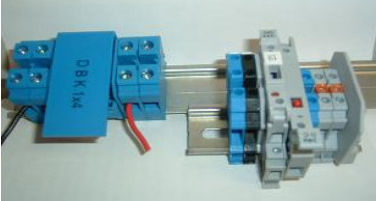



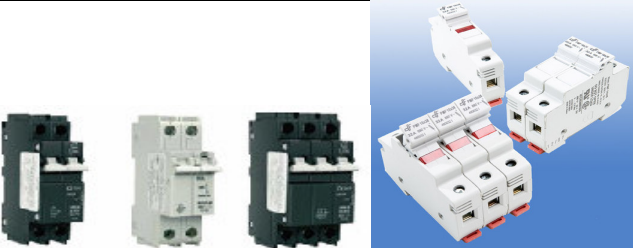


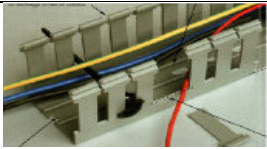



# Electrotech Sales Group, LLC

## Product Catalog

 <p>Terminal Blocks</p>	 <p>22mm Pilot Devices</p>	 <p>Power Supplies</p>
 <p>Motor Control</p>	 <p>Circuit Protection</p>	
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# Din Rail Mounted Terminal Blocks

*Corrosion resistant*

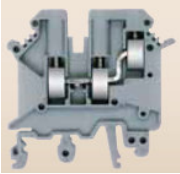
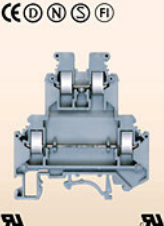

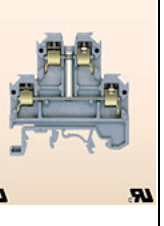
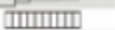


<p><b>Corrosion resistant terminal block</b> with nickel-plated clamps and cross connectors; stainless steel screws</p>				
	<b>Part No.</b>			
	<b>UBT 2.5 N</b>	<b>UBT 4</b>	<b>UBT 6</b>	<b>UBT 10</b>
	24-12 AWG 600V/26A	24-10 AWG 600V/35A	24-8 AWG 600V/50A	24-6AWG 600V/65A
	<b>Technical Data</b>			
Stripping length	7mm	8mm	10 mm	10mm
Screw tread/tightening torque	M3/5Lb-in	M3/6Lb-in	M4/13Lb-in	M4/13Lb-in
L/W/H mm	42.5/5/45.9 mm	42.50/6/45.9 mm	42.5/8/45.9 mm	42.5/10/45.9 mm
<b>Accessories</b>				
End Cover	UPX			
Fixed Bridge	Not available	SLU4-2W SLU4-3W SLU4-4W SLU4-5W SLU4-10W	SLU6-2W SLU6-3W SLU6-4W SLU6-5W SLU6-10W	SLU10-2W SLU10-3W SLU10-4W SLU10-5W SLU10-10W
<p>2-pole</p> <p>3-pole</p> <p>4-pole </p> <p>5-pole</p> <p>10-pole</p> <p>*colors</p>		UBT4 (G) gray UBT4 (B) Blue UBT4 (R)red UBT4 (BL)black UBT4 (GR) green UBT4 ( Y) yellow	UBT6 (G) gray	UBT10 (G) gray UBT10( B ) blue
Separating Plate	KBXF			
Terminal strips	U5	U6	U8	U10
Din 35mm rail	3401/SE - slotted			
End Stopper	SCKN			

# Din Rail Mountable Terminal Blocks







## Multi-level terminal blocks



Multi level terminals are perfect where space is a constraint and high density wiring is needed. UBT and UBDD are corrosion resistant!	<b>Corrosion resistant</b> 	<b>Corrosion resistant</b> 	<b>Double deck</b> 	<b>1 polarity</b> 
<b>Ratings</b>	<b>24-10AWG</b>	<b>24-10AWG</b>	<b>20-12AWG</b>	<b>20-12 AWG</b>
<b>Part No.</b>	<b>300V/30A</b>	<b>600V/35A</b>	<b>600V/10A</b>	<b>600V/10A</b>
Gray	UBT4 TWIN (G)	UBDD4 (G)	KUDD4	
Blue	UBT4 TWIN (B)	UBDD4 (B)	KUDD4-B	KU2D4S (B)
Red	UBT4 TWIN (R)			
Black	UBT4 TWIN (BL)			KU2D4S (BL)
White	UBT4TWIN (W)			
<b>Technical data</b>				
Stripping length	8mm	8mm	9mm	9mm
Screw tread/tightening torque	M3/5LB-in	M3/5LB-in	M3/6LB-in	M3/6LB-in
L/W/H mm	46x6x46 mm	56x6.1x61	54x6x59.5	50x6x50.8
<b>Accessories</b>				
End cover	UP TWIN	UPDD	KPDD	EPDD
Fix Bridge 2; 3; 5; 10-pole	SLU 4- 2W;3W;5W; 10W	SLU 4- 2W;3W;5W; 10W	CCLADD-2W; 3W;4W;5W;10 W	Comb link SLCM2.5- 2W; 3W; 4W; 5W; 10W
Labels 	KN 5.5	U6	KN5.5	KN5.5
Din 35mm rail	3401/SE - slotted			
End Stopper	SCKN	SCKN	SCKN	SCKN







# Economy Single level Feed through



<p><b>K series</b> of terminals are made of Polyamide 6.6 housing. Elmex Screw clamps a U-shaped steel part and a washer base (cheese head) screw. Current bars are made of electrolytic copper.</p>				
	<b>Part No.</b>			
	<b>KUT2.5</b>	<b>KUT4</b>	<b>KUT6</b>	<b>KUT10</b>
	Wire Size / Rating	12-20 AWG 600V/25A	10-20 AWG 600V/35A	8-20 AWG 600V/50A
Stripping length	10mm	12mm	12mm	12mm
Screw tread/tightening torque	M3/7 Lb-in.	M3/7 Lb-in	M3.5/14 Lb-in	M4/14 Lb-in
L/W/H mm	42.5x6x41	42.5x6.7x46.4	42.5x8x46.4	42.5x10x46.4
End Cover	KPNS		KPX	
Fixed Bridge				
2-pole	CCLMK2.5-2W	CCLA2.5-2W	CCLA6-2W	CCLA10-2W
3-pole	CCLMK2.5-3W	CCLA2.5-3W	CCLA6-3W	CCLA10-3W
5-pole	CCLMK2.5-5W	CCLA2.5-5W	CCLA6-5W	CCLA10-5W
10-pole	CCLMK2.5-10W	CCLA2.5-10W	CCLA6-10W	CCLA10-10W
Shorting link 				
2-pole	Not available	PSL2.5-2W	PSL6-2W	PSL10-2W
 Insulated side jumper				
2; 3;4;5;10 – pole	SLCM2.5-2W;3W;4W;5W;10W	SLC2.5-2W;3W;4W;5W;10W	SLC6-2W;3W;4W;5W;10W	Not available
Partition Plate	KBM		KBXF	
<b>Colors:</b>				
Gray	KUT2.5 (G)	KUT4 (G)	KUT6 (G)	KUT10 (G)
Blue	KUT2.5 (B)	KUT4 (B)	KUT6 (B)	KUT10 (B)
Red	KUT2.5 (R)	KUT4 (R)		
Black	KUT2.5 (BL)	KUT4 (BL)		
White	KUT2.5 (W)	KUT4 (W)		
Yellow	KUT2.5 (Y)	KUT4 (Y)		
Green	KUT2.5 (GR)	KUT4 (GR)		
Making Label (blank)	KN5.5	KN6.5	KN8	KN10
Din 35mm rail	3401/SE – slotted			
End Stopper	SCKN			


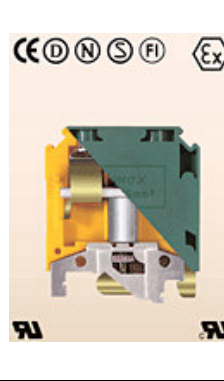
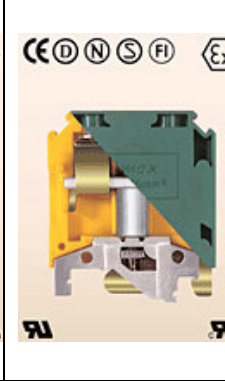
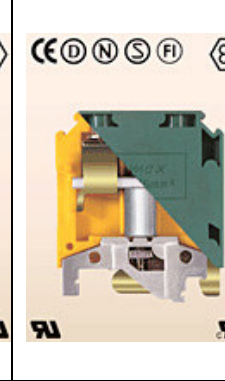
# Economy Single level Feed through





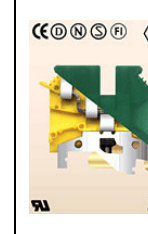
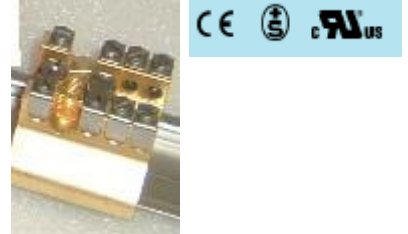
<b>K series</b> of terminals are made of Polyamide 6.6 housing. Elmex Screw clamps a U-shaped steel part and a washer base (cheese head) screw. Current bars are made of electrolytic copper.						
	<b>Part No</b>					
	<b>KUT16</b>	<b>KUT25</b>	<b>KUT35</b>	<b>KUT50</b>	<b>KUT95</b>	
	Wire Size / Rating	3-12 AWG 600V/100A	2-10 AWG 600V/115A	1-14 AWG 600V/140A	2/O-6 AWG 600V/150A	4/O-2 AWG 600V/230A
	<b>Technical Data</b>					
	Stripping length	15mm	15mm	17mm	24mm	33mm
Screw tread/tightening torque	M4/17 Lb-in	M5/20 Lb-in	M6/38 Lb-in	M6/60 Lb-in	M8/160 Lb-in	
L/W/H mm	44.5x12x51	45x12x56	51x17x58	71x20.5x75.5	83x25x90.5	
<b>Accessories</b>						
End Cover	KPY	KPT	Not required			
Fixed Bridge 2-pole 3-pole 5-pole 10-pole	CCLA16-2W CCLA16-3W CCLA16-5W CCLA16-10W	CCLA25-2W CCLA25-3W CCLA25-5W CCLA25-10W	CCLA35K-2W CCLA35K-3W CCLA35K-5W -----	Not available	Not available	
Shorting link 2-pole 	PSL 16-2W		PSL 35K-2W	Not available		
Partition Plate	KBY				Not required	
Making Label	KN10					
Din 35mm rail	3401/SE - slotted					
End Stopper	SCKN					

