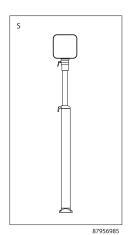


# Q

Description	Qty.	Catalog Number
Large Pedestal Base or Small Pedestal Base	1	S2MPBL S2MPBS
Swivel Casters for Pedestal Base	1	CPCC4SC
Flange Coupling or Angled Coupling (Tilted Back) or Angled Coupling (Tilted Forward)	1 1 1	S2MFC S2MACB S2MACF
For tilt, add Angled Adapter to coupling	1	S2MAA



Description	Qty.	Catalog Number
Large Pedestal Base or	1	S2MPBL
Small Pedestal Base	1	S2MPBS
Flange Coupling, 48-mm Round Tube	1	S2MFC48
Adapter, 48-mm Round Tube	1	S2MA48



Description	Qty.	Catalog Number
Wall Flange	1	S2MWF
Flange Coupling, 48-mm Round Tube	1	S2MFC48
Adapter, 48-mm Round Tube	1	S2MA48



# Notes



# **COMPACT® Pendant Arm Series 4 System 80, Type 12**



#### **Industry Standards**

NEMA/EEMAC Type 12 IEC 60529, IP55 DIN 40050

#### **Application**

A heftier version of the Series 2 Pendant Arm, the COMPACT® Series 4 System 80 Pendant Arms are equally flexible in allowing operators to move controls into and out of position, but they can accommodate heavier weight loads. At 3.3 ft. (1 m), the Series 4 System 80 holds 337 lb. (153.2 kg).

System 80 is recommended for use with CONCEPT HMI and PROLINE Sloped Front Enclosures.

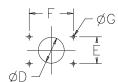
#### **Specifications**

- Heavy cast steel and cast aluminum couplings and heavy-wall steel tubing provide excellent structural strength
- Each system includes multiple coupling types and three standard tube lengths (.5 m, 1 m and 2 m) which combine to form numerous configurations
- Steel tubing has 5-mm (0.2-inch) wall thickness. Tubing is coldformed, welded square and rectangular steel tubes.
- Tubing provides structural integrity and acts as a conduit for equipment wiring
- Removable access plates (provided with set-up joint, elbow and elbow couplings) simplify cable installation inside tubing
- Heavy-duty bearings in all movable joints for convenient, smooth operation and enhanced durability to withstand stresses of repeated use
- Deep tube fittings in all couplings
- Adjustable setscrews allow for accurate alignment of supporting tubes
- · Optional pedestal base available
- Gasket is oil-resistant neoprene

#### Finish

Couplings are RAL 7035 light-gray polyester powder paint. Access plates and tubing are light-gray. Bellows are black.

Standard Cutouts for Mounting

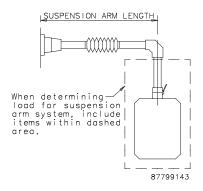


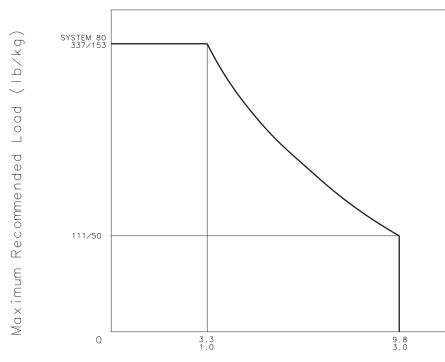


# **System Load Capacity**

The Series 4 Pendant Arm load graph is the result of load capacity tests. Please contact Hoffman for specific application information.

#### Load Diagram



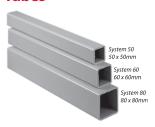


Suspension Arm Length (ft/m)

89001155



#### **Tubes**



Square and rectangular tubes are cold-formed, hollow, welded steel with 5-mm wall thickness. Finish is RAL 7035 light-gray polyester powder paint.

Tubing provides structural integrity and acts as a conduit for equipment wiring. Available in 500-, 1000- and 2000-mm lengths. All pendant arm connections are sized to fit appropriate tube sizes.



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	CS4

		Size	Actual Length		External Dimensions	Wall Thickness Dimensions		
<b>Catalog Number</b>	System	mm/in.	mm/in.	Weight (lb.)	mm/in.	mm/in.	Inside Cross Section (sq. cm)	Inside Cross Section (sq. in.)
CCS8T5	80	80 x 80	489	13.0	80 sq.	5	49	7.60
		3.10 x 3.10	19.25		3.15	0.20		
CCS8T10	80	80 x 80	991	24.5	80 sq.	5	49	7.60
		3.10 x 3.10	39.00		3.15	0.20		
CCS8T20	80	80 x 80	1988	49.0	80 sq.	5	49	7.60
		3.10 x 3.10	78.25		3.15	0.20		

# **Set-Up Joint**

**Catalog Number** 

CCS8SJLG



System

174 6.85 Cast iron finished with RAL 7035 light-gray polyester powder paint. Mounts equipment to horizontal surface. Permits pendant arm to be rotated or turned 306 degrees. Pivot bearing is maintenance-free. Setscrews, removable access plate and gasket are included. Mounting hardware is not provided.

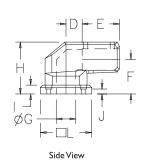
#### **Bulletin: CS4**



6.38

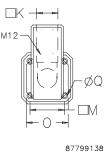
2.19

4.72



3.15

4.80



Top View

0.51

5.98

L each side	Н	D	E	F	Dia. G	I	J	K each side	M each side	0	Dia. Q	
mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Weight (lb.)
17/	160	E.C.	120	107	75	25	12	90	122	152	12	AE E

0.47

0.98

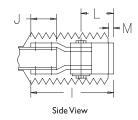


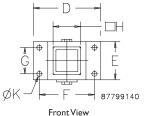
#### **Wall Joint**



Welded steel plate construction finished with RAL 7035 light-gray polyester powder paint. Mounts equipment to vertical surface. Swivel range is approximately 180 degrees. Includes bellows with zipper, seals and setscrews. Adjustable tension at pivot point. Rotational limiter is optional. Mounting hardware not provided.

**Bulletin: CS4** 







		D	E	F	G	H each side	I	J	Dia. K	L	M	
Catalog Number	System	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Weight (lb.)
CCS8WJRLG	80	161	104	138	80	80	300	100	13	135	10	21.6
		6.34	4.09	5.43	3.15	3.15	11.81	3.94	0.51	5.31	0.39	

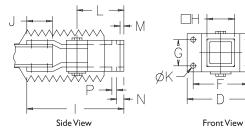
#### **Cable Wall Joint**



Welded steel plate construction finished with RAL 7035 light-gray polyester powder paint. Mounts equipment to vertical surface. Provides cable access to inside of pendant system from above or below. Swivel range approximately 180 degrees. Includes bellows with zipper, seal and setscrews. Adjustable tension at pivot point. Rotation limiter is optional. Mounting hardware not provided.

