

- Flow
- Pressure
- Level
- Temperature
- pH-Value/Redox
- Conductivity
- Humidity
- Turbidity
- Density
- Rotation
- Time



measuring
 • monitoring
 • analysing



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Variable Area-Plastic - Low Volume
Polycarbonate/brass,
Polysulfone/stainless steel
Model: KSV



Water: 0,25 – 1,5 L/h ... 10 – 80 L/h
Air: 20 – 80 L_v/h ... 0,5 – 2,5 m³/h
t_{max} 120 °C; p_{max} 6 bar
Connection: 1/4 NPT female thread
Accuracy: ± 6 % of full scale

Variable Area - Plastic - Low Volume
Acrylic
Model: KFR



Water: 5 – 50 mL/min ... 5 – 75 L/min
Air: 0,05 – 0,5 L_v/min ... 400 – 4000 L_v/min
t_{max} 65 °C; p_{max} 6,5 bar
Connection: 1/4 NPT, 1 NPT female thread
Accuracy: ± 2 – 5 % of full scale

Variable Area - Plastic
Trogamide, Polysulfone, PVDF
Model: KSK



Water: 1,5 – 11 L/h ... 100 – 1000 L/h
Air: 0,15 – 0,45 m³/h ... 20 – 105 m³/h
t_{max} 140 °C; p_{max} PN 10
Connection:
G 1/4...1 female, glue-in connection
Accuracy: Cl. 4 according to VDI

Variable Area - Plastic
Trogamide, Polysulfone, PVDF
Model: KSM



Water: 15 – 150 L/h ... 8000 – 60000 L/h
Air: 0,8 – 5 m³/h ... 300 – 2500 m³/h
t_{max} 140 °C; p_{max} 16 bar
Connection: G 1/2...3/4 female/male thread
Accuracy: Cl. 4 according to VDI

Variable Area - Low Volume - Switch
Stainless steel
Model: KSR,SVN



Water: 2 – 250 mL/min
Air: 3 – 380 L_v/h
t_{max} 70 °C; p_{max} 16 bar
Connection: G 1/4, 1/4 NPT female thread

Variable Area - Low Volume
Brass, Stainless steel, PVDF
Model: KDF, KDG



Water: 0,025 – 2,5 L/h ... 16 – 160 L/h
Air: 0,5 – 5 L_v/h ... 500 – 5000 L_v/h
t_{max} 100 °C; p_{max} 10 bar
Connection: G 1/4, 1/4 NPT female thread
Accuracy: Cl. 2,5 according to VDI

Variable Area - Glass Cone
Stainless steel, POM-C
Model: UMR,UXR



Water: 5 – 50 L/h ... 15 – 150 L/h
Air: 0,2 – 2 m³/h ... 0,3 – 3 m³/h
t_{max} 100 °C; p_{max} 6 bar
Connection: G 1/4 female thread
Accuracy: ± 2,5 – 4 % of full scale

Variable Area - Glass Cone - Thread Connection
Stainless steel, PVC
Model: URM



Water: 2 – 20 L/h ... 3 – 30 m³/h
Air: 30 – 300 L_v/h ... 50 – 500 m³/h
t_{max} 100 °C; p_{max} 10 bar
Connection:
G 1/4...3, DIN 11851, hose connection
Accuracy: ± 2,5 – 4 % of full scale

Variable Area - Glass Cone
POM
Model: URR



Water: 6 – 60 L/h ... 300 – 3000 L/h
Air: 200 – 2000 L_v/h ... 5000 – 50000 L_v/h
t_{max} 80 °C; p_{max} 6 bar
Connection: G 1...1 1/2 male thread,
PVC glue-in connection DN 15...25
Accuracy: ± 2,5 – 4 % of full scale

Variable Area - Glass Cone
PVC
Model: URB



Water: 10 – 100 L/h ... 100 – 1000 L/h
Air: 0,32 – 3,2 m³/h ... 3,2 – 32 m³/h
t_{max} 65 °C; p_{max} 6 bar
Connection: G 1/2...1 1/4 male thread
Accuracy: ± 2,5 – 4 % of full scale

Variable Area - Glass Cone
Stainless steel, POM-C
Model: UVR,UTR



Water: 60 – 800 L/h ... 200 – 2000 L/h
Air: 2 – 20 m³/h ... 5 – 50 m³/h
t_{max} 100 °C; p_{max} 6 bar
Connection: G 3/4, G 1/2 female thread
Accuracy: ± 2,5 – 4 % of full scale

Variable Area - Glass Cone - Loose Flange
Stainless steel
Model: URL



Water: 4 – 40 L/h ... 0,25 – 2,5 m³/h
Air: 0,2 – 2 m³/h ... 10 – 100 m³/h
t_{max} 100 °C; p_{max} 6 bar
Connection: flange DN 15...40
Accuracy: ± 2,5 – 4 % of full scale



Flowmeters/-switches

Variable Area - Glass Cone - Fixed Flange
Steel

Model: URK



Water: 10 – 100 L/h ... 4 – 40 m³/h
Air: 0,2 – 2 m³/h ... 40 – 400 m³/h
t_{max} 100 °C; p_{max} 12 bar
Connection: Flange DN 15...80,
ANSI ½"...3"
Accuracy: ±2,5 – 4 % of full scale

Variable Area - Glass Cone - Fixed Flange
Stainless steel

Model: URK



Water: 10 – 100 L/h ... 4 – 40 m³/h
Air: 0,2 – 2 m³/h ... 40 – 400 m³/h
t_{max} 100 °C; p_{max} 12 bar
Connection: flange DN 15...80,
ANSI ½"...3"
Accuracy: ±2,5 – 4 % of full scale

Variable Area - Glass Cone - Table Mounting
Brass

Model: URA



Water: 10 – 100 L/h
Air: 0,2 – 2 m³/h
t_{max} 60 °C; p_{max} 6 bar
Connection: G ¼ female thread
Accuracy: ± 2,5 – 4 % of full scale

Variable Area - Glass Cone for Compressors
Brass

Model: UTS



Air: 0,3 – 3 m³/h
t_{max} 55 °C; p_{max} 3 bar
Connection:
M18x1,5, axial special connection
Accuracy: ± 2,5 – 4 % of full scale