- Other colors available upon request (blue, red, yellow, black, green)

## Earth Terminals

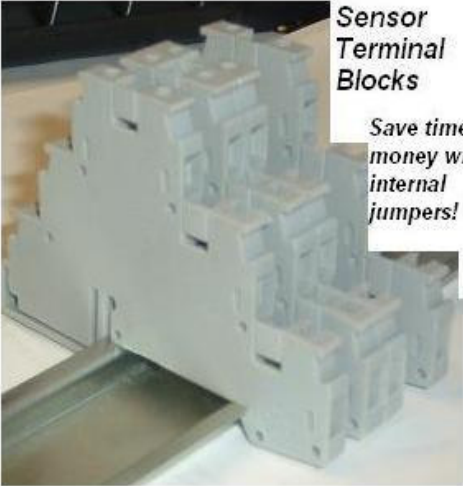
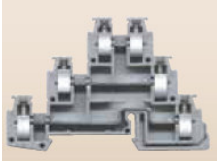
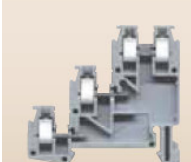
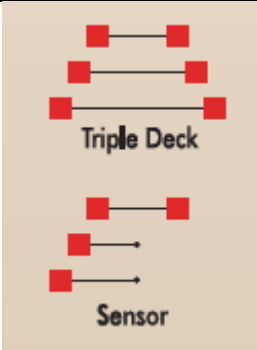
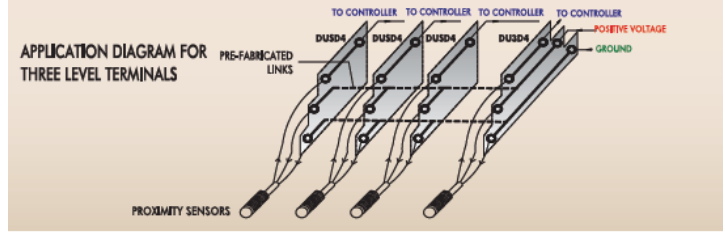
<p>Earth terminal blocks replace conventional bus bars. Earthing is established through the foot which clamps directly on the Din rail. The conducting part is brass with nickel-tin plating providing a low resistance path</p>				
	<b>Part No.</b>			
	<b>ET6</b>	<b>ET10</b>	<b>ET16</b>	<b>ET35</b>
	Wire Size	8-20 AWG	6-16 AWG	3-12 AWG
<b>Technical Data</b>				
Stripping length	13mm	13mm	13mm	17mm
Screw tread/tightening torque	M3.5/14 Lb-in	M4/17 Lb-in	M4/14 Lb-in	M6/32Lb-in
L/W/H mm	43x8x45.5	43x10x45.5	52x12.5.5x52	63x16.5x63
<b>Accessories</b>				
End Cover	Not required			
Partition Plate	KBXF			
Making Label	KN8			
End Stopper	SCKN			

### Additional Earth terminals:

				
<b>Ratings</b>	<b>24-12AWG</b>	<b>24-10AWG</b>	<b>24-10AWG</b>	<b>Collector Ground Blocks</b>
<b>Part No.</b>	<b>EBT2.5</b>	<b>EBT4</b>	<b>EBT 4TWIN</b>	
Stripping length	9mm	10mm	8mm	<b>Part No. 3433</b> 1 main terminal for up to 4 AWG 8 additional terminals for up to 8AWG
Screw tread/tightening torque	M35/5Lb-in	M3/5Lb-in	M3/5Lb-in	<b>Part No. 3434</b> 1 main terminal for up to 4 AWG 16 additional terminals for up to 8AWG
L/W/H mm	42.5x6.2x42	42.5/6.2/47	36.75/6/46	
<b>Accessories</b>				
Labels	U6	U6	U6	
End stopper	SCKN	SCKN	SCKN	

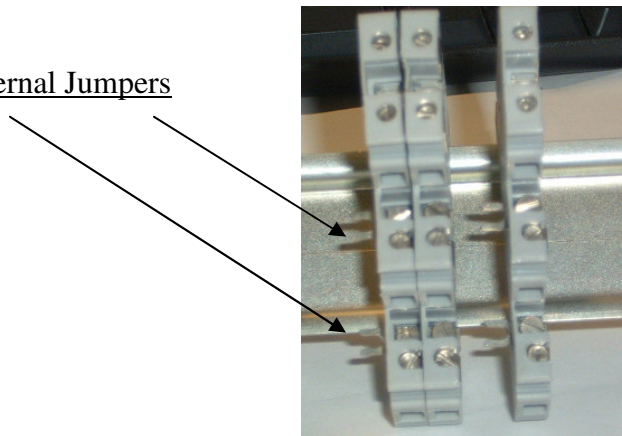
### 3 level terminal blocks and sensor block



 <p><b>Sensor Terminal Blocks</b></p> <p><i>Save time and money with internal jumpers!</i></p>		<b>Corrosion Resistant</b> 	<b>Corrosion Resistant</b> 
	<b>Ratings</b> <b>Part No.</b> Gray	<b>12-24AWG</b> <b>600V/20A</b> DU3D 4	<b>12-24AWG</b> <b>600V/20A</b> DUSD4
<b>Technical data</b>			
Stripping length		8mm	8mm
Screw tread/tightening torque		M3/5 Lb-in	M3/5 Lb-in
L/W/H mm		82.3/6/55 mm	60/6/55 mm
<b>Accessories</b>			
End cover		DP3D	DPSD
Fix Bridge 2; 3; 5; 10-pole		CCLATD-2W; 3W; 4W; 5W; 10W	*Please see note below
Labels		KN 5.5	
End Stopper		SCKN	
 <p><b>Triple Deck</b></p> <p><b>Sensor</b></p>	 <p>APPLICATION DIAGRAM FOR THREE LEVEL TERMINALS</p> <p>TO CONTROLLER TO CONTROLLER TO CONTROLLER TO CONTROLLER</p> <p>DUSD4 DUSD4 DUSD4 DUSD4</p> <p>PRE-FABRICATED LINKS</p> <p>POSITIVE VOLTAGE</p> <p>GROUND</p> <p>PROXIMITY SENSORS</p>		

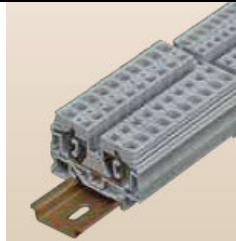
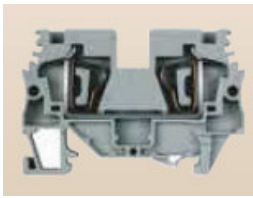


- DUSD4 has a special internal link attached to middle and lower level to facilitate the interconnection between adjacent terminal blocks, DU3D4 or DUSD4

Internal Jumpers





## Spring Clamp Terminals





			
<b>Part No.</b>	<b>DCT 4</b>	<b>DCT 2.5-1x2</b>	<b>DCT 2.5-2x2</b>
Terminal Pitch	6.2mm (0.24 inch)	5mm (0.20 inch)	5mm (0.20 inch)
Height x Width in mm (inch)	38.5 x 58 (1.51x2.28)	40.50 x 50 (1.59x1.97)	40.50 x 50 (1.59x1.97)
Rated Cross section	4mm <sup>2</sup>	2.5mm <sup>2</sup>	2.5mm <sup>2</sup>
Wire Strip length	13.50mm	10 mm	10 mm
Type of connection	2 spring clamp connections 2 slots for inter-connection	3spring clamp connections 2 slots for inter-connection	4spring clamp connections 2 slots for inter-connection
Rating - UL	600V/20Amps/12-22 AWG	600V/15A/14-22 AWG	600V/15A/14-22 AWG
End Plate	DEP 4	DMP 2.5	call
End Clamp	SCUSL	SCUSL	SCUSL
Push-in 2 pole jumper	DSL4	SSL 2.5	SSL 2.5
Labels	DN6.2	DN 5.2	DN 5.2
<b>Color</b> Gray (G); Red (R ); Yellow(Y); Blue (B); Black (BL); Green (G); Green-Yellow (GY)	DCT4 (G); DCT4 (R); DCT4 (Y); DCT4 (B); DCT4 (BL); DCT4 (G); DCT4 (GY)	DCT 2.5-1x2 (C ) C=color	DCT 2.5-1x2 (C ) C=color
Mounting Rail	3401/SE	3401/SE	3401/SE



Spring clamp consists of a specially shaped stainless steel clamp, which functions as a spring for developing necessary contact pressure between Current Bar and conductor. The current Bar is the current carrying part in the terminal block, and it is provided with serrations to grip the conductor. The spring clamp is brought under tension by inserting a screwdriver. This creates necessary opening in the clamp for inserting conductor. After the conductor is fully inserted the screwdriver is withdrawn. The clamp arm thereby presses the conductor firmly against current bar, by spring action of the clamp.