**Bulletin: CS4** 





C2753-C

		D	E	F	G	H each side	Ī	J	Dia. K	L	M	N	P	
<b>Catalog Number</b>	System	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Weight (lb.)
CCS8WJCRLG	80	165	104	138	80	80	330	100	13	165	10	20	60	20.9
		6.50	4.09	5.43	3.15	3.15	12.99	3.94	0.51	6.50	0.39	0.79	2.36	

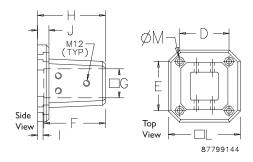
# **Wall Flange**



Wall Flange expands mounting options to include wall-mount as well as horizontal tube applications. Cast iron construction finished with RAL 7035 light-gray polyester powder paint. Setscrews, gasket and seals are included. Mounting hardware not provided.

**Bulletin: CS4** 





		L each side	Н	D	E	F	G each side	ī	J	Dia. M	
Catalog Number	System	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Weight (lb.)
CCS8WFLG	80	174	160	122	122	143	80	12	25	13	20.1
		6.85	6.30	4.80	4.80	5.63	3.15	0.47	0.98	0.51	



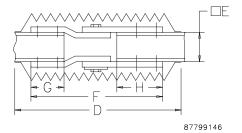
#### **Intermediate Joint**



Welded steel plate construction finished with RAL 7035 light-gray polyester powder paint. Mounts to pendant tube. Swivel range is approximately 180 degrees. Setscrews and bellows with zipper are included. Rotational limiter is optional.

**Bulletin: CS4** 





	'	D	E each side	F	G	Н	
Catalog Number	System	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Weight (lb.)
CCS8IJRLG	80	400	80	330	100	100	21.4
		15.75	3.15	12.99	3.94	3.94	

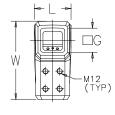
#### **Elbow**

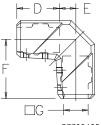


Cast aluminum with RAL 7035 lightgray polyester powder paint finish. Removable access plate. Setscrews and gaskets are included.

**Bulletin: CS4** 







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		L	W	D	E	F	G each side	
Catalog Number	System	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Weight (lb.)
CCS8ELLG	80	108	225	120	50	170	80	18.7
		4.25	8.86	4.72	1.97	6.69	3.15	

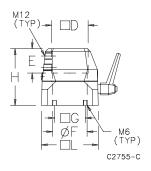
# **Flange Coupling**



Flange Coupling mounts to enclosure, enabling enclosure to be rotated 300 degrees. Enclosure can be locked in position. Safety stop and maintenance-free bearing. Finish is RAL 7035 light-gray polyester powder paint. Includes installation instructions, setscrews, gaskets and mounting hardware.

**Bulletin: CS4** 





		L each side	Н	D each side	E	Dia. F	G each side	
Catalog Number	System	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Weight (lb.)
CCS8FCLG	80	120	110	80	53	91	80	7.2
		4.72	4.33	3.15	2.09	3.58	3.15	



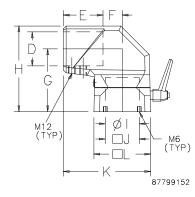
# **Flange Elbow Coupling**



Coupling mounts to enclosure, enabling enclosure to be rotated 300 degrees. Enclosure can be locked in position. Removable access plates. Finish is RAL 7035 light-gray polyester powder paint. Setscrews, gasket and mounting hardware are included.

**Bulletin: CS4** 





		L each side	Н	D each side	E	F	G	Dia. I	J each side	K	
Catalog Number	System	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Weight (lb.)
CCS8FECLG	80	120	173	80	90	54	121	91	80	204	9.5
		4.72	6.81	3.15	3.54	2.13	4.76	3.58	3.15	8.03	

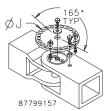
#### **Rotation Limiter**



Accessory for use with Wall Joint, Cable Wall Joint and Intermediate Joint. Limits the rotation of these joints which normally rotate 180 degrees. Rotation Limiter provides stops in 15-degree increments. The limiter is a heavy-duty steel disk that attaches to the pivot point on each joint. Moveable stop pins provide adjustment.

Bulletin: CS4

		,		Weight
Catalog Number	System	Dia. J (mm)	Dia. J (in.)	(lb.)
CCS814RL	80	119	4.70	1.3



# **Swivel Tilt**



Mounts between suspension arm and HMI enclosure to provide both swivel and tilt options for machine operator. Cast aluminum assembly finished with RAL 7035 light-gray polyester powder paint. Center opening for control cables. Tilt knob allows infinite tilt adjustment from horizontal to 30 degrees. Swivel allows 300-degree maximum rotation. Setscrews, seals and enclosure mounting screws are included. Maximum load for overhead

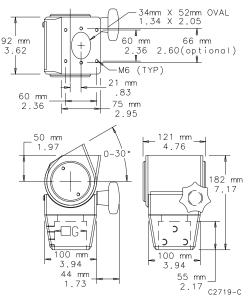
applications is 110 lb. (50 kg).

**Bulletin: CS4** 



Catalog Number	System	G (mm) each side	G (in.) each side	Weight (lb.)	
CCS8STBLG	80	80	3.15	7.0	

 $Not \, recommended \, to \, be \, used \, in \, combination \, with \, base \, with \, cutout \, for \, sloped-front \, PBSK66 \, or \, PBSK66SS.$ 



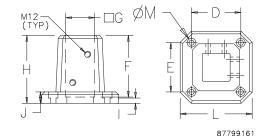


# **Base Bracket**



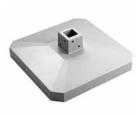
For vertical-tube mounting or to mount tube to floor. Bracket is cast iron finished with RAL 7035 light-gray polyester powder paint. Setscrews, gasket and seals are included. Mounting hardware not provided.

**Bulletin: CS4** 



		L each side	Н	D	E	F	G each side	T	J	Dia. M	
Catalog Number	System	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	mm/in.	Weight (lb.)
CCS8BBLG	80	174	160	122	122	143	80	12	25	13	20.4
		6.85	6.30	4.80	4.80	5.63	3.15	0.47	0.98	0.51	

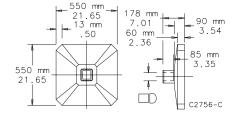
#### **Pedestal Base**



Cast aluminum one-piece heavyduty construction with RAL 7035 light-gray polyester powder paint finish. Includes all hardware for attaching tubes. Optional casters or levelers can be installed on pedestal base. Levelers and fixed or swivel casters are available in pairs (must order two pair).