Variable Area
Brass, stainless steel
Model: DSV-1



Water:
0,25 – 1,25 L/min ... 10 – 130 L/min
Air: on request
t_{max} 100 °C; p_{max} 10 bar
Connection: G ¼...1¼, ¼...1¼ NPT female
Accuracy: ± 4 % of full scale

Variable Area
Brass, stainless steel
Model: DSV-3



Water:
0,25 – 1,25 L/min ... 10 – 130 L/min
Air: on request
t_{max} 100 °C; p_{max} 10 bar
Connection: G ¼...1¼, ¼...1¼ NPT female
Accuracy: ± 4 % of full scale

Variable Area Switch - Low Volume
PVC
Model: SWK-13



Water: 0,2 – 0,8 L/min ... 13 – 24 L/min
Air: on request
t_{max} 60 °C; p_{max} 6 bar
Connection: G ½ female thread
Accuracy: ± 4 % of full scale

Variable Area Switch - Low Volume
Brass, stainless steel
Model: SWK-1



Water: 0,05 – 0,1 L/min ... 13 – 24 L/min
Air: on request
t_{max} 100 °C; p_{max} 250 bar
Connection: G ½ female thread
Accuracy: ± 4 % of full scale

Variable Area - Low Volume
Brass, stainless steel
Model: SWK-2



Water: 0,05 – 0,1 L/min ... 13 – 24 L/min
Air: on request
t_{max} 100 °C; p_{max} 250 bar
Connection: G ½ female thread
Accuracy: ± 4 % of full scale

Variable Area - All Metal - Low Volume
Stainless steel
Model: KDS,BGK



Water: 0,1 – 1 L/h ... 20 – 200 L/h
Air: 3 – 30 L/h ... 600 – 6000 L/h
t_{max} 130 °C; p_{max} PN 64
Connection: ¼ NPT, flange DN 10, DN 15,
DN 25, ANSI ½", ¾", 1"
Accuracy: ± 3 % of full scale

Variable Area - All Metal - Low Volume
Stainless steel
Model: KMI



Water: 0,1 – 1 L/h ... 25 – 250 L/h
Air: 4 – 37,5 L/h ... 800 – 7000 L/h
t_{max} 120 °C; p_{max} PN 160
Connection: G ¼, G ¾, ¼ NPT,
¾ NPT female
Accuracy: Cl. 2,5 according to VDI

Variable Area - All Metal
Stainless steel, special material on request
Model: BGN



Water: 0,5 – 5 L/h ... 13000 – 130000 L/h
Air: 0,015 – 0,15 m³/h ...
240 – 2400 m³/h
t_{max} 350 °C; p_{max} PN 40
Connection:
flange DN 15...150, ANSI ¾...6"
Accuracy: ± 1,6 – 2,2 % of full scale



**Variable Area - All Metal**

Stainless steel, special material on request

Model: BGN-High Pressure



Water: 0,5 – 5 L/h ... 13000 – 130000 L/h
 Air: 0,015 – 0,15 m³/h ... 240 – 2400 m³/h
 t_{max} 350 °C; p_{max} 600 bar
 Connection:
 flange DN 15...150, ANSI 3/4...6"
 Accuracy: \pm 1,6 – 2,2 % of full scale

Variable Area - All Metal

Brass, stainless steel

Model: DSS



Water: 0,05 – 1 L/min ... 10 – 110 L/min
 t_{max} 100 °C; p_{max} 350 bar
 Connection:
 G 1/4...1 1/4, 1/4...1 1/4 NPT female thread
 Accuracy: \pm 5 % of full scale

Variable Area - All Metal

Brass, stainless steel

Model: SMV



Water: 0,1 – 1 L/min ... 10 – 110 L/min
 t_{max} 100 °C; p_{max} 350 bar
 Connection:
 G 1/4...1 1/4, 1/4...1 1/4 NPT female thread
 Accuracy: \pm 5 % of full scale

Displacer All Metal

Brass, stainless steel

Model: SMO, SMW



Water: 0,2 – 3 L/min ... 10 – 120 L/min
 t_{max} 100 °C; p_{max} 350 bar
 Connection:
 G 1/4...1, 1/4...3/4 NPT female thread
 Accuracy: \pm 5 % of full scale

Variable Area All Metal - Mounting Position Independent

Stainless steel, special material on request

Model: BGF



Water: 10 – 100 L/h ... 4000 – 40000 L/h
 Air: 0,3 – 3 m³/h ... 110 – 1100 m³/h
 t_{max} 350 °C; p_{max} PN 40
 Connection:
 flange DN 15...60, ANSI 3/4...3"
 Accuracy: \pm 1,6 according to VDI

Displacer Switch - Mounting Position Independent

Brass, stainless steel

Model: SMN



Water: 1 – 100 L/min
 t_{max} 100 °C; p_{max} 350 bar
 Connection: 1 NPT, G 1 female thread
 Accuracy: \pm 5 % of full scale

Viscosity Compensated - Plastic

Polysulfone

Model: VKP



Water: 2 – 20 L/min ... 20 – 100 L/min
 Oil: 1 – 18 L/min ... 10 – 75 L/min
 t_{max} 120 °C; p_{max} 16 bar
 Connection:
 G 1/2, G 3/4 female/male thread, G 1, 1 NPT male thread, soldered or glue-in connection
 Accuracy: \pm 5 % of full scale

Viscosity Compensated

Brass, stainless steel

Model: VKG



Viscosity range: 1 – 540 mm²/s
 Oil: 0,1 – 0,45 L/min ... 5 – 80 L/min
 t_{max} 100 °C; p_{max} 12 bar
 Connection: G 1/4...1, 1/4...1 NPT
 Accuracy: \pm 4 % of full scale

Viscosity Compensated - All Metal

Brass, stainless steel

Model: VKM



Viscosity range: 1 – 540 mm²/s
 Oil: 0,01 – 0,07 L/min ... 8 – 80 L/min
 t_{max} 100 °C; p_{max} 350 bar
 Connection: G 1/4...1, 1/4...1 NPT
 Accuracy: \pm 4 % of full scale