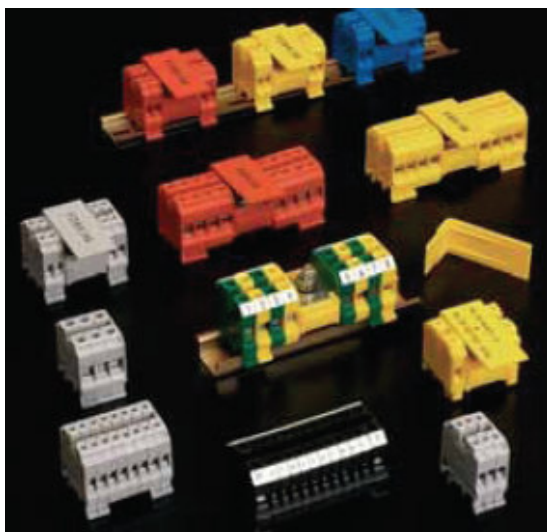
# Distribution Blocks



Distribution blocks offer a simple and cost effective solution for both power distribution and collection. Blocks are completely shrouded and accommodate single input and multiple outputs.				
<b>Part No.</b>	<b>FDBK 1 x 4 (c)</b> <b>c=color*</b>	<b>FDBK 1 x 8 (c)</b> <b>c=color*</b>	<b>DBK 1x4 (c)</b> <b>c=color*</b>	<b>DBK 1 x 8 (c )</b> <b>c=color*</b>
<b>Terminal Pitch</b>	61.5mm (2.42 inch)	88.5mm (3.48 inch)	73mm (2.87 inch)	133mm (4.45 inch)
<b>Height x width mm (inches)</b>	55x67.5(2.17x2.66)	55x67.5(2.17x2.66)	49.7x67.5(1.96x2.66)	49.7 x 67.5 (1.96x2.66)
<b>Connection</b>	<b>IC: 1; OG: 4</b>	<b>IC: 1; OG: 8</b>	<b>IC: 1; OG: 4</b>	<b>IC: 1; OG: 8</b>
<b>Stranded wire AWG</b>	IC:12-4 AWG OG:20-10AWG	IC:12-4 AWG OG:20-10AWG	IC:8-1AWG OG:16-6AWG	IC:8-1AWG OG:16-6AWG
<b>mm<sup>2</sup></b>	IC:10-25mm <sup>2</sup> , OG:0.5-4mm <sup>2</sup>	IC:10-25mm <sup>2</sup> , OG:0.5-4mm <sup>2</sup>	IC:10-50mm <sup>2</sup> , OG:2.5-10mm <sup>2</sup>	IC:10-50mm <sup>2</sup> , OG:2.5-10mm <sup>2</sup>
<b>Wire strip length</b>	12mm	12mm	12mm	12mm
<b>Type of connection</b>	1 nut connection for IC & screw clamp connections for OG			
<b>Ratings - UL</b>	600V/IC-80A; OG-80A/IC-12-4 AWG; OG-20-10 AWG/IC-22LbIn,OG-7LbIn		600V/IC-130A; OG-130A/IC8-1 AWG; OG-16-6 AWG/IC-55LbIn,OG-14LbIn	
<b>Screw size</b>	IC-M6; OG-M3		IC-M8; OG-M4	
<b>Partition with foot</b>	KBXF			
<b>End Clamp</b>	SCKN; SCUSL			
<b>Marking label</b>	KN6.5		KN10	
<b>Mounting channel – Din 35mm rail</b>	3401/SE			



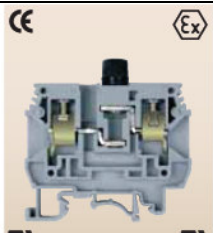
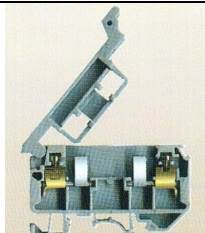


**IC = IN-COMING; OG=OUT-GOING**

\* Color Gray (G);  
Red (R ); Yellow(Y); Blue (B); Black (BL); Green (G); Green-Yellow (GY)



## Din Rail Mountable Terminal Blocks Fuse Blocks

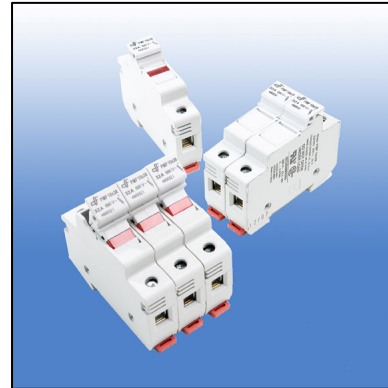


<p><b>Fuse holders accommodate a glass fuse sizes: 5x20mm or 6mm x 32mm (1/4" x 1 1/4")</b></p> <p>The fuse holders are made of special grade Phosphor-Bronze which offers low contact resistance</p>				
	<b>5x20mm</b>	<b>5x20mm</b> Top level fuse; bottom pass through	<b>5x20mm</b>	<b>1/4" x 1 1/4" fuse</b>
<b>Ratings</b>	<b>12-20AWG 600V/7A</b>	<b>12-24AWG 300V/10A</b>	<b>18-6AWG 600V/12Amps</b>	<b>24-10AWG 600V/12A</b>
<b>Part No.</b>	KUDF4	KUDDF4	KUF 10	KUFH4
Gray no indication	KUDF4	KUDDF4	KUF 10	KUFH4
Fuse Blow indication 24V	KUDF4D1	KUDDF 4D1	KUF 10D1	KUFH4D1
Fuse Blow ind. 120V-220V	KUDF4A2	KUDDF4A2	KUF 10A2	KUFH4A2
<b>Technical Data</b>				
Stripping length	9mm	9mm	10mm	12mm
Screw tread/tightening torque	M3/6 Lb-in	M3/7Lb-in	M4/12Lb-in	M3/8Lb-in
L/W/H mm	58/8/42.5 mm	74/8/51.5 mm	66/12/55.75	77.75/9/53.5 mm
<b>Accessories</b>				
End Cover	EPDF	EPDDF	EPF	EPFH
Insulated side jumper  2 -pole; 3-pole; 4-pole; 5-pole 10-pole	UFSL-2W, 3W, 4W; 5W; 10W	UFSL-2W, 3W, 4W; 5W; 10W	Not available	Not available
Labels 	KN8	KN8	KN10	KN8
End Stopper	SCKN	SCKN	SCKN	SCKN
<b>Glass Fuses</b> T=time delay; F=fast (Please call )	WF520T or F /X (X= current max. 10Amps)	WF520T (F) /X (X= current max. 10Amps)	WF520T (F) /X (X= current max. 10Amps)	WF06332 T or F/X (X=current max 10 Amps)

## Fuse Holders

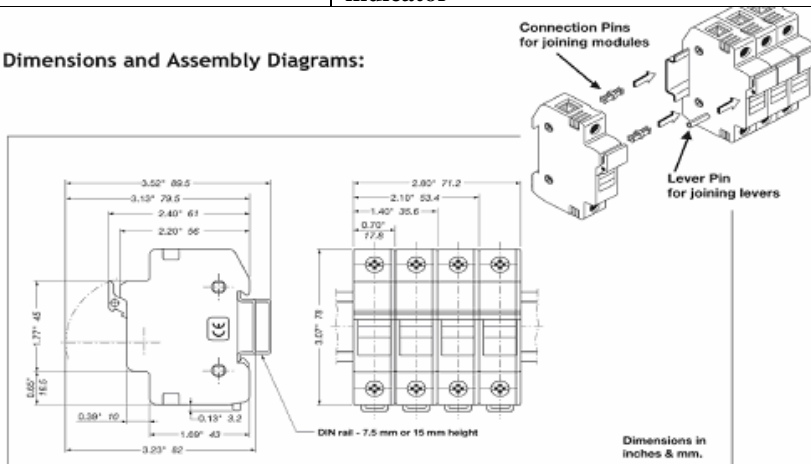
For both Midget (13/32 x 1 1/2") and class CC fuse

- Fuse holders have a front hinged lever cartridge for safe and convenient fuse insertion and replacement.
- Fuse holders mount to DIN 35mm rail
- Any number of poles can be ganged together with the accessories
- Replacement of a fuse does not require a special tool
- Accessories include snap-in ganging pins for body and lever.



Part No	Description	Std. Packs
WFH-1P-Midg	1 Pole Fuse Holder for Midget Fuses	12
WFH-2P-Midg	2 Pole Fuse Holder for Midget Fuses	6
WFH-3P-Midg	3 Pole Fuse Holder for Midget Fuses	4
WFH-1P-Midg-Neon	1 Pole Fuse Holder for Midget Fuses with neon indicator	12
WFH-2P-Midg-Neon	2 Pole Fuse Holder for Midget Fuses with neon indicator	6
WFH-3P-Midg-Neon	3 Pole Fuse Holder for Midget Fuses with neon indicator	4
WFH-1P-CC	1 Pole Fuse Holder for CC Fuses	12
WFH-2P-CC	2 Pole Fuse Holder for CC Fuses	6
WFH-3P-CC	3 Pole Fuse Holder for CC Fuses	4
WFH-1P-CC-Neon	1 Pole Fuse Holder for CC Fuses with neon indicator	12
WFH-2P-CC-Neon	2 Pole Fuse Holder for CC Fuses with neon indicator	6
WFH-3P-CC-Neon	3 Pole Fuse Holder for CC Fuses with neon indicator	4

Dimensions and Assembly Diagrams:



Features:

- CSA and UL Rated for 30A, 600V maximum
- Available from stock in 1,2,3,or 4 pole versions, with or without neon blown fuse indicator.
- Reliable screw compression clamp accepts up to 10 AWG
- Thermoplastic polyester (UL-VO) insulated body features wide ventilation slots to help dissipate heat from the fuse.

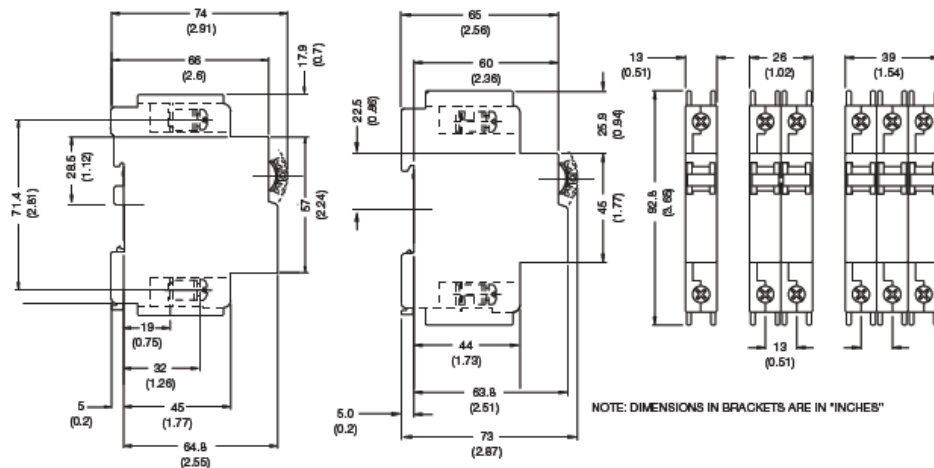
For Branch circuit Protection (KM curve)      DC Breaker (U2 curve)      UL1077 Breakers (2, 9 curve)

**Circuit Breakers**  
**Ordering Code:**





WCB - \_\_\_\_ P - \_\_\_\_ - \_\_\_\_  
Poles      Curve      Current  
1,2,3      2,9,KM,U2