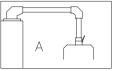
**Bulletin: CS4** 

		D (mm)	D (in.)	Weight
Catalog Number	System	each side	each side	(lb.)
CCS8PBLG	80	80 x 80	3.15 x 3.15	31.5





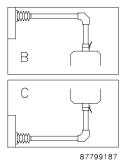
# **COMPACT® Pendant Arm Series 4 Configurations**



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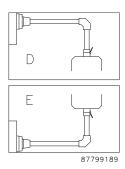
Description	Qty.	Catalog Number
Set-up joint	1	CCS8SJLG
Elbow	1	CCS8ELLG
Flange coupling or Swivel tilt	1 1	CCS8FCLG CCS8STBLG

# B and C



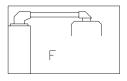
Description	Qty.	Catalog Number
Wall joint or	1	CCS8WJRLG
Cable wall joint	1	CCS8WJCRLG
Elbow	1	CCS8ELLG
Flange coupling or	1	CCS8FCLG
Swivel tilt	1	CCS8STBLG

# D and E



Description	Qty.	Catalog Number
Wall flange	1	CCS8WFLG
Elbow	1	CCS8ELLG
Flange coupling or Swivel tilt	1 1	CCS8FCLG CCS8STBLG



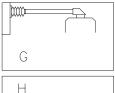


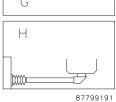
F

Description	Qty.	Catalog Number
Set-up joint	1	CCS8SJLG
Flange elbow coupling	1	CCS8FECLG

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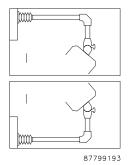






Description	Qty.	Catalog Number
Wall joint or Cable wall joint	1 1	CCS8WJRLG CCS8WJCRLG
Flange elbow coupling	1	CCS8FECLG





Description	Qty.	Catalog Number	
Wall joint or Cable wall joint	1	CCS8WJRLG CCS8WJCRLG	
Elbow	1	CCS8ELLG	
Swivel tilt <sup>a</sup>	1	CCS8STBLG	

 $<sup>^{\</sup>rm a}{\rm Maximum}$  load for overhead applications is 110 lb. (50 kg) including enclosure.

# Note to the Specifier:

- 1. Select pendant system sizing using the COMPACT Series 4 load capacity chart.
- 2. Tube catalog numbers are not included in configuration tables.

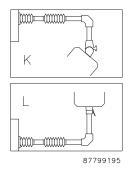


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Description	Qty.	Catalog Number
Set-up joint	1	CCS8SJLG
Intermediate joint	1	CCS8IJRLG
Elbow	1	CCS8ELLG
Flange coupling or Swivel tilt	1 1	CCS8FCLG CCS8STBLG

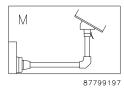
# K and L



Description	Qty.	Catalog Number
Wall joint or Cable wall joint	1	CCS8WJRLG CCS8WJCRLG
Intermediate joint	1	CCS8IJRLG
Elbow	1	CCS8ELLG
Flange coupling or Swivel tilt <sup>a</sup>	1 1	CCS8FCLG CCS8STBLG

<sup>&</sup>lt;sup>a</sup>Maximum load for overhead applications is 110 lb. (50 kg) including enclosure.

#### M



Description	Qty.	Catalog Number	
Wall flange	1	CCS8WFLG	
Elbow	1	CCS8ELLG	
Flange coupling	1	CCS8FCLG	

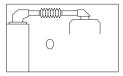


# N



Description	Qty.	Catalog Number
Base bracket	1	CCS8BBLG
Flange coupling	1	CCS8FCLG
Angle adapter 15° or Angle adapter 30°	1 1	CCS568AA15LG CCS568AA30LG

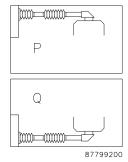
#### 0



87799199

Description	Qty.	Catalog Number
Set-up joint	1	CCS8SJLG
Intermediate joint	1	CCS8IJRLG
Flange elbow coupling	1	CCS8FECLG

# P and Q



Description	Qty.	Catalog Number	
Wall joint or Cable wall joint	1 1	CCS8WJRLG CCS8WJCRLG	
Intermediate joint	1	CCS8IJRLG	
Flange elbow coupling	1	CCS8FCLG	

#### Note to the Specifier:

- 1. Select pendant system sizing using the COMPACT Series 4 load capacity chart.
- 2. Tube catalog numbers are not included in configuration tables.



## **CS480 Stainless Steel Pendant Arm System**



#### **Industry Standards**

IEC 60529, IP66

#### **Application**

The CS480 Stainless Steel Pendant Arm System performs extremely well in food and pharmaceutical applications that require corrosion resistance and suspension of process and control equipment for easy cleaning. The CS480 system has a high degree of design configuration flexibility. (For possible design combinations, see the System Combinations Drawings.)

Used for lighter loads, the CS480 system's load rating at 3.3 ft. (1 m) is 89.6 lb. (40.7 kg). Ratings for other loads are shown in the Load Capacity chart.

#### **Specifications**

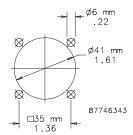
- Tubing clamps into position with setscrews for easy assembly and smooth appearance
- Fixed or swivel mounting, straight or at a 15-degree angle
- 90-degree fittings have a removable cover that allows easy access for wiring
- The coupling hole geometrics for enclosure machining are shown in the Coupling Hole Geometry diagram

#### **Finish**

Tubing: Type 304 polished stainless steel Fittings: Type 304 polished stainless steel

Brushed stainless steel shown.

Coupling Hole Geometry for Enclosure Machining



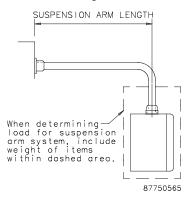




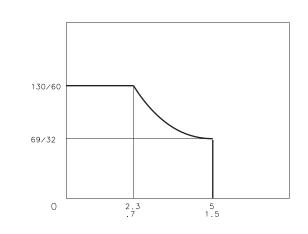
# **System Load Capacity**

The load capacity of the CS480 Pendant Arm System is shown in the diagram. Choose the CS600 System for larger loads.





Load (Ib/kg) Maximum Recommended



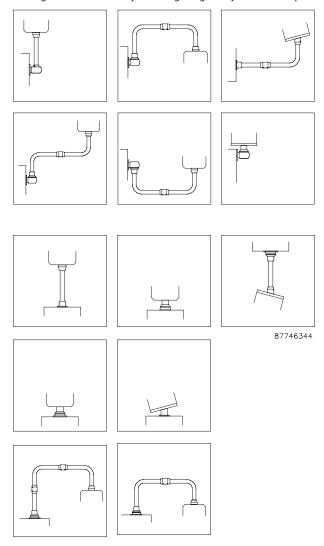
Suspension Arm Length (ft/m)

89001156



# **System Combinations**

The wide variety of components permits a high level of flexibility in configuring the system. Some possible combinations are shown here.





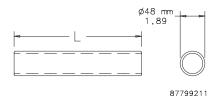
# **Straight Tubing**



Straight Tubing has an outer diameter of 48.3 mm (1.90 in.) and is made from 3.6-mm wall thickness Type 304 polished stainless steel.

