



Flow

**Low Volume Variable Area Flow Monitors**

With reed contact (KSR), proximity switch (SVN) · stainless steel  
 Brochure: **S1**  
**Model: KSR/SVN**



Water: 0.03 - 4 GPH  
 Air: 0.1-13 SCFH  
 t<sub>max</sub> 160°F; p<sub>max</sub> 230 PSIG  
 Connection: G 1/4 female, 1/4 NPT female

**Low Volume Variable Area Flow Meters/Monitors**

Polycarbonate/brass, Polysulfone/stainless steel  
 Brochure: **S1**  
**Model: KSV**



Water: 0.04-0.4 GPH...2-20 GPH  
 Air: 0.7-3 SCFH...10-100 SCFH  
 t<sub>max</sub> 130°F (Polycarbonate), 250°F (Polysulfone);  
 p<sub>max</sub> 100 PSIG · Connection: 1/8 NPT female  
 Accuracy: ± 6% of full scale

**Low Volume Variable Area Flow Meters/Monitors**

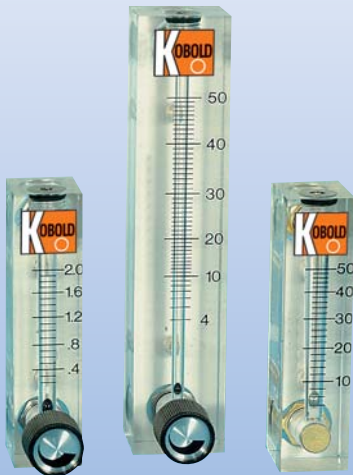
brass, stainless steel, PVDF bi-stable contact  
 Brochure: **S1**  
**Model: KDF/KDG**



Water: 0.002 - 0.02 l/h ...16 - 160 l/h (KDF)  
 Air: 0.03 - 0.3 NI/h ... 430 - 4300 NI/h (KDG)  
 t<sub>max</sub> 210°F; p<sub>max</sub> 230 PSIG  
 Connection: 1/4 NPT female  
 Accuracy: ± 2.5% of full scale

**Low Volume Variable Area Flow Meters/Monitors**

Acrylic  
 Brochure: **S1**  
**Model: KFR**



Water: 0.2-2 GPH...2-20 GPM  
 Air: 0.1-1 SCFH...10 -100 SCFH  
 t<sub>max</sub> 150°F; p<sub>max</sub> 100 PSIG  
 Connection: 1/8 - 1 FNPT  
 Accuracy: ±2% ... 5% of full scale

**Low Volume/All Metal Variable Area Flow Meters/Monitors**

Local indication (limit switches) bargraph indication (analog output) stainless steel  
 Brochure: **S1**  
**Model: KDK**



Water: 0.08-0.8 GPH...2.6-26 GPH  
 Air: 0.18-1.8 ... 12 - 120 SCFH  
 t<sub>max</sub> 350°F; p<sub>max</sub> 1850 PSIG  
 Connection: 1/4 NPT female  
 Accuracy ±2.5% of full scale

**Low Volume/All Metal Variable Area Flow Meters/Monitors**

Local indication, limit switches, analog output stainless steel  
 Brochure: **S1**  
**Model: KMI**



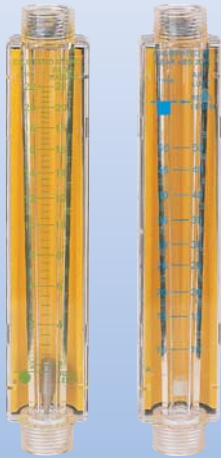
Water: 0.026-0.26 GPH...6.6-66 GPH  
 Air: 0.16-1.6 SCFH...28-282 SCFH  
 t<sub>max</sub> 300°F; p<sub>max</sub> 2320 PSIG  
 Connection:  
 G 1/4, G 3/8, 1/4 NPT, 3/8 NPT female  
 Accuracy class: ±4% of full scale





**Low Volume Variable Area Flow Meters**

Grillon  
Brochure: **S1**  
Model: **KLF**



Water: 0.07 - 0.55 l/min ... 2 - 22 l/min  
Air: 1 - 7.5 l/min ... 1 - 12 l/sec  
t<sub>max</sub> 140°F; p<sub>max</sub> 145 PSIG  
Connection: R 1/4 ... R 3/4 male  
Accuracy: ±2% of full scale

**Low Volume Variable Area Flow Meters/Monitors**

Trogamid, Polysulfone, PVDF  
Brochure: **S1**  
Model: **KSK/PSK**



Water: 0.006-0.05 GPM...0.44-4.4 GPM  
Air: 0.1 - 0.55 Nm³/h ... 6 - 30 Nm³/h  
t<sub>max</sub> 140°F; p<sub>max</sub> 145 PSIG  
Connection: G 3/4 - G 1 1/2 male, 3/8"-1" NPT  
Accuracy: ±4 % of full scale

**Low Volume Variable Area Flow Monitors**

PVC  
Brochure: **S1**  
Model: **SWK-13**



Water: 0.05 - 0.1 l/min ... 9 - 24 l/min  
Air: on request  
t<sub>max</sub> 140°F; p<sub>max</sub> 90 PSIG  
Connection: G 1/2 male, Hose nipple

**Low Volume/All Metal Variable Area Flow Monitors**

Brass, stainless steel  
Brochure: **S1**  
Model: **SWK-1**



Water: 0.05 - 0.1 l/min ... 9 - 24 l/min  
Air: on request  
t<sub>max</sub> 212°F; p<sub>max</sub> 3600 PSIG  
Connection: G 1/2 female

**Low Volume/All Metal Variable Area Flow Meters/Monitors**

Brass, stainless steel  
Brochure: **S1**  
Model: **SWK-2**



Water: 0.05 - 0.1 l/min ... 9 - 24 l/min  
Air: on request  
t<sub>max</sub> 212°F; p<sub>max</sub> 3600 PSIG  
Connection: G 1/2 female  
Accuracy: ±4% of full scale

**Piston Flow Monitors**

For gases and liquids  
Brass, stainless steel  
Brochure: **S2**  
Model: **DKI**



Water: 0-0.5 GPM...0 - 21 GPM  
Air: on request  
Connection: G 1/2, 1/2 NPT female  
t<sub>max</sub> 250°F; p<sub>max</sub> 930 PSIG





Flow

**All Metal Variable Area Flow Monitors**

Brass, stainless steel  
Brochure: **S2**  
Model: **S**



Water: 0.075-0.25 GPM...1-14 GPM  
Air: on request  
t<sub>max</sub> 160°F; p<sub>max</sub> 3600 (brass), 5000 PSIG (ss)  
Connection:  
G 1/4 - G 1 1/4 female, 1/4 - 1 1/4 NPT female  
Accuracy: ±4% of full scale

**All Metal Variable Area Flow Meters/Monitors**

Brass, stainless steel  
Brochure: **S2**  
Model: **SMV**



Water: 0.05-0.15 GPM...4-40 GPM  
Air: on request; t<sub>max</sub> 160°F;  
p<sub>max</sub> 3600 PSIG (brass), 5000 PSIG (ss)  
Connection:  
G 1/4 - G 1 1/4 female, 1/4 - 1 1/4 NPT female  
Accuracy: ±4% of full scale

**Variable Area Flow Meters**

Brass, stainless steel  
Brochure: **S2**  
Model: **SV-5**



Water: 0.05-0.35 GPM ... 2.5-40 GPM  
Air: on request  
t<sub>max</sub> 160°F; p<sub>max</sub> 145 PSIG  
Connection:  
G 1/4 - G 1 1/4 female, 1/4 - 1 1/4 NPT female  
Accuracy: ±4% of full scale

**Variable Area Flow Meters/Monitors**

Brass, stainless steel  
Brochure: **S2**  
Model: **SV-7**



Water: 0.05-0.35 GPM...2.5-40 GPM  
Air: on request  
t<sub>max</sub> 160°F; p<sub>max</sub> 145 PSIG  
Connection:  
G 1/4 - G 1 1/4 female, 1/4 - 1 1/4 NPT female  
Accuracy: ±4% of full scale

**All Metal Variable Area Flow Monitors**

With fixed min. or max. contact  
brass, stainless steel  
Brochure: **S2**  
Model: **SMN**



Water: 0.4-13 GPM  
Air: on request  
t<sub>max</sub> 250°F;  
p<sub>max</sub> 3600 PSIG (brass), 5000 PSIG (ss)  
Connection: G 1 female, 1" NPT

**Variable Area Flow Meters/Monitors**

Graduated glass tube in sleeve fitting  
steel, stainless steel  
Brochure: **S2**  
Model: **KHN**



Water: 0.002 - 0.025 l/h ... 1600 - 16000 l/h  
Air: 0.19 - 1.9 NI/h ... 16 - 160 Nm<sup>3</sup>/h  
t<sub>max</sub> 175°F (265°F); p<sub>max</sub> 230 PSIG  
Connection: G 1/2 - G 3 female  
Accuracy class: ±1.6 % of full scale





**Variable Area  
Flow Meters/Switches**

Trogamid, Polysulfone, PVDF  
Brochure: **S2**  
Model: **KSM**



Water: 0.06-0.66 GPM...13.2-132 GPM  
Air: 0.5-3 SCFM...60-500 SCFM  
tmax 140°F; pmax 145 PSIG  
Connection:  
G 1/2 - G 3 1/2 female/male 1"-2" NPT  
Accuracy class: ±4% of full scale

**All Metal Variable Area  
Flow Meters/Switches/Counters**

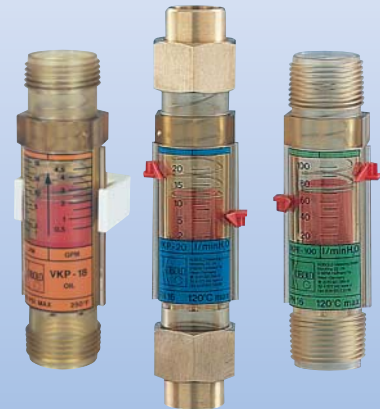
Option: analog output; version Ex  
stainless steel, PTFE, Hastelloy  
Brochure: **S2**  
Model: **KDM**



Water: 0.011-0.11 GPM...44-440 GPM  
Air: 0.041 - 0.41 SCFM...29-290 SCFM  
tmax 390°F; pmax 580 PSIG  
Connection:  
flange DN 15 - DN 100, 1/2"-4" ANSI  
Accuracy class: ±1.6%, ±2.5% of full scale

**Viscosity Compensated and  
Mounting Position Independent  
Flow Meters/Switches**

Polysulfone  
Brochure: **S2**  
Model: **VKP**



Water: 0.5-5 GPM...5-26 GPM  
Oil: (100 mm<sup>2</sup>/s) 0.5-4.5 GPM...3-20 GPM  
tmax 250°F; pmax 230 PSIG  
Connection:  
G 3/4, G 1, female or male, 1 NPT male  
Accuracy: ±8% of full scale

**Viscosity Compensated and Mounting  
Position Independent  
Flow Meters/Switches**

Brass, stainless steel  
Brochure: **S2**  
Model: **VKG**



Viscosity range: 1-760 cSt  
Water/oil: 0.03-0.12...2-22 GPM  
tmax 240°F; pmax 175 PSIG  
Connection:  
G 1/4 - G 1 female, 1/4 - 1 NPT female  
Accuracy: ±5% of full scale

**Viscosity Compensated  
Flow Meters/Switches with  
Manifold Valve, Modular System**

1-8 fold Block  
aluminum, brass, stainless steel  
Brochure: **S2**  
Model: **VKG-BVB**



Flow rate:  
max. 6.3 GPM per complete block valve  
tmax 240°F; pmax 235 PSIG  
Connection: G 1/2 female, 1/2 NPT female  
Accuracy: ±5% of full scale

**Viscosity Compensated and  
Mounting Position Independent  
All Metal Flow Meters/Switches**

Brass  
Brochure: **S2**  
Model: **VKA**



Viscosity range: 30 - 540 cSt  
Oil: 2 - 6.3 ... 8 - 26 GPM  
tmax 212°F  
pmax 3600 PSIG  
Connection: G 1 female, reduction G 1/4, G 1/2,  
G 3/4, 1/2 NPT, 3/4 NPT  
Accuracy: ±4% of full scale (by 105 cSt)







Flow

**Viscosity Compensated and Mounting Position Independent All Metal Flow Meters/Monitors**

Option: analog output  
brass, stainless steel  
Brochure: **S2**  
Model: **VKM**



Viscosity 1-760 cSt  
Water/oil: 0.002 - 0.018 GPM...2-20 GPM  
tmax 240°F;  
pmax 3600 PSIG (brass), 5000 PSIG (ss)  
Connection:  
G 1/4 - G 1 female, 1/4 - 1 NPT female  
Accuracy: ±5% of full scale

**Viscosity Compensated All Metal Flow Meters/Monitors**

Analog output and 2 limit values,  
digital, bargraph or combined display  
brass, stainless steel  
Brochure: **S2**  
Model: **VKM with ADI**



Viscosity range: 1 - 760 cSt  
Water/oil: 0.002-0.018 GPM...2-20 GPM  
tmax 240°F;  
pmax 3600 (brass), 5000 PSIG (ss)  
Connection:  
G 1/4 - G 1 female, 1/4 - 1 NPT female  
Accuracy: ±5% of full scale

**Baffle-Flap Flow Meters**

PVC, stainless steel  
Brochure: **S3**  
Model: **DPR**



Water: 0.8 - 8 m³/h ... 100 - 1000 m³/h  
Connections: ND 32 - 600  
tmax 185°F;  
pmax 145 PSIG (PVC), 580 PSIG (ss)  
Accuracy: ±5% of full scale

**Paddle Type Flow Monitors**

With reed contact  
brass, stainless steel  
for nominal pipe sizes ≥ 2"  
Brochure: **S3**  
Model: **PS**



Water: 18-24 GPM...101-141 GPM  
Air: on request  
tmax 230°F;  
pmax 1450 (brass), 3600 PSIG (ss)  
Connection: G 1/2 male, 1/2 NPT male

**Paddle Type Flow Monitors**

With reed contact or micro switch  
pipe fitting  
brass, stainless steel  
Brochure: **S3**  
Model: **PSR**



Water: 0.9-1.3 GPM...9.2-15 GPM  
Air: on request  
tmax 230°F;  
pmax 1450 PSIG (brass), 3600 PSIG (ss)  
Connection: G 1/4 - G 1 1/2 female,  
1/4 - 1 1/2 NPT female

**Paddle Type Flow Monitors**

With reed contact  
Polysulfone  
for nominal pipe sizes ≥ 1"  
Brochure: **S3**  
Model: **PPS**



Water: 9.5-28.5 GPM  
Air: on request  
tmax 225°F; pmax 145 PSIG  
Connection: G 1 male, 1 NPT male





**Paddle Bellows Flow Monitors**

brass, stainless steel  
Brochure: **S3**  
Model: **FPS**



Water: 0.9 - 4.4 GPM... 113.2 - 396.7 GPM  
Air: on request  
t<sub>max</sub> 250°F  
p<sub>max</sub> 160 PSIG (brass), 450 PSIG (ss)  
Connection: G 1 male, 1" NPT

**Paddle Bellows Flow Monitors**

brass  
Brochure: **S3**  
Model: **FPS**



Water: 3.3 - 7.5 GPM...3.3-8.5 GPM  
Air: on request  
t<sub>max</sub> 250°F  
p<sub>max</sub> 160 PSIG  
Connection:  
G 1/2, G 3/4 female, 1/2"-3/4" NPT

**Paddle Type Flow Monitors**

For air  
brass  
Brochure: **S3**  
Model: **LPS**



Air: 195-1575 FPM  
t<sub>max</sub> 185°F; pressureless  
Connection: flange

**Paddle Bellows Flow Monitors**

brass, stainless steel  
Brochure: **S3**  
Model: **DWP/DWN**



Water: 0.26 - 1.3 GPM...1850-4950 GPM  
t<sub>max</sub> 210°F; p<sub>max</sub> 230 PSIG  
Connection: G 3/8 - G 2 female/male, 3/8" - 2 1/2" NPT male; ANSI flange to 2 1/2" weld-on units 1-1/2" - 24"  
Accuracy: ±3% of full scale

**Paddle Bellows Flow Meters/Monitors**

brass, stainless steel  
Brochure: **S3**  
Model: **DWU**



Water: 0.26-1.3 GPM...1850-4950 GPM  
t<sub>max</sub> 210°F; p<sub>max</sub> 230 PSIG  
Connection: G 3/8 - G 2 female/male, 3/8" - 2-1/2" NPT male; ANSI flange 2-1/2" weld-on units 1-1/2" - 24"  
Accuracy: ±3% of full scale

**Paddle Type Flow Meters/Monitors**

Analog output, frequency output, digital display, RS232, 2 limit contacts  
brass, stainless steel, PVC  
Brochure: **S3**  
Model: **DWD**



Water: 0.26 - 2.6 GPM...1980-19800 GPM  
t<sub>max</sub> 210°F; p<sub>max</sub> 360 PSIG  
Connection: G 3/8 - G 2 female/male, 3/8 - 2 NPT male; flange DN 10...50  
Accuracy: ±1.5% of full scale





Flow

**Paddle Torsion Flow Meters**

Analog output (mA, V)  
aluminum-bronze, stainless steel  
Brochure: **S3**  
Model: **DPT**



Water: 1.3 - 500 GPM  
Air: 10 - 3000 Nm<sup>3</sup>/h  
t<sub>max</sub> 176°F; p<sub>max</sub> 580 PSIG  
Connections: G 3/8 - G 3 fem., 3/8 - 3 NPT female  
Accuracy: ±2.5% of full scale

**Paddle Torsion Flow Meters**

Digital display, contact or analog output  
aluminum-bronze, stainless steel  
Brochure: **S3**  
Model: **DPT with compact electronics**



Water: 1.3 - 500 GPM  
Air: 10 - 3000 Nm<sup>3</sup>/h  
t<sub>max</sub> 176°F; p<sub>max</sub> 580 PSIG  
Connections: G 3/8 - G 3 fem., 3/8 - 3 NPT female  
Accuracy: ±2.5% of full scale

**Paddle Torsion Flow Meters**

Digital-, bargraph- or combined display,  
analog output, contacts  
aluminum-bronze, stainless steel  
Brochure: **S3**  
Model: **DPT with ADI**



Water: 1.3 - 500 GPM  
Air: 10 - 3000 Nm<sup>3</sup>/h  
t<sub>max</sub> 176°F; p<sub>max</sub> 580 PSIG  
Connections: G 3/8 - G 3 fem., 3/8 - 3 NPT female  
Accuracy: ±2.5% of full scale

**Low Volume Turbine Wheel Flow Meters**

Voltage/frequency output  
brass, PTFE, Ryton®  
Brochure: **S4**  
Model: **KFF-1/KFG-1**



Water: 0.015 - 0.1 l/min ... 1 - 10 l/min  
Air: 0.01 - 0.05 l/min ... 100 - 500 l/min  
t<sub>max</sub> 120°F; p<sub>max</sub> 500 PSIG (Brass)  
Connection: 1/8 ... 3/8 male  
Accuracy: ±3% of full scale

**Low Volume Turbine Wheel Flow Meters**

Voltage output, bar display  
brass, PTFE, Ryton®  
Brochure: **S4**  
Model: **KFF-2/KFG-2**



Water: 0.015 - 0.1 l/min ... 1 - 10 l/min  
Air: 0.01 - 0.05 l/min ... 100 - 500 l/min  
t<sub>max</sub> 120°F; p<sub>max</sub> 500 PSIG (Brass)  
Connection: 1/8 ... 3/8 male  
Accuracy: ±3% of full scale

**Low Volume Turbine Wheel Flow Meters**

Voltage output, digital display  
brass, PTFE, Ryton®  
Brochure: **S4**  
Model: **KFF-3/KFG-3**



Water: 0.013 - 0.1 l/min ... 0.2 - 5 l/min  
Air: 0.01 - 0.05 NI/min ... 2 - 10 NI/min  
t<sub>max</sub> 120°F; p<sub>max</sub> 500 PSIG (Brass)  
Connection: 1/8 ... 3/8 male  
Accuracy: ±3% of full scale





**Low Volume Turbine Wheel Flow Meters**

Pulse output  
Nylon  
Brochure: **S4**  
Model: **DGE**



Water: 0.13 - 1.3 GPM ... 0.26 - 6.6 GPM  
t<sub>max</sub> 210°F; p<sub>max</sub> 145 PSIG  
Connection: G 3/8 male, 3/8 NPT male  
Accuracy: ±2.5% of measured value

**Turbine Wheel Flow Meters for Liquids**

Pulse output  
Polyamide  
Brochure: **S4**  
Model: **EDM**



Water: 1 - 10 GPM ... 30 - 300 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 290 PSIG  
Connection: 1/2" - 2" NPT  
Accuracy: ±1%/±1.5% of full scale

**Vane Anemometer for Gases**

Hand-held measuring instrument with digital display  
cable length 2 m  
option: temperature measurement  
Brochure: **S4**  
Model: **AVM**



Gas: 0.3 - 45 m/sec.  
t<sub>max</sub> 120°F  
Accuracy: ±3% of measured value

**Low Volume Turbine Wheel Flow Meters**

For liquids  
pulse output  
PVDF, stainless steel  
Brochure: **S4**  
Model: **SFL**



Water: 0.5 - 20 l/min  
t<sub>max</sub> 194°F; p<sub>max</sub> 3600 PSIG  
Connection: G 3/8 male  
Accuracy: ±1% of measured value

**Low Volume Turbine Wheel Flow Meters**

For liquids  
pulse output  
PVDF, stainless steel  
Brochure: **S4**  
Model: **SFL with remote indication**



Water: 0.5 - 20 l/min  
t<sub>max</sub> 194°F; p<sub>max</sub> 3600 PSIG  
Connection: G 3/8 male  
Accuracy: ±1% of measured value

**Low Volume Turbine Wheel Flow Meters**

For liquids  
pulse output  
PVDF, stainless steel  
Brochure: **S4**  
Model: **SFL with separate batch unit**



Water: 0.5 - 20 l/min  
t<sub>max</sub> 194°F; p<sub>max</sub> 3600 PSIG  
Accuracy: G 3/8 male  
Accuracy: ±1% of measured value







Flow

**Turbine Wheel Flow Meters**

Pulse output  
stainless steel  
Brochure: **S4**  
Model: **TUV**



Water: 0.5 - 4 l/min ... 35 - 400 l/min  
t<sub>max</sub> 250°F (660°F); p<sub>max</sub> 9200 PSIG  
Connection: G 1/4 ... G 1 1/2 female  
Accuracy: ± 1% of full scale

**Turbine Wheel Flow Meters**

Analog output (mA)/plug-on display  
stainless steel  
Brochure: **S4**  
Model: **TUV**  
with plug-on display **AUF**



Water: 0.5 - 4 l/min ... 35 - 400 l/min  
t<sub>max</sub> 250°F (660°F); p<sub>max</sub> 9200 PSIG  
Connection: G 1/4 ... G 1 1/2 female  
Accuracy: ± 1% of full scale

**Turbine Wheel Flow Meters**

Analog output (0 - 10V)  
stainless steel  
Brochure: **S4**  
Model: **TUV** with analog indication



Water: 0.5 - 4 l/min ... 35 - 400 l/min  
t<sub>max</sub> 250°F (660°F); p<sub>max</sub> 9200 PSIG  
Connection: G 1/4 ... G 1 1/2 female  
Accuracy: ± 1% of full scale

**Turbine Wheel Flow Meters**

Digital display, contact  
or analog output  
stainless steel  
Brochure: **S4**  
Typ: **TUV** with compact electronics



Water: 0.5 - 4 l/min ... 35 - 400 l/min  
t<sub>max</sub> 250°F (660°F); p<sub>max</sub> 9200 PSIG  
Connection: G 1/4 ... G 1 1/2 female  
Accuracy: ± 1% of full scale

**Turbine Wheel Flow Meters**

Pulse output  
stainless steel  
Brochure: **S4**  
Model: **TUV** with  
remote indication



Water: 0.5 - 4 l/min ... 35 - 400 l/min  
t<sub>max</sub> 250°F (660°F); p<sub>max</sub> 9200 PSIG  
Connection: G 1/4 ... G 1 1/2 female  
Accuracy: ± 1% of full scale

**Turbine Wheel Flow Meters**

and Counters  
LCD display, counter  
stainless steel  
Brochure: **S4**  
Model: **DTC**



Water: 0.04 - 40 m<sup>3</sup>/h ... 0.25 - 800 m<sup>3</sup>/h  
t<sub>max</sub> 210°F; p<sub>max</sub> 230 (900) PSIG  
Connection: G 3/8 ... G 1 1/2 male;  
flange DN 25 ... DN 200  
Accuracy: ± 0.5% of full scale





**Turbine Wheel Flow Meters**

Pulse output  
brass, stainless steel, PPO  
Brochure: **S4**  
Model: **DRS-1...DRS-4**



Water: 0.5 - 13.2 GPM  
t<sub>max</sub> 300°F; p<sub>max</sub> 230 PSIG  
Connection: G 1/2, G 3/4, 3/4 NPT male  
Accuracy: ±3% of full scale

**Turbine Wheel Flow Meters**

Pulse/analog output,  
temperature sensor  
brass, stainless steel, PPO  
Brochure: **S4**  
Model: **DRS-...P**



Water: 0.5 - 13.2 GPM  
Temperature: -4 ... 176°F  
t<sub>max</sub> 300°F; p<sub>max</sub> 230 PSIG  
Connection: G 1/2, G 3/4, 3/4 NPT male  
Accuracy: ±1.5% of full scale

**Turbine Wheel Flow Meters**

Analog output (mA)/plug-on display  
brass, stainless steel, PPO  
Brochure: **S4**  
Model: **DRS**  
with plug-on display **AUF**



Water: 0.5 - 13.2 GPM  
t<sub>max</sub> 300°F; p<sub>max</sub> 230 PSIG  
Connection: G 1/2, G 3/4, 3/4 NPT male  
Accuracy: ±1.5% of full scale

**Turbine Wheel Flow Meters**

Analog output (0-10 V)  
brass, stainless steel, PPO  
Brochure: **S4**  
Model: **DRS**  
with analog indication



Water: 0.5 - 13.2 GPM  
t<sub>max</sub> 300°F; p<sub>max</sub> 230 PSIG  
Connection: G 1/2, G 3/4, 3/4 NPT male  
Accuracy: ±1.5% of full scale

**Turbine Wheel Flow Meters**

With digital display, contact or  
analog output  
brass, stainless steel, PPO  
Brochure: **S4**  
Model: **DRS-5/DRS-6**  
with compact electronics



Water: 0.5 - 13.2 GPM  
t<sub>max</sub> 300°F; p<sub>max</sub> 230 PSIG  
Connection: G 1/2, G 3/4, 3/4 NPT male  
Accuracy: ±1.5% of full scale