Viscosity Compensated - All Metal

Brass, stainless steel

Model: VKM with ADI



Viscosity range: 1 – 540 mm²/s
 Oil: 0,01 – 0,07 L/min ... 8 – 80 L/min
 t_{max} 100 °C; p_{max} 350 bar
 Connection: G 1/4...1, 1/4...1 NPT
 Accuracy: \pm 4 % of full scale

Viscosity Compensated - All Metal

Brass

Model: VKA



Viscosity range: 30 – 540 mm²/s
 Oil: 0,1 – 0,4 L/min ... 30 – 100 L/min
 t_{max} 100 °C; p_{max} 250 bar
 Connection:
 G 1/4...1, 1/2 NPT, 3/4 NPT female thread
 Accuracy: \pm 4 % of full scale

Manifold Valves for Multiple Installation

Aluminium

Model: BVB



t_{max} 100 °C; p_{max} PN 64
 Connection: G 1/2 female thread



Flowmeters/-switches

Paddle Switch
Brass, stainless steel
Model: PSR



Water:
2,3 – 4,7 L/min ... 47,8 – 87,2 L/min
 t_{max} 110 °C; p_{max} 100 bar
Connection:
G 1/4...1 1/2, 1/2...1 1/2 NPT female thread

Paddle Switch
Brass, stainless steel
Model: PSE



Water: 68 – 90 L/min ... 383 – 533 L/min
 t_{max} 110 °C; p_{max} 100 bar
Connection: G 1/2, 1/2 NPT male thread

Paddle Switch - Polysulfone
Polysulfone
Model: PPS



Water: 18 – 36 L/min ... 72 – 108 L/min
 t_{max} 105 °C; p_{max} 10 bar
Connection: G 1, 1 NPT male thread
Accuracy: \pm 20 % of reading

Paddle Switch - Air
Brass
Model: LPS



Air: 1 – 8 m/s
 t_{max} 85 °C; p_{max} atmospheric
Connection: flange

Paddle Bellow Switch
Brass, stainless steel
Model: FPS



Water: 0,17 – 0,85 m³/h ...
72,6 – 165,7 m³/h
 t_{max} 120 °C; p_{max} 30 bar
Connection: G 1/2, G 3/4 female thread, G 1,
1 NPT male thread

Paddle Bellow Switch
Brass, stainless steel, PVC
Model: DWN



Water: 1 – 5 L/min ... 900 – 3600 m³/h
 t_{max} 100 °C; p_{max} PN 16
Connection: G 3/4...2, 3/4...2 NPT female
thread, flange DN 10...50, ANSI 3/4...2",
weld-on flange DN 40...500
Accuracy: \pm 3 – 5 % of full scale

Paddle Bellow Meter/Switch
Brass, Stainless steel, PVC
Model: DWU



Water: 1 – 5 L/min ... 900 – 3600 m³/h
 t_{max} 100 °C; p_{max} PN 16
Connection: G 3/4...2, 3/4...2 NPT female
thread, flange DN 10...50, ANSI 3/4...2",
weld-on flange DN 40...500
Accuracy: \pm 3 – 5 % of full scale

Paddle Torsion - Meter/Switch
Aluminium-bronze, stainless steel
Model: DPT...C3



Water: 5 – 30 L/min ... 850 – 1900 L/min
 t_{max} 80 °C; p_{max} PN 40
Connection: G 3/4...3, 3/4...3 NPT female
Accuracy: \pm 3 % of full scale

Paddle Torsion - Meter/Switch
Aluminium-bronze, stainless steel
Model: DPT...K



Water: 5 – 30 L/min ... 850 – 1900 L/min
 t_{max} 80 °C; p_{max} PN 40
Connection: G 3/4...3, 3/4...3 NPT female
Accuracy: \pm 3 % of full scale

Baffle Flap Meter/Switch
Brass, stainless steel, PVC
Model: DWD



Water: 1 – 10 L/min ... 360 – 3600 m³/h
 t_{max} 120 °C; p_{max} 25 bar
Connection: G 3/4...2, 3/4...2 NPT female
thread, flange DN 10...50, ANSI 3/4...2",
weld-on flange DN 40...500
Accuracy: \pm 1,5 % of full scale

Flap Meter/Switch
Steel, stainless steel, PP, PVDF,
Hastelloy
Model: TSK



Water: 0,5 – 3,5 m³/h ... 200 – 1500 m³/h
 t_{max} 300 °C; p_{max} PN 40
Connection: wafer flange DN 25...500,
ANSI 1"...20"
Accuracy: \pm 2 % of reading

**Flow, Humidity and Temperature
Hand-Held Measuring Unit**
Model: HND-F115



Measuring range: 0,05...5 m/s Water;
0,55...20 m/s Air
Humidity: 0...100% rH
Temperature: -40...+120 °C, -80...250 °C
Accuracy: from \pm 0,1%



Flowmeters/-switches

Turbine Wheel - Pulse Output
Brass, stainless steel, PPO
Model: DRS-...F5



Water: 2 – 40 L/min
 t_{max} 80 °C; p_{max} 200 bar
Connection: G ½, G ¾, ¾ NPT
Accuracy: ± 1,5 % of full scale

Turbine Wheel - Analogue Output
Brass, stainless steel, PPO
Model: DRS-...L3



Water: 2 – 40 L/min
 t_{max} 80 °C; p_{max} 200 bar
Connection: G ½, G ¾, ¾ NPT
Accuracy: ± 1,5 % of full scale

Turbine Wheel - Analogue Output
Brass, stainless steel, PPO
Model: DRS-...L4 with AUF



Water: 2 – 40 L/min
 t_{max} 80 °C; p_{max} 200 bar
Connection: G ½, G ¾, ¾ NPT
Accuracy: ± 1,5 % of full scale

Turbine Wheel - Pointer Indicator
Brass, stainless steel, PPO
Model: DRS-...Z3



Water: 2 – 40 L/min
 t_{max} 80 °C; p_{max} 200 bar
Connection: G ½, G ¾, ¾ NPT
Accuracy: ± 1,5 % of full scale