**Bulletin: CCR6** 

	L		
Catalog Number	mm/in.	Product Weight (kg)	Product Weight (lb.)
CCSS48T25	250	1.13	2.5
	9.84		
CCSS48T50	500	2.13	4.7
	19.69		
CCSS48T75	750	3.18	7.0
	29.53		
CCSS48T100	1000	4.40	9.7
	39.37		
CCSS48T125	1250	5.44	12.0
	49.21		
CCSS48T150	1500	6.67	14.7
	59.06		

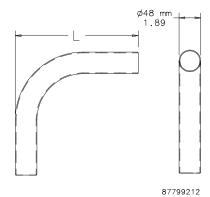


# **L-Shaped Tubing**



L-Shaped Tubing has an outer diameter of 48.3 mm (1.90 in.) and is made from 3.6-mm-thick Type 304 polished stainless steel. It is used with coupling sleeves and straight tubing to provide the desired system configuration.

	L		
Catalog Number	mm/in.	Product Weight (kg)	Product Weight (lb.)
CCSS48TLB25	250 x 250	2.4	5.3
	9.84 x 9.84		
CCSS48TLB50	500 x 500	4.76	10.5
	19.69 x 19.69		





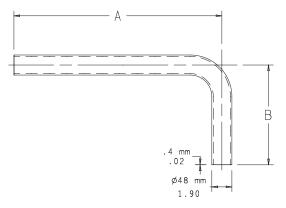
# **L-Shaped Stainless Steel Pendant Tubes**



L-Shaped Pendant Tubes are made of Type 304 stainless steel with an outer diameter of 48 mm (1.90 in.) and have a smooth finish. For use in conjunction with CS480 stainless steel pendant fittings. Use of these tubes does not compromise the enclosure rating.

**Bulletin: CCR6** 

	A	В		
Catalog Number	mm/in.	mm/in.	Product Weight (kg)	Product Weight (lb.)
CCSSTL5024	500	240	2.6	5.7
	19.69	9.45		
CCSSTL10050	1000	500	5.4	11.9
	39.37	19.69		



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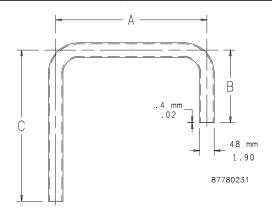
# **U-Shaped Stainless Steel Pendant Tubes**



U-Shaped Pendant Tubes are made of Type 304 stainless steel with an outer diameter of 48 mm (1.90 in.) and have a smooth finish. For use in conjunction with CS480 stainless steel pendant fittings. Use of these tubes does not compromise the enclosure rating.

**Bulletin: CCR6** 

Catalog Number	AxBxC in./mm	Product Weight (kg)	Product Weight (lb.)
CCSSTU502450	19.69 x 9.45 x 19.69	4.5	9.9
	500 x 240 x 500		
CCSSTU802480	31.50 x 9.45 x 31.50	6.7	14.8
	800 x 240 x 800		



# **Coupling Sleeve**



The Shaped Pendant Tubes joins sections of tubing in the CS480 System. Type 304 polished stainless steel finish. Includes gaskets.



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSS48CS	CS480 system coupling sleeve	1.4	3.5
	54 mm 2.13 Ø48 mm 1.90	4 mm .16 970 mm 2.76	5



# **Straight Coupling**

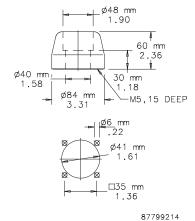


Flange coupling for attaching enclosures. Turns through 340 degrees with rotation limiter. Preset torque. Maintenance-free bearings. Type 304 polished stainless steel finish. Includes gaskets and mounting hardware.

**Bulletin: CCR6** 



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSS48FC	Straight coupling for enclosure	1.4	3.5



NOTE: Recommended mounting hole size shown.

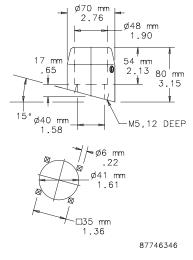
# **Angle Coupling**



Rigid flange coupling with 15-degree angle of inclination for attaching enclosures. Type 304 polished stainless steel finish. Includes gaskets and mounting hardware.



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSS48AC15	Angle coupling for enclosures	1.0	2.0



NOTE: Recommended mounting hole size shown.



# **Swivel Base for External Attachment**

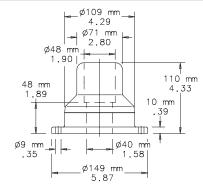


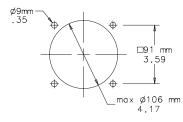
Swivel Base for mounting to machine or floor. Turns through 340 degrees with rotation limiter. Preset torque. Maintenance-free bearings. Type 304 polished stainless steel finish. Includes gaskets. Base-mounting fasteners not provided.

**Bulletin: CCR6** 



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSS48BBRE	Swivel base, external	4.2	9.5





87799217

NOTE: Recommended mounting hole size shown.

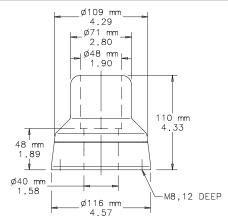
# **Swivel Base for Internal Mounting**

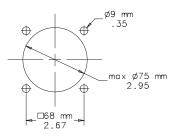


Swivel Base for mounting to machine or floor. Turns through 340 degrees with rotation limiter. Preset torque. Maintenance-free bearings. Type 304 polished stainless steel finish. Includes gaskets. Base-mounting fasteners not provided.



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSS48BBRI	Swivel base, internal	4.2	9.5





87746348

NOTE: Recommended mounting hole size shown.



# **Base Bracket/Wall Flange**

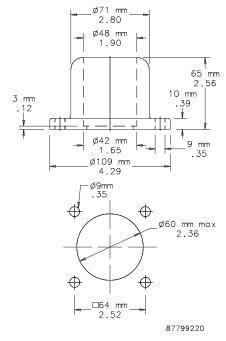


Use as Base Bracket or Wall Flange to mount to vertical or horizontal surfaces. Type 304 polished stainless steel finish. Includes gaskets. Basemounting fasteners not provided.

**Bulletin: CCR6** 



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSS48BB	Base bracket/wall flange	1.4	3.5



NOTE: Recommended mounting hole size shown.

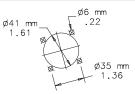
# **Base Bracket Angle Coupling**

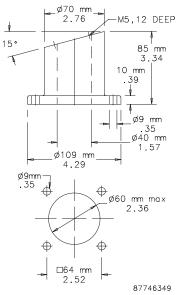


Rigid 15-degree coupling for direct mounting of enclosures to horizontal and vertical surfaces. Type 304 polished stainless steel finish. Includes gaskets and enclosure mounting hardware. Base-mounting fasteners not provided.



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSS48ACBB	Base bracket angle coupling	1.9	4.5





NOTE: Recommended mounting hole size shown.

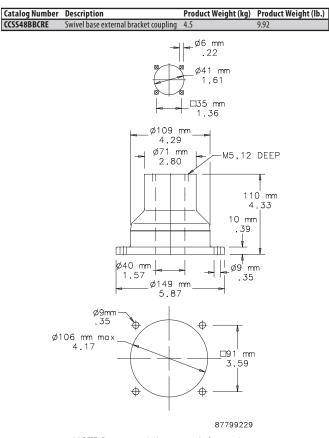


# **Swivel Base External Bracket Coupling**



Swivel Base External Bracket
Coupling for mounting enclosures
directly to a machine or the floor.
Turns through 340 degrees with
rotation limiter. Preset torque.
Maintenance-free bearings. Type
304 polished stainless steel finish.
Includes gaskets and enclosure
mounting hardware. Base-mounting
fasteners not provided.