**Turbine Wheel Flow Meters**

Pulse output  
brass, stainless steel, PPO  
Brochure: **S4**  
Model: **DRS** with  
remote indication



Water: 0.5 - 13.2 GPM  
t<sub>max</sub> 300°F; p<sub>max</sub> 230 PSIG  
Connection: G 1/2, G 3/4, 3/4 NPT male  
Accuracy: ±1.5% of full scale



Flow

**Turbine Wheel Flow Meters**

Analog/pulse output  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DPE**



Water: 1.3 - 7.9 GPM...13.2 - 198 GPM  
tmax 176°F; pmax 580 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±5% of full scale

**Turbine Wheel Flow Meters**

Analog output (mA)/plug-on display  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DPE**  
with plug-on display **AUF**



Water: 1.3 - 7.9 GPM...13.2 - 198 GPM  
tmax 176°F; pmax 580 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±2.5% of full scale

**Turbine Wheel Flow Meters**

Analog output (0 - 10 V)  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DPE**  
with analog indication



Water: 1.3 - 7.9 GPM...13.2-19.8 GPM  
tmax 176°F; pmax 580 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±2.5% of full scale

**Turbine Wheel Flow Meters**

Digital display, contact or analog output  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DPE**  
with compact electronics



Water: 1.3 - 7.9 GPM...13.2-198 GPM  
tmax 176°F; pmax 580 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±2.5% of full scale

**Turbine Wheel Flow Meters**

Digital-, bargraph- or combined display,  
analog output, contacts  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DPE** with ADI



Water: 1.3 - 7.9 GPM...13.2 - 198 GPM  
tmax 176°F; pmax 580 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±2.5% of full scale

**Turbine Wheel Flow Meters**

Digital display, counter, contacts,  
analog output  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DPE** with batch unit



Water: 1.3 - 7.9 GPM...13.2 - 198 GPM  
tmax 176°F; pmax 580 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±2.5% of full scale





**Turbine Wheel Flow Meters**

Analog/pulse output  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DRB**



Water: 1.3 - 7.9 GPM...13.2 - 198 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 360 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±5% of full scale

**Turbine Wheel Flow Meters**

Analog output (mA)/plug-on display  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DRB**  
with plug-on display **AUF**



Water: 1.3 - 7.9 GPM...13.2 - 198 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 360 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±2.5% of full scale

**Turbine Wheel Flow Meters**

Analog output (0 - 10 V)  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DRB**  
with analog indication



Water: 1.3 - 7.9 GPM...13.2 - 198 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 360 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±2.5% of full scale

**Turbine Wheel Flow Meters**

Digital display, contact or analog output  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DRB**  
with compact electronics



Water: 1.3 - 7.9 GPM...13.2 - 198 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 360 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±2.5% of full scale

**Turbine Wheel Flow Meters**

With analog output, up to two contacts  
digital-, bargraph- or combined display  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DRB with ADI**



Water: 1.3 - 7.9 GPM...13.2 - 198 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 360 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±2.5% of full scale

**Turbine Wheel Flow Meters**

Digital display, counter, contacts, analog output  
stainless steel, aluminum-bronze  
Brochure: **S4**  
Model: **DRB with batch unit**



Water: 1.3 - 7.9 GPM...13.2 - 198 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 360 PSIG  
Connection:  
G 1/2 - G 3 female, 1/2 - 3 NPT female  
Accuracy: ±2.5% of full scale







Flow

**Turbine Wheel Flow Meters**

Pulse output  
PVC, PVDF  
Brochure: **S4**  
Model: **TUR-3...**



Water: 0.88 - 22 GPM...11 - 440 GPM  
t<sub>max</sub> 140°F (PVC), 160°F (PVDF); p<sub>max</sub> 145 PSIG  
Connection: flange DN 25 - DN 100, ANSI 2", 4"  
Accuracy: ±1% of full scale

**Turbine Wheel Flow Meters**

Analog output  
PVC, PVDF  
Brochure: **S4**  
Model: **TUR-4...**



Water: 0.88 - 22 GPM...11 - 440 GPM  
t<sub>max</sub> 140°F (PVC), 160°F (PVDF); p<sub>max</sub> 145 PSIG  
Connection: flange DN 25 - DN 100, ANSI 2", 4"  
Accuracy: ±1% of full scale

**Turbine Wheel Flow Meters**

Analog output (0 - 10 V)  
PVC, PVDF  
Brochure: **S4**  
Model: **TUR**  
with analog indication



Water: 0.88 - 22 GPM...11 - 440 GPM  
t<sub>max</sub> 140°F (PVC), 160°F (PVDF); p<sub>max</sub> 145 PSIG  
Connection: flange DN 25 - DN 100, ANSI 2", 4"  
Accuracy: ±1% of full scale

**Turbine Wheel Flow Meters**

Digital display, contact or analog output  
PVC, PVDF  
Brochure: **S4**  
Model: **TUR**  
with compact electronics



Water: 0.88 - 22 GPM...11 - 440 GPM  
t<sub>max</sub> 140°F (PVC), 160°F (PVDF); p<sub>max</sub> 145 PSIG  
Connection: flange DN 25 - DN 100, ANSI 2", 4"  
Accuracy: ±1% of full scale

**Turbine Wheel Flow Meters**

Digital-, bargraph- or combined display, analog output, contacts  
PVC, PVDF  
Brochure: **S4**  
Model: **TUR** with digital indication



Water: 0.88 - 22 GPM...11 - 440 GPM  
t<sub>max</sub> 140°F (PVC), 160°F (PVDF); p<sub>max</sub> 145 PSIG  
Connection: flange DN 25 - DN 100, ANSI 2", 4"  
Accuracy: ±1% of full scale

**Turbine Wheel Flow Meters**

Digital display, counter, contacts, analog output  
PVC, PVDF  
Brochure: **S4**  
Model: **TUR** with batch unit



Water: 0.88 - 22 GPM...11 - 440 GPM  
t<sub>max</sub> 140°F (PVC), 160°F (PVDF); p<sub>max</sub> 145 PSIG  
Connection: flange DN 25 - DN 100, ANSI 2", 4"  
Accuracy: ±1% of full scale





**Low Volume Rotating Vane Flow Meters**

For liquids  
Pelton principle  
pulse output  
brass, stainless steel  
Brochure: **S4**  
**Model: DPM**



Water: 0.003-0.18 GPM...0.013-1.32 GPM  
tmax 176°F; pmax 230 PSIG  
Connection:  
G 1/8, G 1/4, 1/8 NPTF, 1/4 NPTF female  
Accuracy: ±2,5% of full scale

**Low Volume Rotating Vane Flow Meters**

For liquids  
Pelton principle  
pulse output, analog output (mA, V)  
brass, stainless steel  
Brochure: **S4**  
**Model: DPM**



Water: 0.003-0.18 GPM...0.013-1.32 GPM  
tmax 176°F; pmax 230 PSIG  
Connection:  
G 1/8, G 1/4, 1/8 NPTF, 1/4 NPTF female  
Accuracy: ±1% of full scale

**Low Volume Rotating Vane Flow Meters**

For liquids · Pelton principle  
analog output (mA)/plug-on display  
brass, stainless steel  
Brochure: **S4**  
**Model: DPM with  
plug-on display AUF**



Water: 0.003-0.18 GPM...0.013-1.32 GPM  
tmax 176°F; pmax 230 PSIG  
Connection:  
G 1/8, G 1/4, 1/8 NPTF, 1/4 NPTF female  
Accuracy: ±1% of full scale

**Low Volume Rotating Vane Flow Meters**

For liquids · Pelton principle  
analog output (0 - 10 V)  
brass, stainless steel  
Brochure: **S4**  
**Model: DPM with  
analog indication**



Water: 0.003-0.18 GPM...0.013-1.32 GPM  
tmax 176°F; pmax 230 PSIG  
Connection:  
G 1/8, G 1/4, 1/8 NPTF, 1/4 NPTF female  
Accuracy: ±1% of full scale

**Low Volume Rotating Vane Flow Meters**

For liquids · Pelton principle  
digital display, contact or  
analog output  
brass, stainless steel  
Brochure: **S4**  
**Model: DPM with  
compact electronics**



Water: 0.003-0.18 GPM...0.013-1.32 GPM  
tmax 176°F; pmax 230 PSIG  
Connection:  
G 1/8, G 1/4, 1/8 NPTF, 1/4 NPTF female  
Accuracy: ±1% of full scale

**Low Volume Rotating Vane Flow Meters**

For liquids · Pelton principle  
pulse output  
brass, stainless steel  
Brochure: **S4**  
**Model: DPM with  
remote indication**



Water: 0.003-0.18 GPM...0.013-1.32 GPM  
tmax 176°F; pmax 230 PSIG  
Connection:  
G 1/8, G 1/4, 1/8 NPTF, 1/4 NPTF female  
Accuracy: ±1% of full scale



Flow

**Low Volume Rotating Vane Flow Meters**

Pulse output  
POM, Polypropylene  
(option: SK-conformance)  
Brochure: **S4**  
Model: **DPL**



Water: 0.0.4 - 8.0 GPH...16 - 400 GPH  
t<sub>max</sub> 160°F  
p<sub>max</sub> 145 PSIG (Polypropylene), 100 PSIG (POM)  
Connection: G 1/2 male, NPT on request  
Accuracy: ±3-5% of full scale

**Low Volume Rotating Vane Flow Meters**

Pulse-, analog output (mA, V)  
POM, Polypropylene  
(option: SK-conformance)  
Brochure: **S4**  
Model: **DPL**



Water: 0.4 - 8.0 GPH...16 - 400 GPH  
t<sub>max</sub> 160°F  
p<sub>max</sub> 145 PSIG (Polypropylene), 100 PSIG (POM)  
Connection: G 1/2 male, NPT on request  
Accuracy: ±1.5% of full scale

**Low Volume Rotating Vane Flow Meters**

Analog output (mA)/plug-on display  
POM, Polypropylene  
(option: SK-conformance)  
Brochure: **S4**  
Model: **DPL with plug-on display AUF**



Water: 0.4 - 8.0 GPH...16 - 400 GPH  
t<sub>max</sub> 160°F  
p<sub>max</sub> 145 PSIG (Polypropylene), 100 PSIG (POM)  
Connection: G 1/2 male, NPT on request  
Accuracy: ±1.5% of full scale

**Low Volume Rotating Vane Flow Meters**

Analog output (0-10 V)  
POM, Polypropylene  
Brochure: **S4**  
Model: **DPL with analog indication**



Water: 0.4 - 8.0 GPH...16 - 400 GPH  
t<sub>max</sub> 160°F  
p<sub>max</sub> 145 PSIG (Polypropylene), 100 PSIG (POM)  
Connection: G 1/2 male, NPT on request  
Accuracy: ±1.5% of full scale

**Low Volume Rotating Vane Flow Meters**

Digital display, contact or analog output  
POM, Polypropylene  
Brochure: **DPL**  
Model: **DPL with compact electronics**



Water: 0.4 - 8.0 GPH...16 - 400 GPH  
t<sub>max</sub> 160°F  
p<sub>max</sub> 145 PSIG (Polypropylene), 100 PSIG (POM)  
Connection: G 1/2 male, NPT on request  
Accuracy: ±1.5% of full scale

**Low Volume Rotating Vane Flow Meters**

With batch unit  
POM  
(option: SK-conformance)  
Brochure: **S4**  
Model: **DPL**



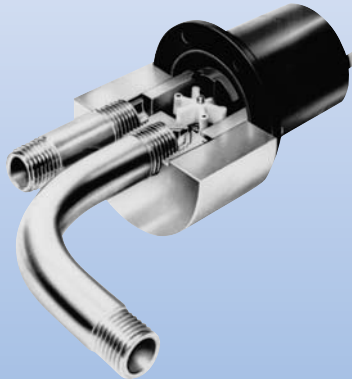
Water: 0.4 - 8.0 GPH...16 - 400 GPH  
t<sub>max</sub> 120°F; p<sub>max</sub> 100 PSIG  
Connection:  
G 1/2 male, G 5/8 A, NPT on request  
Accuracy: ±1.5% of full scale





**Rotating Vane Flow Meters**

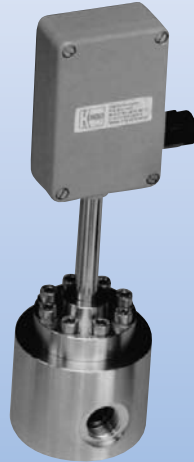
Pelton principle  
pulse output/analog output  
Nylon, PP, PVDF, stainless steel  
Brochure: **S4**  
**Model: PEL-L**



Water: 0.01 - 0.25 l/min ... 0.1 - 28 l/min  
t<sub>max</sub> 212°F; p<sub>max</sub> 145 PSIG  
Connection: R 1/4, hose connector  
Accuracy: ±0.2 ... 0.5% of full scale

**Rotating Vane Flow Meters**

Pelton principle  
pulse output/analog output  
PVC, PVDF, stainless steel, titanium  
Brochure: **S4**  
**Model: PEL-M**



Water: 1 - 65 l/min ... 5 - 220 l/min  
t<sub>max</sub> 270°F; p<sub>max</sub> 4350 PSIG (70 PSIG PVC)  
Connection: R 1/2 ... R 1 1/4  
Accuracy: ±1% of full scale

**Rotating Vane Flow Meters**

Pelton principle  
pulse output/analog output  
PVC, PVDF, stainless steel, titanium  
Brochure: **S4**  
**Model: PEL-M**



Water: 7 - 350 l/min ... 500 - 20.000 l/min  
t<sub>max</sub> 270°F; p<sub>max</sub> 4350 PSIG (70 PSIG PVC)  
Connection: intermediate flange DN 40...DN 300  
Accuracy: ±1% of full scale

**Rotating Vane Flow Meters**

Pulse output  
brass  
Brochure: **S4**  
**Model: DFT-D**



Water: 0.02 - 0.14 GPM...0.66-15.8 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 230 PSIG  
Connection: G 1/4 - G 3/4 female, 1/4 - 3/4 NPT female  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters**

Pulse output  
teflon  
Brochure: **S4**  
**Model: DFT-F**



Water: 0.02 - 0.14 GPM...0.66-15.8 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 85 PSIG  
Connection: G 1/4 - G 3/4 female, 1/4 - 3/4 NPT female  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters**

Rate indication, limit switch  
and analog output  
teflon, brass  
Brochure: **S4**  
**Model: DFT-F...K**



Water: 0.02 - 0.14 GPM...0.66-15.8 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 85 PSIG  
Connection: G 1/4 - G 3/4 female, 1/4 - 3/4 NPT female  
Accuracy: ±2.5% of full scale





Flow

**Rotating Vane Flow Meters**

Pulse output  
Trogamid, Polysulfone, Polypropylene,  
PTFE, brass, stainless steel  
Brochure: **S4**  
Model: **DF**



Water: 0.02 - 0.14 GPM...1.5 -36 GPM  
tmax 212°F (145°F trogamid)  
pmax 85-1450 PSIG  
Connection: G 1/4 - G 1 1/2,  
1/4 - 1 1/2 NPT female; flange DN 15 - DN 50  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters**

Analog output  
Trogamid, Polysulfone, Polypropylene,  
PTFE, brass, stainless steel  
Brochure: **S4**  
Model: **DF-MA**



Water: 0.02 - 0.14 GPM...1.5 -36 GPM  
tmax 180°F (145°F trogamid)  
pmax 85-1450 PSIG  
Connection: G 1/4 - G 1 1/2,  
1/4 - 1 1/2 NPT female; flange DN 15 - DN 50  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters/Monitors**

Rate indication digital,  
limit switch and analog output  
Trogamid, Polysulfone, Polypropylene,  
PTFE, brass, stainless steel  
Brochure: **S4**  
Model: **DF-K**



Water: 0.02 - 0.14 GPM...1.5 -36 GPM  
tmax 180°F (145°F trogamid)  
pmax 85-1450 PSIG  
Connection: G 1/4 - G 1 1/2,  
1/4 - 1 1/2 NPT female; flange DN 15 - DN 50  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters/Monitors**

Limit switch  
Trogamid, Polysulfone, Polypropylene,  
PTFE, brass, stainless steel  
Brochure: **S4**  
Model: **DF-WM**



Water: 0.02 - 0.14 GPM...1.5 -36 GPM  
tmax 180°F (145°F trogamid)  
pmax 85-1450 PSIG  
Connection: G 1/4 - G 1 1/2,  
1/4 - 1 1/2 NPT female; flange DN 15 - DN 50  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters/Monitors**

LED bar display, analog output  
2 limit switches  
Brochure: **S4**  
Model: **DF-WMA**



Water: 0.02 - 0.14 GPM...1.5 -36 GPM  
tmax 180°F (145°F trogamid)  
pmax 85-1450 PSIG  
Connection: G 1/4 - G 1 1/2,  
1/4 - 1 1/2 NPT female; flange DN 15 - DN 50  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters/Counter/Batcher**

Digital display  
counter (DF-Z), batcher with  
rate indication (DF-D)  
Brochure: **S4**  
Model: **DF-Z, DF-D**



Water: 0.02 - 0.14 GPM...1.5 -36 GPM  
tmax 180°F (145°F trogamid)  
pmax 85-1450 PSIG  
Connection: G 1/4 - G 1 1/2,  
1/4 - 1 1/2 NPT female; flange DN 15 - DN 50  
Accuracy: ±2.5% of full scale





**Rotating Vane Flow Meters**

Analog/pulse output  
POM, PVDF, brass, stainless steel  
Brochure: **S4**  
Model: **DRH**



Water: 0.05 - 0.74 GPM...0.26 - 15.8 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 1450 PSIG  
Connection: G 3/8, G 1, 3/8 NPT, 1 NPT  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters**

Analog output/plug-on display  
POM, PVDF, brass, stainless steel  
Brochure: **S4**  
Model: **DRH**  
with plug-on display **AUF**



Water: 0.05 - 0.74 GPM...0.26 - 15.8 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 1450 PSIG  
Accuracy: G 3/8, G 1, 3/8 NPT, 1 NPT  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters**

Analog output (0-10V)  
POM, PVDF, brass, stainless steel  
Brochure: **S4**  
Model: **DRH**  
with analog indication



Water: 0.05 - 0.74 GPM...0.26 - 15.8 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 1450 PSIG  
Connection: G 3/8, G 1, 3/8 NPT, 1 NPT  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters**

Digital display, contact or analog output  
POM, PVDF, brass, stainless steel  
Brochure: **S4**  
Model: **DRH**  
with compact electronics



Water: 0.05 - 0.74 GPM...0.26 - 15.8 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 1450 PSIG  
Connection: G 3/8, G 1, 3/8 NPT, 1 NPT  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters**

Pulse output  
POM, PVDF, brass, stainless steel  
Brochure: **S4**  
Model: **DRH** with  
remote indication



Water: 0.05 - 0.74 GPM...0.26 - 15.8 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 1450 PSIG  
Connection: G 3/8, G 1, 3/8 NPT, 1 NPT  
Accuracy: ±2.5% of full scale

**Rotating Vane Flow Meters**

Pulse output  
POM, PVDF, brass, stainless steel  
Brochure: **S4**  
Model: **DRH** with  
separate batch unit



Water: 0.05 - 0.74 GPM...0.26 - 15.8 GPM  
t<sub>max</sub> 176°F; p<sub>max</sub> 1450 PSIG  
Connection: G 3/8, G 1, 3/8 NPT, 1 NPT  
Accuracy: ±2.5% of full scale





Flow

**Rotating Vane Flow Meters**

Analog/pulse output  
 Polypropylene, aluminum-bronze,  
 stainless steel  
 Brochure: **S4**  
**Model: DRG**



Water: 0.05 - 0.5 GPM...0.9 - 34 GPM  
 tmax 176°F; pmax 580 PSIG  
 Connection:  
 G 1/4 - G 1 female; 1/4 - 1 NPT female  
 Accuracy: ±3% of full scale

**Rotating Vane Flow Meters**

Analog output (mA)/plug-on display  
 Polypropylene, aluminum-bronze,  
 stainless steel  
 Brochure: **S4**  
**Model: DRG**  
**with plug-on display AUF**



Water: 0.05 - 0.5 GPM...0.9 - 34 GPM  
 tmax 176°F; pmax 580 PSIG  
 Connection:  
 G 1/4 - G 1 female; 1/4 - 1 NPT female  
 Accuracy: ±3% of full scale

**Rotating Vane Flow Meters**

Analog output (0 - 10V)  
 Polypropylene, aluminum-bronze,  
 stainless steel  
 Brochure: **S4**  
**Model: DRG**  
**with analog indication**



Water: 0.05 - 0.5 GPM...0.9 - 34 GPM  
 tmax 176°F; pmax 580 PSIG  
 Connection:  
 G 1/4 - G 1 female; 1/4 - 1 NPT female  
 Accuracy: ±3% of full scale

**Rotating Vane Flow Meters**

Digital display, contact or  
 analog output  
 Polypropylene, aluminum-bronze,  
 stainless steel  
 Brochure: **S4**  
**Model: DRG**  
**with compact electronics**



Water: 0.05 - 0.5 GPM...0.9 - 34 GPM  
 tmax 176°F; pmax 580 PSIG  
 Connection:  
 G 1/4 - G 1 female; 1/4 - 1 NPT female  
 Accuracy: ±3% of full scale

**Rotating Vane Flow Meters**

Pulse output  
 Polypropylene, aluminum-bronze,  
 stainless steel  
 Brochure: **S4**  
**Model: DRG with remote indication**



Water: 0.05 - 0.5 GPM...0.9 - 34 GPM  
 tmax 176°F; pmax 580 PSIG  
 Connection: G 1/4 - G 1 fem.; 1/4 - 1 NPT female  
 Accuracy: ±3% of full scale

**Rotating Vane Flow Meters**

Pulse output  
 Polypropylene, aluminum-bronze,  
 stainless steel  
 Brochure: **S4**  
**Model: DRG with separate batch unit**



Water: 0.05 - 0.5 GPM...0.9 - 34 GPM  
 tmax 176°F; pmax 580 PSIG  
 Connection: G 1/4 - G 1 fem.; 1/4 - 1 NPT female  
 Accuracy: ±3% of full scale





**Piston Flow Meters**

For viscous media  
pulse output, contact or  
analog output (mA, V)  
brass, stainless steel  
Brochure: **S4**  
**Model: DRZ**



Viscosity range: 5 - 500 cSt  
Measuring range: 0.26 - 52 GPH  
t<sub>max</sub> -14°F - 140°F; p<sub>max</sub> 230 PSIG (580 PSIG)  
Connection: G 1/8 - G 1/4, 1/8 - 1/4 NPT  
Accuracy: ±1% of full scale

**Piston Flow Meters**

For viscous media  
analog output (mA)  
brass, stainless steel  
Brochure: **S4**  
**Model:**  
**DRZ with plug-on display AUF**



Viscosity range: 5 - 500 cSt  
Measuring range: 0.26 - 52 GPH  
t<sub>max</sub> -14°F - 140°F; p<sub>max</sub> 230 PSIG (580 PSIG)  
Connection: G 1/8 - G 1/4, 1/8 - 1/4 NPT  
Accuracy: ±1% of full scale

**Piston Flow Meters**

For viscous media  
digital display, contact or  
analog output  
brass, stainless steel  
Brochure: **S4**  
**Model: DRZ**  
**with compact electronics**



Viscosity range: 5 - 500 cSt  
Measuring range: 0.26 - 52 GPH  
t<sub>max</sub> -14°F - 140°F; p<sub>max</sub> 230 PSIG (580 PSIG)  
Connection: G 1/8 - G 1/4, 1/8 - 1/4 NPT  
Accuracy: ±1% of full scale

**Oval Gear Wheel Flow Meters**

Pulse output  
POM, aluminum  
Brochure: **S4**  
**Model: OVZ**



Viscosity range: 30 - 1000 cSt  
Oil: 0.03 - 0.5 GPM...0.4 - 10.6 GPM  
t<sub>max</sub> 175°F; p<sub>max</sub> 230 PSIG (580 PSIG)  
Connection:  
G 1/4 - G 3/4 female, 1/4 - 3/4 NPT female  
Accuracy: ±2.5% of full scale

**Oval Gear Wheel Flow Meters**

Analog output (mA)/plug-on display  
POM, aluminum  
Brochure: **S4**  
**Model: OVZ**  
**with plug-on display AUF**



Viscosity range: 30 - 1000 cSt  
Oil: 0.03 - 0.5 GPM...0.4 - 10.6 GPM  
t<sub>max</sub> 175°F; p<sub>max</sub> 230 PSIG (580 PSIG)  
Connection:  
G 1/4 - G 3/4 female, 1/4 - 3/4 NPT female  
Accuracy: ±2.5% of full scale

**Oval Gear Wheel Flow Meters**

Digital display, contact or  
analog output  
POM, aluminum  
Brochure: **S4**  
**Model: OVZ**  
**with compact electronics**



Viscosity range: 30 - 1000 cSt  
Oil: 0.03 - 0.5 GPM...0.4 - 10.6 GPM  
t<sub>max</sub> 175°F; p<sub>max</sub> 230 PSIG (580 PSIG)  
Connection:  
G 1/4 - G 3/4 female, 1/4 - 3/4 NPT female  
Accuracy: ±2.5% of full scale



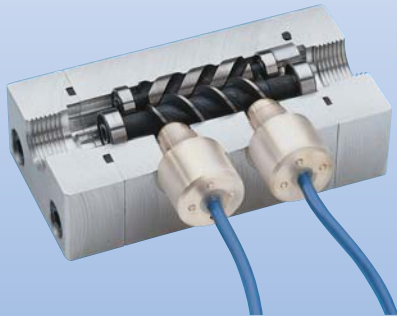




Flow

**Screw Spindle Flow Meters**

For viscous fluid,  
with directional marking (option),  
pulse output  
aluminum  
Brochure: **S4**  
Model: **OME**



Viscosity range: 1 - 5000 cSt  
Oil: 0.05 - 2.6 GPM...0.5 - 26 GPM  
t<sub>max</sub> 212°C; p<sub>max</sub> 580 PSIG  
Connection: 1/2" NPT - 1" NPT  
G 1/2 - G 1 female, flange DN 15 - DN 25  
Accuracy: ±0.3% of measured value

**Screw Spindle Flow Meters**

For viscous fluid,  
with directional marking (option),  
pulse output  
aluminum  
Brochure: **S4**  
Model: **OME with  
remote indication**



Viscosity range: 1 - 5000 cSt  
Oil: 0.05 - 2.6 GPM...0.5 - 26 GPM  
t<sub>max</sub> 212°C; p<sub>max</sub> 580 PSIG  
Connection: 1/2" NPT - 1" NPT  
G 1/2 - G 1 female, flange DN 15 - DN 25  
Accuracy: ±0.3% of measured value

**Screw Spindle Flow Meters**

For viscous fluid,  
with directional marking (option),  
pulse output  
aluminum  
Brochure: **S4**  
Model: **OME with  
separate batch unit**