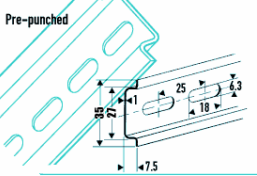

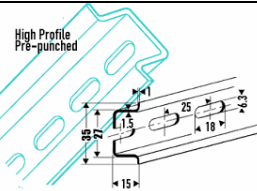
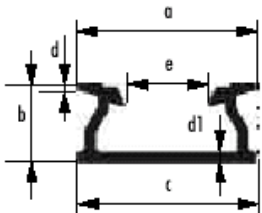
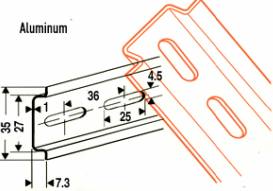
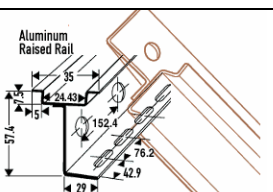
Product Part No.		WCB-(1 or 2)P-KM-X (current)	WCB-(1 or 2)P-U2-X (current)	WCB-(1 or 2 or 3)P-(2 or 9)-X (current)
Standard Current ratings (A)		0.1-25 Amps	0.1-63A (1Pole) 0.1-50A (2-pole)	0.1-63 Amps (UL1077)
Number of Poles		1,2	1,2	1,2,3
Rated Voltage (V)		120VAC (1P)	80V DC	120V/277VAC (1P)
		120/240V AC (2P)	125V DC (1,2P)	277/480VAC (2,3P)
Approvals & Interrupt. capacity(kA)	VDE (EN60947-2)	6kA (240/415AC)	10kA	3kA(240/415VAC)
	CE cULus (UL489_CSA)	Yes	Yes	Yes
	UL489A	Yes	10kA	
	cURus (UL1077_CSA)			5kA(1P,120VAC) 5kA (277/480VAC)
Mounting	Din 35mm rail			
Tripping Curves		<b>KM curve</b> (5-10 rated current)	<b>U2 curve</b> (5-10x rated current)	<b>2 Curve:</b> 5-10x rated current <b>9 curve:</b> 8-10 x rated current
Operating Temp	-40°C to + 65°C			
Accessories	Aux. Switch; Bus Bar			
Features	<ul style="list-style-type: none"> <li>• Compact 13mm / module width <ul style="list-style-type: none"> <li>• Precision tripping</li> </ul> </li> <li>• Hydraulic-Magnetic Technology <ul style="list-style-type: none"> <li>• Mid trip handle</li> </ul> </li> </ul>			



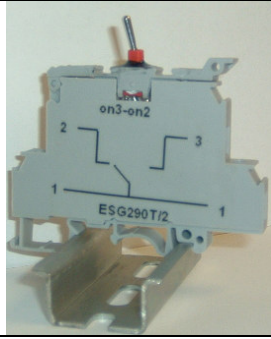
## Accessories

<p><b>End Stoppers</b> Also referred to as End Stoppers. Various types of End stoppers are available to suit different channels. End Stoppers can also be used as “spacers” to increase creepage distance between two terminals</p>				
 <p><b>SCKN</b></p>	<p>SCKN (2 screws) Din 35mm</p>			<p><b>Part No. 30370;</b> Heavy duty nickel-plated brass end stopper with screw - for Din 35mm rail</p>
 <p><b>SCUSL</b></p>	<p>SCUSL (screwless) Din32mm and Din 35mm</p>			<p><b>Part No. 30199;</b> End stopper of aluminum alloy with plastic end barrier - for 35mm rail. (crosses to AB 1492-EAH35)</p>

## Din Rail



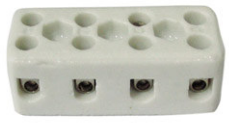
 <p>Pre-punched</p>	<p><b>Part No.: 3401/SE</b> Low profile Galvanized Steel Rail 2 meter lengths</p>			<p><b>Part No. 80291</b></p>
 <p>High Profile Pre-punched</p>	<p><b>Part No.: 3490/S-TH</b> High profile Galvanized Steel rail 2 meter lengths</p>			
 <p>Aluminum</p>	<p><b>Part No. WR-35AL/S</b> Low profile Aluminum 1 meter lengths</p>			<p><b>80291</b> -Combination Aluminum Rail - External dimension is 35mm; Internal channel is made for anchoring studs series 4420 and cable brackets series Dimensions: a=35mm, b=15mm, c=35mm, d=1mm, d1=1.8mm, e=16.7mm</p>
 <p>Aluminum Raised Rail</p>	<p><b>Part No. WR-35ALRR</b> Raised rail (2 1/4") Aluminum 1 meter lengths</p>			

## Special Function Terminals

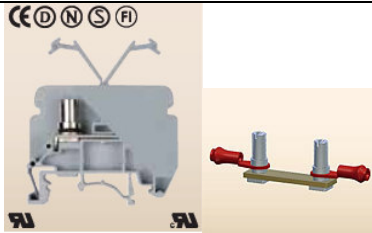

<b>Terminals with switch</b> <ul style="list-style-type: none"> <li>• 8 mm wide terminals</li> <li>• Available with ON-ON, ON-OFF-ON and ON-MOM function</li> <li>• Made with UL recognized parts</li> <li>• Fully insulated – no end barrier required</li> <li>• RoHS compliant</li> </ul>		
<b>Technical data</b>		
Contacts	Max. 1A/250V, 3A/120VAC or 28VDC	
Resistance of ON contacts	20mΩ max	
Wire size	12-24 AWG	
To be snapped on	Din 35mm or Din 32mm rail	
Size L x W x H	8 x 74 x 70 mm	
Tightening torque	7 LbIn	
Wire stripping length	9mm	
<b>Order Numbers</b>		
ON-ON	<b>ESG290T/2</b>	
ON-OFF-ON	<b>ESG290T/3</b>	
ON-MOM	<b>ESG290T/28</b>	
<b>Accessories</b>		
Labels	KN8	

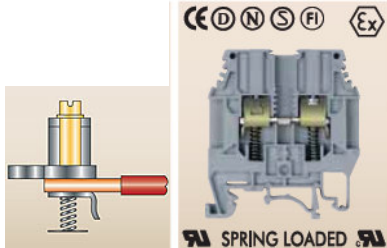
## Ceramic High Temperature Terminal Blocks

*CE mark; RoHS*

	No picture			
<b>Part No.</b>	BV1V1	BV2V2	BV3V3	BV4V4
<b>Wire Size</b>	4mm <sup>2</sup> (16AWG-12AWG) <b>250V/20 Amps</b>			
<b>Max. Temp.</b>	<b>Ceramic: 425°C (800°F)</b> <b>Nickel plated brass connections: 230°C(445°F)</b>			
<b>Material</b>	Ker110 ceramic glazed 5 sides			
<b>Screws</b>	M3, nickel plated steel			
<b>Terminals</b>	Nickel plated brass			
<b>Fixing Holes</b>	None	1 fixing hole dia 4.1mm	2 fixing holes dia 4,1 mm distance 11 mm	3 fixing holes dia 4,1 mm distance 11 mm
<b>Dimensions (mm)</b>	11 x 19 x15.5	22 x 19 x15.5	35 x 18 x15.5 mm	45 x 19 x14.5

## Special Function Terminals

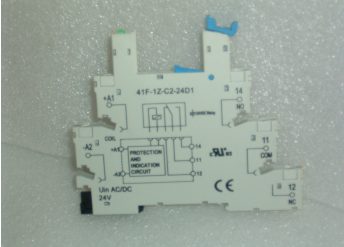
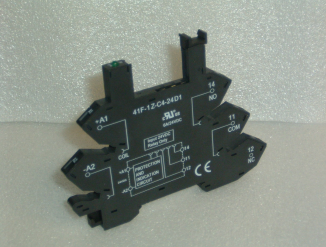
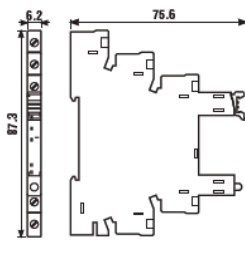
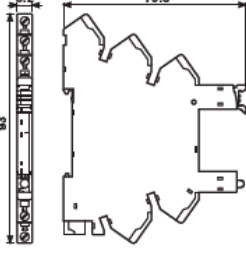

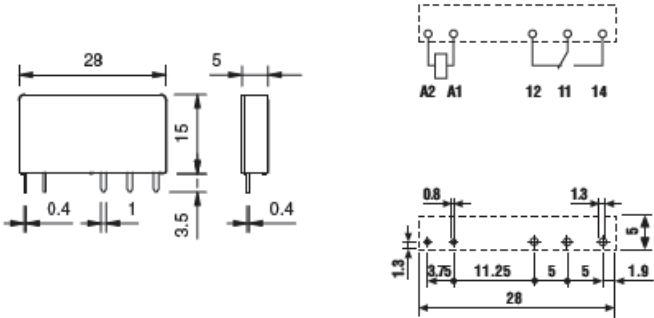
Stud Type Terminals			Disconnect Terminal	
Stud terminals accept wires with crimped ring or folk terminals. Studs on the KAT have long slotted nuts at top and are operated using a screwdriver			Knife disconnect terminal block	
<b>Description</b>	<b>KAT M4C</b>	<b>KAT M5C</b>	<b>Description</b>	<b>KULTD 4</b>
<b>Rating - UL</b>	600V/50A 8-14AWG	600V/65A 6-14AWG	<b>Rating - UL</b>	600V/ 15A 10-24 AWG
<b>H xW x L (mm)</b>	41.5 x 13 x 50	41.5 x 13 x 50	<b>H x L x W (mm)</b>	51 x 6 x 52
<b>End Plate</b>	Not required		<b>End Plate</b>	KPSD4
<b>Comb Link</b> 10 way	ASL2-10W		<b>Comb Link</b> 10 way	SLCM2.5-10W
<b>Making Label</b>	KN10		<b>Making Label</b>	KN5.5
<b>Mounting rail</b>	3401/SE		<b>Mounting rail</b>	3401/SE

Spring Loaded Feed Through Terminal blocks		
<b>Vibration Resistant Terminal blocks</b> A spring is assembled under compression and engages firmly with contact clamp.		
<b>Description</b>	<b>KULT 4</b>	<b>KULT 6</b>
<b>Rating</b>	600V /35 A 10-24 AWG	600V /45 A 8-24 AWG
<b>H xW x L (mm)</b>	58.5 x 6 x 52	58.5 x 8 x 52
<b>End Plate</b>	KPSL	
<b>Comb Link</b>	Not Available	
<b>Making Label</b>	KN5.5	KN8
<b>Mounting rail</b>	3401/SE	




# One Pole Relay Bases



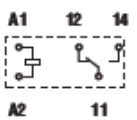
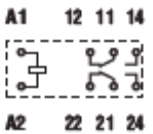


<p><b>Low cost 1PDT relay bases</b></p> <ul style="list-style-type: none"> <li>• 6mm wide</li> <li>• Screw and Cage clamp bases available</li> </ul>		
		