NOTE: Recommended mounting hole size shown.



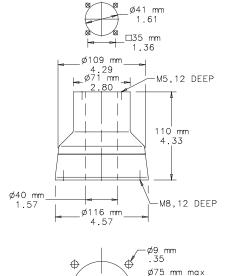
# **Swivel Base Internal Bracket Coupling**

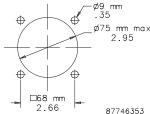


Swivel Base Internal Bracket Coupling for directly mounting enclosures to a machine or the floor. Turns through 340 degrees with rotation limiter. Preset torque. Maintenance-free bearings. Type 304 polished stainless steel finish. Includes gaskets and enclosure mounting hardware. Basemounting fasteners not provided. **Bulletin: CCR6** 



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSS48BBCRI	Swivel base internal bracket coupling	4.1	9.03
		Ø6 mm .22	





NOTE: Recommended mounting hole size shown.

#### **Wall Joint**



Wall Joint with vertical socket for mounting to vertical surfaces. Cover to facilitate wiring. Turns through 340 degrees with rotation limiter. Preset torque. Maintenance-free bearings. Type 304 polished stainless steel finish. Includes gaskets. Wallmounting fasteners not provided. **Bulletin: CCR6** 



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSS48WJV	Wall joint, vertical mount	7.3	16.09
129	12 mm .47 99 mm .35 09 4 40 mm - 33.3	\$109 mm 4.29 \$71 r 2.88 \$\$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	nm ) 3 mm 90 177 mm 6.97

NOTE: Recommended mounting hole size shown.

Product Weight (kg) Product Weight (lb.)



# **CS480 Stainless Steel Pendant Arm System**

Catalog Number Description

# **Wall Coupling**



Swivel Wall Coupling for direct mounting of enclosure to vertical machine surfaces. Turns through 340 degrees with rotation limiter. Cover to facilitate wiring. Preset torque. Maintenance-free bearings. Type 304 polished stainless steel finish. Includes gaskets and enclosure mounting hardware. Wall-mounting fasteners not provided.

**Bulletin: CCR6** 



S48WJC	Wall coupling, vertical mount	7.3	16.09
	8	96 mm .22 941 mm 1.61	
	12 mm .47 99 mm .35 129 mm 129 mm 129 mm 133 85 mm 40 mm 3.34 1.57	09 mm 4.29 Ø71 mm 2.80 Ø40 mm 1.57 1.77 mm 6.97	
	8 mm .33 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ø9mm .35 ø60 m 2.35	

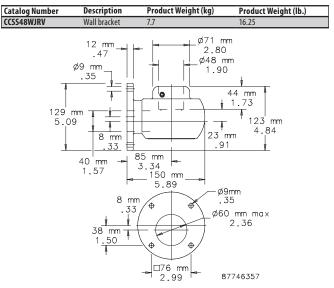
NOTE: Recommended mounting hole size shown.

#### **Wall Bracket**



Wall Bracket with vertical socket for attachment to vertical surfaces. Cover to facilitate wiring. Type 304 polished stainless steel finish. Includes gaskets. Wall-mounting fasteners not included.





NOTE: Recommended mounting hole size shown.



#### **CS600 Stainless Steel Pendant Arm System**



#### Industry Standards IEC 60529, IP66

#### **Application**

Like the CS480 System, the CS600 Stainless Steel Pendant Arm System performs extremely well in food and pharmaceutical applications that require corrosion resistance and suspension of process and control equipment for easy cleaning. Also like the CS480 System, the CS600 System has a wide variety of available components and a high degree of design configuration flexibility. (For possible design combinations, see the System Combinations Drawings.)

The difference between the CS480 System and the CS600 System is that CS600 is used for heavier loads, with a load rating at 3.3 ft. (1 m) of 134.89 lb. (61.3 kg). Ratings for other loads are shown in the Load Capacity chart.

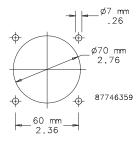
#### **Specifications**

- Tubing clamps into position for easy assembly and smooth appearance
- No external screws to trap dirt
- Fixed or swivel mounting, straight or at a 15-degree angle
- 90-degree fittings have a removable cover that allows easy access for wiring
- Anti-vibration capability
- The coupling hole geometries for enclosure machining are shown in the Coupling Hole diagram

#### Finish

Tubing: Type 304 Stainless Steel Fittings: Type 304 Stainless Steel

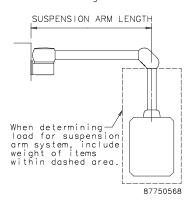
Coupling Hole Geometry for Enclosure Machining



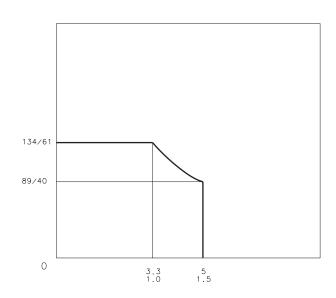
# **System Load Capacity**

The load capacity of the CS600 Pendant Arm System is shown in the chart and diagram.

# Load Rating



Maximum Recommended Load (1b/kg)



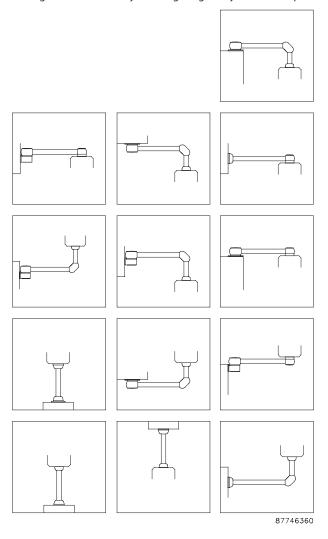
Suspension Arm Length (ft/m)

89001157



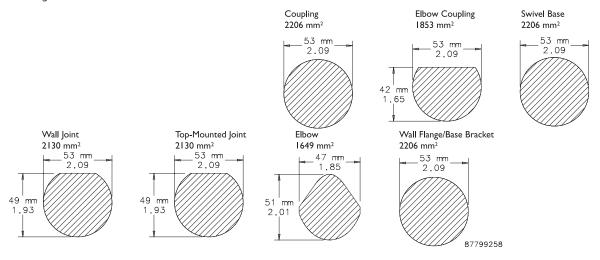
# **System Combinations**

The wide variety of components permits a high level of flexibility in configuring the system. Some possible combinations are shown here.



# **Cable Entry Space**

Different fittings offer different amounts of space for cables and leads. The drawing diagram shows the dimensions at the narrowest point inside each fitting.





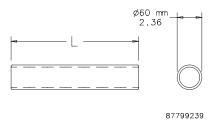
# **Tubing**



Tubes have 60.3-mm (2.37-in.) outer diameter and are made from 3.6-mm wall thickness stainless steel.