Viscosity range: 1 - 5000 cSt  
Oil: 0.05 - 2.6 GPM...0.5 - 26 GPM  
t<sub>max</sub> 212°C; p<sub>max</sub> 580 PSIG  
Connection: 1/2" NPT - 1" NPT  
G 1/2 - G 1 female, flange DN 15 - DN 25  
Accuracy: ±0.3% of measured value

**Screw Spindle Flow Meters**

Pulse output  
continuously cast, stainless steel  
Brochure: **S4**  
Model: **OMG  
with separate batch unit**



Viscosity range: 1 - 5000 cSt  
Water/oil: 0.2 - 10 l/min ... 40 - 2000 l/min  
t<sub>max</sub> 400°F; p<sub>max</sub> 5800 PSIG  
Connection:  
G 1/4 ... G 4 female, flange DN 15 ... DN 100  
Accuracy: ±0.3% of measured value

**Positive Displacement Flowmeters**

Pulse output  
aluminum, stainless steel  
Brochure: **S4**  
Model: **OMP**



Viscosity range: 1 - 1000 cPs +  
Water/oil: 0.53 - 26 GPH ... 4 - 93 GPM  
t<sub>max</sub> 176°F - 248°F; p<sub>max</sub> 150 - 8000 PSIG  
Connection:  
1/4" - 1-1/2" NPT, 1" - 2" ANSI  
Accuracy: ±1% of measured value

**Positive Displacement Flowmeters**

Pulse output with display  
aluminum, stainless steel  
Brochure: **S4**  
Model: **OMP**



Viscosity range: 1 - 1000 cPs +  
Water/oil: 0.26 - 8 GPM ... 4 - 93 GPM  
t<sub>max</sub> 176°F - 248°F; p<sub>max</sub> 150 - 800 PSIG  
Connection:  
1/2" - 1-1/2" NPT, 1" - 2" ANSI  
Accuracy: ±1% of measured value





**Gear Wheel Flow Meters**

Pulse output  
cast iron, stainless steel  
Brochure: **S4**  
Model: **DZR**



Viscosity range: 20 - 5000 cSt  
Oil: 0.008 - 2 l/min ... 1 - 250 l/min  
t<sub>max</sub> 300°F; p<sub>max</sub> 5800 PSIG  
Connection: G 3/8 - G 1 1/2 female, UNF  
Accuracy: ±0.3 - 1% of measured value

**Gear Wheel Flow Meters**

Pulse output  
cast iron, stainless steel  
Brochure: **S4**  
Model: **DZR**  
with remote indication



Viscosity range: 20 - 5000 cSt  
Oil: 0.008 - 2 l/min...1-250 l/min  
t<sub>max</sub> 300°F; p<sub>max</sub> 5800 PSIG  
Connection: G 3/8 - G 1 1/2 female, UNF  
Accuracy: ±0.3 - 1% of measured value

**Gear Wheel Flow Meters**

Pulse output  
cast iron, stainless steel  
Brochure: **S4**  
Model: **DZR**  
with separate batch unit



Viscosity range: 20 - 5000 cSt  
Oil: 0.008 - 2 l/min ... 1 - 250 l/min  
t<sub>max</sub> 300°F; p<sub>max</sub> 5800 PSIG  
Connection: G 3/8 - G 1 1/2 female, UNF  
Accuracy: ±0.3 - 1% of measured value

**Gear Wheel Flow Meters**

Pulse output  
grey cast iron, stainless steel  
Brochure: **S4**  
Model: **ZDM**



Viscosity range: 0.3 - 100000 cSt  
Oil: 0.0003 - 0.50 GPM... 0.3-80 GPM  
t<sub>max</sub> 300°F; p<sub>max</sub> 4600 PSIG  
Connection:  
G 1/2 - G 1 1/2 female, 1/2 - 1 1/2 NPT  
Accuracy: ±0.1% of measured value

**Gear Wheel Flow Meters**

Digital-, bargraph- or  
combined display  
analog output, contacts  
grey cast iron, stainless steel  
Brochure: **S4**  
Model: **ZDM** with remote indication



Viscosity range: 0.3 - 100000 cSt  
Oil: 0.0003 - 0.50 GPM... 0.3-80 GPM  
t<sub>max</sub> 300°F; p<sub>max</sub> 4600 PSIG  
Connection:  
G 1/2 - G 1 1/2 female, 1/2 - 1 1/2 NPT  
Accuracy: ±0.1% of measured value

**Gear Wheel Flow Meters**

Digital display, counter  
contacts, analog output  
grey cast iron, stainless steel  
Brochure: **S4**  
Model: **ZDM** with batch unit



Viscosity range: 0.3 - 100000 cSt  
Oil: 0.0003 - 0.50 GPM... 0.3-80 GPM  
t<sub>max</sub> 300°F; p<sub>max</sub> 4600 PSIG  
Connection:  
G 1/2 - G 1 1/2 female, 1/2 - 1 1/2 NPT  
Accuracy: ±0.1% of measured value





Flow

**Gear Wheel Flow Meters**

For viscous media  
pulse output  
aluminum  
Brochure: **S4**  
Model: **KZA**



Viscosity range: 20 - 4000 cSt  
Oil: 0.07 - 2.6 GPM... 0.26 - 17.2 GPM  
t<sub>max</sub> 250°F; p<sub>max</sub> 2300 PSIG  
Connection:  
G 3/8 - G 3/4 female, 3/8 - 3/4 NPT female  
Accuracy: ±0.3 - 3% of measured value

**Gear Wheel Flow Meters**

For viscous media  
analog output/plug-on display  
aluminum  
Brochure: **S4**  
Model: **KZA**  
with plug-on display **AUF**



Viscosity range: 20 - 4000 cSt  
Oil: 0.07 - 2.6 GPM... 0.26 - 17.2 GPM  
t<sub>max</sub> 250°F; p<sub>max</sub> 2300 PSIG  
Connection:  
G 3/8 - G 3/4 female, 3/8 - 3/4 NPT female  
Accuracy: ±0.3 - 3% of measured value

**Gear Wheel Flow Meters**

For viscous media  
pulse output  
aluminum  
Brochure: **S4**  
Model: **KZA**  
with remote indication



Viscosity range: 20 - 4000 cSt  
Oil: 0.07 - 2.6 GPM... 0.26 - 17.2 GPM  
t<sub>max</sub> 250°F; p<sub>max</sub> 2300 PSIG  
Connection:  
G 3/8 - G 3/4 female, 3/8 - 3/4 NPT female  
Accuracy: ±0.3 - 3% of measured value

**Micro-flow Rate Measuring Transducer for Liquids**

Dual-ring Piston principle  
pulse output  
stainless steel  
Brochure: **S4**  
Model: **LFM**



Water: 0.005 - 0.250 l/min  
t<sub>max</sub> 150°F; p<sub>max</sub> 5800 PSIG  
Connection: G 1/8 and Swagelock 6 mm  
Accuracy: ±2.5% of measured value

**Micro-flow Rate Measuring Transducer for Liquids**

Dual-ring Piston principle  
pulse output  
stainless steel  
Brochure: **S4**  
Model: **LFM** with remote indication



Water: 0.005 - 0.250 l/min  
t<sub>max</sub> 150°F; p<sub>max</sub> 5800 PSIG  
Connection: G 1/8 and Swagelock 6 mm  
Accuracy: ±2.5% of measured value

**Ultrasonic Flow Switches**

Temperature changes independent  
short response time  
stainless steel, PEEK  
Brochure: **L1**  
Model: **LDU**



Limit values: 0.1 / 0.3 / 0.5 m/s  
t<sub>max</sub> 212°F (option: up to 300°F); p<sub>max</sub> 145 PSIG  
Repeatability: < 1%  
Connection: G 1/2, union nut  
Output: active, max. 50 mA





**Calorimetric Flow Monitors**

Compact design  
**Temperature compensated**  
Trend-, status display,  
medium compensation  
stainless steel  
Brochure: **S5**  
**Model: KAL-D**



Switching range: 4 cm/s ... 2 m/s  
t<sub>max</sub> 210°F; p<sub>max</sub> 1150 PSIG  
Connection G 1/2, G 3/4, 1/2 NPT, 3/4 NPT

**Calorimetric Flow Monitors**

Modular design  
**100% temperature compensation**  
Trend-, status display, medium  
compensation, temperature monitoring  
brass, stainless steel  
Brochure: **S5**  
**Model: KAL, KAL-H**



Switching range: 4 cm/s ... 2 m/s  
t<sub>max</sub> 250°F; p<sub>max</sub> 1450 PSIG  
Connection:  
G 1/4 - G 1 1/2 female; G 1/2 male

**Calorimetric Flow Monitors**

Compact design  
**100% temperature compensation**  
Push button medium compensation  
limit contact, trend-, status display  
stainless steel  
Brochure: **S5**  
**Model: KAL-K**



Switching range: 4 cm/s ... 2 m/s  
t<sub>max</sub> 175°F; p<sub>max</sub> 1450 PSIG  
Connection:  
G 1/4 - G 3/4 male, 1/4 - 1 NPT male, triclamp  
Accuracy: ±10% of full scale,  
Repeatability: 3%



**Calorimetric Flow Meters/Monitors**

Compact design  
**100% temperature compensation**  
Push button medium compensation  
**KAL-A:** analog output, trend display  
**KAL-AK:** analog output, limit contact,  
trend display  
stainless steel  
Brochure: **S5**  
**Model: KAL-A(K)**



Switching range: 4 cm/s ... 2 m/s  
t<sub>max</sub> 175°F; p<sub>max</sub> 1450 PSIG  
Connection: G 1/4 - G 3/4 male, 1/4 - 1 NPT  
Accuracy: ±10% of full scale,  
Repeatability: 3%

**Calorimetric Flow Meters/Monitors and Counters**

Compact or separate design  
LCD display, switching output  
Brochure: **S5**  
**Model: DVK**



Air: 1 - 10 l/min ... 5 - 50 l/min  
t<sub>max</sub> 175°F; p<sub>max</sub> 72 PSIG  
Connection: G 1/8, G 1/4, NPT on request  
Accuracy: ±5% of full scale

**Calorimetric Flow Monitors**

For air  
push button medium compensation  
brass  
Brochure: **S5**  
**Model: KAL-L**



Switching range: 1 ... 20 m/s  
t<sub>max</sub> 175°F; p<sub>max</sub> 120 PSIG  
Connection: G 1/2 or clamping flange  
Accuracy: ±10% of measured value





Flow

**Differential Pressure Flow Meters**

Mechanical pointer display, without auxiliary energy  
stainless steel, aluminum-bronze  
Brochure: **S5**  
Model: **RCD**



Water: 1-7 GPM ... 100 - 600 GPM  
Air: 2.5 - 25 SCFM ... 300 - 1700 SCFM  
t<sub>max</sub> 212°F; p<sub>max</sub> 580 PSIG  
Connection: G 1/2...G 3; 1/2 NPT...3 NPT female  
Accuracy: ±3% of full scale

**Differential Pressure Flow Meters**

Digital display, contacts or analog output  
stainless steel, aluminum-bronze  
Brochure: **S5**  
Model: **RCD with compact electronics**



Water: 1 - 7 GPM ... 100 - 600 GPM  
Air: 2.5 - 25 SCFM ... 300 - 1700 SCFM  
t<sub>max</sub> 175°F; p<sub>max</sub> 580 PSIG  
Connection: G 1/2...G 3; 1/2 NPT...3 NPT female  
Accuracy: ±3% of full scale

**Differential Pressure Flow Meters**

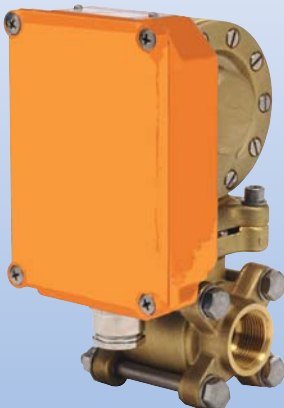
Digital-, bargraph- or combined display  
analog output, contacts  
stainless steel, aluminum-bronze  
Brochure: **S5**  
Model: **RCD with ADI**



Water: 1 - 7 GPM ... 100 - 600 GPM  
Air: 2.5 - 25 SCFM ... 300 - 1700 SCFM  
t<sub>max</sub> 175°F; p<sub>max</sub> 580 PSIG  
Connection: G 1/2...G 3; 1/2 NPT...3 NPT female  
Accuracy: ±3% of full scale

**Differential Pressure Flow Switch**

For gases, steam and liquids  
brass, stainless steel  
Brochure: **S5**  
Model: **KES**



Water: 0.1 - 0.5 GPM ... 400 - 2000 GPM  
Air: On request  
t<sub>max</sub> 200°F/350°F; p<sub>max</sub> 230 PSIG  
Connection: 1/2" - 3" NPT, 1/2" - 8" ANSI  
Contact: One Nonmagnetic Mechanical SPDT

**Differential Pressure Flow Meters**

For gases, steam and liquids  
bronze, monel, stainless steel  
Brochure: **S5**  
Model: **RCM**



Water: 0.5 - 4 GPH ... 400 - 3000 GPM  
Air: 5 - 40 SCFH ... 3000 - 20000 SCFM  
t<sub>max</sub> 212°F/350°F; p<sub>max</sub> 180/400 PSIG  
Connection: 1/4" - 3" NPT, 1/2" - 8" ANSI  
Accuracy: ±3% of full scale

**Differential Pressure Flow Meters**

For gases, steam and liquids  
brass, stainless steel  
Brochure: **S5**  
Model: **KEL**



Water: 0.1 - 0.5 GPM ... 400 - 2000 GPM  
Air: On request  
t<sub>max</sub> 200°F/350°F; p<sub>max</sub> 230 PSIG  
Connection: 1/2" - 3" NPT, 1/2" - 8" ANSI  
Accuracy: ±5% of full scale





**Magnetic-Inductive Flow Meters/Monitors**

Analog output, contact  
stainless steel  
Brochure: **S5**  
Model: **PME**



Liquids: 1 - 5 m/s  
Conductivity:  $\geq 20 \mu\text{S/cm}$   
 $t_{\text{max}} 212^\circ\text{F}$   $p_{\text{max}} 230 \text{ PSIG @ } 75^\circ\text{F}$ ;  
145 PSIG @  $212^\circ\text{F}$   
Connection: weldable conn. sleeve (1" - 12")  
Accuracy:  $\pm 2\%$  of measured value

**Magnetic-Inductive Flow Meters**

without moving parts  
output: 4-20 mA/pulses/system alarm  
supply: 24 VAC/DC  
fitting: PEEK, PETP  
electrodes: Hastelloy C  
Brochure: **S5/L1**  
Model: **DMI**



Conductivity:  $> 50 \mu\text{S/cm}$   
Liquids: 0 - 10 GPM... 0 - 320 GPM  
 $t_{\text{max}} 230^\circ\text{F}$  (PEEK);  $p_{\text{max}} 145 \text{ PSIG}$   
Connection: DN 10,15,25, 50 (3/4" - 2-1/2" NPT)  
Accuracy: 3% of meas. value, option: 1.5%

**Magnetic-Inductive Flow Monitors**

Analog output, counter,  
LCD display, RS 485  
coating: PTFE  
electrodes: stainless steel  
Brochure: **L1**  
Model: **LDI**



Conductivity:  $> 5 \mu\text{S/cm}$   
Liquids: 0.1 - 12 m/s  
 $t_{\text{max}} 300^\circ\text{F}$ ;  $p_{\text{max}} 145 \text{ PSIG}$   
Connection: DN 25 to DN 150  
Accuracy:  $\pm 0.2\%$  of measured value

**Magnetic-Inductive Flow Meters**

Analog and pulse output  
coating: PTFE  
electrodes: stainless steel  
Brochure: **S5**  
Model: **PMG**



Conductivity:  $> 5 \mu\text{S/cm}$   
Liquids: 0 - 0.53 GPM... 0 - 124400 GPM  
 $t_{\text{max}} 265^\circ\text{F}$ ;  $p_{\text{max}} 580 \text{ PSIG}$   
Connection: 1/2" - 1" NPT, 1" to 24" ANSI  
Accuracy: 0.5% of measured value

**Vortex Flow Meters/Monitors and Counters**

Compact design  
LCD display, switching output  
Brochure: **S5**  
Model: **DVW**



Liquids: 0.13 - 1 GPM ... 1.3 - 10 GPM  
 $t_{\text{max}} 120^\circ\text{F}$ ;  $p_{\text{max}} 145 \text{ PSIG}$   
Connection: G 3/8 ... G 3/4, NPT on request  
Accuracy: 5% of full scale

**Vortex Flow Meters/Monitors and Counters**

External sensor design  
Panel or rail mounting  
LCD display, switching output  
Brochure: **S5**  
Model: **DVW**



Liquids: 0.13 - 1 GPM ... 1.3 - 10 GPM  
 $t_{\text{max}} 120^\circ\text{F}$ ;  $p_{\text{max}} 145 \text{ PSIG}$   
Connection: G 3/8 ... G 3/4, NPT on request  
Accuracy: 5% of full scale





Flow

**Vortex Flow Meters**

LCD display, counter  
stainless steel  
Brochure: **S5**  
Model: **DVC**



Liquids: 0.7 - 5 GPM ... 25 - 300 GPM  
Gases: 7 - 600 m<sup>3</sup>/h ... 60 - 6000 m<sup>3</sup>/h  
t<sub>max</sub> 200°F; p<sub>max</sub> 145 PSIG  
Connection: wafer flange DN 25 ... DN 250  
Accuracy: ±1% of full scale

**Vortex Flow Meters**

Analog output (mA)/plug-on display  
PVC, PVDF  
Brochure: **S5**  
Model: **KUV**  
with plug-on display **AUF**



Liquids: 0.7 - 5 GPM ... 25 - 300 GPM  
Gases: 7 - 600 m<sup>3</sup>/h ... 60 - 6000 m<sup>3</sup>/h  
t<sub>max</sub> 200°F; p<sub>max</sub> 145 PSIG  
Connection: 1/4 NPT ... 2 NPT male  
Accuracy: ±1% of full scale

**Vortex Flow Meters and Counters**

For gases, steam and liquids  
analog- and pulse output  
stainless steel  
Brochure: **S5**  
Model: **PWL**



Liquids: 0.7 - 22 GPM ... 57 - 2800 GPM  
Gases: 4 - 25 Nm<sup>3</sup>/h ... 379 - 5381 Nm<sup>3</sup>/h  
t<sub>max</sub> 750°F; p<sub>max</sub> 580 PSIG  
Connection: DN 25 to DN 300, 1" to 12" ANSI  
Accuracy: 1% of measured value

**Low Volume Thermal Mass Flow Meters**

Independent of pressure and temperature fluctuations  
analog output  
nylon, aluminum, stainless steel  
Brochure: **S5**  
Model: **MAS**



Air: 0 - 10 sccm ... 0 - 500 slm  
t<sub>max</sub> 122°F; p<sub>max</sub> 100 PSIG/500 PSIG  
Connection: 1/4" - 1/2" Swagelok style  
Accuracy: ±1.5% of full scale

**Low Volume Thermal Mass Flow Meters with Controller**

Independent of pressure and temperature fluctuations  
analog output  
nylon, stainless steel  
Brochure: **S5**  
Model: **MFC**



Air: 0 - 10 sccm ... 0 - 50 slm  
t<sub>max</sub> 122°F; p<sub>max</sub> 150 PSIG  
Connection: 1/8" - 1/4" Swagelok style  
Accuracy: ±1.5% of full scale

**In-Line Thermal Mass Flow Meters**

Analog output, digital display  
aluminum, stainless steel  
Brochure: **S5**  
Model: **WFM**



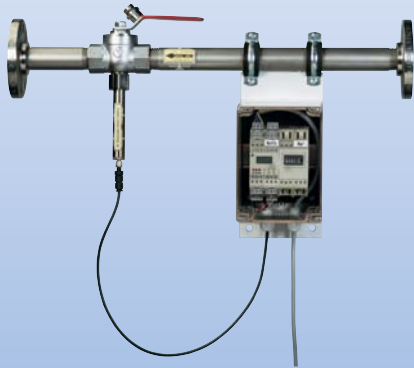
Air: 0.1 - 6 NI/min ... 0.3 - 400 NI/min  
t<sub>max</sub> 140°F; p<sub>max</sub> 145 PSIG  
Connection: 1/8, 1/4, 3/8", clamp connection  
Accuracy: ±3% of full scale





**Compressed Air Meters**

Pulse/analog output,  
contact, 4 digit LCD,  
6 digit mechanical counter  
brass, stainless steel  
Brochure: **S5**  
Model: **DLV**



Air: 1 - 50 Nm<sup>3</sup>/h ... 10 - 500 Nm<sup>3</sup>/h  
t<sub>max</sub> 140°F; p<sub>max</sub> 360 PSIG  
Connection: flange DN 15 ... DN 50  
Accuracy:  
±2.5% of measured value (max. ±1% of F.S.)

**Fluidistor-Oscillation Flow Meters for Gases and Liquids**

Oscillation frequency  
without moving parts  
cast steel, steel, stainless steel  
Brochure: **S5**  
Model: **DOG**



Water: 0.07 - 3.54 m<sup>3</sup>/h ... 70 - 3500 m<sup>3</sup>/h  
Gases: 0.2 - 20 m<sup>3</sup>/h ... 200 - 20.000 m<sup>3</sup>/h  
t<sub>max</sub> 250°F; p<sub>max</sub> 580 PSIG  
Connection: flange DN 25 ... DN 400  
Accuracy: ±1.5% of measured value (gases)  
±1% of measured value (water)

**Fluidistor-Oscillation Flow Meters for Gases**

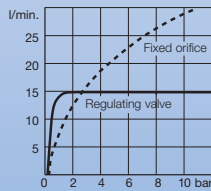
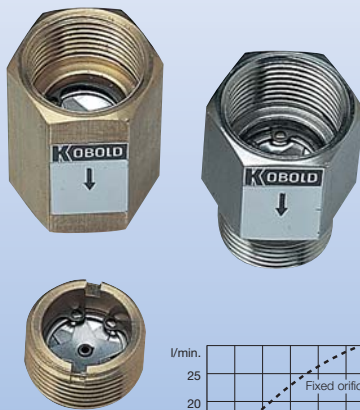
Oscillation frequency  
measuring span: 50 : 1  
Brochure: **S5**  
Model: **DOG**



Gases: 0.4 - 20 m<sup>3</sup>/h ... 400 - 20000 m<sup>3</sup>/h  
t<sub>max</sub> 250°F; p<sub>max</sub> 580 PSIG  
Connection: wafer flange DN 25 ... DN 400  
Accuracy: ±1.5% of measured value

**Constant Flow Rate Control Valves**

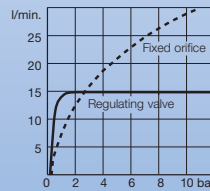
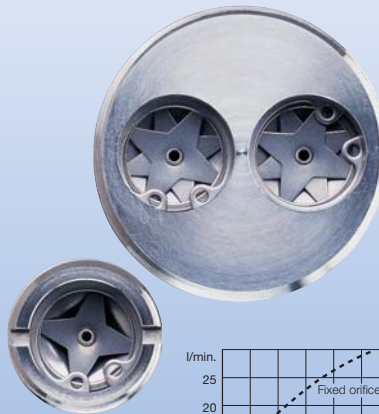
For liquids · without auxiliary energy  
brass, stainless steel  
Brochure: **Z1**  
Model: **REG**



Viscosity:  
max. 30 cSt  
Flow rates: from 1 - 30 l/min H<sub>2</sub>O  
t<sub>max</sub> 500°F; p<sub>max</sub> 2900 PSIG  
Connection: G 1/2, G 3/4 female/male, 3/4"NPT

**Constant Flow Rate Control Valves**

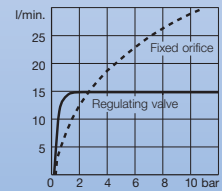
For liquids · without auxiliary energy  
brass, stainless steel  
for montage between flanges  
Brochure: **Z1**  
Model: **REG**



Connections:  
G 1 1/2 ... G 3 1/2  
Flow quantities:  
60 ... 330 l/min

**Constant Flow Rate Control Valves**

For liquids · without auxiliary energy  
brass, stainless steel  
with flange  
Brochure: **Z1**  
Model: **REG**



Connections:  
flange DN 40 ... DN 65  
Flow quantities:  
60 ... 330 l/min







Flow

**Flow Indicators with Rotor**

brass, stainless steel  
 Brochure: **S6**  
 Model: **DAA**



Viscosity range: 1 - 150 cSt  
 Water: 0.11 - 2.1 GPM ... 1.1 - 42 GPM  
 t<sub>max</sub> 212°F; p<sub>max</sub> 230 PSIG  
 Connection: 1/4" - 1-1/2" NPT

**Rotating Vane Flow Indicators**

Trogamid, Polysulfone,  
 brass, stainless steel  
 Brochure: **S6**  
 Model: **DAF**



Water: 0.16 - 1.6 GPH ... 105 - 2400 GPH  
 t<sub>max</sub> 140/250°F; p<sub>max</sub> 145/235 PSIG  
 Connection:  
 G 1/8 - G 1 1/2 female, 1/8 - 1 1/2 NPT

**Rotating Vane Flow Indicators**

Trogamid, Polysulfone,  
 brass, stainless steel  
 Brochure: **S6**  
 Model: **DAF**



Water: 0.16 - 1.6 GPH ... 105 - 2400 GPH  
 t<sub>max</sub> 140/250°F; p<sub>max</sub> 145/235 PSIG  
 Connection: flange DN 15 - DN 50, ANSI

**Flow Indicators with Rotor**

Grey cast iron, cast steel,  
 stainless steel  
 Brochure: **S6**  
 Model: **DAR-1**



t<sub>max</sub> 570°F; p<sub>max</sub> 360 PSIG  
 Connection: G 1/4 - G 2 female, 1/4 - 2 NPT

**Flow Indicators with Rotor**

Grey cast iron, cast steel,  
 stainless steel  
 Brochure: **S6**  
 Model: **DAR-2**



t<sub>max</sub> 570°F; p<sub>max</sub> 360 PSIG  
 Connection: flange DN 15 - DN 200, ANSI

**Rotating Vane Flow Indicators**

brass  
 Brochure: **S6**  
 Model: **DKF**



Water: 0.03 - 1.8 GPM ... 0.08 - 16 GPM  
 t<sub>max</sub> 250°F; p<sub>max</sub> 85 PSIG  
 Connection: G 1/8 - G 1 female, 1/8 - 1 NPT





**Rotating Vane Flow Indicators**

Housing: POM, PVDF,  
brass, stainless steel  
Brochure: **S6**  
Model: **DIH**



Water: 0.05 - 0.4 GPM ... 0.3 - 13 GPM  
t<sub>max</sub> 212°F; p<sub>max</sub> 580 PSIG  
Connection: G 3/8, G 1; 3/8 NPT, 1 NPT female