<p><b>Order No.</b></p>	<p><b>Screw Clamp</b></p>	<p><b>Cage Clamp</b></p>
<p><b>24VDC (6-24VDC)</b></p>	<p><b>41F-1Z-C2-24D1</b></p>	<p><b>41F-1Z-C4-24D1</b></p>
<p><b>120-230VAC</b></p>	<p><b>41F-1Z-C2-230VAC</b></p>	<p><b>41F-1Z-C4-230VAC</b></p>
<p><b>Technical Data</b></p>		
<p>Rated Values</p>	<p>6 Amps-250V</p>	
<p>Protection category</p>	<p>IP20</p>	
<p>Screw Torque</p>	<p>0.5Nm</p>	
<p>Wire strip length</p>	<p>10mm</p>	
<p><b>Relays</b></p>		
<p>Ultra Slim 1 pole - 250V/6A relays</p> <p>1 pole changeover contacts 10<sup>7</sup> cycles</p> <p>5mm wide</p> 		
<p><b>12VDC</b></p>	<p><b>45739R/1-F</b></p>	
<p><b>24VDC relay</b></p>	<p><b>45739R/2-F</b></p>	
<p><b>115V &amp; 230VAC</b></p>	<p><b>45739R/8-F (60VDC relay)</b></p>	
<p><b>Accessories</b></p>		
<p>Push in jumper</p>	<p><b>Cint-BR20</b></p>	

# 1 and 2 pole Relays



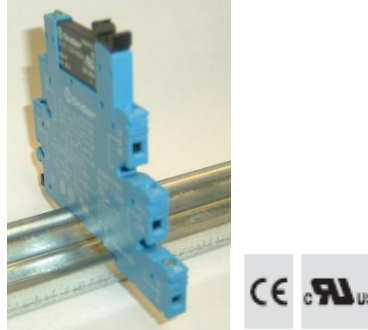
<p><b>Relay bases for 1 and 2 pole relays</b>  <b>Contact terminals all located on one side with the coil terminals on the opposite side</b></p>	
<p><b>Order No.</b></p>	<p>Relays ordered separately (see below)</p>
<p>Base without LED</p>	<p>14F-2Z-C4</p>
<p>Base with 24V LED</p>	<p>14F-2Z-C4-D1 (24V LED)</p>
<p>Base with 120/230VLED</p>	<p>14F-2Z-C4-A1 (120/230V LED)</p>
<p><b>Technical Data</b></p>	
<p>Rated Voltage/current</p>	<p>300V/10Amps</p>
<p>Contact Configuration</p>	<p>For 1 / 2 change over contacts</p>
<p>Wire size</p>	<p>22-10AWG</p>
<p>Size LxWxH mm</p>	<p>75.2x15.7x61.2</p>

		
		
<p>Relays</p>	<p>1 PDT</p>	<p>2 PDT</p>
<p>24VDC</p>	<p>45740R1/2</p>	<p>45740R2/2</p>
<p>115VAC</p>	<p>45740R1/5</p>	<p>45740R2/5</p>
<p>Current/Voltage</p>	<p>16A/250VAC</p>	<p>8A/250VAC</p>
<p>other voltages available please call</p>		

# Solid State Relays

*Ultra Slim (5mm wide) Solid State Relays that insert into 35mm rail mount sockets. Single Circuit output switch options:*

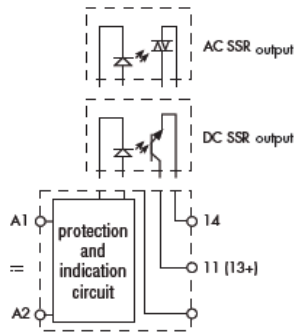
- 2A @ 24VDC
- 2A @ 240VAC



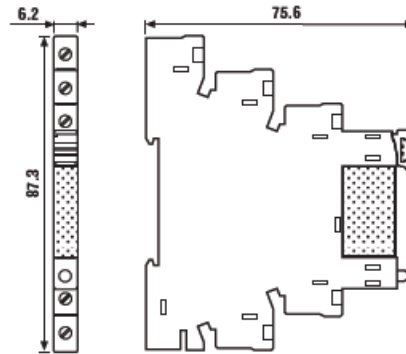
## Wiring



Galvanic isolated Opto coupler



Isolation up to 2.5kV



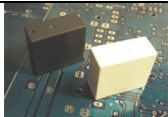
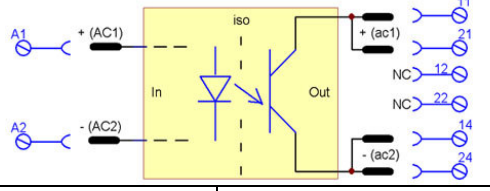
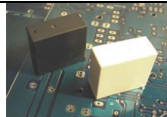
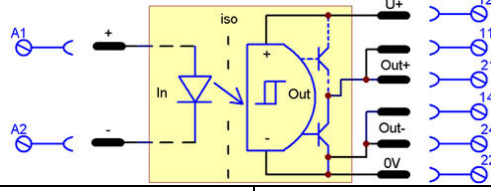


For DC loads

For AC loads

Input	ESG Order No. (SSR + Base)		
5 VDC	E-OPTO-05D-24VD-F		
24VDC	E-OPTO-24D-24VD-F	E-OPTO-24D-240VA-F	
120VAC		E-OPTO-120VA-240VA-F	
<b>Solid State relay – technical data</b>			
<b>Output Circuit</b>			
Contact Configuration	1 NO (SPST-NO)		1 NO (SPST-NO)
Maximum Current/Voltage	2A / 24VDC		2A / 240VAC
Switching voltage rang	(1.5...24) VDC		(12...240) VAC
Min. switching current	1 mA		22mA
Operate/release time	ms	0.1/0.6 (1.43Khz)	12/12
<b>Input Circuit</b>			
Nominal Voltage	24VDC	24VDC	(110...125) AC/DC
Operating range	16...30VDC	16...30VDC	88-138V
Control Current	7mA	7mA	5.5mA
Release Voltage	10VDC	10VDC	22V
Ambient temperature range	-20°C ...+60°C		
<b>Relay Base Specs</b>			
Rated Values	6A-250V		
Protection category	IP20		
Screw Torque	0.5Nm		
Wire Strip length	10mm		
Max wire size	1 x 14AWG; 2 x 16AWG		

# Definite Purpose Optocouplers

Optocouplers			Super fast Optocouplers																		
Electrobrick Optocouplers offers high isolation	 LxWxH mm (16x82.5x72)		Industrial Optocouplers with a max switch frequency of 2.0MHz Well suited for switching inductive loads	 LxWxH mm (16x82.5x72)																	
 <table border="1" style="font-size: 8px; margin: 0 auto;"> <tr><td>A1</td><td>12</td><td>11</td><td>14</td></tr> <tr><td>A2</td><td>22</td><td>21</td><td>24</td></tr> </table>	A1	12	11	14	A2	22	21	24			 <table border="1" style="font-size: 8px; margin: 0 auto;"> <tr><td>A1</td><td>12</td><td>11</td><td>14</td></tr> <tr><td>A2</td><td>22</td><td>21</td><td>24</td></tr> </table>	A1	12	11	14	A2	22	21	24		
A1	12	11	14																		
A2	22	21	24																		
A1	12	11	14																		
A2	22	21	24																		
<b>Technical data</b>	<b>AC/DC in, low power</b>	<b>AC/DC in High power</b>	<b>Technical data</b>	<b>Low power 100mA DC output</b>	<b>High Power 5A DC output</b>																
<b>Output</b>	100mA DC output	5A DC output	<b>Output Type</b>	Push-Pull, non inv.	Open collector, inv.																
Switching voltage	0-60VDC	0-55VDC	Max. switch voltage	30VDC	30VDC																
Max. continuous current	100mA	5A	Max Switch current (res. load)	100mA	5A																
Max. transient current DC version	0.15A/0.1ms	25A/0.1ms	Max. transient current	0.5A/0.1ms	40A/0.1ms																
Max. transient current AC/DC version	0.5A/10ms	25A/0.1ms	Max. switch frequency	2.0 MHz	200kHz																
<b>Input</b>			<b>Input</b>																		
Control voltage tolerance	Uc+-20%	Uc+-20% (115,230V:15%)	Polarity protection	Yes	Yes																
Max. input current at Uc 3-48V versions	15mA	15mA	Control Voltage tolerance	Uc+-20%	Uc+-20%																
Max. input current at Uc115-230V versions	3mA	3mA	Max control input current (at Uc)	10mA	10mA																
On /off level	80% / 10% of Uc	80% / 10% of Uc	On /off level	80% / 10% of Uc	80% / 10% of Uc																
Max. switching frequency DC (res.load)	~ 600Hz	~10Hz(110V ver. 5hZ)	Supply (U+/0V) / max. current	15-30VDC/15mA	15-30VDC/15mA																
Wire size	Up to 10AWG		Wire size	Up to 10AWG																	
<b>Control Voltage Uc</b>	<b>Order Numbers</b>		<b>Control Voltage Uc</b>	<b>Order Numbers</b>																	
5VDC	EB-O1-5VDL	EB-O3-5VDL	5VDC (TTL)	EB-O6-5VDC	EB-O8-5VDC																
12VDC	EB-O1-12VDL	EB-O3-12VDL	12VDC	EB-O6-12VDC	EB-O8-12VDC																
24VDC	EB-O1-24VDL	EB-O3-24VDL	24VDC	EB-O6-24VDC	EB-O8-24VDC																
3VAC/DC	EB-O1-3VADL	EB-O3-3VADL																			
24VAC/DC	EB-O1-24VADL	EB-O3-24VADL																			
115VAC/DC	EB-O1-115VADL	EB-O3-115VADL																			
Other voltages available – please call																					

## 22mm Pilot Devices

LED Indicator Lights(Plastic)

### NPL22-G A

1    2 3

#### 1. Series

<b>NPL22</b>	Normal (Round Head)
<b>NLD22</b>	Simple (Flush Head)