**Bulletin: CCR6** 

	L		1
Catalog Number	mm/in.	Product Weight (kg)	Product Weight (lb.)
CCSST25	250	1.18	2.6
	9.84		
CCSST50	500	2.36	5.2
	19.69		
CCSST75	750	3.40	7.5
	29.53		
CCSST100	1000	4.63	10.2
	39.37		
CCSST125	1250	5.85	12.9
	49.21		
CCSST150	1500	15.30	6.94
	59.06		



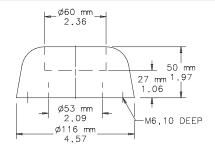
# **Coupling**

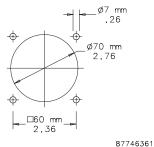


Flange coupling for mounting enclosures. Turns through 300 degrees with rotation limiter. Preset torque. Maintenance-free bearings. Includes gaskets and mounting hardware.



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSSFC	Stainless steel	2.18	4.8





 $NOTE: Recommended \ mounting \ hole \ size \ shown.$ 



# **Elbow Coupling**



Flange Elbow Coupling for attaching enclosures. Assembly aperture cover conceals screws for easier cleaning. Turns through 300 degrees with rotation limiter. Preset torque. Maintenance-free bearings. Includes gaskets and mounting hardware.

Bulletin: CCR6



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSSEC	Stainless Steel	6.49	14.3
2.	8 mm 2.28	ø53 mm 2.09	107 mm 4.21 -M6,10 DEEP
	•	Ø70 m 2.76	26 om

2.36 NOTE: Recommended mounting hole size shown.

\_□60 mm\_**\_** 

# **Elbow**



Elbow for connecting two tubes at 90 degrees. Includes screw cover and gaskets.

**Bulletin: CCR6** 



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSSE	Stainless Steel	4.45	9.8
ø60 2.	55 mm 2.15		m 138 mm 3 5.45 

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87799241



#### **Swivel Base**

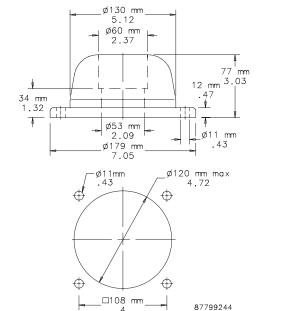


Swivel Base for mounting to machine or floor. Turns through 300 degrees with rotation limiter. Preset torque. Maintenance-free bearings. Includes gaskets. Base-mounting fasteners not provided.

**Bulletin: CCR6** 



Catalog Number Description		Product Weight (kg)	Product Weight (lb.)		
CCSSBBT	Stainless Steel	5.72	12.6		



NOTE: Recommended mounting hole size shown.

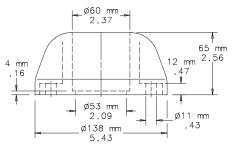
# **Base Bracket/Wall Flange**

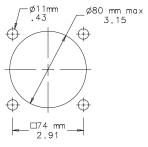


Base Bracket or Wall Flange for mounting to horizontal and vertical surfaces. Includes gaskets. Basemounting fasteners not provided.



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSSWFB	Stainless Steel	3.67	8.1





87746363

NOTE: Recommended mounting hole size shown.



# **Top-Mounted Joint**

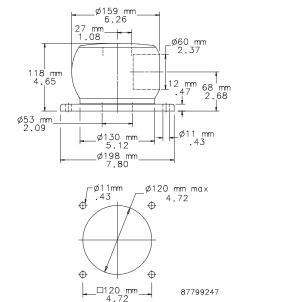


Top-Mounted Joint for mounting to horizontal surfaces. Assembly aperture cover conceals screws for easier cleaning. Turns through 300 degrees with rotation limiter. Preset torque. Maintenance-free bearings. Includes gaskets. Wall-mounting fasteners not provided.

**Bulletin: CCR6** 



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)		
CCSSSJ	Stainless steel	13.65	30.1		



NOTE: Recommended mounting hole size shown.

#### **Wall Joint**



Wall Joint for mounting to vertical surfaces. Assembly aperture cover conceals screws for easier cleaning. Turns through 300 degrees with rotation limiter. Preset torque. Maintenance-free bearings. Includes gaskets. Wall-mounting fasteners not provided.

**Bulletin: CCR6** 



Catalog Number	Description	Product Weight (kg)	Product Weight (lb.)
CCSSWJ	Stainless steel	16.01	35.3
Ø60 mm M 2.36  74 mm 2.91  94 mm 3.70			184 mm 7.24 86 mm 3.39

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**Notes** 



#### **Pedestals**



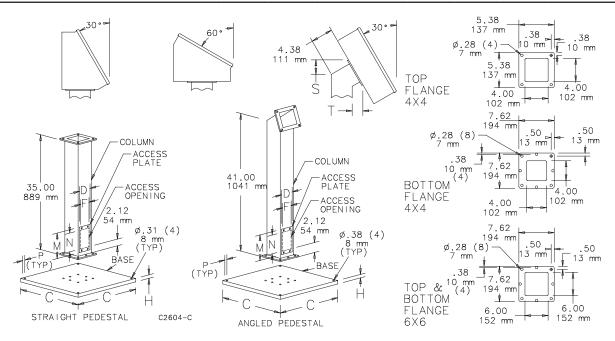
Pedestals enable many types of enclosures and boxes to be floor mounted. Four columns and two bases are available. Columns can be mounted on either base, through the vertical column or directly to the enclosure. A cutout must be made in the enclosure if the wires are to come through the column.

Columns have flanges at each end and a gasketed access plate. Screws, oil-resistant gaskets and box connector fitting are furnished with each column for joining an enclosure to the top of the column. Columns are 14 gauge steel with 10 gauge flanges. 18.00 x 18.00-in. (457 x 457-mm) base is .19-in. (5-mm) steel and 24.00 x 24.00-in. (610 x 610-mm) base is .25-in. (6-mm) steel. Both bases have leveling screws and holes for bolting to the floor. Finish on bases and columns is ANSI 61 gray polyester powder coating over pretreated surfaces. Bases and columns must be ordered separately.

The user would normally remove the mounting brackets from the enclosure if the enclosure is mounted on a pedestal. Hoffman can supply enclosures without mounting brackets and with cutouts. Consult factory for more information.