**Rotating Vane Flow Indicators**

Housing: PP, aluminum-bronze,  
stainless steel  
Brochure: **S6**  
Model: **DIG**



Water: 0.13 - 3.2 GPM ... 0.8 - 21 GPM  
t<sub>max</sub> 175°F; p<sub>max</sub> 230 PSIG  
Connection: G 1/8 ... G 1, 1/8 NPT ... 1 NPT female

**Flow Indicators with Ball**

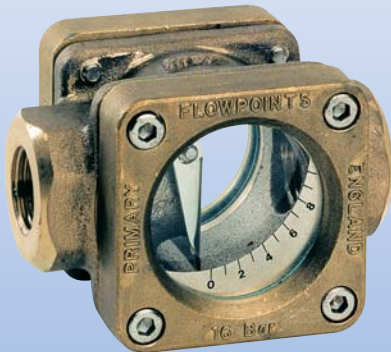
Mounted in horizontal position  
brass  
Brochure: **S6**  
Model: **DKB**



Water: 0.03 - 1.8 GPM ... 0.08 - 16 GPM  
t<sub>max</sub> 250°F; p<sub>max</sub> 85 PSIG  
Connection: G 1/8 - G 1 female, 1/8 - 1 NPT

**Flow Indicators/Meters with Flap**

Red cast iron  
Brochure: **S6**  
Model: **DAZ**



Water: 2.1 - 25 l/min ... 2.1 - 65 l/min  
t<sub>max</sub> 390°F; p<sub>max</sub> 230 PSIG  
Connections: G 1/2 - G 1, 1/2 - 1 NPT

**Flow Indicators with Flap**

Grey cast iron, cast steel,  
stainless steel  
Brochure: **S6**  
Model: **DAK-1**



t<sub>max</sub> 570°F; p<sub>max</sub> 360 PSIG  
Connection: G 3/8 - G 2 female, 3/8 - 2 NPT

**Flow Indicators with Flap**

Grey cast iron, cast steel,  
stainless steel  
Brochure: **S6**  
Model: **DAK-2**



t<sub>max</sub> 570°F; p<sub>max</sub> 360 PSIG  
Connection: flange DN 15 - DN 200, ANSI



# Overview



## Pressure

### Digital Pressure Gauges Battery Powered

With LCD display, analog output  
1 adjustable limit contact  
option: analog output 0-2 V  
Housing: PA, glass fiber strengthened  
Brochure: **P1**  
**Model: MAN-SD**



Pressure ranges: -0 - 30" Hg ... 0 - 6000 PSIG  
Housing diameter: 74 mm  
t<sub>max</sub> 160°F; Overload protection: x 1.5  
Connection: G 1/2 male, 1/4" - 1/2" NPT, SS  
Accuracy: ±0.5% of full scale

### Digital Pressure Gauges

With LED display, analog output  
2 adjustable limit contacts  
option: 0(4) -20 mA, 0-10 V output  
housing: PA, glass fiber strengthened  
Brochure: **P1**  
**Model: MAN-LD**



Pressure ranges: -0 - 30" Hg ... 0 - 6000 PSIG  
Housing diameter: 74 mm  
t<sub>max</sub> 160°F; Overload protection: x 1.5  
Connection: G 1/2 male, 1/4" - 1/2" NPT SS  
Accuracy: ±0.5% of full scale

### Pressure Transducer

With analog output 4-20 mA,  
0-20 mA, 0-10 V  
(option: oil filling)  
housing: stainless steel  
Brochure: **P1**  
**Model: MAN-ZF**



Pressure ranges: 0 - 15 PSIG ... 0 - 5000 PSIG  
Housing diameter: 100 mm  
t<sub>max</sub> 140°F; Overload protection: x 1.15 to x 1.3  
Connection: G 1/2 male, 1/2" NPT, SS  
Accuracy: ±1% of full scale

### Digital Pressure Gauges Battery Powered

With LCD display, analog output  
1 adjustable limit contact  
Housing: stainless steel  
Brochure: **P1**  
**Model: MAN-HF**



Pressure ranges:  
-14.7 to 0 PSIG ... 0 - 5800 PSIG  
Housing diameter: 100 mm  
t<sub>max</sub> 160°F; Overload protection: x 1.5  
Connection: G 1/2 male, 1/2" NPT, SS  
Accuracy: ±0.5% of full scale

### Digital Pressure Gauges

With LED display, analog output  
2 adjustable limit contacts  
option: 0(4) -20 mA, 0-10 V output  
Housing: stainless steel  
Brochure: **P1**  
**Model: MAN-LF**



Pressure ranges:  
-14.7 to 0 PSIG ... 0 - 5800 PSIG  
Housing diameter: 100 mm  
t<sub>max</sub> 160°F; Overload protection: x 1.5  
Connection: G 1/2 male, 1/2" NPT, SS  
Accuracy: ±0.5% of full scale

### Digital Pressure Gauges

For differential pressure  
analog output  
2 adjustable limit contacts  
housing: stainless steel  
Brochure: **P1**  
**Model: MAN-SF**



Pressure ranges:  
-14.7 to 0 PSIG ... 0 - 5800 PSIG  
Housing diameter: 100 mm  
t<sub>max</sub> 160°F; Overload protection: x 1.5  
Connection: G 1/2 male, 1/2" NPT, SS  
Accuracy: ±0.5% of full scale



**Bourdon Tube Pressure Gauges**

Housing: steel  
Wetted Parts: brass  
Brochure: **P1**  
Model: **PGE**



Pressure ranges:  
0 - 100 PSIG ... 0 - 300 PSIG  
Housing diameter: 2-1/2", 4"  
tmax 158°F;  
Connection: 1/4" NPT, brass  
Accuracy class: 3-2-3%

**Bourdon Tube Pressure Gauges**

Housing: stainless steel  
Wetted Parts: brass  
Brochure: **P1**  
Model: **PGF**



Pressure ranges:  
-30" - 0" Hg ... 0 - 5000 PSIG  
Housing diameter: 2-1/2", 4"  
tmax 149°F  
Connection: 1/4" NPT, brass  
Accuracy class: ±1.6% of full scale

**Diaphragm Pressure Gauges**

Housing: stainless steel  
Brochure: **P1**  
Model: **MAN-P**



Pressure ranges:  
-14.5 - 0 PSIG ... 0 - 360 PSIG  
Housing diameter: 63, 100, 160 mm  
tmax 140°F; Overload protection: x 1.15 to x 1.3  
Connection: G 1/2 male, 1/2" NPT, SS  
Accuracy class: 1.6

**Pressure Gauge with PBT Housing**

Housing: polybutylene  
Brochure: **P1**  
Model: **PGP**



Pressure ranges:  
0 - 5000 PSIG  
Housing diameter: 4", 6"  
tmax 250°F;  
Connection: 1/4" - 1/2" NPT, brass  
Accuracy class: ±1% of full scale

**Solid Front All Stainless Steel Bourdon Tube Pressure Gauges**

Housing: stainless steel  
Blow-out protection  
Brochure: **P1**  
Model: **MAN-R...S**



Pressure ranges:  
-14.5 - 0 PSIG ... 0 - 14500 PSIG  
Housing diameter: 63, 100 mm  
tmax 176°F; Overload protection: x 1.15 to x 1.3  
Connection:  
G 1/4, G 1/2 male, 1/4" - 1/2" NPT, SS  
Accuracy class: 1.0

**Solid Front Pressure Gauges**

Housing: Phenol  
Brochure: **P1**  
Model: **MAN-RH**



Pressure ranges: 0 - 15 PSIG ... 0 - 15000 PSIG  
Housing diameter: 5" (125 mm)  
tmax 300°F; Overload protection: x 1.15 to x 1.3  
Connection: 1/2 NPT, brass  
Accuracy class: 0.5





Pressure

**Bourdon Tube Test Pressure Gauges**

Housing: steel, stainless steel, option: aluminium  
 Brochure: **P1**  
**Model: MAN-F**



Pressure ranges: 0 - 8.7 PSIG ... 0 - 23000 PSIG  
 Housing diameter: 160 and 250 mm  
 t<sub>max</sub> 140°F; Overload protection: x 1.15 to x 1.3  
 Connection: G 1/2 male, 1/2" NPT, brass  
 Accuracy class: 0.6; 0.25; 0.1

**Bourdon Tube or Diaphragm Differential Pressure Gauges**

Housing: steel, stainless steel  
 Brochure: **P1**  
**Model: MAN-D**



Pressure ranges: 0 - 3.6 PSIG ... 0 - 360 PSIG  
 Housing diameter: 100 and 160 mm  
 t<sub>max</sub> 160°F; Overload protection: x 1.15 to x 1.3  
 Connection: G 1/2 male, 1/2" NPT, brass  
 Accuracy class: 1.6

**Membrane Diaphragm Seal**

With capillary and limit switches for differential pressure  
 housing: aluminium, steel for pressure gauges with or without contacts · Brochure: **P1**  
**Model: MAN**



Pressure ranges: 0 - 60 PSIG ... 0 - 580 PSIG  
 Housing diameter: 160 mm  
 t<sub>max</sub> 210°F  
 Connection: flange, diameter 85 mm  
 Membrane diameter: 48 mm, stainless steel  
 Accuracy class: 1.6

**Membrane Diaphragm Seal**

With cooling element and limit switches acc. to DIN 11851 for the food industry  
 housing: stainless steel for pressure gauges with or without contacts · Brochure: **P1**  
**Model: MAN**



Pressure ranges: 0 - 14.5 PSIG ... 0 - 580 PSIG  
 Housing diameter: 100 and 160 mm  
 t<sub>max</sub> 300°F  
 Connection: Union Nut acc. to DIN 11851, DN 25/32/40/50  
 Accuracy class: 1.6

**In-Line Diaphragm Seal**

With shaped membrane for pharmaceutical, chemical and food industry  
 Housing: stainless steel  
 Brochure: **P1**  
**Model: DRM**



Pressure ranges:  
 23 - 580 PSIG ... 36 - 580 PSIG  
 Housing diameter: 100 and 160 mm  
 t<sub>max</sub> 176°F (1/2 h to 280°F)  
 Connection: DIN 11851, SMS, clamp, sterile connection  
 Accuracy class: 1.6

**Membrane Diaphragm Seal**

With vibration clamping for pulp and paper industry  
 housing: stainless steel for pressure gauges with or without contacts · Brochure: **P1**  
**Model: MAN**



Pressure ranges: 0 - 360 PSIG ... 0 - 580 PSIG  
 Housing diameter: 100 and 160 mm  
 t<sub>max</sub> 210°F  
 Connection: flange, diameter 85 mm  
 Membrane diameter: 48 mm  
 Accuracy class: 1.6



**All Stainless Steel Pressure Gauges with Membrane Diaphragm Seal and Union Nut acc. to DIN 11851**  
 Housing: stainless steel  
 Brochure: **P1**  
 Model: **MAN-RF...DRM**



Pressure ranges: 0 - 14.5 PSIG ... 0 - 580 PSIG  
 Housing diameter: 100 mm  
 tmax 210°F  
 Connection: DN 25 to DN 50, SS  
 Accuracy class: 1.6

**All Stainless Steel Pressure Gauges with Liquid Damping, Membrane Diaphragm Seal and Union Nut acc. to DIN 11851**  
 Housing: stainless steel  
 Brochure: **P1**  
 Model: **MAN-RF...M21...DRM**



Pressure ranges: 0 - 14.5 PSIG ... 0 - 580 PSIG  
 Housing diameter: 100 mm  
 tmax 210°F  
 Connection: DN 25 to DN 50, SS  
 Accuracy class: 1.6

**All Stainless Steel Pressure Gauges with Capillary, Diaphragm Seal and Union Nut acc. to DIN 11851**  
 Housing: stainless steel  
 Brochure: **P1**  
 Model: **MAN-RF...DRM**



Pressure ranges: 0 - 14.5 PSIG ... 0 - 580 PSIG  
 Housing diameter: 100 mm  
 tmax 390°F  
 Connection: DN 25 to DN 50, SS  
 Accuracy class: 1.6

**All Stainless Steel Pressure Gauges with Membrane Diaphragm Seal, Capillary and Clamp Connection**  
 Housing: stainless steel  
 Brochure: **P1**  
 Model: **MAN-RF...DRM**



Pressure ranges: 0 - 36 PSIG ... 0 - 145 PSIG  
 Housing diameter: 100 mm  
 tmax 390°F  
 Connection: DN 25 to DN 50, SS  
 Accuracy class: 1.6

**All Stainless Steel Contact Pressure Gauges with Flange Membrane Diaphragm Seal**  
 Housing: stainless steel  
 Brochure: **P1**  
 Model: **MAN-RF...M1...DRM**



Pressure ranges: 0 - 14.5 PSIG ... 0 - 580 PSIG  
 Housing diameter: 100 mm  
 tmax 210°F  
 Connection: DN 100, SS  
 Accuracy class: 1.6

**All Stainless Steel Contact Pressure Gauges with Membrane Diaphragm Seal for High Temperature**  
 Housing: stainless steel  
 Brochure: **P1**  
 Model: **MAN-RF-26...M21...DRM**



Pressure ranges:  
 0 - 1450 PSIG ... 0 - 8700 PSIG  
 Housing diameter: 100 mm; tmax 660°F  
 Connection:  
 18 mm with G 3/4 male, 3/4" NPT, SS  
 Accuracy class: 1.6



Pressure

**All Stainless Steel Pressure Gauges with Membrane Diaphragm Seal**

Housing: stainless steel  
 Brochure: **P1**  
 Model: **MAN-RD...DRM**



Pressure ranges: 0 - 36 PSIG ... 0 - 8700 PSIG  
 Housing diameter: 63 mm; t<sub>max</sub> 160°F  
 Connection:  
 G 1/2 ... G 1 1/4, 1/2" - 1-1/4" NPT, SS  
 Accuracy class: 1.6

**All Stainless Steel Pressure Gauges with Capillary, Threaded Membrane Diaphragm Seal and Spiral Protection Jacket**

Housing: stainless steel  
 Brochure: **P1**  
 Model:  
**MAN-RD...DRM**



Pressure ranges: 0 - 90 PSIG ... 0 - 14500 PSIG  
 Housing diameter: 63 mm; t<sub>max</sub> 390°F  
 Connection:  
 G 1/2 ... G 1 1/4, 1/2" - 1-1/4" NPT, SS  
 Accuracy class: 1.6

**All Stainless Steel Pressure Gauges with Capillary and Threaded Membrane Diaphragm Seal**

Housing: stainless steel  
 Brochure: **P1**  
 Model: **MAN-RF...DRM**



Pressure ranges: 0 - 90 PSIG ... 0 - 14500 PSIG  
 Housing diameter: 100 mm; t<sub>max</sub> 390°F  
 Connection:  
 G 1/2 ... G 1 1/4, 1/2" - 1-1/2" NPT, SS  
 Accuracy class: 1.6

**Threaded Membrane Diaphragm Seal with Capillary and Contacts**

Housing: stainless steel  
 Brochure: **P1**  
 Model: **MAN-RF...M...DRM**



Pressure ranges: 0 - 90 PSIG ... 0 - 14500 PSIG  
 Housing diameter: 100 mm  
 t<sub>max</sub> 390°F  
 Connection: G 1/2 ... G 1 1/4, SS  
 Accuracy class: 1.6

**All Stainless Steel Pressure Gauges with Membrane Diaphragm Seal PVC Ø 90 mm**

Housing: stainless steel  
 Brochure: **P1**  
 Model: **MAN-RF...DRM**



Pressure ranges: 0 - 23 PSIG ... 0 - 145 PSIG  
 Housing diameter: 100 mm  
 t<sub>max</sub> 120°F  
 Connection: G 1/4 female; G 1/2 female, PVC  
 Accuracy class: 1.6

**Filled Contact Pressure Gauges with Membrane Diaphragm Seal PVDF Ø 90 mm**

Housing: stainless steel  
 Brochure: **P1**  
 Model: **MAN-RF...M...DRM**



Pressure ranges: 0 - 23 PSIG ... 0 - 230 PSIG  
 Housing diameter: 100 mm  
 t<sub>max</sub> 120°F  
 Connection: G 1/4 female; G 1/2 female  
 Accuracy class: 1.6



**Pressure Gauges with Membrane Diaphragm Seal PVDF Ø 90 mm**

Housing: stainless steel  
Brochure: **P1**  
Model: **MAN-RD...DRM**



Pressure ranges: 0 - 23 PSIG ... 0 - 230 PSIG  
Housing diameter: 63 mm  
t<sub>max</sub> 120°F  
Connection: G 1/4 female ... G 1/2 female, PVDF  
Accuracy class: 1.6

**Battery Powered Digital Manometer with Membrane Diaphragm Seal PVDF Ø 90 mm**

Housing: PA  
Brochure: **P1**  
Model: **MAN-SD...DRM**



Pressure ranges: 0 - 23 PSIG ... 0 - 230 PSIG  
Housing diameter: 74 mm  
t<sub>max</sub> 120°F  
Connection: G 1/4 female; G 1/2 female, PVDF  
Accuracy class: 1.6

**Battery Powered Digital Manometer with Membrane Diaphragm Seal PVC Ø 90 mm**

Housing: PA  
Brochure: **P1**  
Model: **MAN-SD...DRM**



Pressure ranges: 0 - 23 PSIG ... 0 - 145 PSIG  
Housing diameter: 74 mm  
t<sub>max</sub> 120°F  
Connection: G 1/4 female; G 1/2 female, PVDF  
Accuracy class: 1.6

**Battery Powered Digital Manometer with Membrane Diaphragm Seal PP Ø 90 mm**

Housing: PA  
Brochure: **P1**  
Model: **MAN-SD...DRM**



Pressure ranges: 0 - 23 PSIG ... 0 - 145 PSIG  
Housing diameter: 74 mm  
t<sub>max</sub> 120°F  
Connection: G 1/4 female ... G 1/2 female, PP  
Accuracy class: 1.6

**Pressure Transmitter with Membrane Diaphragm Seal PVDF Ø 90 mm**

Housing: stainless steel  
Brochure: **P1/P2**  
Model: **SEN...DRM**



Pressure ranges: 0 - 23 PSIG ... 0 - 145 PSIG  
t<sub>max</sub> 120°F  
Connection: G 1/4 female; G 1/2 female, PVDF  
Accuracy class: 1.6

**Pressure Transmitter with Membrane Diaphragm Seal PP Ø 90 mm**

Housing: stainless steel  
Brochure: **P1/P2**  
Model: **SD...DRM**



Pressure ranges: 0 - 23 PSIG ... 0 ... 145 PSIG  
t<sub>max</sub> 120°F  
Connection: G 1/4 female; G 1/2 female, PP  
Accuracy class: 1.6





Pressure

**Pressure Transmitter with Threaded Membrane Diaphragm Seal and Plug-On Display AUF**

Version: stainless steel  
Ceramic sensor element  
Brochure: **P1/P2**  
Model: **SEN...DRM**



Pressure ranges: 0 - 36 PSIG ... 0 - 8700 PSIG  
t<sub>max</sub> 160°F  
Connection:  
G 1/2 male ... G 1 1/4 male, SS  
Accuracy class: 1.0

**Pressure Sensor for Homogenized Plants**

Version: stainless steel  
Ceramic sensor element  
Brochure: **P1/P2**  
Model: **SEN...DRM**



Pressure ranges: 0 - 5800 PSIG, 0 - 8700 PSIG  
Membrane: flush front; 316 Ti SS  
t<sub>max</sub> 210°F  
Connection: for Block flange  
Accuracy class: 1.0

**Pressure Sensor for Homogenized Plants with Plug-On Display AUF**

Version: stainless steel  
Ceramic sensor element  
Brochure: **P1/P2**  
Model: **SEN...DRM**



Pressure ranges: 0 - 5800 PSIG, 0 - 8700 PSIG  
Membrane: flush front; 316 Ti SS  
t<sub>max</sub> 210°F  
Connection: for Block flange  
Accuracy class: 1.0

**Digital Display Unit with Pressure Sensor for Homogenized Plants**

Version: stainless steel  
Brochure: **P1/P2**  
Model: **SEN...DRM**



Pressure ranges: 0 - 5800 PSIG, 0 - 8700 PSIG  
Membrane: flush front; 316 Ti SS  
Display: 4-digit, green LED display  
t<sub>max</sub> 210°F  
Connection: for Block flange  
Accuracy class: 1.0

**Digital Display Unit with External Sensor for Homogenized Plants**

Version: stainless steel  
Brochure: **P1/P2**  
Model: **SEN...DRM**



Pressure ranges: 0 - 5800 PSIG, 0 - 8700 PSIG  
Membrane: flush front; 316 Ti SS  
Display: 4-digit, green LED display  
t<sub>max</sub> 210°F  
Connection: for Block flange  
Accuracy class: 1.0

**Battery Driven Digital Display Unit with Pressure Sensor 4-Digit for Homogenized Plants**

Version: stainless steel  
Brochure: **P1**  
Model: **MAN-SD...DRM**



Pressure ranges: 0 - 5800 PSIG, 0 - 8700 PSIG  
Membrane: flush front; 316 Ti SS  
t<sub>max</sub> 210°F  
Connection: for Block flange  
Accuracy class: 1.0



**Pressure Sensor with Plug-On Display**

Heavy-Duty OEM with internal diaphragm sensor element thin film technology/piezoresistive analog output for over- and absolute pressure  
Brochure: **P2**  
Model: **SEN**



Pressure ranges:  
0 - 14.5 PSIG ... 0 - 14500 PSIG  
t<sub>max</sub> 176°F; Overload protection: x 1.3 - x 2  
Connection: G 1/4 male, 1/4" NPT SS  
Accuracy: 1%

**Pressure Sensor**

Heavy-Duty with internal diaphragm sensor element thin film technology/piezoresistive analog output for overpressure  
Brochure: **P2**  
Model: **SEN**



Pressure ranges:  
0 - 14.5 PSIG ... 0 - 14500 PSIG  
t<sub>max</sub> 176°F; Overload protection: x 1.3 - x 2  
Connection: G 1/4 male, 1/4" NPT SS  
Accuracy: 1%

**Pressure Sensor**

Industrial Heavy-Duty with internal diaphragm sensor element thin film technology/piezoresistive absolute or gauge ranges 4 - 20 mA output  
Brochure: **P2**  
Model: **KPK**



Pressure ranges:  
0 - 30" Hg Abs ... 0 - 15000 PSIG  
t<sub>max</sub> 212°F  
Connection: 1/4" NPT, SS  
Accuracy: 0.25%; 0.5%

**Pressure Sensor**

Industrial Heavy-Duty with internal diaphragm sensor element thin film technology/piezoresistive absolute or gauge ranges 4 -20 mA, VDC output  
Brochure: **P2**  
Model: **KPG**



Pressure ranges:  
0 - 30" Hg Abs ... 0 - 60000 PSIG  
t<sub>max</sub> 212°F;  
Connection: 1/4", 1/2" NPT, SS  
Accuracy: 0.25%; 0.12%

**Pressure Sensor with Plug-On Display**

Industrial Heavy-Duty for over- and absolute pressure with front-flush diaphragm sensor element thin film technology/piezoresistive analog output  
Brochure: **P2**  
Model: **SEN**



Pressure ranges: 0 - 1.5 PSIG ... 0 - 8700 PSIG  
t<sub>max</sub> 176°F; Overload protection: x 2 - x 3.5  
Connection: G 1/2, G 1 male, SS  
Accuracy: 0.5%; 0.25%

**Pressure Sensor**

Heavy-Duty Precision with internal diaphragm sensor element thin film technology/piezoresistive submersible 4 -20 mA, VDC output  
Brochure: **P2**  
Model: **KPW**



Pressure ranges: 0 - 2 PSIG ... 0 - 300 PSIG  
t<sub>max</sub> 175°F;  
Connection: Submersible cable  
Accuracy: 0.25%; 0.12%



Pressure

**Pressure Sensor with Ceramic Sensor Element and Plug-On Display**

Analog output for overpressure housing: stainless steel  
Brochure: **P2**  
Model: **SEN**



Pressure ranges:  
-14.5 - 0 PSIG ... 0 - 8700 PSIG  
t<sub>max</sub> 176°F  
Connection: G 1/2 male, 1/2" NPT, SS  
Accuracy class: 0.5; 1.0

**Pressure Sensor with Ceramic Sensor Element and Plug-On Display**

Analog output for overpressure housing: stainless steel  
Brochure: **P2**  
Model: **SEN**



Pressure ranges:  
-14.5 - 0 PSIG ... 0 - 8700 PSIG  
t<sub>max</sub> 176°F  
Connection: G 1/4 male, 1/4" NPT, SS  
Accuracy class: 0.5; 1.0

**Digital Differential Pressure Gauge with External Sensor**

Housing: stainless steel  
Brochure: **P1**  
Model: **MAN-BF**



Pressure ranges:  
-14.5 - 0 PSIG ... 0 - 8700 PSIG  
Housing diameter: 100 mm; t<sub>max</sub> 176°F  
Connection: G 1/2 male, 1/2" NPT, SS  
Accuracy class: 1.0

**Digital Differential Pressure Gauge with 2 External Sensors**

Housing: stainless steel  
Brochure: **P1**  
Model: **MAN-BF**



Pressure ranges:  
-14.5 - 0 PSIG ... 0 - 8700 PSIG  
Housing diameter: 100 mm; t<sub>max</sub> 176°F  
Connection: G 1/2 male, 1/2" NPT, SS  
Accuracy class: 1.0

**Pressure Gauges for Aggressive Media**

Housing: PPH  
Brochure: **P1**  
Model: **MAN**



Pressure ranges: 0 - 1 bar ... 0 - 25 bar  
Housing diameter: 100 mm  
t<sub>max</sub> 140°F  
Connection: G 3/4 male, PPH  
Accuracy class: 1.0

**Pressure Gauges for Aggressive Media**

Analog output  
Housing: PPH  
Brochure: **P1**  
Model: **MAN...**



Pressure ranges: 0 - 1 bar ... 0 - 25 bar  
Housing diameter: 100 mm  
t<sub>max</sub> 140°F  
Connection: G 3/4 male, PPH  
Accuracy class: 1.0





**Electronic Pressure Switch**

Digital display, contact or analog output  
Brochure: **P2/P3**  
Model: **PDD**



Switching ranges:  
-14.5 - 0 PSIG ... 0 - 5800 PSIG  
t<sub>max</sub> 210°F  
Connection: G 1/2, 1/2 NPT, SS  
Accuracy class: 0.5

**Electronic Pressure Switch**

2 switch outputs p-switching  
brass/plastic  
Brochure: **P3**  
Model: **PDL**



Switching ranges:  
87 - 870 PSIG ... 870 - 8700 PSIG  
Switching function: N/C or N/O  
t<sub>max</sub> 176°F  
Connection: G 1/2 male, 1/2" NPT, brass  
Repeatability: < 1% of full scale