Turbine Wheel - Compact Electronic
Brass, stainless steel, PPO
Model: DRS-...C3



Water: 2 – 40 L/min
 t_{max} 80 °C; p_{max} 200 bar
Connection: G ½, G ¾, ¾ NPT
Accuracy: ± 1,5 % of full scale

Turbine Wheel - Counter
Brass, stainless steel, PPO
Model: DRS with ZED



Water: 2 – 40 L/min
 t_{max} 80 °C; p_{max} 200 bar
Connection: G ½, G ¾, ¾ NPT
Accuracy: ± 1,5 % of full scale

Turbine Wheel - Pulse Output
PVC, PVDF
Model: TUR-1



Water: 0,2 – 5 m³/h ... 2,5 – 100 m³/h
 t_{max} 70 °C; p_{max} 10 bar
Connection: flange DN 25...100
Accuracy: ± 1 % of full scale

Turbine Wheel - Analogue Output
PVC, PVDF
Model: TUR-2...M



Water: 0,2 – 5 m³/h ... 2,5 – 100 m³/h
 t_{max} 70 °C; p_{max} 10 bar
Connection: flange DN 25...100
Accuracy: ± 1 % of full scale

Turbine Wheel - Pointer Indicator
PVC, PVDF
Model: TUR-2...Z3



Water: 0,2 – 5 m³/h ... 2,5 – 100 m³/h
 t_{max} 70 °C; p_{max} 10 bar
Connection: flange DN 25...100
Accuracy: ± 1 % of full scale

Turbine Wheel - Compact Electronics
PVC, PVDF
Model: TUR-2...C3



Water: 0,2 – 5 m³/h ... 2,5 – 100 m³/h
 t_{max} 70 °C; p_{max} 10 bar
Connection: flange DN 25...100
Accuracy: ± 1 % of full scale

Turbine Wheel - Digital Display
PVC, PVDF
Model: TUR-2...K



Water: 0,2 – 5 m³/h ... 2,5 – 100 m³/h
 t_{max} 70 °C; p_{max} 10 bar
Connection: flange DN 25...100
Accuracy: ± 1 % of full scale

Turbine Wheel - Dosing Electronics
PVC, PVDF
Model: TUR-2...A



Water: 0,2 – 5 m³/h ... 2,5 – 100 m³/h
 t_{max} 70 °C; p_{max} 10 bar
Connection: flange DN 25...100
Accuracy: ± 1 % of full scale



Flowmeters/-switches

Turbine Wheel - Pulse - Analogue Output

Aluminium-bronze, stainless steel
Model: DPE



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} PN 40
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 2,5 % of full scale

Turbine Wheel - Analogue Output

Aluminium-bronze, stainless steel
Model: DPE with AUF



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} PN 40
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 2,5 % of full scale

Turbine Wheel - Pointer Indicator

Aluminium-bronze, stainless steel
Model: DPE-...Z3



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} PN 40
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 2,5 % of full scale

Turbine Wheel - Compact Electronics

Aluminium-bronze, stainless steel
Model: DPE-...C3



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} PN 40
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 2,5 % of full scale

Turbine Wheel - Digital Display

Aluminium-bronze, stainless steel
Model: DPE with ADI



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} PN 40
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 2,5 % of full scale

Turbine Wheel - Dosing Electronics

Aluminium-bronze, stainless steel
Model: DPE with ZED



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} PN 40
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 2,5 % of full scale

Turbine Wheel - Pulse-Analogue Output

Aluminium-bronze, stainless steel
Model: DRB



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} 16 bar
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 3 % of full scale

Turbine Wheel - Analogue Output

Aluminium-bronze, stainless steel
Model: DRB with AUF



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} 16 bar
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 3 % of full scale

Turbine Wheel - Pointer Indicator

Aluminium-bronze, stainless steel
Model: DRB-...Z3



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} 16 bar
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 3 % of full scale

Turbine Wheel - Compact Electronics

Aluminium-bronze, stainless steel
Model: DRB-...C3



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} 16 bar
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 3 % of full scale

Turbine Wheel - Digital Display

Aluminium-bronze, stainless steel
Model: DRB with ADI



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} 16 bar
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 3 % of full scale

Turbine Wheel - Dosing Electronics

Aluminium-bronze, stainless steel
Model: DRB with ZED



Water: 5 – 30 L/min ... 50 – 750 L/min
 t_{max} 80 °C; p_{max} 16 bar
Connection: G 1/2...3, 1/2...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: \pm 3 % of full scale





Flowmeters/-switches

Turbine Wheel - Pulse Output

Stainless steel

Model: TUV



Water: 0,3 – 1,5 L/min ... 35 – 400 L/min
 t_{max} 350 °C; p_{max} 640 bar
 Connection: G 1/4...1 1/2 female thread
 Accuracy: ± 1 % of reading

Turbine Wheel - Pulse Output

PVDF, Stainless steel

Model: SFL



Water: 0,5 – 20 L/min
 t_{max} 90 °C; p_{max} 250 bar
 Connection: G 3/8
 Accuracy: ± 1 % of full scale

Turbine Wheel - Counter Electronics

Stainless steel

Model: DOT



Water: 0,11 – 1,1 m³/h ... 700 – 7000 m³/h
 t_{max} 120 °C; p_{max} 250 bar
 Connection: G 1/2...2, 1/2...2 NPT,
 flange DN 5...500
 Accuracy: $\pm 0,5$ % (linearity)

Turbine Wheel Flowmeter/ Counter - Battery powered

Nylon, brass, stainless steel

Model: EDM



Water: 4 – 40 L/min ... 80 – 800 L/min
 t_{max} 60 °C; p_{max} 100 bar
 Connection: Rc 1/2...2 female thread
 Accuracy: $\pm 1,5$ % of full scale

Turbine Wheel - Low Volume

Nylon, stainless steel, titanium

Model: PEL-L



Water:
 0,006 – 0,1 L/min ... 10 – 500 L/min
 t_{max} 135 °C; p_{max} 345 bar
 Connection:
 R 1/2...1 1/4, within-flange DN 40/50,
 glue-in connection DN 15...50
 Accuracy: $\pm 1,25$ % of full scale