Bulletin: P1

			(	D	F	Н	M	N	P	S	T
Catalog Number	AxBxC mm/in.	Description	mm/in.								
A44CCOL	889 x 102 x 102	Straight Pedestal Column	_	95	70	_	184	152	_	_	_
	35.00 x 4.00 x 4.00		_	3.75	2.75	_	7.25	6.00	_	_	_
A44PBCOL	1041 x 102 x 102	Angled Pedestal Column	_	95	70	_	184	152	_	70	52
	41.00 x 4.00 x 4.00		_	3.75	2.75	_	7.25	6.00	_	2.75	2.06
A66CCOL	889 x 152 x 152	Straight Pedestal Column	_	146	121	_	203	171	_	_	_
	35.00 x 6.00 x 6.00		_	5.75	4.75	_	8.00	6.75	_	_	_
A66PBCOL	1041 x 152 x 152	Angled Pedestal Column	_	146	121	_	203	171	_	73	28
	41.00 x 6.00 x 6.00		_	5.75	4.75	_	8.00	6.75	_	2.88	1.12
A18SBASE	457 x 457	Pedestal Base	457	_	_	25	_	_	16	_	_
	18.00 x 18.00		18.00	_	_	1.00	_	_	.62	_	_
A24SBASE	610 x 610	Pedestal Base	610	_	_	28	_	_	17	_	_
	24.00 x 24.00		24.00	_	_	1.12	_	_	.69	_	_





# **Pedestal with Legs**

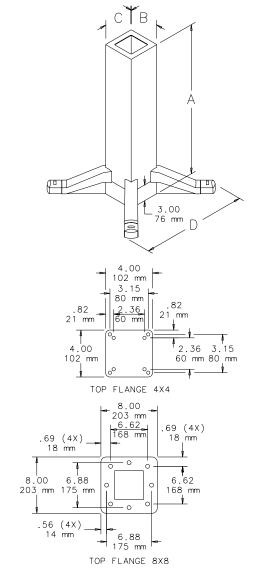


Pedestal is available in two heights. Vertical tube has rigid one-piece construction. Bottom of tube is open. Four sturdy, die-cast legs bolt to vertical tube. Legs have holes for bolting pedestal to the floor. Legs will accept casters in limited applications. Heavy-duty black polymer caps fit on ends of legs to cover bolts or levelers. Pedestal has ANSI 61 medium-gray or RAL 7035 textured light-gray polyester powder paint finish. Tapped mounting holes in the top of pedestal allow attachment to HMI base with cutout, swivel, swivel tilt or angle adapter. Hardware and gasket to attach enclosure are included.

- Use 4.00 x 4.00-in. (102 x 102-mm) pedestal with CONCEPT® HMI and INLINE® HMI Enclosures
- Use 8.00 x 8.00-in. (203 x 203-mm) pedestal with PROLINE® Sloped-Front Enclosures

Bulletin: P1

				D
Catalog Number	AxBxC mm/in.	Finish	Description	mm/in.
AP26L44	660 x 102 x 102	ANSI 61	Steel	600
	26.00 x 4.00 x 4.00			23.62
AP26L44LG	660 x 102 x 102	RAL 7035	Steel	600
	26.00 x 4.00 x 4.00			23.62
AP36L44	914 x 102 x 102	ANSI 61	Steel	600
	36.00 x 4.00 x 4.00			23.62
AP36L44LG	914 x 102 x 102	RAL 7035	Steel	600
	36.00 x 4.00 x 4.00			23.62
AP26L88	660 x 203 x 203	ANSI 61	Steel	702
	26.00 x 8.00 x 8.00			27.62
AP26L88LG	660 x 203 x 203	RAL 7035	Steel	702
	26.00 x 8.00 x 8.00			27.62
AP36L88	914 x 203 x 203	ANSI 61	Steel	702
	36.00 x 8.00 x 8.00			27.62
AP36L88LG	914 x 203 x 203	RAL 7035	Steel	702
	36.00 x 8.00 x 8.00			27.62



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#### **Bolt-Down Pedestal**

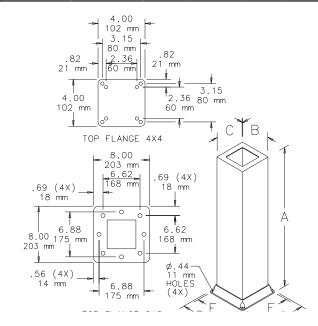


Bolt-Down Pedestal is available in two heights. The vertical tube has rigid one-piece construction. Rigid cast aluminum base flanges bolt to the vertical tube. Pedestal has ANSI 61 medium-gray or RAL 7035 textured light-gray polyester powder paint finish. Tapped mounting holes in the top of pedestal allow attachment to operator interface base with cutout, swivel, swivel tilt or angle adapter. Hardware and gasket to attach enclosure are included.

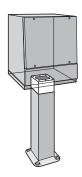
- Use 4.00 x 4.00-in. (102 x 102-mm) pedestal with CONCEPT® HMI and INLINE® HMI Enclosures
- Use 8.00 x 8.00-in. (203 x 203-mm) pedestal with PROLINE® Sloped-Front Enclosures

**Bulletin: P1** 

				D	E
Catalog Number	AxBxC mm/in.	Finish	Description	mm/in.	mm/in.
AP23B44	584 x 102 x 102	ANSI 61	Steel	159	133
	23.00 x 4.00 x 4.00			6.26	5.25
AP23B44LG	584 x 102 x 102	RAL 7035	Steel	159	133
	23.00 x 4.00 x 4.00			6.26	5.25
AP33B44	838 x 102 x 102	ANSI 61	Steel	159	133
	33.00 x 4.00 x 4.00			6.26	5.25
AP33B44LG	838 x 102 x 102	RAL 7035	Steel	159	133
	33.00 x 4.00 x 4.00			6.26	5.25
AP23B88	584 x 203 x 203	ANSI 61	Steel	260	235
	23.00 x 8.00 x 8.00			10.25	9.25
AP23B88LG	584 x 203 x 203	RAL 7035	Steel	260	235
	23.00 x 8.00 x 8.00			10.25	9.25
AP33B88	838 x 203 x 203	ANSI 61	Steel	260	235
	33.00 x 8.00 x 8.00			10.25	9.25
AP33B88LG	838 x 203 x 203	RAL 7035	Steel	260	235
	33.00 x 8.00 x 8.00			10.25	9.25



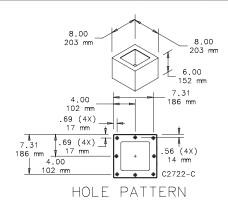
#### **Extension**



Pedestal Extension can be used with pedestals to provide additional 6 in. (152 mm) of height for standing position. ANSI 61 medium-gray polyester powder paint or RAL 7035 textured light-gray polyester powder paint.

Bulletin: P1

Catalog Number	AxBxC in./mm	Finish	Description
APE688	6.00 x 8.00 x 8.00	ANSI 61	Steel
	152 x 203 x 203		
APE688LG	6.00 x 8.00 x 8.00	RAL 7035	Steel
	152 x 203 x 203		





# **Stainless Steel Pedestal**

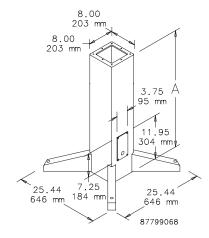


Pedestal is 36-in. (914-mm) tall and provides optimal viewing and operating height. Tube is 14 gauge Type 304 one-piece construction. Legs are 7 gauge Type 304 for rigidity. Cable access plate and leg levelers are included. Leg levelers can be removed for anchoring pedestal to floor. Pedestal has smooth vertical brushed finish.

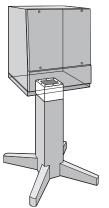
Pedestal will accept pedestal accessories that are not stainless steel. These include swivel tilt, swivel and angle adapters.