**Electronic Pressure Switch**

2 switch outputs p-switching  
brass/plastic  
Brochure: **P3**  
Model: **PDL**



Switching ranges:  
1.4 - 14.5 PSIG ... 36 - 360 PSIG  
Switching function: N/C or N/O  
t<sub>max</sub> 176°F  
Connection: G 1/4 male, 1/2" NPT, brass  
Repeatability: < 1% of full scale

**Pressure Switch**

Heavy-Duty Pressure Switch  
SPDT contact  
Brochure: **P3**  
Model: **KRT**



Pressure ranges:  
-14.5 to 0 PSIG ... 145 - 435 PSIG  
t<sub>max</sub> 300°F;  
Connection: 1/4" NPT, brass  
Contact: SPDT, 380 VAC, 4A

**Pressure Switch**

Heavy-Duty Pressure Switch  
SPDT Contact  
Brochure: **P3**  
Model: **KPS/KAS**



Pressure ranges:  
0 - 36 PSIG ... 87 - 870 PSIG  
t<sub>max</sub> 212°F;  
Contact: SPDT, 250 VAC, 0.1 A (KAS)  
SPDT, 440 VAC, 6 A (KPS)

**Sandwich Plug-On Display**  
**Option Limit Contact**

Version Ex  
Brochure: **P1**  
Model: **AUF**



For all transducers  
with 4-20 mA output and  
DIN 43650 plug



# Overview



## Level

### Magnetic Float Level Switches

For side installation  
brass, stainless steel  
Brochure: **N1**  
Model: **NV...**



Density:  $\geq 0.8$  g/cc  
 $t_{max}$  230°F;  $p_{max}$  230 PSIG  
Connection: 3/4" NPT

### Magnetic Float Level Switches

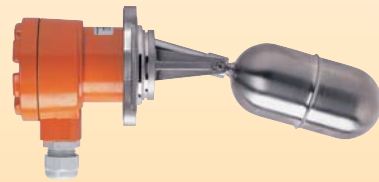
For side installation  
Polypropylene, PVDF  
Brochure: **N1**  
Model: **NKP**



Density:  $\geq 0.6$  g/cc  
 $t_{max}$  175°F (PP), 212°F (PVDF);  $p_{max}$  145 PSIG  
Connection: 1/2" NPT, Bulkhead

### Dual Magnet Float Level Switch

For side installation  
housing resistant to sea water  
approved by Germanic Lloyd, Cenelec  
aluminium-bronze, stainless steel  
Brochure: **N1**  
Model: **NGS-01**



Density:  $\geq 0.7$  g/cc  
 $t_{max}$  480°F;  $p_{max}$  360 PSIG  
Connection: four edged flange

### Magnetic Float Level Switches

For side installation  
brass, stainless steel, PVC, PP, Buna-N  
Brochure: **N1**  
Model: **NC**



SP Gravity:  $\geq 0.50/0.80$   
 $t_{max}$  300°F;  $p_{max}$  275 PSIG  
Connection: 1/8" NPT

### Magnetic Float Level Switches

Brass, Stainless steel, Buna-N, PP, PVC  
Brochure: **N1**  
Model: **NCB/NCP**



SP Gravity:  $\geq 0.50/0.80$   
 $t_{max}$  140°F/300°F  
 $p_{max}$  100 PSIG/400 PSIG  
Connection: 1/8" - 1/4" NPT

### Bypass Magnetic Float Level Switches

Aluminium, stainless steel  
Brochure: **N1**  
Model: **NB..-100**



Density:  $\geq 0.7$  g/cm<sup>3</sup>  
 $t_{max}$  300°F;  $p_{max}$  145 PSIG  
Connection: G 3/8 female, 3/8 NPT female





**Float Level Switches**

Micro-switch (SPDT)  
Polypropylene  
Brochure: **N1**  
Model: **NSM**



Density:  $\geq 0.6$  g/cc  
 $t_{max}$  140°F;  $p_{max}$  30 PSIG  
Connection: cable

**Float Level Switches**

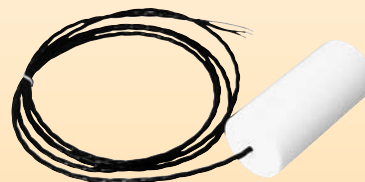
Mechanical Switch  
(N/O contact/SPDT contact)  
Polypropylene, PVC  
Brochure: **N1**  
Model: **NAE**



Density:  $\geq 1.4$  g/cc (max)  
 $t_{max}$  200°F;  $p_{max}$  80 PSIG  
Connection: cable

**Float Level Switches**

Mercury contact (SPDT)  
for hot, extremely aggressive liquids  
teflon  
Brochure: **N1**  
Model: **NST**



Density:  $\geq 0.85$  g/cc  
 $t_{max}$  320°F;  $p_{max}$  15 PSIG  
Connection: cable

**Float Level Switches**

Mercury contact  
(N/C or N/O contact)  
Polyethylene  
Brochure: **N1**  
Model: **NSP**



Density:  $\geq 0.8$  g/cc  
 $t_{max}$  140°F;  $p_{max}$  30 PSIG  
Connection: cable

**Float Level Switches**

Micro-switch Polypropylene, PVC  
Brochure: **N1**  
Model: **NNE**



Density:  $\geq 0.7$  g/cc (max)  
 $t_{max}$  200°F;  $p_{max}$  80 PSIG  
Connection: cable

**Float Level Switches**

Micro-switch (SPDT)  
for hot, aggressive, pasty liquids  
stainless steel  
Brochure: **N1**  
Model: **NSE**



Density:  $\geq 0.8$  g/cc  
 $t_{max}$  320°F;  $p_{max}$  218 PSIG  
Connection: cable

# Overview



## Level

### Conductive Level Switches

For conductive liquids  
Rod electrodes  
stainless steel, Hastelloy, Titanium,  
Polyolefine, Polypropylene, PTFE,  
Neoprene, PVC  
Brochure: **N1**  
Model: **NES...**



Conductivity:  $\geq 20 \mu\text{S}$   
 $t_{\text{max}} 300^\circ\text{F}$ ;  $p_{\text{max}} 440 \text{ PSIG}$   
Connection: 1/2", 1 1/2" NPT

### Conductive Level Switches

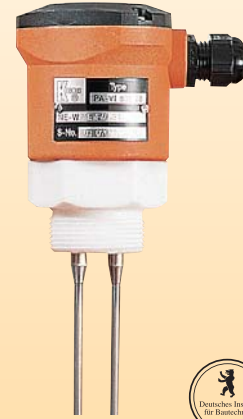
For conductive liquids  
suspended electrodes  
stainless steel, Hastelloy, Titanium,  
Polypropylene, PTFE, Neoprene, PVC  
Brochure: **N1**  
Model: **NEH...**



Conductivity:  $\geq 20 \mu\text{S}$   
 $t_{\text{max}} 300^\circ\text{F}$ ;  $p_{\text{max}} 90 \text{ PSIG}$   
Connection: 1/2", 1 1/2" NPT

### Conductive Level Switches for Containers Storing Water-Contaminating Liquids

For conductive liquids  
stainless steel, Hastelloy, Titanium,  
Polypropylene, PTFE  
Brochure: **N1**  
Model: **NEW...**

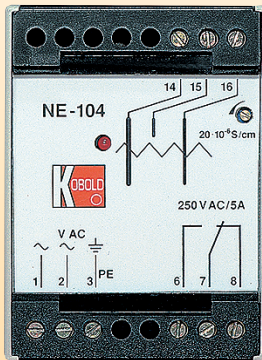


Conductivity:  $\geq 20 \mu\text{S}$   
 $t_{\text{max}} 140^\circ\text{F}$ ; unpressurized  
Connection: 1, 1 1/2" NPT



### Electrode Relays 1 Channel

Monitoring and control of  
conductive liquids in connection  
with level detectors NES/NEH  
Brochure: **N1**  
Model: **NE-104**



Relay 250 V AC / 5A / 600 VA for  
1 limit signal or  
1 min/max controller

### Electrode Relays 2 Channel

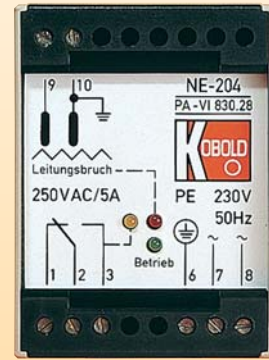
Monitoring and control of  
conductive liquids in connection  
with level detectors NES/NEH  
Brochure: **N1**  
Model: **NE-304**



2 relays 250 V AC / 5A / 600 VA for  
2 limit signals or  
2 min/max controller

### Electrode Relays acc. to Water Resources Act

Over-fill protection in connection with  
level detectors NEW for stationary  
containers storing inflammable,  
water-contaminating liquids  
Brochure: **N1**  
Model: **NE-204 acc. to § 19 Water Resources Act**



Relay 250 V AC / 5A / 600 VA for  
1 limit signal or  
1 min/max controller





**Conductive Level Switches**

With integrated electronics  
stainless steel, PEEK  
Brochure: **L1**  
Model: **LNK**



Rod length: 4 mm  
(also available in other lengths)  
Conductivity:  $\geq 10 \mu\text{S/cm}$   
 $t_{\text{max}} 300^\circ\text{F}$ ;  $p_{\text{max}} 90 \text{ PSIG}$   
Connection: G1/2, food connection  
Output: max. 50 mA

**Conductive Level Switches**

With integrated electronics  
stainless steel, PEEK  
Brochure: **L1**  
Model: **LNK**



Rod length: 200 - 1000 mm  
Conductivity:  $\geq 10 \mu\text{S/cm}$   
 $t_{\text{max}} 300^\circ\text{F}$ ;  $p_{\text{max}} 90 \text{ PSIG}$   
Connection: G1/2, food connection  
Output: max. 50 mA

**Conductive Level Switches**

With integrated electronics  
stainless steel, hastelloy, titanium,  
Halar-coating (E-CTFE)  
Brochure: **L1**  
Model: **LNK**



Rod length: 200 - 1000 mm  
Conductivity:  $\geq 10 \mu\text{S/cm}$   
 $t_{\text{max}} 300^\circ\text{F}$ ;  $p_{\text{max}} 90 \text{ PSIG}$   
Connection: G1/2, food connection  
Output: max 50 mA

**Conductive Level Switches**

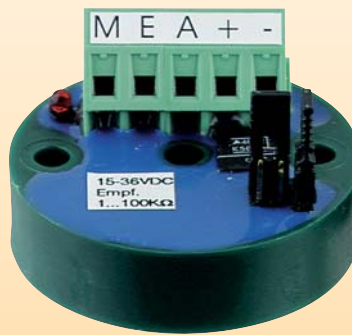
With integrated electronics  
stainless steel, PEEK,  
Halar-coating (E-CTFE)  
Brochure: **L1**  
Model: **LNK**



Rod length: 200 - 1000 mm  
Conductivity:  $\geq 10 \mu\text{S/cm}$   
 $t_{\text{max}} 300^\circ\text{F}$ ;  $p_{\text{max}} 90 \text{ PSIG}$   
Connection: G1, food connection  
Output: max. 50 mA

**Head Mounted Relay for  
Conductive Level Probes**

Brochure: **L1**  
Model: **LNR**



Sensitivity: 0.1/1/10/100 k ohms  
 $t_{\text{max}} 180^\circ\text{F}$   
Output: 14 V DC, max. 50 mA

**Conductive Level Switches**

With integrated electronics,  
for all conductive liquids  
PP, PPS (Rhyton)  
Brochure: **N1**  
Model: **NEK**



Conductivity:  $\geq 32 \mu\text{S/cm}$   
 $t_{\text{max}} 185^\circ\text{F}$ ;  $p_{\text{max}} 290 \text{ psi}$   
Connection: 3/4" NPT  
Output: open collector or relay





# Overview



## Level

### RF-Level Switches

For all types of liquids independent of viscosity and degree of dirt fully isolated with PTFE or partially isolated with stainless steel  
 Brochure: **N1**  
 Model: **NHF**



t<sub>max</sub> 180°F; p<sub>max</sub> 145 PSIG  
 Connection: 1", 1 1/2" NPT

### Vibration Level Switches

Based on the tuning fork principle stainless steel  
 Brochure: **N1**  
 Model: **NWS**



Viscosity: max. 5000 cSt  
 t<sub>max</sub> 270°F; p<sub>max</sub> 725 PSIG  
 Connection: 3/4" - 1" NPT male

### Vibration Level Switches

Based on the tuning fork principle stainless steel  
 Brochure: **N1**  
 Model: **NWS**



Viscosity: max. 5000 cSt  
 t<sub>max</sub> 270°F; p<sub>max</sub> 725 PSIG  
 Connection: 3/4" - 1" NPT male

### Optical Electronic Level Switches

For transparent liquids Polypropylene, stainless steel, polysulfone  
 Brochure: **N1**  
 Model: **OPT**



t<sub>max</sub> 185°F; p<sub>max</sub> 145 PSIG  
 Connection: 1/2" NPT, bulkhead

### Microwave Level Switch

Also by froth and build-ups output: active, max. 50 mA stainless steel, PEEK  
 Brochure: **L1**  
 Model: **LNM**



t<sub>max</sub> 300°F; p<sub>max</sub> 145 PSIG  
 Connection: G1/2, food connection

### Static Pressure Level Switches

For liquids in non-pressurized vessels Polyamide, Buna-N  
 Brochure: **N1**  
 Model: **NDT**



t<sub>max</sub> 185°F  
 Connection: 1-1/2 hose clamp





**Vibration Level Switches**

Based on the tuning fork principle for fine grained bulk goods universal installation steel  
Brochure: **N1**  
Typ: **NTM**



t<sub>max</sub> 300°F; p<sub>max</sub> 230 PSIG  
Connection: R1 1/2 male

**Vibration Level Switches**

For powder, granular relay output  
Probe material: stainless steel  
Brochure: **N1**  
Model: **NVI**



Probe length: 235 mm  
t<sub>max</sub> 230°F, p<sub>max</sub> 90 PSIG  
Connection: G1-1/2

**Capacitance Level Switches**

For solids <30 mm grain size  
Probe material: PPS  
Brochure: **N1**  
Model: **NTS**



t<sub>max</sub> 250°F; p<sub>max</sub> 360 PSIG  
Connection: R1

**Diaphragm Level Switches**

For solids  
Neoprene, Viton, steel, stainless steel  
Brochure: **N1**  
Model: **NMF**



Density: 26 - 260lbs/ft<sup>3</sup>  
Grain Size: < 30 mm, 1.2"  
t<sub>max</sub> 175°F  
Connection: flange

**Rotary Level Monitors**

For solids  
housing: plastic  
Brochure: **N1**  
Model: **ND-R**



t<sub>max</sub> 175°F; p<sub>max</sub> 15 PSIG  
Connection: R1-1/4 male

**Rotary Level Monitors**

For solids  
plastic, stainless steel, aluminium  
Brochure: **N1**  
Model: **ND-D**



Density: 2500 g/cc<sup>3</sup>  
t<sub>max</sub> 660°F  
Connection: flange

# Overview



## Level

### Float Type Level Transducer

Resistance / reed contact chain  
stainless steel, PVC, PP, PTFE  
Brochure: **N2**  
Model: **NM**



Max. tube length: 19.7 ft  
Density:  $\geq 0.6$  g/cc  
 $t_{max}$  350°F;  $p_{max}$  290 psi  
Connection: 3/8" - 2" NPT, 2" - 4" ANSI  
Contact resolution: 10 mm

### Float Type Level Transducer

Resistance / reed contact chain  
stainless steel, PVC, PP, PTFE  
Brochure: **N2**  
Model: **NM and ADI**



Max. tube length: 19.7 ft  
Density:  $\geq 0.6$  g/cc  
 $t_{max}$  350°F;  $p_{max}$  290 psi  
Connection: 1/2" - 2" NPT, 2" - 4" ANSI  
Contact resolution: 10 mm

### Magnetostrictive Level Meters for Liquids

Echo time measurement, stainless steel  
output: 4 -20 mA  
Brochure: **N2**  
Model: **NMT**



Measuring length: 300 - 2500 mm  
 $t_{max}$  176°F;  $p_{max}$  145 PSIG  
Connection: G2 male  
Accuracy:  $\pm 1$  mm

### Capacitance Level Transmitter

Heavy Duty Design  
4- 20 mA output  
Brochure: **N2**  
Model: **NRF**



Measuring length: 20' (200' flexible)  
 $t_{max}$  350°F;  $p_{max}$  500 PSIG  
Connection: 3/4" - 1-1/2" NPT, Tri-Clamp  
Accuracy:  $\pm 1\%$  of span  
Option: built-in temperature transmitter

### Capacitance Level & Temperature Transmitter

Convenient dual-rod design for non-metal tanks  
4 - 20 mA output  
Brochure: **N2**  
Model: **NRF-2**



Measuring length: 20' (200' flexible)  
 $t_{max}$  350°F;  $p_{max}$  500 PSIG  
Connection: 3/4" - 1-1/2" NPT, Tri-Clamp  
Accuracy:  $\pm 1\%$  of span  
Option: built-in temperature transmitter

### Universal Displays

Digital-, bargraph display or combined display  
Input: current, voltage, frequency  
Brochure: **S4**  
Model: **ADI**



Power supply: 24 VDC; 24, 48, 110, 230 VAC  
Switch-panel mount: 96 x 96 mm or field housing  
Option: sensor power supply, contacts, analog output





**Bypass Level Indicators**

Local indicator  
stainless steel  
Brochure: **N2**  
Model: **NBK...**



Viscosity: 500 cPs (max)  
Density: > 0.55 g/cc  
t<sub>max</sub> 750°F; p<sub>max</sub> 4600 PSIG  
Connection: 1/2" - 1-1/2" NPT, 1/2" - 2" ANSI

**Bypass Level Indicators / Meters / Monitors**

Local indicator with limit contacts,  
**resistance- / reed contact chain**  
Brochure: **N2**  
Model: **NBK...**



Viscosity: 500 cPs (max)  
Density: > 0.55 g/cc  
t<sub>max</sub> 750°F; p<sub>max</sub> 4600 PSIG  
Connection: 1/2" - 1-1/2" NPT, 1/2" - 2" ANSI  
Contact Resolution: 10 mm

**Bypass Level Indicators / Meters / Monitors**

Local indicator at tanks  
limit contacts  
**magnetostrictive transmitter**  
stainless steel  
Brochure: **N2**  
Model: **NBK**



Viscosity: 500 cPs (max)  
Density: > 0.55 g/cc  
t<sub>max</sub> 750°F; p<sub>max</sub> 4600 PSIG  
Connection: 1/2" - 1-1/2" NPT, 1/2" - 2" ANSI  
Transmitter Accuracy: 1 mm

**Bypass Level Indicators for Overhead Installation Magnetostrictive Transmitter**

Local indication of underground tanks  
limit contacts  
stainless steel  
Brochure: **N2**  
Model: **NBK**



Viscosity: 500 cPs (max)  
Density: ≥ 0.55 g/cc  
t<sub>max</sub> 250°F; p<sub>max</sub> 230 PSIG  
Connection: flange  
Transmitter Accuracy: 1 mm

**Plastic Bypass Level Indicators Magnetostrictive Transmitter**

Local indication at tanks  
limit contacts  
PVC, PP, PVDF  
Brochure: **N2**  
Model: **NBK**



Viscosity: max 5000 cPs (max)  
Density: ≥ 0.6 g/cc  
t<sub>max</sub> 140°F; p<sub>max</sub> 90 PSIG  
Transmitter Accuracy: 1 mm

**Mini-Bypass Level Meters Magnetostrictive Transmitter**

Local indication for small tanks  
Brochure: **N2**  
Model: **NBK**



Viscosity: 200 cPs (max)  
Density: ≥ 0.8 g/cc  
t<sub>max</sub> 250°F; p<sub>max</sub> 230 PSIG  
Connection: 1/2" NPT  
Transmitter Accuracy: 1 mm





# Overview



## Level

### Limit Contacts for Bypass Level Indicators

Bistable SPDT contact  
Polycarbonate  
Brochure: **N2**  
Model: **NBK-R**



t<sub>max</sub> 160°F  
Switch capacity: 40 W / VA, 230 V / 0.8 A  
Electr. connection: 3 m PVC cable

### Limit Contacts for Bypass Level Indicators

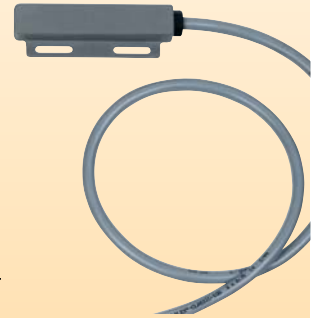
Bistable SPDT contact  
aluminium  
Brochure: **N2**  
Model: **NBK-RT**



t<sub>max</sub> 750°F  
Switch capacity: 40 W / VA, 230 V / 0.8 A  
Electr. connection: terminal strip

### Limit Contacts Ex for Bypass Level Indicators

Bistable changeover contact Ex-d-IIC-T6  
Polycarbonate  
Brochure: **N2**  
Model: **NBK-REx**



t<sub>max</sub> 160°F  
Switch capacity: 20 W / 45 VA, 220 V / 0.8A  
Electr. connection; 3 m PVC cable



### Ultrasonic Level Switches

For liquids  
viscosity independent  
stainless steel  
Brochure: **N1**  
Model: **NQ**



t<sub>max</sub> 300°F  
p<sub>max</sub> 1000 PSIG  
Connection: 1" NPT

### Ultrasonic Level Switches without Media Contact

For liquids  
for pipes made of plastic, metal, glass  
switching output  
Brochure: **N1**  
Model: **NDW**



For pipes: 8 - 55 mm O.D.  
t<sub>max</sub> 275°F  
Power: 24 VDC  
Connection: "C" clamp

### Ultrasonic Level Meters

Compact system for measurement in liquids and slurries  
analog output  
Brochure: **N2**  
Model: **NUS**



Measuring ranges: 16 ft. max (1-1/2")  
26 ft. max (2")  
Connection: 1-1/2, 2" NPT or adapter flanges  
Output: 4 ... 20 mA



**Conductive Level Probe**

Potentiometric measuring principle for viscous and very sticky media  
output: 4...20 mA  
stainless steel, PEEK  
Brochure: **L1**  
Model: **LNP**



Min. conductivity:  $\geq 1 \mu\text{S/cm}$   
variable rod lengths  
 $t_{\text{max}}$  250°F,  $p_{\text{max}}$  145 PSIG  
Connection: G1/2, food connection  
Accuracy:  $\leq 1\%$

**Level Measurement with Hydrostatic Pressure**

For side installation at tanks  
Capacitive cells in stainless steel sensor with contact or analog output  
Brochure: **N1**  
Model: **NDD**



Measuring ranges: 33 ft.  
 $T_{\text{max}}$ : 176°F  
Connection: 1/2", 3/4" NPT  
Output: 4 - 20 mA  
Accuracy:  $\pm 0.5\%$

**Diaphragm Meter for Level Measuring**

For tanks in chemical industry, food industry  
stainless steel  
Brochure: **N2**  
Model: **NPF**



Measuring ranges:  
0 - 16" water; 0 to 236" water  
 $t_{\text{max}}$ : 176°F  
Connection: G1/2  
Accuracy class:  $\pm 2\%$

**Deep-Well-Probe**

Level measurement in wells, water reserves or deep reservoirs  
sensor 28 mm Ø from stainless steel  
cable polyurethane  
Brochure: **N2**  
Model: **NTB**



Max. cable length: 650 ft.  
Output: 4 - 20 mA two wire

**Capacitive Level Measurement Hydrostatic Principle**

Front flush ceramic membrane  
output: 4...20 mA  
stainless steel, ceramic  $\text{Al}_2\text{O}_3$   
Brochure: **L1**  
Model: **LPC**



Measuring range: 325 ft.  
 $t_{\text{max}}$  212°F  
Connection: G1, food connection  
Accuracy:  $\leq 0.1\%$  of F.S.