Turbine Wheel - Low Volume

Stainless steel, PVC, titanium

Model: PEL-M



Water:
 0,006 – 0,1 L/min ... 10 – 500 L/min
 t_{max} 135 °C; p_{max} 345 bar
 Connection:
 R 1/2...1 1/4, within-flange DN 40/50,
 glue-in conn. DN 15...50
 Accuracy: $\pm 1,25$ % of full scale

Rotating Vane - Low Volume - Pulse Output

Brass, stainless steel

Model: DPM-...F5



Water: 0,015 – 0,7 L/min ... 0,05 – 5 L/min
 t_{max} 80 °C; p_{max} 16 bar
 Connection:
 G 1/4, G 3/8, 1/4 NPT, 1/4 NPT female thread
 Accuracy: $\pm 1 - 2,5$ % of full scale

Rotating Vane - Low Volume - Analogue Output

Brass, stainless steel

Model: DPM-...L3



Water: 0,015 – 0,7 L/min ... 0,05 – 5 L/min
 t_{max} 80 °C; p_{max} 16 bar
 Connection:
 G 1/4, G 3/8, 1/4 NPT, 1/4 NPT female thread
 Accuracy: $\pm 1 - 2,5$ % of full scale

Rotating Vane - Low Volume - Analogue Output

Brass, stainless steel

Model: DPM-...L4 with AUF



Water: 0,015 – 0,7 L/min ... 0,05 – 5 L/min
 t_{max} 80 °C; p_{max} 16 bar
 Connection: G 1/4, G 3/8, 1/4 NPT, 1/4 NPT
 Accuracy: $\pm 1 - 2,5$ % of full scale

Rotating Vane - Low Volume - Pointer Indicator

Brass, stainless steel

Model: DPM-...Z3



Water: 0,015 – 0,7 L/min ... 0,05 – 5 L/min
 t_{max} 80 °C; p_{max} 16 bar
 Connection: G 1/4, G 3/8, 1/4 NPT, 1/4 NPT
 Accuracy: $\pm 1 - 2,5$ % of full scale

Rotating Vane - Low Volume - Compact Electronics

Brass, stainless steel

Model: DPM-...C3



Water: 0,015 – 0,7 L/min ... 0,05 – 5 L/min
 t_{max} 80 °C; p_{max} 16 bar
 Connection: G 1/4, G 3/8, 1/4 NPT, 1/4 NPT
 Accuracy: $\pm 1 - 2,5$ % of full scale

Rotating Vane - Low Volume - Counter

Brass, stainless steel

Model: DPM with ZED



Water: 0,015 – 0,7 L/min ... 0,05 – 5 L/min
 t_{max} 80 °C; p_{max} 16 bar
 Connection: G 1/4, G 3/8, 1/4 NPT, 1/4 NPT
 Accuracy: $\pm 1 - 2,5$ % of full scale



Flowmeters/-switches

Rotating Vane - Low Volume - Pulse Output

Polypropylene
Model: DPL-...F5



Water: 0,025 – 0,5 L/min ... 1 – 25 L/min
 t_{max} 70 °C; p_{max} 10 bar
Connection:
G 1/2 male thread, hose connector
Accuracy: \pm 2,5 % of full scale

Rotating Vane - Low Volume - Analogue Output

Polypropylene
Model: DPL-...L3



Water: 0,025 – 0,5 L/min ... 1 – 25 L/min
 t_{max} 70 °C; p_{max} 10 bar
Connection:
G 1/2 male thread, hose connector
Accuracy: \pm 2,5 % of full scale

Rotating Vane - Low Volume - Analogue Output

Polypropylene
Model: DPL-...L4 with AUF



Water: 0,025 – 0,5 L/min ... 1 – 25 L/min
 t_{max} 70 °C; p_{max} 10 bar
Connection:
G 1/2 male thread, hose connector
Accuracy: \pm 2,5 % of full scale

Rotating Vane - Low Volume - Pointer Indicator

Polypropylene
Model: DPL-...Z3



Water: 0,025 – 0,5 L/min ... 1 – 25 L/min
 t_{max} 70 °C; p_{max} 10 bar
Connection:
G 1/2 male thread, hose connector
Accuracy: \pm 2,5 % of full scale

Rotating Vane - Low Volume - Compact Electronic

Polypropylene
Model: DPL-...C3



Water: 0,025 – 0,5 L/min ... 1 – 25 L/min
 t_{max} 70 °C; p_{max} 10 bar
Connection:
G 1/2 male thread, hose connector
Accuracy: \pm 2,5 % of full scale

Rotating Vane - Low Volume - Counter

Polypropylene
Model: DPL with ZED



Water: 0,025 – 0,5 L/min ... 1 – 25 L/min
 t_{max} 70 °C; p_{max} 10 bar
Connection:
G 1/2 male thread, hose connector
Accuracy: \pm 2,5 % of full scale

Rotating Vane - Low Volume

Brass, PTFE, Rhython®
Model: KFF-1, KFG-1



Water: 15 – 100 mL/min ... 1 – 10 L/min
Air: 10 – 50 mL_v/min ... 100 – 500 L_v/min
 t_{max} 50 °C; p_{max} 35 bar
Connection: hose connection 1/4" ... 1/2"
Accuracy: \pm 3 % of full scale

Rotating Vane - Low Volume

Brass, PTFE, Rhython®
Model: KFF-3, KFG-3



Water: 13 – 100 mL/min ... 0,2-5 L/min
Air: 10 – 50 mL_v/min ... 2-10 L_v/min
 t_{max} 50 °C; p_{max} 35 bar
Connection: hose connection 1/4" ... 1/2"
Accuracy: \pm 3 % of full scale

Rotating Vane - Low Volume

Stainless steel
Model: DTK



Water: 0,05 – 0,6 L/min ... 1 – 12 L/min
 t_{max} 140 °C; p_{max} 30 bar
Connection: G 1/4, 1/4 NPT female thread
Accuracy: \pm 2 % of full scale