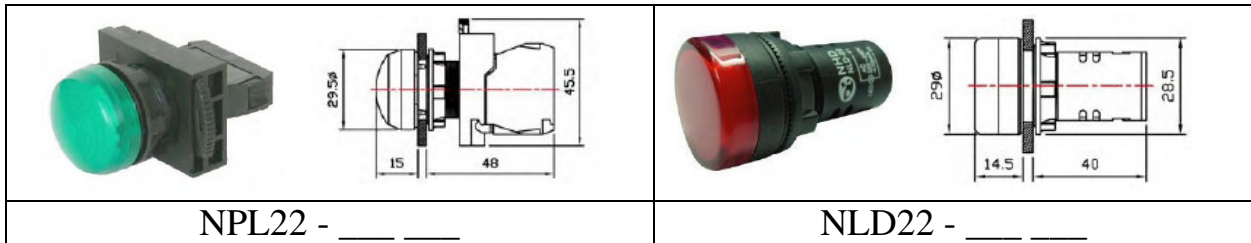
#### 2. Cap Color

<b>R</b>	Red	<b>Y</b>	Yellow
<b>G</b>	Green	<b>S</b>	Blue
<b>W</b>	White		

#### 3. Voltage

<b>NPL22</b>	<b>NLD22</b>
<b>A</b>	AC/DC 24V
<b>E</b>	AC/DC 100~120V
<b>I</b>	AC/DC 220~240V

Specification



## 22mm Push Button Switches

Non-Illuminated & Illuminated

### Model Designation NPB22-F 11 G A

1    2 3 4 5

<b>1. series</b>	
<b>NPB22</b>	Non-Illuminated
<b>NLB22</b>	Illuminated

<b>3. Contact Blocks</b>			
<b>10</b>	1a	<b>21</b>	2a1b
<b>01</b>	1b	<b>12</b>	1a2b
<b>11</b>	1a1b	<b>22</b>	2a2b
<b>20</b>	2a	<b>02</b>	2b

<b>4. Cap color</b>			
<b>NPB22</b>		<b>NLB22</b>	
<b>R</b>	Red	<b>R</b>	Red
<b>G</b>	Green	<b>G</b>	Green
<b>Y</b>	Yellow	<b>Y</b>	Yellow
<b>S</b>	Blue	<b>S</b>	Blue
<b>B</b>	Black	<b>W</b>	White
<b>W</b>	White		

<b>2.Type</b>				
<b>NPB22</b>		<b>NLB22</b>		
<b>F</b>	Flush Head	<b>B</b>	Mush. Head 65Ø	
<b>E</b>	Elevation Head	<b>R</b>	Reset Mush. Head 40Ø	
<b>M</b>	Mushroom Head	<b>V</b>	Reset Mush. Head 65Ø	
<b>K</b>	Mush. Head 40 Ø(with key)	<b>D</b>	Double push Button	
<b>S</b>	Reset push-pull stop Mush. Head 35Ø)	<b>G</b>	Mush. Head Push-push to release 40Ø	
<b>L</b>	Flush-Head (push-push to release)		<b>D</b>	Double push Button
<b>P</b>	Projecting Head (push-push to release)		<b>L</b>	Flush-Head (push-push to release)
			<b>G</b>	Mush. Head Push-push to release 40Ø
			<b>P</b>	Projecting Head (push-push to release)

<b>5. Voltage Rating</b>	
<b>NLB22</b>	
<b>A</b>	AC/DC 24V
<b>E</b>	AC/DC 100~120V
<b>I</b>	AC/DC 220~240V
<b>M</b>	AC 380~440V



Specifications:

**NPB22-F**

**NLB22-R**

# Switches

Non-illuminated & Illuminated

## Model Designation

**NSS22-S 2 11 G A**  
 1      2 3 4 5 6

1. series	
NSS22	Non-Illuminated
NLS22	Illuminated

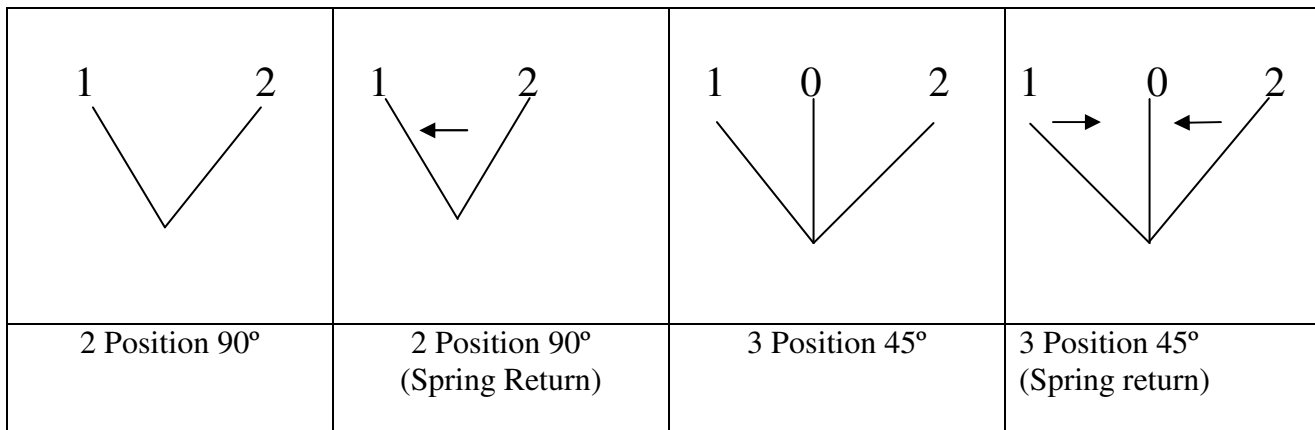
2. Type			
NSS22		NLS22	
S	Normal Shaft	S	Normal Shaft
L	Long Shaft	L	Long Shaft
K	Key		

3. Position	
2	2 position
1	3 position (spring return)
3	3 position
0	3 position (spring return)

4. Contact Blocks			
10	1a	21	2a1b
01	1b	12	1a2b
11	1a1b	22	2a2b
20	2a	02	2b

5. Cap color			
NSS22		NLS22	
R	Red	R	Red
G	Green	G	Green
Y	Yellow	Y	Yellow
B	Black		

6. Voltage Rating	
NLS22	
A	AC/DC 24V
E	AC/DC 100~120V
I	AC/DC 220~240V
M	AC 380~440V

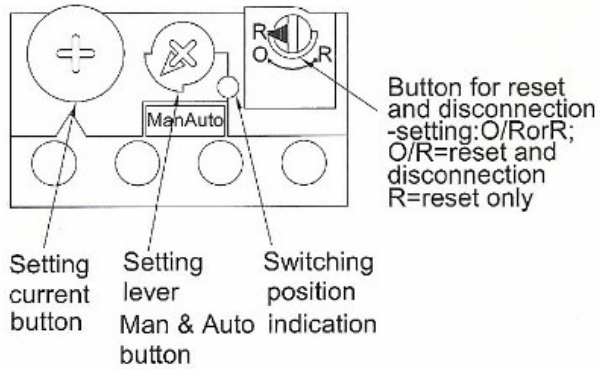
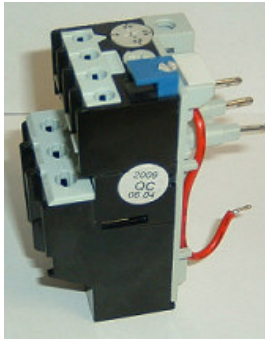


## Specifications:





## Thermal Overloads



Part No.	Relay Setting Range	Contactors	Motor Capacity (HP)					Approval	
			1 phase		3 phase				
			100-110V	200-220V	200-220V	380-440V	500-550V		
NTH-0.5	0.35-0.5A	C-09D				0.125			
NTH-0.75	0.5-0.75A	C-09D				0.125	0.25		
NTH-1.05	0.75-1.05A	C-09D					0.5		
NTH-1.45	1.05-1.45A	C-09D				0.25	0.5		1
NTH-1.9	1.4-1.9A	C-09D		0.125	0.75				
NTH-2.5	1.8-2.5A	C-09D		0.25	0.5	1	1.5		
NTH-3	2.4-3A	C-09D				1.5	2		
NTH-4	2.9-4A	C-09D	1/8	0.5	1	2			
NTH-5	3.8-5A	C-09D	1/4	0.75		3	3		
NTH-6.5	4.5-6.5A	C-09D	1/2	0.75	1.5				5
NTH-8	6-8A	C-09D	1/2		2	5			
NTH-11	8-11A	C-11D		1.5	3				5
NTH-14	11-14A	C-12D	0.75	2	4	7.5	10		
NTH-15	10-15A	C-12D	0.75	2	4	7.5	10		
NTH-17	14-17A	C-12D	1	2	5	10	15		
NTH-21	17-21A	C-18D	1.5	3		15	20		
NTH-25	21-25A	C-18D	2	4	7.5				20
NTH-28	24-28A	C-25D				20			
NTH-32	26-32A	C-25D		5	10				25

### Accessory for overload relays



#### NTH-04

Independent mounting for Thermal overload relays  
Screw fixing or 35mm Din rail



## Auxiliary Contacts Blocks



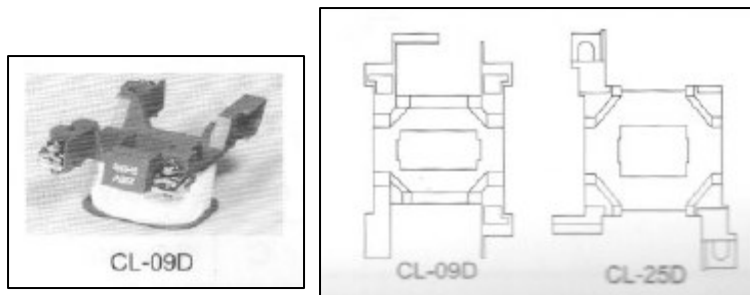
Catalogue name	Applicable Contactor	Auxiliary Contacts		Insulation Voltage	Thermal Current	Approval
		N/O	N/C			
CA1-D20		2	-			
CA1-D11		1	1			
CA1-D02		-	2			
CA1-D40		4	-			
CA1-D31		3	1	660V	10A	CE SP® US.
CA1-D22	C-09D to C-100D11	2	2			
CA1-D13		1	3			
CA1-D04		-	4			
CA8-D20		2	-			
CA8-D11		1	1			
CA8-D02		-	2			
CA9-D02		-	2			

CA1 : Top Auxiliary Contacts Blocks

CA8 : Side Auxiliary Contacts Blocks

CA9 : Mechanical Interlock

## Replacement coils for contactors:



Model No	Applicable Contactor
CL-09D	C-09D-C-18D
CL-25D	C-25D-C-35D

## Model Designation:

CL- 09D G7  
1 2

1. Type

C	09D 25D
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2. Coil

Detail Page 19
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## Non-Reversing starters in a box with push buttons