**Multi-Function Controller**

Analog or frequency input  
Batch, total or rate capable  
16-point linearization  
Brochure: **L1**  
Model: **SRT**



Three user-definable control inputs  
 $t_{\text{max}}$  120°F; Power: 12, 24 VDC; 110, 220 VAC  
Analog or pulse output; Display LCD: 2 line  
Input: analog or frequency  
Standard RS-232 port  
Contacts: 2 to 4 SPDT



Temperature

**Electronic Temperature Switches**

With LED chain, programmable contact or analog output  
stainless steel  
Brochure: **T1**  
Model: **TDD-2**



Measuring and switching ranges:  
-9 to 65°F ... 185 to 250°F  
t<sub>max</sub> 250°F; p<sub>max</sub> 1160 PSIG  
Connection:  
G 1/2, G 3/4, 1/2 NPT, 3/4 NPT male

**Electronic Temperature Switches**

With LED display, programmable contact or analog output  
stainless steel  
Brochure: **T1**  
Model: **TDD-1**



Measuring and switching ranges:  
-4 to 250°F, programmable  
t<sub>max</sub> 250°F; p<sub>max</sub> 1160 PSIG  
Connection:  
G 1/2, G 3/4, 1/2 NPT, 3/4 NPT male

**Electronic Temperature Switches Remote Version**

With LED display, programmable contact or analog output  
stainless steel  
Brochure: **T1**  
Model: **TDD-1**



Measuring and switching ranges:  
-58 to 250°F, programmable

**Bimetal Temperature Controllers / Monitors**

With fixed switching point  
brass, stainless steel  
Brochure: **T1**  
Model: **TWR**



Switching ranges:  
+30 to +120°C (86 to 250°F)  
Graduation: in 5°C/10°C increments  
t<sub>max</sub> 300°F; p<sub>max</sub> 930 PSIG  
Connection: G 3/4 male, 3/4 NPT

**Thermal Reed Switches**

For temperature monitoring and fixed switch point  
brass, stainless steel  
Brochure: **T1**  
Model: **TRS**



Switching ranges: +10 to +120°C (50 to 250°F)  
Graduation: in 10°C increments  
t<sub>max</sub> 250°F; p<sub>max</sub> 360 PSIG  
Connection:  
G 1/4 - G 1 female, 1/4 - 1 NPT female

**Machine Thermometers**

Acc. to DIN 16181-16195  
with thermometer liquid or mercury filling  
Brochure: **T2**  
Model: **TGL**



Measuring ranges: -76 to 100°F ... 32 to 1100°F  
Housing length: 110, 150 or 200 mm  
Connection: G 1/2 or 1/2 NPT male  
Immersion tube: brass, steel  
Accuracy class: 1



**Bimetal Thermometers**

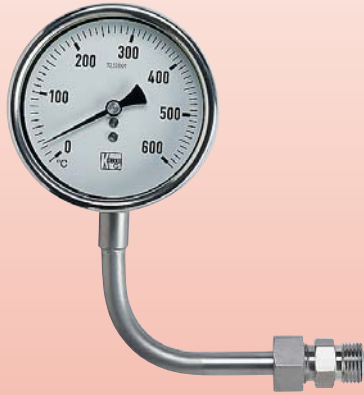
For heating, air conditioning, ventilation, industry  
Brochure: **T2**  
Model: **TBI**



Measuring ranges: -20 to 120°F ... 32 to 900°F  
Housing diameter: 63, 80 and 100 mm  
p<sub>max</sub> 360 PSIG  
Connection:  
G 1/2, air flange, welding thermowells  
Accuracy class: 1 and 2

**Shaft Thermometers**

With N<sub>2</sub>-gas filling acc. to DIN 16205  
steel, aluminium, stainless steel  
Brochure: **T2**  
Model: **TNS**



Measuring ranges: 0 to 100°F ... 32 to 1100°F  
Housing diameter: 63, 80, 100 and 160 mm  
p<sub>max</sub> 360 PSIG  
Connection: G 1/2 - G 1, 1/2 - 1 NPT, Tri Clamp  
Accuracy class: 1

**Capillary Thermometers**

With N<sub>2</sub>-gas filling acc. to DIN 16206  
steel, aluminium, stainless steel  
Brochure: **T2**  
Model: **TNF**



Measuring ranges: 0 to 100°F ... 32 to 1100°F  
Housing diameter: 63, 80, 100 and 160 mm  
p<sub>max</sub> 360 PSIG  
Connection: G 1/2 - G 1, 1/2 - 1 NPT, Tri Clamp  
Accuracy class: 1

**Safety Thermometers with Contacts**

With N<sub>2</sub>-gas filling shaft or capillary thermometer  
inductive, magnetic spring contacts  
steel, stainless steel  
Brochure: **T2**  
Model: **TNS, TNF**



Measuring ranges: 0 to 100°F ... 32 to 1100°F  
Housing diameter: 100 and 160 mm  
t<sub>max</sub> 600°C; p<sub>max</sub> 360 PSIG  
Connection: G 1/2 - G 1, 1/2 - 1 NPT, Tri Clamp  
Accuracy class: 1

**Shaft Thermometers for Diesel Motors**

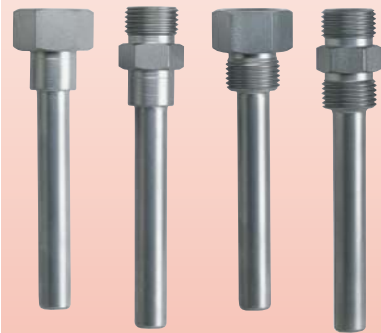
Shock proof with oil filling  
Brochure: **T2**  
Model: **TND**



Measuring ranges: 32 - 1100°F ... 32 to 1500°F  
Housing diameter: 63, 80 and 100 mm  
p<sub>max</sub> 360 PSIG  
Connection:  
G 1/2, G 3/4 male, 1/2 NPT, 3/4 NPT  
Accuracy class: 1 and 1.6

**Thermowells**

Stainless steel  
Brochure: **T2**  
Model: **TSH**



p<sub>max</sub> 360 PSIG  
Connection:  
G 1/2 female / male, 1/2" NPT welding nipple





Temperature

**Sheath Resistance Thermometers**

Stainless steel  
Brochure: **T2**  
Model: **TWM**



Measuring ranges: -50 to 1100°F  
Mech. connection:  
G 1/8 - G 1/2, 1/8 - 1/2 NPT, bayonet  
Electr. connection:  
cable, plug, connection head  
Accuracy class: B, option: A

**Contact Resistance Thermometers**

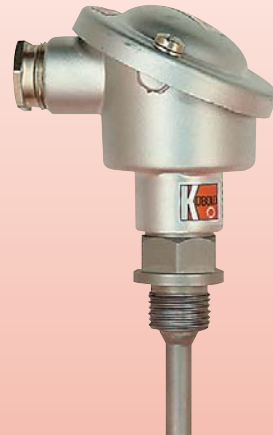
Aluminium, stainless steel  
Brochure: **T2**  
Model: **TWA**



Measuring ranges:  
-50 to 350°F... -50 to 500°F  
PTFE, Captone or Silicone tube  
Accuracy class: B

**Resistance Temperature Probes**

With installation fitting acc. to DIN  
steel, stainless steel  
transducer  
Brochure: **T2**  
Model: **TWD**



Measuring ranges: -50 to 1100°F  
p<sub>max</sub> 25 bar (40 bar), 360 PSIG (580 PSIG)  
Connection: G 1/2 - G 1 male,  
1/2 - 1 NPT male, clamp flange  
Accuracy class: A or B

**Sheath Thermocouple**

Brass, stainless steel  
Brochure: **T2**  
Model: **TTM**



Measuring ranges: -325 to 2100°F  
Ni-CrNi or FeCu-Ni  
Mech. Connection:  
G 1/8 - G 1/2, 1/8 - 1/2 NPT, bayonet  
Electr. connection:  
cable, plug, connection head  
Accuracy class: 2

**Insertion Resistance Thermometers with Bayonet Lock**

Stainless steel  
Brochure: **T2**  
Model: **TWE 5...**



Measuring ranges: 32 to 750°F (NiCr-Ni)  
-50 to 660°F (Pt 100)  
Electr. connection: cable

**Pipe Temperature Sensor for Reliable Dead-Zone-Free Temperature Measurement**

Brochure: **T2**  
Model: **TWP**



Measuring ranges: 0 - 390°F  
CIP/SIP compliance  
Connections: hygienic connection,  
Clamp, others on request



**Resistance Temperature Probes**

With integrated electronics  
stainless steel - output: Pt100, 4...20 mA  
transducer  
Brochure: **L1**  
Model: **LTS**



Measuring ranges: -58 to 480°F  
Insertion lengths: 50, 150, 250 mm  
p<sub>max</sub> 145 PSIG  
Connection: G 1/2, food connection  
Accuracy class: A

**Resistance Temperature Probes  
acc. to DIN**

With installation fitting  
stainless steel  
transducer  
Brochure: **T2**  
Model: **TWD**



Measuring ranges: --76 to 1020°F (weld-on)  
-328 to 750°F (flange)  
Accuracy class: A or B

**Thermowell Temperature Probes**

With installation fitting acc. to DIN,  
steel, stainless steel, ceramic  
transducer  
Brochure: **T2**  
Model: **TTD**



Measuring ranges: -328 to 2100°F (Ni-CrNi)  
-328 to 1380°F (FeCu-Ni)  
32 to 2370°F (Pt10 Rh-Pt)  
p<sub>max</sub> 360 PSIG (580 PSIG)  
Connection: G 1/2 - G 1 male, 1/2 - 1 NPT male,  
clamp flange  
Accuracy class: 2

**Resistance Temperature Probes**

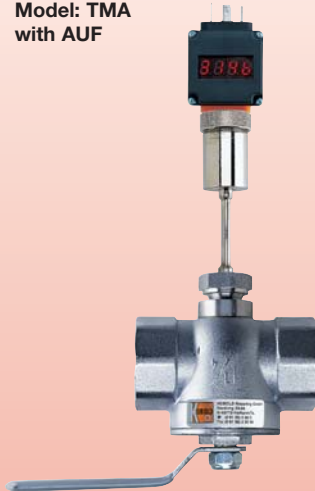
With laser-trimmed electronic sensor  
or Pt100-sensor  
for liquids and gases  
brass, stainless steel  
Brochure: **T2**  
Model: **TSA**



Measuring ranges: -40 to 300°F  
t<sub>max</sub> 350°F; p<sub>max</sub> 360 PSIG  
Connection:  
G 1/4 - G 1 female, 1/4 - 1 NPT female  
Accuracy class: ±2.5% of full scale

**Screw-In Resistance Thermometers  
with Integrated Transducer**

With sandwich plug-on display  
and changeable armature  
Brochure: **T2**  
Model: **TMA**  
with **AUF**



Measuring ranges: -58 to 300°F ... 32 to 1100°F  
p<sub>max</sub> 520 PSIG  
Connection: Probe: G 1/2 or 1/2 NPT male  
Ball valve: G 1/2 - G 2 female

**Temperature Transducer for  
Head or Rail Mounting**

Pt100, Ni-CrNi, Fe-CuNi,  
NiCrSi-NiSi, Cu-CuNi  
Brochure: **T2**  
Model: **TUM**



Measuring ranges:  
-58 to 300°F ... 32 to 750°F (Pt100)  
32 to 1100°F ... 32 to 2100°F (thermoelements)  
Output: 4 - 20 mA  
Supply: 6.5 ... 32 VDC





Temperature

**Digital Thermometers**

Microprocessor controlled sensor: Pt100 · analog output, RS 232  
2(4) limit contacts, adjustable measuring range scalable · stainless steel  
Brochure: **T2**  
Model: **DTM**



Measuring ranges: 32 to 140°F ... 32 to 750°F  
Housing diameter: 100 mm  
p<sub>max</sub> 360 PSIG (from 390°F external sensor)  
Connection: G 1/2, G 3/4, G 1, 1/2 NPT, 3/4 NPT, 1 NPT  
Accuracy class: 0.5

**Digital Thermometers with Union Nut**

Microprocessor controlled sensor: Pt100 · analog output, RS 232  
2(4) limit contacts, adjustable measuring range scalable · stainless steel  
Brochure: **T2**  
Model: **DTM**



Measuring ranges: 32 to 140°F ... 32 to 320°F  
Housing diameter: 100 mm  
Connection: Union Nut acc. to DIN 11851  
Accuracy class: 1.0

**Resistance/Thermocouple Hand Thermometers**

1 or 2 measuring channels differential temperature measurement, analog output, Interface, Min/Max memory, hold function surface and immersion measurement with just one probe  
Brochure: **T2**  
Model: **TD 1300**



Measuring ranges: 200°C to +1300°C (-320 to 2370°F)  
Accuracy: ±0.2°C ±1 Digit; from 400°C ±0.2% of measured value ±1 Digit

**Stationary Infrared Thermometers**

Emissivity adjustable, simple usage  
output: 4-20 mA or thermal voltage type J, K, 10 mV/°C  
Brochure: **T2**  
Model: **TIR-S**



Measuring ranges: -4 to 570°F ... 2000 to 4500°F  
Housing diameter: 25 mm / Pg 11  
Accuracy class: ±1.5% of full scale

**Infrared Hand Thermometers**

Emissivity adjustable laser pointer small dimensions  
Brochure: **T2**  
Model: **TIR-HA**



Measuring ranges: -30 to 300°C (-22 to 570°F)  
Measuring accuracy: ±1 ... 3°C

**Infrared Hand Thermometers**

Emissivity adjustable, simple usage analog output, RS 232, data memory, laser pointer  
Brochure: **T2**  
Model: **TIR-HN**



Measuring ranges: -30 to 900°C (-22 TO 1650°F)  
Accuracy class: ±2% of measured value and 1% of measured value



Analysis: pH, Redox

**Transmitter for pH-Value and Redox-Potential (ORP) Compact-Line**  
Brochure: **A1**  
Model: **APM-Z, ARM-Z**

Field Housing



Panel Mounted Housing



Indication of pH or mV (Redox) and Temperature  
2 binary inputs  
Analog process value output  
2 relay as controller freely selectable  
1 binary output

**pH-Combination Electrodes Compact-Line**  
Brochure: **A1**  
Model: **APS-Z**



Measuring range: pH 0 ... 12  
t<sub>max</sub> 176°F; p<sub>max</sub> 145 PSIG  
KCl-Gel filling  
Salt reservoir for longer life times  
Diaphragm: Teflon-ring or ceramic  
Integrated Pt100 possible

**ORP-Combination Electrodes Compact-Line**  
Brochure: **A1**  
Model: **ARS-Z**



Active part made of Platinum or Gold  
t<sub>max</sub> 194°F; p<sub>max</sub> 145 PSIG  
KCl-Gel filling  
Salt reservoir for longer life times  
Diaphragm: Teflon-ring or ceramic

**Transmitter for pH-Value and Redox-Potential (ORP) Expert-Line**  
Brochure: **A1**  
Model: **APM-X**

Field Housing



Panel Mounted Housing



Huge, easy-to-see display (clear text display)  
Indication of pH or mV (Redox) and Temperature  
Analog process value output  
Alarm-relay · 2 additional relays useable as limit contacts or P(ID)-controller

**pH-Combination Electrodes Expert-Line**  
Brochure: **A1**  
Model: **APS-X**



Measuring range: pH 0 ... 12  
t<sub>max</sub> 176°F; p<sub>max</sub> 145 PSIG  
KCl-Gel filling or KCl-Fluid filling  
Diaphragm: Teflon-ring or ceramic  
Glass electrode also in plastic coating  
Also useable by low conductivities  
Integrated Pt100 possible

**ORP-Combination Electrodes Expert-Line**  
Brochure: **A1**  
Model: **ARS-X**



Active part made of Platinum or Gold  
t<sub>max</sub> 265°F; p<sub>max</sub> 90 PSIG  
KCl-Gel filling  
Diaphragm: Teflon-ring  
Glass electrode also in plastic coating





Analysis: Conductivity

**Transmitter for Conductivity Compact-Line**

Brochure: **A1**  
Model: **ACM-Z**

Field Housing



Panel Mounted Housing



Measuring range: 0 - 200 mS/cm  
Indication of Conductivity and Temperature  
2 binary inputs · Analog process value output  
2 relays as controller free programmable  
1 binary output

**Conductivity Measuring Cells (Conductive) Compact-Line**

Brochure: **A1**  
Model: **ACS-Z**



Measuring range: 0.05  $\mu$ S/cm ... 100 mS/cm  
 $t_{max}$  275°F;  $p_{max}$  230 PSIG  
Connection: G 3/4 male  
Cell constants: K=0.01; K=0.1; K=1.0 1/cm  
Pt 100 integrated · 2-electrodes measuring cells

**Conductivity Measuring System (Inductive) Compact-Line**

Brochure: **A1**  
Model: **ACI-Z**



Measuring range: up to 1000 mS/cm  
 $t_{max}$  280°F;  $p_{max}$  145 PSIG  
Isolated, hermetically sealed transmitter made of PVDF  
Pt 100 integrated · 2 analog outputs for conductivity and temperature

**Transmitter for Conductivity and Impedance Expert-Line**

Brochure: **A1**  
Model: **ACM-X**

Field Housing



Panel Mounted Housing



Large, easy-to-see display (clear text display)  
Indication of Conductivity or Impedance and Temperature · Analog process value output  
Alarm-relay · 2 additional relays useable as limit contacts or P(ID)-controller

**Conductivity Measuring Cells (Conductive) Expert-Line**

Brochure: **A1**  
Model: **ACS-X**



Measuring range: 0.04  $\mu$ S/cm ... 20 mS/cm  
 $t_{max}$  250°F;  $p_{max}$  90 PSIG  
Connection: 1/2 NPT or G 1  
Cell constants: K=0.01; K=0.1; K=1.0 1/cm  
2-electrodes measuring cells  
Integrated Pt 100 possible

**Conductivity Measuring Cells (Inductive) Expert-Line**

Brochure: **A1**  
Model: **ACS-X01**



Measuring range: 5  $\mu$ S/cm ... 2000 mS/cm  
 $t_{max}$  250°F;  $p_{max}$  90 PSIG  
Connection: G 3/4 male, 1 NPT male  
Chemically high resistant  
PEEK-coated, isolated hermetically sealed  
Integrated Pt 100  
Less sensitive to dirt



### Analysis: Conductivity

#### Inductive Conductivity Measuring System with Temperature Sensor

Dirt insensitive, robust temperature compensated stainless steel, PEEK  
Brochure: **L1**  
Model: **LAL**



Measuring range: 0 ... 500 mS/cm  
Resolution: 10  $\mu$ S/cm  
Repeatability: 1% of F.S.  
 $t_{max}$  300°F  
Connection: G 1, Union Nut  
2 analog outputs: 4 - 20 mA  
Measured value display

#### pH- and ORP Calibration Solutions

Brochure: **A1**  
Model: **AZP**



Buffer solutions for calibration of pH-combined electrodes  
Solutions of different pH-values

#### Conductivity Calibration Solutions

Brochure: **A1**  
Model: **AZC**



Solutions of different conductivities for calibrating the conductivity measuring cells

#### Immersion Assemblies for pH- and ORP Combination Electrodes

Brochure: **A1**  
Model: **AZA**



For 1 glass electrode Pg 13.5  
For 3 glass electrodes Pg 13.5  
For 1 electrode 3/4" NPT  
Immersion lengths: 500, 1000, 1630 mm  
Material: PP, PVC

#### Flow Assemblies for pH- and ORP Combination Electrodes

Brochure: **A1**  
Model: **AZA**



For 3 glass electrodes Pg 13.5  
 $t_{max}$  194°F;  $p_{max}$  90 PSIG  
Material: PP and Macrolone  
Connection: G 1 and G 1/2 male

#### Changeable Armature for pH- and ORP Combination Electrodes

Brochure: **A1**  
Model: **AZA**



For 1 glass electrodes Pg 13.5  
 $t_{max}$  275°F;  $p_{max}$  145 PSIG  
Material: SS 316 Ti SS  
Connection: G 3/4 male





Analysis: Humidity

**Humidity-, Humidity/Temperature Sensor, Hygrometric Measurement**

Resistive output or current output: 4 ... 20 mA  
 Brochure: **A2**  
 Model: **AFH-G**



Measuring ranges: 30 - 100% rH  
 -22 ... 176°F  
 t<sub>max</sub> 176°F; p<sub>max</sub> pressureless  
 Accuracies:  
 • Humidity: >40% rH ±2.5% rH  
 • Temperature: ±0.5°C  
 Active or passive sensor

**Humidity-, Humidity/Temperature Sensor, Capacitive Measurement**

Canal Measurement  
 Current outputs: 4 ... 20 mA  
 Brochure: **A2**  
 Model: **AFK-G**



Measuring ranges: 0 - 100% rH  
 -4 ... 250°F  
 t<sub>max</sub> 250°F; p<sub>max</sub> 145 PSIG  
 Accuracies:  
 • Humidity (MB 5 ... 95% rH): ±2% rH  
 • Temperature: ±0.5°C  
 Operating voltage: 12 ... 30 V DC

**Humidity-, Humidity/Temperature Sensor for Applications by High Pressure or Higher Temperatures Capacitive Measurement**

Current outputs: 4 ... 20 mA  
 Brochure: **A2**  
 Model: **AFK-G**



Measuring ranges: 0 - 100% rH  
 -76 ... 390°F  
 t<sub>max</sub> 390°F; p<sub>max</sub> 360 PSIG  
 Accuracies:  
 • Humidity (MB 5 ... 95% rH): ±2% rH  
 • Temperature: ±0.5°C  
 Operating voltage: 12 ... 30 V DC

**Humidity Sensor with Display Capacitive Measurement**

Current outputs: 4 ... 20 mA  
 Brochure: **A2**  
 Model: **AFA-G**



Measuring range: 0 - 100% rH  
 t<sub>max</sub> 140°F; p<sub>max</sub> pressureless  
 Operating voltage: 17 ... 35 V DC  
 Switching output (open collector)  
 Accuracy: (MB 5 ... 95% rH): ±2% rH

**Humidity/Temperature Measuring System for Industrial Applications**

Analog outputs for humidity and temperature  
 high pressure version  
 Brochure: **A2**  
 Model: **AFK-E**



Measuring ranges: 0 - 100% rH  
 -40 ... 350°F  
 t<sub>max</sub> 350°F; p<sub>max</sub> 220 PSIG  
 Serial Interface  
 optional: Plus-Packet  
 Accuracy: 2% rH

**Canal-Hygrostat, Room Hygrostat, Humidity Additional Switch**

1 changeover contact each  
 Brochure: **A2**  
 Model: **AFS-G**



Measuring range: 30 - 100% rH  
 t<sub>max</sub> 140°F; p<sub>max</sub> pressureless  
 Adjustable range: 35 ... 100% rH  
 Switching difference: approx. 4% rH  
 Accuracy: 3% rH



Analysis: Turbidity

**Turbidity Meter**

4-beam pulsed-light method  
(DIN 38 404)  
for minimal to medium concentrations  
(e.g. in Breweries)  
food industry compatible materials  
Brochure: **L1/A3**  
Model: **LAT-N1**



Measuring range:  
0.01 ... 1000 TE/F or 0.01 ... 500 EBC  
tmax 176°F, pmax 90 PSIG  
Different connections  
Analog output: 4 - 20 mA  
Accuracy: ±1 %

**Turbidity Meter**

Pulsed infrared method  
for minimal to medium concentrations  
(e.g. in dairies)  
food industry compatible materials  
Brochure: **L1/A3**  
Model: **LAT-N2**



Measured value display: 0 ... 100 %  
tmax 190°F (short time up to 250°F)  
pmax 145 PSIG  
Different connections  
Analog output: 4 - 20 mA  
Repeatability: < 1 %

**Compact Turbidity Meter**

Infrared reflect scattering method  
for weak to medium concentrations  
(e.g. by Phase Separations)  
food industry compatible materials  
Brochure: **L1/A3**  
Model: **LAT-N3**



Measured value display: 0 ... 100 %  
tmax 250°F; pmax 145 PSIG  
Connection: G 1/2 male, food connection  
Analog output: 4 - 20 mA  
Switching output  
Accuracy: 1 % of F.S.

**Turbidity Sensor**

Absorption principle (infrared)  
stainless steel  
Brochure: **A3**  
Model: **ATA-K**



Measuring range: 0 - 500 ppm (FTU, EBC also)  
tmax 212°F (short time 250°F); pmax PN 10/16  
Different connections  
Accuracy: <1 % of F.S.

**Turbidity Sensor**

2-Beam scattering light method (11°)  
stainless steel  
Brochure: **A3**  
Model: **ATS-K**



Measuring range:  
0 - 25...500 ppm (FTU, EBC also)  
tmax 212°F (option: 374°F); pmax PN 10/16  
Different connections  
Accuracy: <1 % of F.S.

**Transducer for  
ATA-K or ATS-K**

In panel mounting set  
Brochure: **A3**  
Model: **ATT-K**



Supply: 115/230 V AC  
(optional 24 V AC/DC)  
Analog output: 4...20 mA  
Measured value display  
2 alarm contacts (SPDT)  
1 alarm (lamp- and function controls)



# Overview



## Food: Flow

### Calorimetric Flow Meters/Monitors

Of compact design for food industry applications  
**100% temperature compensation**  
 push button medium compensation  
 stainless steel  
 Brochure: **S5/L1**  
**Model: KAL-C**



Flow range: 0.3 - 5 GPM ... 310 - 5600 GPM  
 t<sub>max</sub> 185°F; p<sub>max</sub> 1450 PSIG  
 Connection: Tri clamp, DIN 32676, special connections  
 Accuracy: ± 10% of full scale  
 Repeatability: 3%



### Ultrasonic Flow Switch

Temperature changes free very short response  
 stainless steel, PEEK  
 Brochure: **L1**  
**Model: LDU**



Limit values: 0.1 / 0.3 / 0.5 m/s  
 t<sub>max</sub> 212°F (option: up to 300°F); p<sub>max</sub> 145 PSIG  
 Connection: G 1/2, food connections  
 Output: active, max. 50 mA  
 Repeatability: < 1%



### Low Volume Rotating Vane Flow Meters

Impulse output  
 POM, Polypropylene (option: **SK-compliance**)  
 Brochure: **S4/L1**  
**Model: DPL**



Water: 0.4 - 8 GPH ... 16 - 400 GPH  
 t<sub>max</sub> 160°F  
 p<sub>max</sub> 145 PSIG (Polypropylene), 100 PSIG  
 Connection: G 1/2 male, NPT on request  
 Accuracy: ± 1.5% of full scale

### Magnetic-Inductive Flow Monitors

Analog output, counter, LCD display, RS 485  
 coating: PTFE  
 electrodes: stainless steel  
 Brochure: **L1**  
**Model: LDI**



Conductivity: > 5 µS/cm  
 Measuring range: 0.1 - 12 m/s  
 t<sub>max</sub> 300°F; p<sub>max</sub> 145 PSIG  
 Connection: DN 25 to DN 150  
 Accuracy: ± 0.2% of measured value

### Magnetic-Inductive Flow Monitors, Compact-Device

Analog output, counter, LCD display, RS 485  
 coating: PTFE  
 electrodes: stainless steel  
 Brochure: **L1**  
**Model: LDI**



Conductivity: > 5 µS/cm  
 Measuring range: 0.1 - 12 m/s  
 t<sub>max</sub> 300°F; p<sub>max</sub> 145 PSIG  
 Connection: DN 25 to DN 150  
 Accuracy: ± 0.2% of measured value

### Magnetic-Inductive Flow Meters

Without moving parts  
 output: 4 - 20 mA/pulses/system alarm  
 fitting: PEEK, PETP  
 electrodes: Hastelloy C  
 Brochure: **S5/L1**  
**Model: DMI**



Conductivity: > 50 µS/cm  
 t<sub>max</sub> 176°F (PEEK); p<sub>max</sub> 145 PSIG  
 Connection: DN 10, 15, 25, 50 (G 3/4 ... 2 3/4)  
 Accuracy: 3% of measured value, option: 1.5%







Food: Pressure

**All Stainless Steel Pressure Gauges with Membrane Diaphragm Seal and Union Nut acc. to DIN 11851**

Housing: stainless steel  
Brochure: **P1/L1**  
Model: **MAN-RF...DRM**



Pressure ranges: 0 - 14.5 PSIG ... 0 - 580 PSIG  
Housing diameter: 100 mm  
t<sub>max</sub> 212°F  
Connection: DN 25 to DN 50, SS  
Accuracy class: 1.6

**All Stainless Steel Pressure Gauges with Liquid Damping, Membrane Diaphragm Seal and Union Nut acc. to DIN 11851**

Housing: stainless steel  
Brochure: **P1/L1**  
Model: **MAN-RG...DRM**



Pressure ranges: 0 - 14.5 PSIG ... 0 - 580 PSIG  
Housing diameter: 100 mm  
t<sub>max</sub> 212°F  
Connection: DN 25 to DN 50, SS  
Accuracy class: 1.6

**All Stainless Steel Pressure Gauges with Capillary, Diaphragm Seal and Union Nut acc. to DIN 11851**

Housing: stainless steel  
Brochure: **P1/L1**  
Model: **MAN-RF...DRM**



Pressure ranges: 0 - 14.5 PSIG ... 0 - 580 PSIG  
Housing diameter: 100 mm  
t<sub>max</sub> 212°F  
Connection: DN 25 to DN 50  
Accuracy class: 1.6

**All Stainless Steel Pressure Gauges with Membrane Diaphragm Seal, Capillary and Clamp Connection**

Housing: stainless steel  
Brochure: **P1/L1**  
Model: **MAN-RF...DRM**



Pressure ranges:  
0 - 14.5 PSIG ... 0 - 580 PSIG  
Housing diameter: 100 mm; t<sub>max</sub> 212°F  
Connection: DN 25 to DN 50  
Accuracy class: 1.6

**Pressure Transmitter for Homogenizing Machines with Plug-On Display, 4 Segment**

Stainless steel version  
Brochure: **P1/P2/L1**  
Model: **SEN-8600...DRM**



Pressure ranges:  
0 - 750 PSIG ... 0 - 1100 PSIG  
Front membrane; t<sub>max</sub> 212°F  
Connection: block flange  
Accuracy class: 1.0

**Digital Display with Pressure Transmitter Battery Powered for Homogenizing Machines, 4 Segment**

Stainless steel version  
Brochure: **P1/L1**  
Model: **MAN-SD...DRM**



Pressure ranges:  
0 - 750 PSIG ... 0 - 1100 PSIG  
Housing diameter: 100 mm; t<sub>max</sub> 212°F  
Connection: block flange  
Accuracy class: 1.0

# Overview



## Food: Level

### Conductive Level Switches

With integrated electronics  
stainless steel, PEEK  
Brochure: **L1**  
Model: **LNK**



Rod length: 4 mm  
(also available in other lengths)  
Conductivity: > 10  $\mu\text{S}/\text{cm}$   
 $t_{\text{max}}$  300°F;  $p_{\text{max}}$  90 PSIG  
Connection: G 1/2, food connection  
Output: active, max. 50 mA

### Level Switches

Based on the tuning fork principle  
stainless steel  
Brochure: **N1/L1**  
Model: **NWS**



Viscosity: max. 5000 cPs  
 $t_{\text{max}}$  270°F;  $p_{\text{max}}$  650 PSIG  
Connection:  
G 3/4 male, 3/4" - 1" NPT male, Triclamp,  
Union Nut acc. to DIN 11851

### Microwave Level Switch

Also by froth and build-ups  
stainless steel, PEEK  
Brochure: **L1**  
Model: **LNM**



$t_{\text{max}}$  300°F;  $p_{\text{max}}$  145 PSIG  
Connection: G 1/2, food connection  
Output: active, max. 50 mA

### Conductive Level Probe

Potentiometric measuring principle  
for viscous and very sticky media  
output: 4...20 mA  
stainless steel, PEEK  
Brochure: **L1**  
Model: **LNP**



Min. conductivity:  $\geq 1 \mu\text{S}/\text{cm}$   
variable rod lengths  
 $t_{\text{max}}$  250°F (short time 300°F),  $p_{\text{max}}$  145 PSIG  
Connection: G 1/2, food connection  
Accuracy:  $\leq 1\%$

### Capacitive Level Measurement Hydrostatic Principle

Front flush ceramic membrane  
output: 4...20 mA  
stainless steel, ceramic  $\text{Al}_2\text{O}_3$   
Brochure: **L1**  
Model: **LPC**



Measuring range: 0 - 100 m water column  
 $t_{\text{max}}$  212°F (optional 300°F)  
Connection: G 1, food connection  
Accuracy:  $\leq 0.1\%$  of F.S.