Rotating Vane - Low Volume - Pulse Output

Trogamide, Polysulfone, Polypropylen, PTFE, brass, stainless steel
Model: DF-H



Water: 0,08 – 0,5 L/min ... 40 – 160 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G 1/4...1 1/2, 1/4...1 1/2 NPT, flange DN 15...50, ANSI 1/2"...2"
Accuracy: \pm 2,5 % of full scale

Rotating Vane - Low Volume - Analogue Output

Trogamide, Polysulfone, Polypropylen, PTFE, brass, stainless steel
Model: DF-MA



Water: 0,08 – 0,5 L/min ... 40 – 160 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G 1/4...1 1/2, 1/4...1 1/2 NPT, flange DN 15...50, ANSI 1/2"...2"
Accuracy: \pm 2,5 % of full scale

Rotating Vane Switch - Low Volume

Trogamide, Polysulfone, Polypropylen, PTFE, brass, stainless steel
Model: DF-WM



Water: 0,08 – 0,5 L/min ... 40 – 160 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G 1/4...1 1/2, 1/4...1 1/2 NPT, flange DN 15...50, ANSI 1/2"...2"
Accuracy: \pm 2,5 % of full scale





Flowmeters/-switches

Rotating Vane - Low Volume - Digital Display

Trogamide, Polysulfone, Polypropylene, PTFE, brass, stainless steel
Model: DF-K



Water: 0,08 – 0,5 L/min ... 40 – 160 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G ¼...1½, ¼...1½ NPT,
flange DN 15...50, ANSI ½"...2"
Accuracy: ± 2,5 % of full scale

Rotating Vane - Low Volume - Counter

Trogamide, Polysulfone, Polypropylene, PTFE, brass, stainless steel
Model: DF-Z



Water: 0,08 – 0,5 L/min ... 40 – 160 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G ¼...1½, ¼...1½ NPT,
flange DN 15...50, ANSI ½"...2"
Accuracy: ± 2,5 % of full scale

Rotating Vane - Low Volume - Dosing Electronic

Trogamide, Polysulfone, Polypropylene, PTFE, brass, stainless steel
Model: DF-D



Water: 0,08 – 0,5 L/min ... 40 – 160 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G ¼...1½, ¼...1½ NPT,
flange DN 15...50, ANSI ½"...2"
Accuracy: ± 2,5 % of full scale

Rotating Vane - Pulse Output Brass

Model: DFT-11



Water: 0,2 – 2 L/min ... 3 – 60 L/min
 t_{max} 80 °C; p_{max} 16 bar
Connection: G ¼...¾, ¼...¾ NPT
Accuracy: ± 2,5 % of full scale

Rotating Vane - Pulse Output PTFE

Model: DFT-13



Water: 0,2 – 2 L/min ... 3 – 60 L/min
 t_{max} 80 °C; p_{max} 16 bar
Connection: G ¼...¾, ¼...¾ NPT
Accuracy: ± 2,5 % of full scale

Rotating Vane - Digital Display PTFE, brass

Model: DFT-13...K



Water: 0,2 – 2 L/min ... 3 – 60 L/min
 t_{max} 80 °C; p_{max} 16 bar
Connection: G ¼...¾, ¼...¾ NPT
Accuracy: ± 2,5 % of full scale

Rotating Vane - Pulse - Analogue Output

POM, PVDF, brass, stainless steel
Model: DRH...F, DRH...L



Water: 0,2 – 0,8 L/min ... 2,5 – 50 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G ¾, G 1, ¾ NPT, 1 NPT
Accuracy: ± 2,5 % of full scale

Rotating Vane - Analogue Output POM, PVDF, brass, stainless steel

Model: DRH with AUF



Water: 0,2 – 0,8 L/min ... 2,5 – 50 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G ¾, G 1, ¾ NPT, 1 NPT
Accuracy: ± 2,5 % of full scale

Rotating Vane - Pointer Indicator POM, PVDF, brass, stainless steel

Model: DRH...Z3



Water: 0,2 – 0,8 L/min ... 2,5 – 50 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G ¾, G 1, ¾ NPT, 1 NPT
Accuracy: ± 2,5 % of full scale

Rotating Vane - Compact Electronics POM, PVDF, brass, stainless steel

Model: DRH...C3



Water: 0,2 – 0,8 L/min ... 2,5 – 50 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G ¾, G 1, ¾ NPT, 1 NPT
Accuracy: ± 2,5 % of full scale

Rotating Vane - Digital Display POM, PVDF, brass, stainless steel

Model: DRH with ADI



Water: 0,2 – 0,8 L/min ... 2,5 – 50 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G ¾, G 1, ¾ NPT, 1 NPT
Accuracy: ± 2,5 % of full scale

Rotating Vane - Counter POM, PVDF, brass, stainless steel

Model: DRH with ZED



Water: 0,2 – 0,8 L/min ... 2,5 – 50 L/min
 t_{max} 80 °C; p_{max} 100 bar
Connection: G ¾, G 1, ¾ NPT, 1 NPT
Accuracy: ± 2,5 % of full scale





Flowmeters/-switches

Rotating Vane - Pulse Output
Polypropylene, aluminium-bronze,
stainless steel
Model: DRG



Water: 0,5 – 12 L/min ... 10 – 140 L/min
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 1/2...1, 3/4...1 NPT
Accuracy: \pm 3 % of full scale

Rotating Vane - Analogue Output
Polypropylene, aluminium-bronze,
stainless steel
Model: DRG with AUF



Water: 0,5 – 12 L/min ... 10 – 140 L/min
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 1/2...1, 3/4...1 NPT
Accuracy: \pm 3 % of full scale

Rotating Vane - Pointer Indicator
Polypropylene, aluminium-bronze,
stainless steel
Model: DRG-...Z3



Water: 0,5 – 12 L/min ... 10 – 140 L/min
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 1/2...1, 3/4...1 NPT
Accuracy: \pm 3 % of full scale

Rotating Vane - Compact Electronics
Polypropylene, aluminium-bronze,
stainless steel
Model: DRG-...C3



Water: 0,5 – 12 L/min ... 10 – 140 L/min
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 1/2...1, 3/4...1 NPT
Accuracy: \pm 3 % of full scale