Horse Power	Part Number	Description	Approvals
<b>230V 3 PHASE</b>			
1/2	MS1-09D3H7NN2.53P	1/2 HP / 230V / 3 PHASE	CE
3/4	MS1-09D3H7NN33P	3/4 HP / 230V / 3 PHASE	
1	MS1-09D3H7NN43P	1 HP / 230V / 3 PHASE	
1 1/2	MS1-09D3H7NN6.53P	1 1/2 HP / 230V / 3 PHASE	
2	MS1-09D3H7NN83P	2 HP / 230V / 3 PHASE	
3	MS1-11D3H7NN113P	3 HP / 230V / 3 PHASE	
5	MS1-12D3H7NN173P	5 HP / 230V / 3 PHASE	
10	MS1-25D3H7NN323P	10 HP / 230V / 3 PHASE	
<b>480V 3 PHASE</b>			
1/2	MS1-09D3N7N1.053P	1/2 HP / 480V / 3 PHASE	CE
3/4	MS1-09D3N7N1.453P	3/4 HP / 480V / 3 PHASE	
1	MS1-09D3N7N1.93P	1 HP / 480V / 3 PHASE	
1 1/2	MS1-09D3N7N33P	1 1/2 HP / 480V / 3 PHASE	
2	MS1-09D3N7N43P	2 HP / 480V / 3 PHASE	
3	MS1-09D3N7N53P	3 HP / 480V / 3 PHASE	
5	MS1-09D3N7N853P	5 HP / 480V / 3 PHASE	
10	MS1-12D3N7N143P	10 HP / 480V / 3 PHASE	

**Other standard coil voltages available**

**Please call for single phase starters in a box and for larger horsepower models.**

## DIN-Rail Mounted Switching Power Supplies



Part No. PR1024D...



PR1072D...

- AC Voltage input is 90 ~ 264VAC
- Input frequency: 47~63Hz
- Power supplies have short circuit and over load protection

Part No.	Watts	Input Voltage	DC Output	Current	H mm	D mm	W mm	
RP1024D-12F	24W	90~264VAC	12V	2A	104	76	45	CE UL
RP1024D-24F	24W	90~264VAC	24V	1A	104	75	45	CE UL
RP1045D-05F	45W	90~264VAC	5V	9A	100	83	49	CE UL
RP1045D-12F	45W	90~264VAC	12V	3.75A	100	83	49	CE UL
RP1045D-24F	45W	90~264VAC	24V	1.875A	100	83	49	CE UL
RP1072D-12F	72W	90~264VAC	12V	6A	100	60	110	CE UL UL508
RP1072D-24F	72W	90~264VAC	24V	3A	100	60	110	CE UL UL508
RP1120D-12M	120W	110/220VAC	12V	10A	100	110	90	CE UL UL508
RP1120D-24M	120W	110/220VAC	24V	5A	100	110	90	CE UL UL508
RP1200D-24M	200W	110/220VAC	24V	8.3A	100	110	90	CE UL UL508
RP1240D-24C	240W	90~264VAC	24V	10A	110	110	120	CE UL

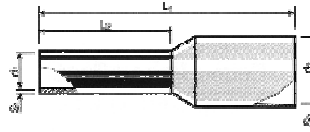
### Three Phase Power supplies

Over voltage / short circuit					
CE/UL					
	<b>240W</b> (model DRT-240-24)	<b>480W</b> (model DRT-480-24)	<b>960W</b> (model DRT-940-24)		
Part No. 24VDC output	<b>45703K/24S-3Phase</b>	<b>45704K/24S-3Phase</b>	<b>45705K/24S-3Phase</b>		
Input volt. Range	340-550VAC; 3-phase 4 wires				
Output Volt./current	24VDC/10.0A	24VDC/20A	24VDC/40A		
Size W x H x D	125.5x125.5x100mm	227x125.5x100mm	276x125.2x100mm		

Please visit [www.esgllc-usa.com](http://www.esgllc-usa.com) for complete specifications

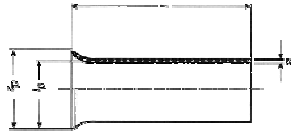
# Wire Management Products

## Insulated Wire Ferrules



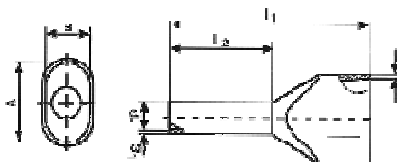
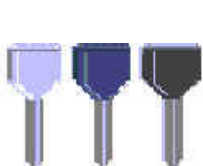
Wire	Size	Din 46228 Part 4	Insulation	Old Din	Insulation			Dimensions (mm)		
AWG	mm <sup>2</sup>	Part #	Color	Part #	Color	d1	d2	l1	l2	s1
26	0,14			WIW2606	Grey	0.7	2.0	10.5	6	0.25
				WIW2608	Grey	0.7	2.0	12.5	8	0.25
24	0,25			WIW2406	Lt. Blue	0.8	2.0	10.5	6	0.25
				WIW2408	Lt. Blue	0.8	2.0	12.5	8	0.25
22	0,34	WID2206	Turquoise			0.8	2.0	10.5	6	0.25
		WID2208	Turquoise			0.8	2.0	12.5	8	0.25
20	0,5	WID2006	White	WIW2006	Orange	1.1	2.5	11.5	6	0.15
		WID2008	White	WIW2008	Orange	1.1	2.5	13.5	8	0.15
		WID2010	White	WIW2010	Orange	1.1	2.5	15.5	10	0.15
18	0,75	WID1806	Grey	WIW1806	White	1.3	2.8	12.0	6	0.15
		WID1808	Grey	WIW1808	White	1.3	2.8	14.0	8	0.15
		WID1810	Grey	WIW1810	White	1.3	2.8	16.0	10	0.15
18-17	1	WID1706	Red	WIW1706	Yellow	1.5	3.0	12.5	6	0.15
		WID1708	Red	WIW1708	Yellow	1.5	3.0	14.5	8	0.15
		WID1710	Red	WIW1710	Yellow	1.5	3.0	16.5	10	0.15
16	1.5	WID1606	Black			1.8	3.4	12.5	6	0.15
		WID1608	Black	WIW1608	Red	1.8	3.4	14.5	8	0.15
		WID1610	Black	WIW1610	Red	1.8	3.4	16.5	10	0.15
14	2,5	WID1408	Blue			2.3	4.2	15.0	8	0.15
		WID1412	Blue			2.3	4.2	19.0	12	0.15
12	4	WID1210	Grey			2.9	4.8	17.5	10	0.2
		WID1212	Grey			2.9	4.8	20.0	12	0.2
10	6	WID1012	Yellow	WIW1012	Black	3.6	6.2	20.0	12	0.2
8	10			WIW0812	Ivory	4.6	7.5	21.0	12	0.2
6	16	WID0612	Blue			6.0	8.8	23.0	12	0.2
		WID0618	Blue			6.0	8.8	29.0	18	0.2
4	25	WID0416	yellow			7.5	11.0	29.0	16	0.2

## Non-Insulated Wire Ferrules



Material: Tin Plated Copper Available Versions: Unplated & Silverplated					
Wire Size		Dimensions (millimeters)			
AWG/mm <sup>2</sup>	Part #	l1	d1	d2	s1
24 / 0.25	WUD2405	5	0.8	1.7	0.15
	WUD2407	7			
22 / 0.34	WUD2205	5	0.9	1.8	0.15
	WUD2207	7			
20 / 0.5	WUD2006	6	1	2.1	0.15
	WUD2008	8			
	WUD2010	10			
18 / 0.75	WUD1806	6	1.2	2.3	0.15
	WUD1808	8			
17 / 1.0	WUD1706	6	1.4	2.5	0.15
	WUD1708	8			
	WUD1710	10			
16 / 1.5	WUD1607	7	1.7	2.8	0.15
	WUD1608	8			
	WUD1610	10			
14 / 2.5	WUD1407	7	2.2	3.4	0.15
	WUD1408	8			
	WUD1410	10			
12 / 4.0	WUD1209	9	2.8	4	0.2
	WUD1210	10			
	WUD1212	12			
10 / 6.0	WUD1010	10	3.5	4.7	0.2
	WUD1012	12			
8 / 10.0	WUD0812	12	4.5	5.8	0.2
	WUD0815	15			
6 / 16.0	WUD0612	12	5.8	7.5	0.2
4 / 25.0	WUD0412	12	7.3	9.5	0.2
2 / 35.0	WUD0218	18	8.3	11	0.2
	WUD0220	20			
1 / 50.0	WUD0122	22	10.3	13	0.2
2/O / 70	WUD2/O25	25	13.3	15	0.4
3/O / 95	WUD3/O30	30	15.3	17	0.4

## Twin Wire Ferrules



Wire	Size	DIN 46228	Insulation	Old DIN	Insulation	Dimensions (mm)				
AWG	mm <sup>2</sup>	Part #	Color	Part #	Color	d1	d2	l1	l2	s1
2 x 20	2 x 0.5	WIT2008	White	WOT2008	Orange	1.5	4.5	15.0	8.0	0.25
2 x 18	2 x .075	WIT1808	Grey	WOT1808	White	1.8	5.1	15.0	8.2	0.25
2 x 18	2 x .075	WIT1810	Grey	WOT1810	White	1.8	5.1	17.0	10.0	0.15
2 x 17	2 x 1.0	WIT1708	Red	WOT1708	Yellow	2.0	5.1	15.0	8.0	0.15
2 x 17	2 x 1.0	WIT1712	Red	WOT1712	Yellow	2.0	5.1	17.0	12.0	0.15
2 x 16	2 x 1.5	WIT1608	Black	WOT1608	Red	2.3	6.4	16.2	8.2	0.15
2 x 16	2 x 1.5	WIT1612	Black	WOT1612	Red	2.3	6.4	20.0	12.0	0.15
2 x 14	2 x 2.5	WIT1410	Blue			2.9	8.0	18.5	10.0	0.15
2 x 14	2 x 2.5	WIT1413	Blue			2.9	8.0	22.0	13.0	0.15
2 x 12	2 x 4	WIT1212	Grey			3.7	8.6	23.0	12.0	0.2
2 x 10	2 x 6	WIT1014	Yellow	WOT1014	Black	4.9	9.6	25.0	14.0	0.2
2 x 8	2 x 10	WIT0814	Red			6.5	12.6	26.0	14.0	0.2
2 x 6	2 x 16	WIT0614	Blue			8.5	16.6	31.0	14.0	0.2