### Multi-Function Controller

Analog or frequency input  
Batch, total or rate capable  
16-point linearization  
Brochure: **L1**  
Model: **SRT**



Three user-definable control inputs  
 $t_{\text{max}}$  120°F; Power: 12, 24 VDC; 110, 220 VAC  
Analog or pulse output; Display LCD: 2 line  
Input: analog or frequency  
Standard RS-232 port  
Contacts: 2 to 4 SPDT



Food: Temperature

**Resistance Temperature Probes**

With integrated electronics  
stainless steel  
output: Pt100, 4...20 mA  
Brochure: **L1**  
Model: **LTS**



Measuring ranges: -50 to 480°F  
Insertion probe lengths: 50, 150, 250 mm  
p<sub>max</sub> 145 PSIG  
Connection: G 1/2 male, food connection  
Accuracy class: A

**Resistance Temperature Probes**

With collar tube  
integrated electronics  
stainless steel  
output: Pt100, 4...20 mA  
Brochure: **L1**  
Model: **LTS**



Measuring ranges: -50 to 480°F  
Insertion probe lengths: 50, 150, 250 mm  
p<sub>max</sub> 145 PSIG  
Connection: G 1/2 male, food connection  
Accuracy class: A

**Pipe Temperature Sensor for  
Reliable Dead-Zone-Free  
Temperature Measurement**

Brochure: **T2**  
Model: **TWP**



Measuring ranges: 0 to 390°F  
CIP/SIP compliance  
Connections: hygienic connection,  
Clamp, others on request

**Shaft Thermometers**

With N<sub>2</sub>-gas filling  
acc. to DIN 16205  
steel, aluminium, stainless steel  
Brochure: **T2**  
Model: **TNS**



Measuring ranges: 0 to 100°F ... 32 to 750°F  
Housing diameter: 63, 80, 100 and 160 mm  
p<sub>max</sub> 360 PSIG  
Connection:  
G 1/2 - G 1 male, 1/2 - 1 NPT, Tri Clamp  
Accuracy class: 1

**Digital Thermometers**

Microprocessor controlled  
sensor: Pt100 · analog output, RS 232  
2 (4) limit contacts, adjustable  
measuring range scalable · stainless steel  
Brochure: **T2**  
Model: **DTM**



Measuring ranges: 32 to 140°F ... 32 to 750°F  
Housing diameter: 100 mm  
p<sub>max</sub> 360 PSIG (from 390°F external sensor)  
Connection: G 1/2, G 3/4, G 1,  
1/2 NPT, 3/4 NPT, 1 NPT  
Accuracy class: 0.5

**Resistance/Thermocouple  
Hand Thermometers**

1 or 2 measuring channels  
differential temperature measurement,  
analog output, Interface,  
Min/Max memory, hold function  
surface and immersion measurement  
with just one probe  
Brochure: **T2**  
Model: **TD 1300**



Measuring ranges: -200°C to +1300°C  
(-328°F to 2300°F)  
Accuracy: ±0.2°C ±1 Digit;  
from 400°C ±0.2% of measured value ±1 Digit

# Overview



## Food: Turbidity, Conductivity

### Turbidity Meter

4-beam pulsed-light method  
(DIN 38 404)  
for minimal to medium concentrations  
(e.g. in Breweries)  
food industry compatible materials  
Brochure: **L1**  
Model: **LAT-N1**



Measuring range:  
0.01 ... 1000 TE/F or 0.01 ... 500 EBC  
tmax 176°F, pmax 90 PSIG  
Different connections  
Analog output: 4 - 20 mA  
Accuracy: ±1 %

### Turbidity Meter

Pulsed infrared method  
for minimal to medium concentrations  
(e.g. in dairies)  
food industry compatible materials  
Brochure: **L1**  
Model: **LAT-N2**



Measured value display: 0 ... 100%  
tmax 194°F (short time up to 250°F)  
pmax 145 PSIG  
Different connections  
Analog output: 4 - 20 mA  
Repeatability: < 1%

### Compact Turbidity Meter

Infrared reflect scattering method  
for weak to medium concentrations  
(e.g. by Phase Separations)  
food industry compatible materials  
Brochure: **L1**  
Model: **LAT-N3**



Measured value display: 0 ... 100%  
tmax 250°F; pmax 145 PSIG  
Connection: G 1/2 male, food connection  
Analog output: 4 - 20 mA  
Switching output  
Accuracy: 1 % of F.S.

### Conductivity Measuring System (Inductive) with Temperature Sensor

Deposits and wear resistant,  
temperature compensated  
stainless steel, PEEK  
Brochure: **L1**  
Model: **LAL**



Measuring range: 0 ... 500 mS/cm  
Auflösung: 10 µS/cm  
Repeatability: 1 % of F.S.  
tmax 300°F  
Connection: G 1 male, food connections  
2 analog outputs: 4 - 20 mA  
Measured value display

### Digital Display Battery Powered

Converts process variables to  
analog signals 4 - 20 mA  
sturdy stainless steel housing  
Brochure: **L1**  
Model: **LZA-N**



Mounting: mounting flange  
Output: 4 - 20 mA  
Accuracy: ±0.1% ±1 Digit

### Installation Sets for Sensors Hygienic Equipment Design

Weld-on process connection  
CIP/SIP compliance  
stainless steel  
Brochure: **L1**  
Model: **LZE**



Threads: M 12x1.5 / G 1/2 / G 1  
tmax 480°F; pmax 145 PSIG  
Sealing: metallic, PEEK-ring





Accessories: Armatures

**Mini Ball Valves**  
 With hand actuator  
 brass  
 Brochure: **Z1**  
 Model: **KUG-VF**



t<sub>max</sub> +120°C; PN 15  
 Connection: G 1/8 - G 3/4  
 Seals: NBR, FKM, PTFE

**Brass Ball Valves**  
 2- and 3 way  
 Brass  
 Brochure: **Z1**  
 Model: **KUG-TB**



t<sub>max</sub> +180°C; PN 40  
 Connection: G 1/4 - G 4  
 Hand lever and vane handle

**Stainless Steel/Steel Ball Valves**  
 2- and 3 way  
 steel, stainless steel  
 Brochure: **Z1**  
 Model: **KUG-ZE, KUG-KD**



t<sub>max</sub> +180°C; PN 64 (PN 500)  
 Connection: G 1/4 - G 4  
 Welding end: DN 10 - DN 100  
 1-, 2- and 3 parts versions

**Mini Plastic Ball Valves**  
 2- to 5 way  
 PP, PVDF, PFA  
 Brochure: **Z1**  
 Model: **KUG-6L**



PN 10 max  
 Connection: G 1/4, G 1/2, 1/4 NPT, 1/2 NPT

**Plastic Ball Valves**  
 2- and 3 way  
 PVC  
 Brochure: **Z1**  
 Model: **KUG-NK, KUG-DK**



t<sub>max</sub> +60°C, PN 10  
 Connection: glue sleeves DN 10 - DN 100  
 Through-hole, T- and L-bores

**Flange Ball Valves**  
 2- and 3 way  
 stainless steel, GG-25, GGG-40, steel  
 Brochure: **Z1**  
 Model: **KUG-VK**



t<sub>max</sub> +180°C; PN 16  
 Connection: flanges DN 15 - DN 200  
 Through-hole, T- and L-bores





Accessories: Armatures

**Shut-Off Valves**

To fasten and to flange  
stainless steel, GG-25, GGG-40,  
aluminium

Brochure: **Z1**

**Model: KLA-VA**



t<sub>max</sub> +200°C; PN 10 max  
Connection: flanges DN 50 - DN 400  
Seals: NBR, FKM, PTFE

**Shut-Off Valves**

For fastening  
PVC

Brochure: **Z1**

**Model: KLA-AK**



t<sub>max</sub> +60°C; PN 6  
Connection: flanges DN 65 - DN 200  
Hand lever with 15° resolution

**Stuff Slider**

Total length DIN 3202, K 1  
GG-25, stainless steel

Brochure: **Z1**

**Model: ZUB-WG**



t<sub>max</sub> +130°C; PN 10  
Connection: flanges DN 50 - DN 400  
Seals: metallic, NBR, EPDM, FKM

**Shut-Off Valves  
with Pneumatic Actuator**

Stainless steel, GG-25, GGG-40  
aluminium, PVC

Brochure: **Z1**

**Model: KLP-VA**



t<sub>max</sub> +180°C; PN 10 max  
Connection: flanges DN 50 - DN 200  
Double acting or spring resetting  
Control pressure 6-8 bar

**Shut-Off Valves  
with Electric Actuator**

Stainless steel, GG-25, GGG-40  
aluminium, PVC

Brochure: **Z1**

**Model: KLE-VA**



t<sub>max</sub> +180°C; PN 10 max  
Connection: flanges DN 50 - DN 100  
230 VAC, 24 VDC  
Incl. optical position indicator  
Manual emergency operation  
2 end position switches

**Stuff Slider  
with Pneumatic Actuator**

GG-25, stainless steel

Brochure: **Z1**

**Model: KUP-WG**



t<sub>max</sub> +130°C; PN 10 max.  
Connection: flanges DN 50 - DN 400  
Double acting  
Control pressure 6-10 bar,  
Seals: metallic, NBR, EPDM



Accessories: Armatures

**Pneumatic Drives**

Brochure: **Z1**

Model: **KUP**



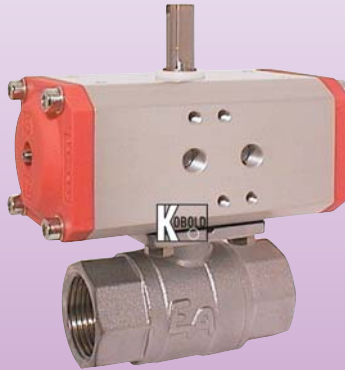
Single or double acting  
Control pressure 2- 10 bar  
Ambient temperature: -20°C ... +95°C  
Angle of traverse 90°  
Torque upto 29.7 Nm/bar

**Brass Ball Valves with Pneumatic Actuator**

2- and 3 way  
brass

Brochure: **Z1**

Model: **KUP-KA**



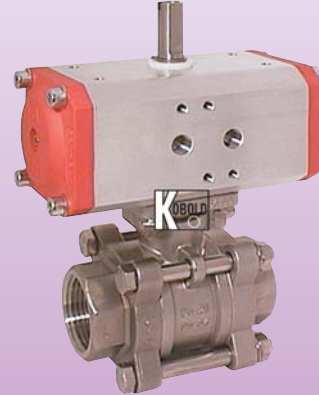
t<sub>max</sub> +120°C; PN 40  
Connection: G 1/2 - G 4  
Double acting or spring resetting  
Control pressure 6- 8 bar  
Through-hole, T- and L-bore

**Stainless Steel/Steel Ball Valves with Pneumatic Actuator**

2- and 3 way  
steel, stainless steel

Brochure: **Z1**

Model: **KUP-ZA**



t<sub>max</sub> +180°C; PN 64  
Connection: G 1/2 - G 4  
Double acting or spring resetting  
For gaseous and liquid media  
Through-hole, T- and L-bore

**Plastic Ball Valves with Pneumatic Actuator**

PVC

Brochure: **Z1**

Model: **KUP-SK**



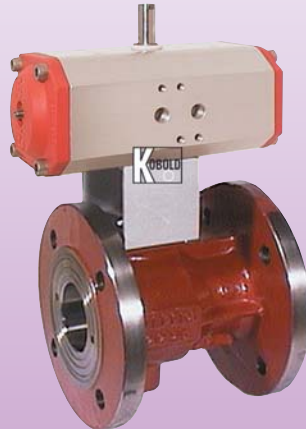
t<sub>max</sub> +60°C; PN 16 max.  
Connection:  
G 1/2 - G 4, glue sleeves DN 20 - DN 100  
Double acting or spring resetting  
Control pressure 6- 8 bar

**Flange Ball Valves with Pneumatic Actuator**

2- and 3 way  
stainless steel, GG-25, steel

Brochure: **Z1**

Model: **KUP-VO**



t<sub>max</sub> +120°C; PN 16  
Connection: flanges DN 25 - DN 200  
For gaseous and liquid media  
Double acting or spring resetting  
Control pressure 6- 8 bar  
Through-hole, T- and L-bore

**Accessories for Pneumatic Drives**

Magnet valves, limit switches  
position indicators

Brochure: **Z1**

Model: **KUP-RE**



3/2- and 5/2 way magnet valves  
Diverse voltages, Ex-version  
Mechanical limit switches and  
proximity initiators, Ex-version



Accessories: Armatures

**Electric Actuators**

230 VAC, 24 VDC  
 running time 15 s to 120 s  
 Brochure: **Z1**  
 Model: **KUE**



Torque 20 Nm to 50 Nm  
 Additional limit switch  
 Overload protection, optical position indication  
 Manual emergency operation

**Electric Actuators**

230 VAC, 24 VDC, 400 V 3-phase  
 Brochure: **Z1**  
 Model: **KUE**



Torque upto 2500 Nm  
 Additional limit switch  
 Running time: 5 s to 70 s

**Brass Ball Valves with Electric Actuators**

2- and 3 way  
 Brochure: **Z1**  
 Model: **KUE-KA**



t<sub>max</sub> +120°C; PN 40  
 Connection: G 1/2 - G 4  
 Voltage: 24 VDC or 230 VAC  
 Through-hole, T- and L bore

**Stainless Steel/Steel Ball Valves with Electric Actuator**

2- and 3 way  
 Brochure: **Z1**  
 Model: **KUE-ZA**



t<sub>max</sub> +180°C; PN 40  
 Connection:  
 G 1/2 - G 4, weld ends DN 15 - DN 100  
 Voltage: 24 VDC or 230 VAC  
 Through-hole, T- and L bore

**Plastic Ball Valves with Electric Actuator**

PVC  
 Brochure: **Z1**  
 Model: **KUE-SK**



t<sub>max</sub> +60°C; PN 16 max  
 Connection:  
 G 1/2 - G 3, glue-in sleeve 20 mm - 90 mm  
 Voltage: 24 VDC or 230 VAC

**Flange Ball Valves with Electric Actuator**

2- and 3 way  
 stainless steel, GG-25, steel  
 Brochure: **Z1**  
 Model: **KUE-MD**



t<sub>max</sub> +180°C; PN 16  
 Connection: DN 15 - DN 200  
 Voltage: 24 VDC or 230 VAC  
 Through-hole, T- and L bore



Accessories: Armatures

**Valves**

Needle- and discharge valves  
inclined and straight valves  
brass, stainless steel  
Brochure: **Z1**  
Model: **ZUB-AD, ZUB-AC**



t<sub>max</sub> +180°C; PN 16 - PN 100  
Connections:  
G 1/4 - G 3, weld ends DN 15 - DN 50

**Stainless Steel Needle Valves**

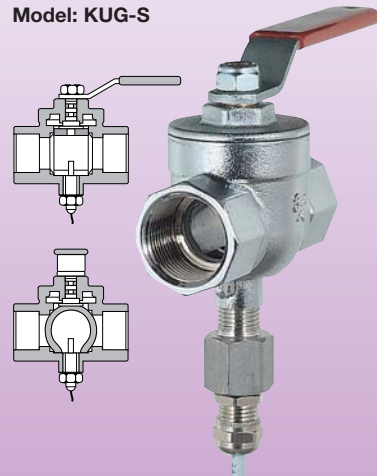
With female/male thread connections  
compression fitting DIN 2353L, DIN 2353S  
Brochure: **Z1**  
Model: **NAD**



t<sub>max</sub> +120°C; PN 250 - PN 630  
Connection: G 1/8 - G 1 1/4,  
1/8 NPT - 1 NPT  
For pipe 6 - 22 mm

**Ball Valves**

With measuring unit's turn-off under  
process-conditions  
brass, stainless steel  
female threaded connection  
Brochure: **Z1**  
Model: **KUG-S**



t<sub>max</sub> +120°C; PN 16 max, PN 25 max  
Connection: G 1/2 - G 2  
Sensor mounting: G 1/4, G 1/2

**Overflow Valves**

Stainless steel  
Brochure: **Z1**  
Model: **ZUB-UV**



Connection: G 1/2 - G 2,  
flange, weld ends DN 15 - DN 50  
Pressure ranges: 0.3...1 bar to 6...30 bar

**Safety Valves**

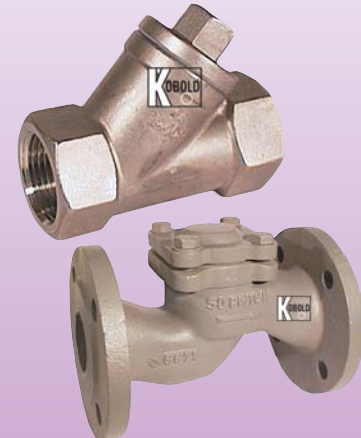
Red cast iron, brass,  
stainless steel, steel  
Brochure: **Z1**  
Model: **ZUB-SV**



t<sub>max</sub> +280°C  
Connection: G 3/8 - G 1 1/2,  
flange DN 15 - DN 100  
Component checked and normal version

**Check Valves**

Red cast iron, brass, stainless steel, steel  
thread, weld end, flange  
Brochure: **Z1**  
Model: **KUR-EB, KUR-CK**



t<sub>max</sub> +400°C; PN 40 max.  
Connection: G 3/8 - G 4,  
flange, weld ends DN 15 - DN 200



Accessories: Armatures

**Check Valves**

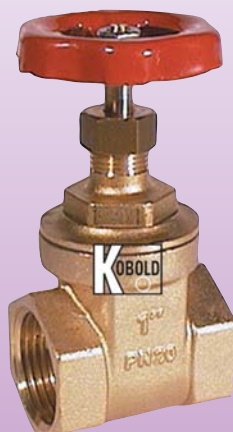
Stainless steel, brass, steel, GG-25  
 Brochure: **Z1**  
 Model: **KUR-TR, KUR-CK**



t<sub>max</sub> +230°C, PN 16 max  
 Connection: G 3/8 - G 4,  
 flange DN 40 - DN 300

**Shut Off Gate Valve**

Stainless steel, brass,  
 red cast-iron, GG-25  
 Brochure: **Z1**  
 Model: **ZUB-TC**



t<sub>max</sub> +150°C; PN 20  
 Connection: G 1/4 - G 4,  
 flange DN 40 - DN 300

**Magnet Filter**

Bronze, brass, grey cast-iron  
 thread, flange, solder connection  
 Brochure: **Z1**  
 Model: **MFR, MFT, MFA, MFL, MFF**



t<sub>max</sub> +200°C; PN 16  
 Connection: Rp 1/2 - Rp 3  
 flange DN 50 - DN 200  
 Filter grade: 280 µm - 1200 µm

**Pressure Reducer**

Stainless steel, brass, red cast-iron  
 Brochure: **Z1**  
 Model: **ZUB-DM**



t<sub>max</sub> +150°C  
 Inlet pressure: bis 25 bar  
 Outlet pressure: 0.2 - 16 bar  
 Connection: G 1/4 - G 1,  
 weld ends DN 15 - DN 25

**Water Shock Damper**

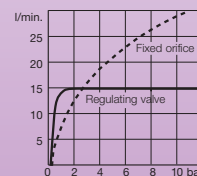
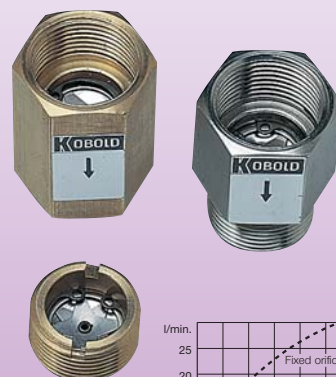
Stainless steel  
 Brochure: **Z1**  
 Model: **ZUB-TS**



t<sub>max</sub> +70°C  
 Burst pressure: 60 bar  
 Connection: G 1/2  
 Volume: 160 cm<sup>3</sup>

**Flow Regulating Valve**

For liquids, without auxiliary energy  
 brass, stainless steel  
 Brochure **Z1**  
 Model: **REG**



Viscosity:  
 max. 30 mm<sup>2</sup>/s  
 Flow rates: 1 - 30 l/min water  
 t<sub>max</sub> +300°C; p<sub>max</sub> 200 bar  
 Connection: G 1/2 and G 3/4





Accessories: Connections

**Thread Connections**

Stainless steel  
Brochure: **Z1**  
Model: **ZUB-FG**



t<sub>max</sub> +200°C; PN 40  
Connection: G 1/8 - G 4  
Diverse constructions

**Compression Fitting Connections**

Stainless steel  
Brochure: **Z1**  
Model: **ZUB-GV, ZUB-TV**



t<sub>max</sub> +200°C; PN 100 - PN 630  
Connection: for pipe-Ø 4 mm - 38 mm  
Versions: LL, L and S

**Pneumatic Connections**

Brass  
Brochure: **Z1**  
Model: **ZUB-A12, ZUB-A13, ZUB-A55**



t<sub>max</sub> +200°C; PN 40  
Connection: G 1/8 - G 2  
Diverse constructions

**Hose- / Plug Connections**

Brass, plastic  
Brochure: **Z1**  
Model: **ZUB-C11, ZUB-C16, ZUB-C30**



t<sub>max</sub> +200°C; p<sub>max</sub> 16 bar  
Connection: for hose-Ø outer 5 - 15 mm  
Diverse constructions

**Plastic Connections**

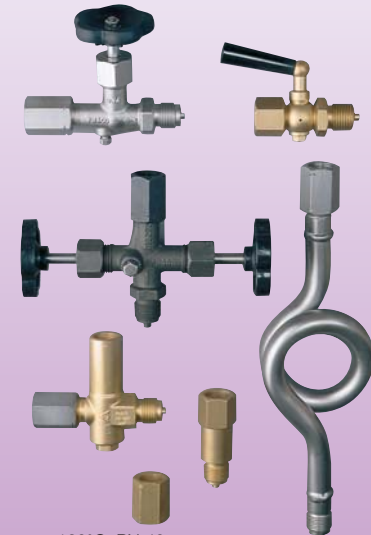
PA, PP, PVDF, PFA  
Brochure: **Z1**  
Model: **ZUB-1A**



t<sub>max</sub> +140°C; PN 10 max  
Version: straight hose,  
screw-in and screw-on connection,  
angle connections, accessories  
1/8" to 3/4", hose 4/6 - 10/12

**Manometer Accessories**

Brass, steel, stainless steel  
Brochure: **P1**  
Model: **MZB**



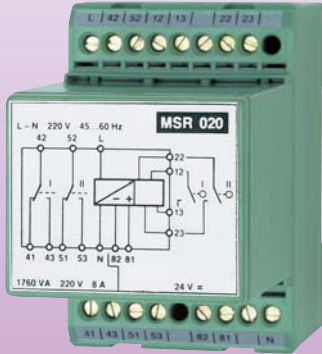
t<sub>max</sub> +160°C; PN 40 max  
Shut-off cocks and valves,  
Syphons, throttle and overpressure  
protection equipment, adapters



Accessories: Relays

**Contact Protection Relays**

Brochure: **Z2**  
Model: **MSR**



Input: potential free contacts  
1 or 2 relay outputs, changeover contact  
Supply: 230 V AC

**Isolation and Switch Unit for Initiators (Ex-Zone)**

Brochure: **Z2**  
Model: **REL-6000/6005**



Input: Initiator (Namur),  
potential free contacts  
1 relay output, changeover contact  
Supply: 230 VAC / 24 VDC

**Conductive Electrode Relays**

Brochure: **N1**  
Model: **NE-104, NE-204, NE-304**



Input: conductive level switch  
1 or 2 limit values or  
1 or 2 min./max. controls  
Supply: 24, 230 VAC

**Power Supply Unit for Transmitter**

Brochure: **Z2**  
Model: **REL-4405**



Input/output: 4 - 20 mA  
2-wire transmitter  
EEx ia IIA / ..IIB / ..IIC  
Supply: 24 VDC

**Frequency Transmitter**

Brochure: **Z2**  
Model: **FMU**



Frequency measurement up to 40 kHz  
Output: 0(4) - 20 mA, 0 - 10 VDC  
Supply: 230 VAC, 115 VAC, 24 VDC