Rotating Vane - Digital Display
Polypropylene, aluminium-bronze,
stainless steel
Model: DRG with ADI



Water: 0,5 – 12 L/min ... 10 – 140 L/min
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 1/2...1, 3/4...1 NPT
Accuracy: \pm 3 % of full scale

Rotating Vane - Dosing Electronics
Polypropylene, aluminium-bronze,
stainless steel
Model: DRG with ZED



Water: 0,5 – 12 L/min ... 10 – 140 L/min
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 1/2...1, 3/4...1 NPT
Accuracy: \pm 3 % of full scale

Rotating Vane - Pulse Output
Brass
Model: DOW



Water: 1 – 70 L/min
 t_{max} 90 °C; p_{max} 10 bar
Connection: G 3/4 male thread, 3/4 NPT
Accuracy: \pm 1,5 % of reading

Rotating Vane - Insertion Version
Stainless steel
Model: DOR



Water: 0,36 – 6300 L/s ... 0,3 – 10 m/s
 t_{max} 200 °C; p_{max} 80 bar
Connection: G 1 1/2, G 2, 1 1/2 NPT, 2 NPT
for tubes Ø40...2500 mm
Accuracy: \pm 1,5% (nearby)

Dual-Ring Piston - Pendulum - Low Volume
Stainless steel
Model: LFM



Water: 0,005 – 0,25 L/min
 t_{max} 70 °C; p_{max} 100 bar
Connection: G 3/4, Swagelok 6 mm
Accuracy: \pm 2,5 % of reading

Ring Piston Counter - Pulse Output
Brass
Model: DRZ...F



Viscosity range: 5 – 100 mm²/s
Oil: 6 – 420 L/h
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 3/4, G 1/2, 1/2 NPT, 1/4 NPT
Accuracy: \pm 1 % of reading

Ring Piston Counter - Analogue Output
Brass
Model: DRZ with AUF



Viscosity range: 5 – 100 mm²/s
Oil: 6 – 420 L/h
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 3/4, G 1/2, 1/2 NPT, 1/4 NPT
Accuracy: \pm 1 % of reading

Ring Piston Counter - Compact Electronics
Brass
Model: DRZ-...C3



Viscosity range: 5 – 100 mm²/s
Oil: 6 – 420 L/h
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 3/4, G 1/2, 1/2 NPT, 1/4 NPT
Accuracy: \pm 1 % of reading



Flowmeters/-switches

Ring Piston Counter
Aluminium, stainless steel
Model: DRT



Viscosity range: up to 1 000 000 cP
Oil: 10 – 500 L/h ... 700 – 20 000 L/h
 t_{max} 150 °C; p_{max} 350 bar
Connection: G 1/2...2, 1/2...2 NPT,
Range DN 15...50, Tri-Clamp
Accuracy: \pm 0,5 – 1 % of reading

Oval Gear - Pulse Output
POM, aluminium
Model: OVZ-...I4



Viscosity range: 10 – 800 mm²/s
Oil: 0,3 – 8 L/min ... 1,6 – 40 L/min
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 1/4...3/4, 1/4...3/4 NPT
Accuracy: \pm 2,5 % of full scale

Oval Gear - Analogue Output
POM, aluminium
Model: OVZ-...L4 with AUF



Viscosity range: 10 – 800 mm²/s
Oil: 0,3 – 8 L/min ... 1,6 – 40 L/min
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 1/4...3/4, 1/4...3/4 NPT
Accuracy: \pm 2,5 % of full scale

Oval Gear - Pointer Indicator
POM, aluminium
Model: OVZ-...Z3



Viscosity range: 10 – 800 mm²/s
Oil: 0,3 – 8 L/min ... 1,6 – 40 L/min
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 1/4...3/4, 1/4...3/4 NPT
Accuracy: \pm 2,5 % of full scale

Oval Gear - Compact Electronics
POM, aluminium
Model: OVZ-...C3



Viscosity range: 10 – 800 mm²/s
Oil: 0,3 – 8 L/min ... 1,6 – 40 L/min
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 1/4...3/4, 1/4...3/4 NPT
Accuracy: \pm 2,5 % of full scale

Oval Gear - Dosing Electronics
POM, aluminium
Model: OVZ with ZED



Viscosity range: 10 – 800 mm²/s
Oil: 0,3 – 8 L/min ... 1,6 – 40 L/min
 t_{max} 80 °C; p_{max} 40 bar
Connection: G 1/4...3/4, 1/4...3/4 NPT
Accuracy: \pm 2,5 % of full scale

Oval Gear - Counter - Pulse Output
Aluminium, stainless steel, cast iron
Model: DOM-...F4



Viscosity range: 0 – 1200 mPas
Oil: 0,5 – 36 L/h ... 150 – 2500 L/min
 t_{max} 120 °C; p_{max} 400 bar
Connection: G 1/4...4 female thread
Accuracy: \pm 0,2 – 1 % of reading

Oval Gear - Counter - Pulse Output
Aluminium, stainless steel, cast iron
Model: DOM-...LCD



Viscosity range: 0 – 1200 mPas
Oil: 0,5 – 36 L/h ... 150 – 2500 L/min
 t_{max} 120 °C; p_{max} 400 bar
Connection: G 1/4...4 female thread
Accuracy: \pm 0,2 – 1 % of reading

Oval Gear - Counter - Mechanical
Aluminium, stainless steel, cast iron
Model: DOM-...mech



Viscosity range: 0 – 1200 mPas
Oil: 0,5 – 36 L/h ... 150 – 2500 L/min
 t_{max} 120 °C; p_{max} 400 bar
Connection: G 1/4...4 female thread
Accuracy: \pm 0,2 – 1 % of reading

Oval Gear With Air Eliminator
Aluminium, stainless steel, cast iron
Model: DOM with ZAL



Viscosity range: 0 – 1200 mPas
Oil: 10 – 150 L/min ... 150 – 2500 L/min
 t_{max} 70 °C; p_{max} 10 bar
Connection: flange DN 20...50,
ANSI 1/2"...2"
Accuracy: \pm 0,2 – 1 % of reading