## Wiring Tools

		<p><b>Part No. WTZ-CT4.4</b>                      Ratchet crimp tool                      Crimp range 28-10AWG                      Square crimp profile</p>
		<p><b>Part No. WST3300</b>                      Combination wire cutter; stripper, ferrule crimper                      Wire stripping range: 20-10AWG                      Ferrule crimping range: 20-14AWG; 12-10AWG</p>
		<p><b>Multi Stripper Plus No. 500</b>  <b>Part No. WST500</b>                      Two turntable bits                      1. PZ 1 (⊕), 3.5 X 0.6 mm (⊖)                      2. PZ 2 (⊕), 4.0 X 0.8 mm (⊖)                      Voltage tester 110-120V                      Round cable cutter and stripper                      Coax stripper                      Wire stripper 20-10AWG</p>
		<p><b>Part No. WST5</b>                      Pistol grip wire cutter and stripper                      Range: 24-10AWG</p>
<p>More tools are <a href="http://www.esgllc-usa.com">www.esgllc-usa.com</a></p>		

# Wire Duct

esgllc-usa.com

ESG, LLC  
Tel: (215) 997-8855  
Fax: (800) 522-3868

## Features a patented Non-Slip Cover!

Part No.	INCHES	METRIC	Unit Packs	Stick lengths
<b>LOW Density</b>				
DUCT-0505	1/2 X 5/8	15X17	60	2 M
DUCT-L051	.5 X 1	15 X 30	48	2 M
DUCT-L0515	1/2 X 1 1/2	15x40	36	2 M
DUCT-L11	1 X 1	25X30	40	2 M
DUCT-L115	1 X 1 1/2	25X40	30	2 M
DUCT-L12	1 X 2 1/4	25x60	20	2 M
DUCT-L13	1 X 3	25x80	16	2 M
DUCT-L14	1 X 4	25x100	12	2 M
DUCT-L151	1 1/2 X 1	40X30	24	2 M
DUCT-L1515	1 1/2 X 1 1/2	40X40	20	2 M
DUCT-L152	1 1/2 X 2 1/4	40x60	18	2 M
DUCT-L153	1 1/2 X 3	40x80	12	2 M
DUCT-L154	1 1/2 X 4	40x100	8	2 M
DUCT-L21	2 1/4 X 1	60X30	16	2 M
DUCT-L215	2 1/4 X 1 1/2	60x40	12	2 M
DUCT-L22	2 1/4 X 2 1/4	60x60	12	2 M
DUCT-L23	2 1/4 X 3	60x80	12	2 M
DUCT-L24	2 1/4 X 4	60x100	8	2 M
DUCT-L315	3 X 1 1/2	80x40	12	2 M
DUCT-L32	3 X 2 1/4	80x60	12	2 M
DUCT-L33	3 X 3	80x80	12	2 M
DUCT-L34	3 X 4	80x100	8	2 M
DUCT-L44	4 X 4	100x100	8	2 M
DUCT-L46	4 X 6	100 X 150	4	2 M

### HIGH Density

DUCT-H11	1 X 1	25X30	40	2 M
DUCT-H115	1 X 1 1/2	25X40	30	2 M
DUCT-H12	1 X 2 1/4	25x60	20	2 M
DUCT-H13	1 X 3	25x80	16	2 M
DUCT-H14	1 X 4	25x100	12	2 M
DUCT-H1515	1 1/2 X 1 1/2	40X40	20	2 M
DUCT-H152	1 1/2 X 2 1/4	40x60	18	2 M
DUCT-H153	1 1/2 X 3	40x80	12	2 M
DUCT-H154	1 1/2 X 4	40x100	8	2 M
DUCT-H215	2 1/4 X 1 1/2	60x40	12	2 M
DUCT-H22	2 1/4 X 2 1/4	60x60	12	2 M
DUCT-H23	2 1/4 X 3	60x80	12	2 M
DUCT-H24	2 1/4 X 4	60x100	8	2 M
DUCT-H315	3 X 1 1/2	80x40	12	2 M
DUCT-H32	3 X 2 1/4	80x60	12	2 M
DUCT-H33	3 X 3	80x80	12	2 M
DUCT-H34	3 X 4	80x100	8	2 M
DUCT-H44	4 X 4	100x100	8	2 M

Put a W = white or G = gray at the end of the part#  
Ex.: DUCT-L12G is low density 1" wide and 2" high gray

### Technical Data

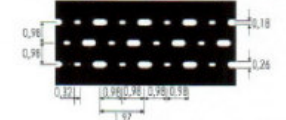
W (A)=0,59 inc. (15mm.)



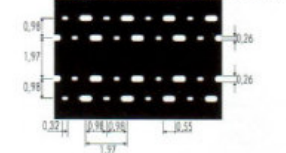
W (A)=0,98-2,36 inc. (25-60mm.)



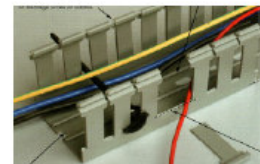
W (A)=3,15-4,72 inc. (80-120mm.)



W (A)=5,91-7,88 inc. (150-200mm.)



### Low density (L)



### High density (H)



Material: Self-extinguishing rigid PVC Class 1 (UL94-VO)



## Smart Programmable Relay



- Programming via snap-on display or with PC
- Remote controlling and voice message over telephone network or Cellular phone
- Remote maintenance and remote operation
- Programmable Timers
- Real time clock
- Password protected
- 20 I/O expansion module available (Can be expanded up to 82 I/O)
- Wireless remote control function (transmitter has a transmission distance of 70 meters)
- UL/CE approval
- Free Software



## EXQUISITE SIZE POWERFUL FUNCTION

SR SERIES LOGIC CONTROLLER



### Technical Specifications:

Supply Volt.	AC100-240V / DC12-24V
Output current	Res. Load 10A
Program. Method	Function blocks
Counter/Timer	128 / 128
Max. I/O	82
LCD Display	4x10 characters minus 20 degr.C~+70 C
Work Temp.	

Part number	Voltage	Input/Output
SR-12MRAC	100~240VAC	8 AC IN/4 R OUT
SR-12MRDC	12~24VDC	8 DC IN (A)/4 R OUT
SR-12MTDC	12~24VDC	8 DC IN (A)/4 T OUT(NPN)
SR-12MGDC	12~24VDC	8 DC IN (A)/4 T OUT(PNP)
SR-22MRAC	100~240VAC	14 ACIN/8 R OUT
SR-22MRDC	12~24VDC	14 DCIN (A)/8 R OUT
SR-22MTDC	12~24VDC	14 DCIN (A)/8 T OUT(NPN)
SR-22MGDC	12~24VDC	14 DCIN (A)/8 T OUT(PNP)
SR-20ERA	100~240VAC	Expansion Module 12 ACIN /8 R OUT
SR-20ERD	12~24VDC	Expansion Module 12 DCIN (A)/8 R OUT
SR-20ETD	12~24VDC	Expansion Module 12 DCIN (A)/8 T OUT
SR-RCA	100~240VAC	AC remote control type receiver module
SR-RCD	12~24VDC	DC remote control type receiver module
SR-TC	DC3V	Transmitter module
SR-VPA	100~240VAC	AC tel. voice module auto dialer, alarming + remote control mod.
SR-VPD	12~24VDC	DC tel. voice module auto dialer, alarming + remote control mod.
SR-HMI-L	Human Machine Interface (LCD panel)	
SR-HMI-B	Human Mach. Interface (LCD panel) w/ backup	
SR-CBA	AC TYPE Bridge Connection	
SR-CBD	DC TYPE Bridge Connection	
SR-CP	Programming cable	
SR-DCP	Programming cable(frontspiece plug type)	
SR-DUSB	The interface between SR and PC USB port	
SR-ECBA	AC TYPE remote connector bridge	
SR-ECBD	DC TYPE remote connector bridge	
SR-EHC	Remote mounting rack for LCD panel	
SR-AUD	Recording cable	
SR-EANT	Remote Antenna Kit	
SR-LED	LED	
SR-MCA	SR modbus module(AC type)	
SR-MCD	SR modbus module(DC type)	
SR-MC	SR modbus	
SR-TP	SR connect with SH series cable	

(A) Means the DC input can be used as analogue input.



Removable LCD (HMI) Can be rack mounted to the door of a panel



SR-12RAC Controller with SR-RCA Remote control Receiver...SR-TC Transmitter also pictured.  
**Maximum transmitting distance is 70 meters**



Telephone alarming is automatic. The voice message and telephone number can be changed via HMI by end user

## Screwdrivers for Terminal Blocks



● Rubber Handle

Part No.					
8100/00	0.3	2	2.5	70	140
8100/0	0.4	2.5	3	80	160
8100/1	0.5	3.5	3.5	90	180
8100/2	0.6	4	4	100	195



⊕ Rubber Handle

Part No.					
8190/00-60	00	3	60	120	
8190/0-60	0	4	60	140	
8190/1-80	1	5	80	175	
8190/2-100	2	6	100	205	



● Insulated screwdrivers 1000V

Part No.						
5100/00	1.6	0.4	2	2.5	40	125
5100/0	1.6	0.4	2.5	3	80	165
5100/1	2	0.5	3	3.5	100	190
5100/2	2.5	0.6	3.5	4	100	190



⊕ Insulated screwdrivers 1000V

Part No.					
5190/0-60	1.6	0	3	60	150
5190/1-80	2-3	1	5	80	175
5190/2-100	3-5	2	6	100	205

Please call for larger sizes

## 120VAC DIN Rail Receptacle Outlet

Features:



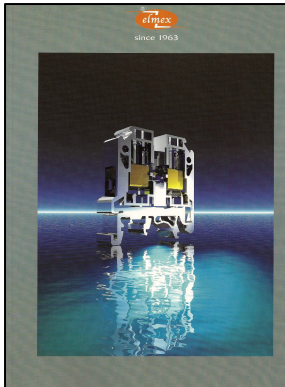
- Standard Receptacles – Available in 15 and 20 Amps
- DIN rail attachment is spring-loaded and securely fastens the box to any DIN 35mm rail

Part No.	Description
WRO-15STDRGY	15A Standard Grade Receptacle Gray/White
WRO-20SPECGY	20A SPEC Grade Receptacle Gray/White

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CCLA6-xW series	5	KU2D4S series	4	SLCM2.5-10W	5		
CCLADD-xW series	4	KUDD4 series	4	SLCM2.5-xW series	5		
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# Manufacturer Catalogs



**Terminal Blocks**



**22mm Pilot Devices**



**Motor Control**



**Power Supplies**



**Timing Relays**



**HMIs**



**Programmable Relay**



**Hand Tools**