**Compact Continuous Line and Dotted-Line Recorder**

Brochure: **Z2**  
Model: **KLS**



1 to 6 channels  
Input: voltage, current,  
resistance thermometer, thermo elements  
with 64 m roll of paper  
2 x 16 digit LCD display  
Output: 4 limit values, Interface  
Supply: wide range power supplies



## Accessories: Measuring and Control Instruments

### Plug-On Display

For all transducers with 4-20 mA output and DIN 43 650 plug  
 Brochure: **Z2**  
 Model: **AUF**



Without additional auxiliary power supply  
 Display: 4-digit, free programmable  
 Option: open collector  
 Ex-Version

### Digital Indicators

Input: frequency  
 Rate meter, totalizer and batcher  
 Brochure: **Z2**  
 Model: **MRT**



Power supply: 12 VDC; 110, 230 VAC  
 Display rate or total; batching version available;  
 2 presets; fully scalable  
 Analog output, contacts

### Digital Indicators

Analog Input  
 Integrating ratemeter/totalizer  
 Brochure: **Z2**  
 Model: **INT**



Power Supply: 15-24 VDC, 110 VAC, 220 VAC  
 Display rate, total, peak or valley  
 Completely user programmable  
 Analog or serial communication  
 Optional SPDT relays

### Display and Control Unit

For flow, pressure, level and temperature  
 analog output;  
 adjustable Min. and Max. contact  
 Brochure: **Z2**  
 Model: **DFA**



Power supply:  
 230 VAC, 115 VAC, 24 VAC, 24 VDC  
 Display: 0 - 100 %  
 Wall-mount  
 Protection cat.: IP 40 (IP 65)

### Universal Batch Controller

Digital display, counter  
 input: current, voltage, frequency  
 Brochure: **Z2**  
 Model: **ADI**



Power supply: 24 VDC; 24, 48, 110, 230 VAC  
 Field housing: 96 x 96 mm  
 Protection: IP 65

### Universal Analog Displays

Input: current, voltage, frequency  
 Brochure: **Z2**  
 Model: **ZEI**



Power supply: 24 VDC; 24, 48, 110, 230 VAC  
 Field housing: 96 x 96 mm  
 Protection: IP 65

## Overview



### Accessories: Universal Indicators

#### Universal Indicators

Bargraph display  
Input: current, voltage, frequency  
Brochure: **Z2**  
Model: **ADI-B**



Power supply: 24 VDC; 24, 48, 110, 230 VAC  
Switch-panel mount: 96 x 96 mm  
Option: sensor power supply, contacts, Analog output

#### Universal Indicators

Digital display  
Input: current, voltage, frequency  
Brochure: **Z2**  
Model: **ADI-D**



Power supply: 24 VDC; 24, 48, 110, 230 VAC  
Switch-panel mount: 96 x 96 mm  
Option: sensor power supply, contacts, Analog output

#### Universal Indicators

Combined digital and bargraph display  
Input: current, voltage, frequency  
Brochure: **Z2**  
Model: **ADI-K**



Power supply: 24 VDC; 24, 48, 110, 230 VAC  
Switch-panel mount: 96 x 96 mm  
Option: sensor power supply, contacts, Analog output

#### Universal Indicators

Bargraph display  
Input: current, voltage, frequency  
Brochure: **Z2**  
Model: **ADI-B with Field housing**



Power supply: 24 VDC; 24, 48, 110, 230 VAC  
Field housing: 96 x 96 mm  
Protection: IP 65  
Option: sensor power supply, contacts, Analog output

#### Universal Indicators

Digital display  
Input: current, voltage, frequency  
Brochure: **Z2**  
Model: **ADI-D with Field housing**



Power supply: 24 VDC; 24, 48, 110, 230 VAC  
Field housing: 96 x 96 mm  
Protection: IP 65  
Option: sensor power supply, contacts, Analog output

#### Universal Indicators

Combined digital and bargraph display  
Input: current, voltage, frequency  
Brochure: **Z2**  
Model: **ADI-K with Field housing**



Power supply: 24 VDC; 24, 48, 110, 230 VAC  
Field housing: 96 x 96 mm  
Protection: IP 65  
Option: sensor power supply, contacts, Analog output





Accessories: Rotation Transmitter

**Miniature Incremental Rotation Transmitter**

Shaft style  
Brochure: **Z3**  
Model: **ZDI**



Max. No. of revolutions: 12000 rpm  
Shaft: Ø 4/6 mm  
Output: push-pull  
Cable connection: 2 m  
No. of pulses: 50 - 1024 pulses  
Max. pulse frequency: 160 kHz  
Supply: 5 - 30 VDC  
Max. operating temperature: -40 ... +85°C  
Protection: IP 64

**Miniature Incremental Rotation Transmitter**

Hollow shaft style  
Brochure: **Z3**  
Model: **ZDI**



Max. No. of revolutions: 12000 rpm  
Shaft: Ø 4/6 mm  
Output: push-pull  
Cable connection: 2 m  
No. of pulses: 50 - 1024 pulses  
Max. pulse frequency: 160 kHz  
Supply: 5 - 30 VDC  
Max. operating temperature: -40 ... +85°C  
Protection: IP 64

**Miniature Incremental Rotation Transmitter**

Shaft style  
Brochure: **Z3**  
Model: **ZDI**



Max. No. of revolutions: 12000 rpm  
Shaft: Ø 6/10 mm  
Output: RS422 or push-pull  
12 pin plug connection  
No. of pulses: 200 - 5000 pulses  
Max. pulse frequency: 200 kHz  
Supply: 5 - 30 VDC  
Max. operating temperature: -20 ... +75°C  
Protection: IP 65

**Miniature Incremental Rotation Transmitter**

Hollow shaft style  
Brochure: **Z3**  
Model: **ZDI**



Max. No. of revolutions: 12000 rpm  
Shaft: Ø 10/12 mm  
Output: RS422 or push-pull  
Cable connection: 1 m  
No. of pulses: 500 - 5000 pulses  
Max. pulse frequency: 200 kHz  
Supply: 5 - 30 VDC  
Max. operating temperature: -20 ... +75°C  
Protection: IP 66

**Special Incremental Rotation Transmitter**

Big hollow shaft  
Brochure: **Z3**  
Model: **ZDI**



Max. No. of revolutions: 6000 rpm  
Shaft: up to Ø 42 mm  
Output: RS422 or push-pull or SIN/COS  
Plug or cable connection  
No. of pulses: 360 - 5000 pulses  
Max. pulse frequency: 300 kHz  
Supply: 5 - 30 VDC  
Max. operating temperature: -20 ... +75°C  
Protection: IP 65

**Special Incremental Rotation Transmitter**

For food and chemical industry  
non-rusting hollow shaft  
Brochure: **Z3**  
Model: **ZDI**



Max. No. of revolutions: 6000 rpm  
Shaft: Ø 12 mm  
Output: RS422 or push-pull  
Cable connection  
No. of pulses: max. 5000 pulses  
Max. pulse frequency: 300 kHz  
Supply: 5 - 30 VDC  
Max. operating temperature: -20 ... +85°C  
Protection: IP 66







Accessories: Rotation Transmitter

**Absolute Rotation Transmitter, Single turn**

Shaft style  
Brochure: **Z3**  
Model: **ZDA**



Max. No. of revolutions: 6000 rpm  
Shaft: Ø 6/10 mm  
Max. resolution: 14 bit  
Code: Gray/Gray-Excess  
Interface: parallel  
Cable connection  
Supply: 5 - 30 VDC  
Max. operating temperature: -20 ... +90°C  
Protection: IP 66

**Absolute Rotation Transmitter, Single turn**

Hollow shaft style  
Brochure: **Z3**  
Model: **ZDA**



Max. No. of revolutions: 6000 rpm  
Shaft: Ø 10/12 mm  
Max. resolution: 14 bit  
Code: Gray/Gray-Excess  
Interface: parallel  
Cable connection  
Supply: 5 - 30 VDC  
Max. operating temperature: -20 ... +90°C  
Protection: IP 66

**Absolute Rotation Transmitter, Multi-Turn**

Shaft and hollow shaft style  
Brochure: **Z3**  
Model: **ZDA**



Max. No. of revolutions: 6000 rpm  
Shaft: up to Ø 28 mm  
Max. graduation: 13 x 12 bit  
Code: Gray/Binary  
Interface: SSI, programmable  
Cable connection  
Supply: 5 - 30 VDC  
Max. operating temperature: -10 ... +70°C  
Protection: IP 65

**EX-Incremental Rotation Transmitter**

Shaft and hollow shaft style  
Brochure: **Z3**  
Model: **ZDI**



Max. No. of revolutions: 6000 rpm  
Shaft: Ø 12 mm  
Output: RS422 or push-pull  
Cable connection  
No. of pulses: max. 5000 pulses  
Max. pulse frequency: 300 kHz  
Supply: 5 - 30 VDC  
Max. operating temperature: -20 ... +60°C  
Protection: IP 64

**EX-Absolute Rotation Transmitter, Single Turn**

Shaft and hollow shaft style  
EEx d IIC T6  
Brochure: **Z3**  
Model: **ZDA**



Max. No. of revolutions: 6000 rpm  
Shaft: Ø 12 mm  
Max. resolution: 14 bit  
Code: Gray, binary, BCD  
Interface: SSI, parallel or 4-20 mA  
Cable connection  
Supply: 5 - 30 VDC  
Max. operating temperature: -20 ... +60°C  
Protection: IP 64

**Accessories Rotation Transmitter**

Brochure: **Z3**  
Model: **ZDZ**



12 pin plug connector  
Shaft style: metal bellow clutches,  
Angle flange, rectangular flange,  
Eccentric-fixer for synchro-flange  
Hollow shaft style:  
Stator-coupling, fixing set



Accessories: Totalizer

**Micro Totalizer**  
Housing: 32 x 15 mm  
Brochure: **Z2**  
Model: **ZMZ**



Input: totalizer  
Indication: 7 digit  
Material: plastic  
Digit size: 4 x 1.2 mm  
Panel mount  
Voltage: 4,5 VDC; 12 VDC;  
24 VDC; 115 VAC; 230 VAC

**Micro Pulse Totalizer**  
Housing: 34 x 23 mm  
Brochure: **Z2**  
Model: **ZMZ**



Input: pulse totalisation with hand reset  
Indication: 5 digit  
Material: plastic  
Digit size: 4 x 1.7 mm  
Panel mount  
Voltage: 12 VDC; 24 VDC;  
115 VAC; 230 VAC

**Robust Panel Totalizer with  
Clamp Fixing**  
Housing: 34 x 23 mm  
Brochure: **Z2**  
Model: **ZMZ**



Input: pulse totalisation with or without  
hand reset  
Indication: 6 digit with reset  
8 digit without reset  
Material: plastic  
Digit size: 4 (4.5) x 2 mm  
Panel mount  
Voltage: 24 VDC; 230 VAC

**Micro Totalizer for Rail Mounting**  
Housing: 34 x 23 mm  
Brochure: **Z2**  
Model: **ZMZ**



Input: counter  
Indication: 7 digit  
Material: plastic  
Digit size: 4 x 1.2 mm  
DIN rail mounting  
Voltage: 12 VDC; 24 VDC;  
24 VAC; 115 VAC; 230 VAC

**Batcher with Indicated  
Pre-Selection**  
Housing: 53 x 53 mm  
Brochure: **Z2**  
Model: **ZMZ**



Input: batch counter with hand reset  
Indication: 5 digit  
Output: 1 microswitch SPDT  
Material: plastic  
Digit size: 4 (4.5) mm  
DIN rail mounting  
Voltage: 24 VDC; 115 VAC; 230 VAC

**Electronic Pre-Selection Totalizer**  
DIN housing: 48 x 48 mm  
Brochure: **Z3**  
Model: **ZEZ**



Input: pulse totalizer with pre selection  
Indication: 2 - 6 digit, LCD  
Output: 1 relay N/O N/C  
Programming via front buttons  
Material: plastic  
DIN rail mounting  
Power supply: battery





Accessories: Time

**Electronic Service Hour Meter**

Low priced  
 DIN housing: 48 x 24 mm  
 Brochure: **Z4**  
 Model: **ZEC**



Input: time counter  
 Indication: 6-digit LED  
 Digit size: 8 mm  
 Resolution up to 1 mm  
 Programming via front buttons  
 Material: plastic  
 Panel mounting  
 Power supply: 24 VDC

**Electronic Service Hour Meter**

Combined Instrument  
 DIN housing: 48 x 24 mm  
 Brochure: **Z4**  
 Model: **ZEC**



Input: time counter, pulse counter  
 Indication: 6-digit LED  
 Digit size: 8 mm  
 Resolution up to 1 mm  
 Programming via front buttons  
 Material: plastic  
 Panel mounting  
 Power supply: 24 VDC

**Electronic Service Hour Meter**

Multiple function  
 DIN housing: 48 x 24 mm  
 Brochure: **Z4**  
 Model: **ZEC**



Input: time counter, pulse counter,  
 Position indicator, frequency counter  
 Indication: 6-digit LED  
 Digit size: 8 mm  
 Resolution up to 1 mm  
 Programming via front buttons  
 Material: plastic  
 Panel mounting  
 Power supply: 24 VDC

**Electronic Service Hour Meter**

Low priced  
 DIN housing: 96 x 48 mm  
 Brochure: **Z4**  
 Model: **ZEC**



Input: time counter  
 Indication: 6-digit LED  
 Digit size: 14 mm  
 Resolution up to 1 mm  
 Programming via front buttons  
 Material: plastic  
 Panel mounting  
 Power supply: 24 VDC/90 - 260 VAC

**Electronic Service Hour Meter**

Combined instrument  
 DIN housing: 96 x 48 mm  
 Brochure: **Z4**  
 Model: **ZEC**



Input: time counter, pulse counter  
 Indication: 6-digit LED  
 Digit size: 14 mm  
 Resolution up to 1 mm  
 Programming via front buttons  
 Material: plastic  
 Panel mounting  
 Power supply: 24 VDC/90 - 260 VAC

**Electronic Service Hour Meter**

Multiple function  
 DIN housing: 96 x 48 mm  
 Brochure: **Z4**  
 Model: **ZEC**



Input: time counter, pulse counter,  
 Position indicator, frequency counter  
 Indication: 6-digit LED  
 Digit size: 14 mm  
 Resolution up to 1 mm  
 Programming via front buttons  
 Material: plastic  
 Panel mounting  
 Power supply: 24 VDC/90 - 260 VAC



Accessories: Time

**Micro Service Hour Meter**

Housing: 32 x 15 mm  
Brochure: **Z4**  
Model: **ZBS**



Input: service hour meter  
Indication: 7 digit  
Material: plastic  
Digit size: 4 x 1.7 mm  
Panel mount  
Voltage: 4.5-12; 18-26 VDC

**Mini Service Hour Meter**

Housing: 37 x 26 mm  
Brochure: **Z4**  
Model: **ZBS**



Input: service hour meter  
Indication: 7 digit  
Material: plastic  
Digit size: 3.8 x 1.7 mm  
Panel mount  
Voltage: 10-30 VDC;  
115 VAC, 60 Hz; 230 VAC, 50 Hz

**Small Service Hour Meter**

DIN housing: 48 x 24 mm  
Brochure: **Z4**  
Model: **ZBS**



Input: service hour meter  
Indication: 7 digit  
Material: plastic  
Digit size: 4 mm  
Panel mount  
Voltage: 10-30 VDC;  
115 VAC, 60 Hz; 230 VAC, 50 Hz

**Standard Service Hour Meter**

DIN housing: 48 x 48 mm  
Brochure: **Z4**  
Model: **ZBS**



Input: service hour meter  
Indication: 7 digit  
Material: plastic  
Digit size: 4 mm  
Panel mount  
Voltage: 10-30 VDC;  
115 VAC, 60 Hz; 230 VAC, 50 Hz

**Combination of Time and Pulse Totalizer**

Housing: 48 x 48 mm  
Brochure: **Z4**  
Model: **ZBS**



Input: pulse- and service hour meter  
Indication: 2 x 7 digit  
Material: plastic  
Digit size: 4 x 1.7 mm  
Panel mount  
Voltage: 10-30 VDC;  
115 VAC, 60 Hz; 230 VAC, 50 Hz

**Service Hour Meter for DIN-Rail Mounting**

Brochure: **Z4**  
Model: **ZBS**



Input: service hour meter  
Indication: 6 digit  
Digit size: 3.5 x 1.5 mm  
Housing: rail mounting  
Material: plastic  
Voltage: 10-30 VDC;  
115 VAC, 60 Hz; 230 VAC, 50 Hz



# Overview



## Accessories: Time

### Electronic Stop Watch

Water proof ABS housing  
2.5 line LCD display, 7 (5) mm  
upper line: 6-digit, lower line: 7-digit  
function window  
Brochure: **Z4**  
Model: **Delta E200**



2-button operation  
Resolution: 1/100 sec.  
Supply: Mignon cell 1.5 V  
Function: start/stop/reset;  
addition/split/lap/short-lap, acoustic button  
control, countdown, daytime/date,  
65 memories

### Electronic Stop Watch

Water proof ABS housing  
2-line LCD display, 6 mm  
upper line: 6-digit, lower line: 7-digit  
illuminated display  
Brochure: **Z4**  
Model: **Magma Pro**



1-button operation  
Resolution: 1/100 sec.  
Supply: Mignon cell 1.5 V  
Function: start/stop/reset;  
addition/split/lap/short-lap, acoustic button  
control, countdown, daytime/date,  
10 memories (each 10 split/lap/addition)

### Electronic Stop Watch

Water proof ABS housing  
LCD display, 7-digit, 8 mm  
Brochure: **Z4**  
Model: **Profil 5**



2-button operation  
Resolution: 1/100 sec.  
Supply: Mignon cell 1.5 V  
Function: start/stop/reset;  
addition/split/lap/short-lap; daytime;  
5 memories (5 split- und 5 lap times)

### Electronic Stop Watch

Water proof ABS housing  
LCD display, 7-digit, 8 mm  
Brochure: **Z4**  
Model: **Profil 1**



2-button operation  
Resolution: 1/100 sec.  
Supply: Mignon cell 1.5 V  
Function: start/stop/reset;  
addition/split; dual measurement

### Electronic Stop Watch

Water proof ABS housing  
LCD display, 7-digit, 8 mm  
Brochure: **Z4**  
Model: **Pro Solar**



2-button operation  
Resolution: 1/100 sec.  
Supply: solar energy  
Function: start/stop/reset;  
addition/split; dual measurement

### Electronic Stop Watch

Water proof ABS housing  
LCD display, 7-digit, 7 mm  
Brochure: **Z4**  
Model: **Stopstar**



2-button operation  
Resolution: 1/100 sec.  
Supply: Mignon cell 1.5 V  
Function: start/stop/reset;  
addition/split; dual measurement







Accessories: Time

**Electronic Short Timer**

Clip and magnet to hang and stand  
3-line LCD display, 8(6) mm  
6-digit  
Brochure: **Z4**  
Model: **Labor 3**



Resolution: 1/1 sec.  
Supply: Lithium battery SR 44  
Function: count-down (3x),  
Alarm at 0, count-up,  
Day time (12/24 h), date

**Electronic Short Timer**

Clip and magnet to hang and stand  
LCD display, 6-digit, 8 mm  
Brochure: **Z4**  
Model: **Compact**



Resolution: 1/1 sec.  
Supply: Lithium battery SR 44  
Function: count-down count-up,  
Count-down with alarm and repeat,  
Day time (24 h), date

**Analog Table - Wall Stop Watch**

Analog indication Ø 110 mm  
outer dial: 0-60 sec. + 0-60 min.  
inside dial: 0-100/100 min.  
Brochure: **Z4**  
Model: **Mesotron**



Resolution: 0 - 60 sec., 1/100 min.  
Function: start/stop/reset;  
Addition; Flyback

**Table Timer**

2-line LCD display, 22/8 mm  
function window  
Brochure: **Z4**  
Model: **Prisma 200**



Resolution: 1/10 sec.; 1/100 min.  
Supply: Mignon cell R 6  
Function: 2 timer, start/stop/reset, Addition,  
Flyback, count-down, alarm tone

**Electronic Industrial Stop Watch**

Water proof ABS housing  
2.5-line LCD display, 7(5) mm  
upper line: 6-digit, lower line: 7-digit  
function window  
Brochure: **Z4**  
Model: **Spectron**



2-button operation  
Resolution: 1/100 sec.; 1/100 min.  
Supply: Mignon cell 1.5 V  
Function: start/stop/reset;  
Addition/split/lap;  
day time; date; 65 memories

**Industrial Timer with Write Pad**

2-line LCD display, 8.5 mm  
upper line: running time,  
lower line: single turn  
Brochure: **Z4**  
Model: **Programmtimer 100**



Resolution: 1/100 min.  
Supply: Mignon cell 1.5 V  
Function: running timer/ single timer,  
System and memory reset,  
7 memories (running- and single time)



## Overview



## Accessories: Time

### Mechanical Double Stop Watch

With drag pointer  
chromium plated brass housing Ø 55 mm  
Brochure: **Z4**  
Model: **ZSU1350101-00**



Resolution: 1/5 sec.  
Total time: 30 min.  
Function: start/stop/intermediate time/  
Zero reset with interrupt  
7 jewels, anchor  
Shock-, dust-, water proof

### Mechanical Double Stop Watch

With drag pointer  
chromium plated brass housing Ø 55 mm  
Brochure: **Z4**  
Model: **ZSU1350401-00**



Resolution: 1/10 sec.  
Total time: 15 min.  
Function: start/stop/intermediate time/  
Zero reset with interrupt  
7 jewels, anchor  
Shock-, dust-, water proof

### Mechanical Double Stop Watch

With drag pointer  
chromium plated brass housing Ø 55 mm  
Brochure: **Z4**  
Model: **ZSU1350201-00**



Resolution: 1/100 sec.  
Total time: 30 min.  
Function: start/stop/intermediate time/  
Zero reset with interrupt  
7 jewels, anchor  
Shock-, dust-, water proof

### Mechanical Stop Watch

Chromium plated brass housing Ø 55 mm  
Brochure: **Z4**  
Model: **ZSU1220101-00**



Resolution: 1/5 sec.  
Total time: 30 min.  
Function: start/stop/zero reset with interrupt  
7 jewels, shaft anchor  
Shock-, dust-, water proof

### Mechanical Stop Watch

Chromium plated brass housing Ø 55 mm  
Brochure: **Z4**  
Model: **ZSU1220401-00**



Resolution: 1/10 sec.  
Total time: 15 min.  
Function: start/stop/zero reset with interrupt  
7 jewels, shaft anchor  
Shock-, dust-, water proof

### Mechanical Stop Watch

Chromium plated brass housing Ø 55 mm  
Brochure: **Z4**  
Model: **ZSU1220301-00**



Resolution: 1/5 sec. + 1/100 min.  
Total time: 30 min.  
Function: start/stop/zero reset with interrupt  
7 jewels, shaft anchor  
Shock-, dust-, water proof





Accessories: Time

**Mechanical Double Stop Watch Industrial Version**

Chromium plated brass housing Ø 55 mm  
Brochure: **Z4**  
Model: **ZSU1250104-00**



Resolution: 1/5 sec.  
Overall time: 30 min.  
Function: start/stop/zero reset with interrupt  
7 jewels, anchor,  
Scratch- and acid resistant mineral glass,  
Solvent resistant,  
Metal push button and metal crown

**Mechanical Stop Watch**

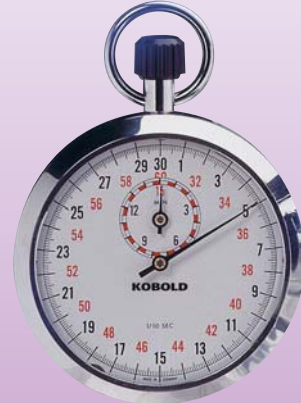
ABS housing Ø 55 mm  
Brochure: **Z4**  
Model: **ZSU1210117-00**



Resolution: 1/5 sec.  
Overall time: 30 min.  
Function: start/stop/zero reset with interrupt  
1 jewel, shaft anchor

**Mechanical Crown Stop Watch**

Chromium plated brass housing Ø 55 mm  
Brochure: **Z4**  
Model: **ZSU1120401-00**



Resolution: 1/10 sec.  
Overall time: 15 min.  
Function: start/stop/zero reset without interrupt  
7 jewels, shaft anchor  
Shock-, dust-, water proof

**Mechanical Crown Stop Watch**

ABS housing Ø 55 mm  
Brochure: **Z4**  
Model: **ZSU1110117-00**



Resolution: 1/5 sec.  
Overall time: 30 min.  
Function: start/stop/zero reset without interrupt  
1 jewel, shaft anchor

**Mechanical Stop Watch**

ABS housing Ø 55 mm  
Brochure: **Z4**  
Model: **ZSU1410434-00**



Resolution: 1/10 sec.  
Overall time: 15 min.  
Function: start/stop/zero reset with interrupt  
1 jewel, shaft anchor

**Mechanical Double Stop Watch**

ABS housing Ø 55 mm  
enlarged scale  
Brochure: **Z4**  
Model: **ZSU1743219-00**



Resolution: 1/5 sec.  
Overall time: 30 min.  
Function: start/stop/zero reset with interrupt  
1 jewel, shaft anchor



# Overview



## Accessories: Time

### Instrument-Style Stop Watch

Automatic winding chronograph  
Sandblasted stainless steel case  
Water and shock resistant acc. to DIN.  
Brochure: **Z4**

**Model: Endurance A**



20 atm, 25 synthetic rubies  
Day and date display  
Domed sapphire crystal, exhibition back

### Instrument-Style Stop Watch

Automatic winding chronograph  
Polished stainless steel case  
Water and shock resistant acc. to DIN.  
Brochure: **Z4**

**Model: Endurance B**



20 atm, 28 synthetic rubies  
Date display  
Domed sapphire crystal, exhibition back

### Instrument-Style Stop Watch

Automatic winding chronograph  
Polished stainless steel case  
Water and shock resistant acc. to DIN.  
Brochure: **Z4**

**Model: Endurance C**



20 atm, 25 synthetic rubies  
Day and date display  
Domed sapphire crystal, exhibition back

### Instrument-Style Stop Watch

Automatic winding chronograph  
Sandblasted stainless steel case  
Water and shock resistant acc. to DIN.  
Brochure: **Z4**

**Model: Endurance D**



20 atm, 25 synthetic rubies  
Day and date display  
Domed sapphire crystal, exhibition back

### Instrument-Style Stop Watch

Automatic winding chronograph  
Sandblasted stainless steel case  
Water and shock resistant acc. to DIN.  
Brochure: **Z4**

**Model: Limits A**



10 atm, 25 synthetic rubies  
Day and date display  
Sapphire crystal, solid case-back

### Instrument-Style Stop Watch

Automatic winding chronograph  
Polished stainless steel case  
Water and shock resistant acc. to DIN.  
Brochure: **Z4**

**Model: Aviation B**



10 atm, 25 synthetic rubies  
Day and date display  
Sapphire crystal, exhibition back