**Bulletin: P1S** 

Catalog Number	A in./mm	Description	
AP36SS	36.00	Stainless steel	
	914		



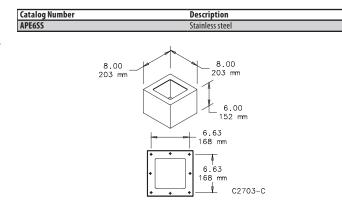
# **Stainless Steel Extension**



Pedestal Extension can be ordered separately to provide additional 6 in. (152 mm) of height for standing position. Extension is 14 gauge Type 304 stainless steel with a smooth brushed finish.

Extension will accept pedestal accessories that are not stainless steel. These include swivel tilt, swivel and angle adapters.

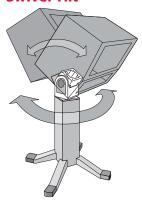
**Bulletin: P1S** 



HOLE PATTERN



#### **Swivel Tilt**

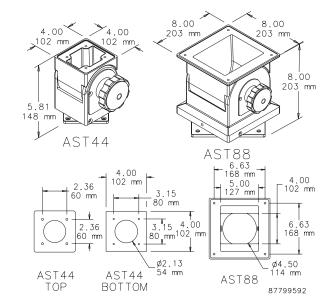


The use of a combination swivel and tilt mechanism allows a machine operator to rotate and also tilt an HMI enclosure for optimum viewing and safe operation. The Swivel Tilt is designed for use between the bottom of an HMI enclosure and a pedestal (enclosure reinforcement may be required).

# Do not use the Swivel Tilt between an overhead support and an enclosure.

The swivel feature allows maximum rotation of 350 degrees. Integral stops are provided at 30-degree increments between 60 degrees and 180 degrees of rotation. Swivel can be locked in any position. Tilt feature allows forward and backward movement up to 30 degrees from horizontal. Tilt lock has a large release knob that allows quick incremental adjustment. Top and bottom flanges allow easy installation on pedestals. A large center opening accommodates control cables that have attached plugs. Swivel Tilt is cast aluminum with an anodized finish. Mounting hardware and gaskets are furnished.

Bulletin: P1



Catalog Number	AxBxC mm/ in.	Maximum Enclosure Size A x B x C mm/in.	Maximum Load Including Enclosure (kg)	Maximum Load Including Enclosure (lb.)
AST44	148 x 102 x 102 5.81 x 4.00 x 4.00	610 x 610 x 406 24.00 x 24.00 x 16.00	34.0	75
AST88	203 x 203 x 203 8.00 x 8.00 x 8.00	838 x 610 x 610 33.0 x 24.00 x 24.00	68.0	150

The loads listed assume that the additional load is centered on the front or back of the enclosure. Please contact Hoffman for specific application information.

#### **Swivel**



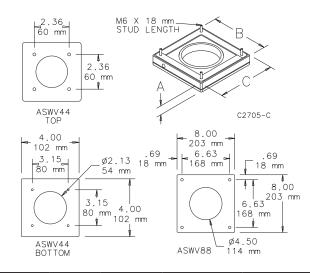
A swivel mechanism can be used to provide a machine operator a way to easily rotate an operator interface enclosure to a convenient operating position. Maximum rotation is 350 degrees. The low-profile swivel has a large center opening in addition to a large, wobble-free bearing surface. Swivel mechanism can be locked in any position. The swivel mechanism is designed for use between the bottom of an operator interface enclosure and a pedestal.

# Do not use the Swivel between an overhead support and an enclosure.

The Swivel is cast aluminum with an anodized finish. Mounting hardware and gaskets are furnished.

Integral stops are provided at 30-degree increments between 60 degrees and 180 degrees of rotation on catalog number ASWV88 only.

Bulletin: P1



Catalog Number	AxBxC mm/	Maximum Enclosure Size A x B x C mm/in.	Maximum Load Including Enclosure (kg)	Maximum Load Including Enclosure (lb.)
ASWV44	27 x 102 x 102 1.06 x 4.00 x 4.00	610 x 610 x 406 24.00 x 24.00 x 16.00	45.4	100
ASWV88	33 x 203 x 203 1.28 x 8.00 x 8.00	838 x 610 x 610 33.00 x 24.00 x 24.00	90.7	200

 $The loads \ listed \ assume \ that \ the \ additional \ load \ is \ centered \ on \ the \ front \ or \ back \ of \ the \ enclosure. \ Please \ contact \ Hoffman \ for \ specific \ application \ information.$ 



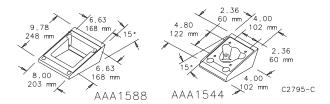
#### **Angle Adapter**



Angle Adapter fits top of pedestal and provides a fixed tilt of 15 degrees from horizontal for enclosure mounting. Angle Adapter is aluminum with large cable opening and has clear anodized aluminum finish. Mounting hardware is included.

Bulletin: P1

Catalog Number	Fits
AAA1544	4 x 4 pedestal
AAA1588	8 x 8 pedestal



## **Handles**



Handles attach to sides, top or bottom of sloped front to provide maximum operator control when using the suspension system, swivel or swivel tilt. Location dimples on the sides of sloped fronts indicate drill-hole location for standard mounting. Handles attach inside enclosure.

#### Bulletin: DEC1, P1

Catalog Number	Description	Fits
PUHK	(2) die-cast aluminum handles (9.75 in./248 mm)	PROLINE Sloped-Fronts
PUHKA	(2) tubular steel handles with soft coating (9.75 in./248 mm)	PROLINE Sloped-Fronts
ERCFH3U	132 mm	Desktop Case
ERCFH4U	177 mm	Desktop Case
ERCFH6U	266 mm	Desktop Case

#### **Pedestal Caster Kits**



Casters can be used on pedestals in limited applications. They are attached to the die-cast legs of steel Pedestals. Casters are also available for Stainless Steel Pedestals (AC4M6SV or AC4M6ST). Four dual-wheel casters replace furnished levelers.

Bulletin: C1, DEC1

		Number			Wheel	Wheel	Load	Load
Catalog Number	Description	of Casters	Height (in.)	Height (mm)	Dia. (in.)	Dia. (mm)	Rating Ea. (lb.)	Rating Ea. (kg)
AC4M6SV	Casters, swivel type with brakes	2	3.72	94	3.00	76	210	95
AC4M6ST	Casters, stationary type	2	3.72	94	3.00	76	210	95
EMRCK	Casters, swivel non-locking for steel pedestals	4	2.76	70	1.97	50	132	60

Two sets of AC4M6SV and AC4M6ST casters are required.

Height columns show height of caster when installed.

# **Stainless Steel Legs**



Legs mount to the bottom of a solid base to elevate the enclosure 4 in. (100 mm) from the floor. The legs are made of Type 304 stainless steel and are appropriate for hose-down applications. Mounting hardware is included.

Bulletin: P20S

Catalog Number	Description
PLEGSS	(4) Stainless Steel Legs