Dosing Unit - Rotating Vane
Brass
Model: DOB



Water: 1 – 70 L/min
 t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/2 male thread,
1/2 NPT male thread
Accuracy: \pm 0,5 % of reading

Dosing Unit - Mechanical
Aluminium, stainless steel, cast iron
Model: DOL



Viscosity range: 0 – 1200 mPas
Oil: 0,5 – 36 L/h ... 150 – 2500 L/min
 t_{max} 120 °C; p_{max} 400 bar
Connection: G 1/4...4 female thread
Accuracy: \pm 0,2 – 1 % of reading



Flowmeters/-switches

**Dosing Unit - Oval Gear
For Additives**
Stainless steel
Model: DOP



Water: 0,01 – 1 L/min ... 0,25 – 10 L/min
t_{max} 100 °C; p_{max} 20 bar
Connection: 3/8 NPT
Accuracy: ± 0,5 % of reading

Screw Spindle - Meter
Cast iron, stainless steel
Model: OMG



Viscosity range: 1 – 5000 mm²/s
Oil: 0,1 – 10 L/min ... 50 – 5000 L/min
t_{max} 200 °C; p_{max} 420 bar
Connection:
G 1/2...6 female thread, flange DN 15...150
Accuracy: ± 0,3 % of reading

**Screw Spindle -
Dosing Electronics**
Cast iron, stainless steel
Model: OMG with ADI-Z



Viscosity range: 1 – 5000 mm²/s
Oil: 0,1 – 10 L/min ... 50 – 5000 L/min
t_{max} 200 °C; p_{max} 420 bar
Connection:
G 1/2...6 female thread, flange DN 15...150
Accuracy: ± 0,3 % of reading

Screw Spindle - Counter
Cast iron, stainless steel
Model: OMG with ZED



Viscosity range: 1 – 5000 mm²/s
Oil: 0,1 – 10 L/min ... 50 – 5000 L/min
t_{max} 200 °C; p_{max} 420 bar
Connection:
G 1/2...6 female thread, flange DN 15...150
Accuracy: ± 0,3 % of reading

Screw Spindle - Meter
Aluminium
Model: OME



Viscosity range: 1 – 5000 mm²/s
Oil: 0,2 – 10 L/min ... 2 – 100 L/min
t_{max} 100 °C; p_{max} 40 bar
Connection:
G 1/2...1 female thread, flange DN 15...25
Accuracy: ± 0,3 % of reading

**Screw Spindle -
Dosing Electronics**
Aluminium
Model: OME with ADI-Z



Viscosity range: 1 – 5000 mm²/s
Oil: 0,2 – 10 L/min ... 2 – 100 L/min
t_{max} 100 °C; p_{max} 40 bar
Connection:
G 1/2...1 female, flange DN 15...25
Accuracy: ± 0,3 % of reading

Screw Spindle - Counter
Aluminium
Model: OME with ZED



Viscosity range: 1 – 5000 mm²/s
Oil: 0,2 – 10 L/min ... 2 – 100 L/min
t_{max} 100 °C; p_{max} 40 bar
Connection:
G 1/2...1 female, flange DN 15...25
Accuracy: ± 0,3 % of reading

Gear Wheel - Meter
Cast iron, stainless steel
Model: DZR



Viscosity range: 20 – 5000 mm²/s
Oil: 0,008 – 2 L/min ... 3 – 700 L/min
t_{max} 150 °C; p_{max} 400 bar
Connection: G 1/2...1 female thread
Accuracy: ± 0,3 – 1 % of reading

Gear Wheel - Dosing Electronics
Cast iron, stainless steel
Model: DZR with ADI-Z



Viscosity range: 20 – 5000 mm²/s
Oil: 0,008 – 2 L/min ... 3 – 700 L/min
t_{max} 150 °C; p_{max} 400 bar
Connection: G 1/2...1 female thread
Accuracy: ± 0,3 – 1 % of reading

Gear Wheel - Counter
Cast iron, stainless steel
Model: DZR with ZED



Viscosity range: 20 – 5000 mm²/s
Oil: 0,008 – 2 L/min ... 3 – 700 L/min
t_{max} 150 °C; p_{max} 400 bar
Connection: G 1/2...1 female thread
Accuracy: ± 0,3 – 1 % of reading

Gear Wheel - Meter
Aluminium
Model: KZA



Viscosity range: 20 – 4000 mm²/s
Oil: 0,02 – 4 L/min ... 1 – 200 L/min
t_{max} 80 °C; p_{max} 160 bar
Connection: G 1/2...1 female thread
Accuracy: ± 0,3 – 3 % of reading

Gear Wheel - Dosing Electronics
Aluminium
Model: KZA with ADI



Viscosity range: 20 – 4000 mm²/s
Oil: 0,02 – 4 L/min ... 1 – 200 L/min
t_{max} 80 °C; p_{max} 160 bar
Connection: G 1/2...1 female thread
Accuracy: ± 0,3 – 3 % of reading



Flowmeters/-switches

Gear Wheel - Counter
Aluminium

Model: KZA with ZED



Viscosity range: 20 – 4000 mm²/s
 Oil: 0,02 – 4 L/min ... 1 – 200 L/min
 t_{max} 80 °C; p_{max} 160 bar
 Connection: G ¼...1 female thread
 Accuracy: ± 0,3 – 3 % of reading

Calorimetric Indicator/Switch
Stainless steel

Model: KAL-D



Water: 0,04 – 2 m/s
 t_{max} 80 °C; p_{max} 40 bar
 Connection:
 G ¼...1½, ¼...¾ NPT, M12, Tri-Clamp

Calorimetric Indicator/Switch
Stainless steel

Model: KAL-K



Water: 0,04 – 2 m/s
 t_{max} 120 °C; p_{max} 100 bar
 Connection:
 G ¼...1½, ¼...¾ NPT, M12, Tri-Clamp

Calorimetric Meter/Switch
Stainless steel

Model: KAL-A(K)



Water: 0,04 – 2 m/s
 t_{max} 120 °C; p_{max} 100 bar
 Connection:
 G ¼...1½, ¼...¾ NPT, M12, Tri-Clamp
 Accuracy: ± 10 % of full scale

Calorimetric Indicator/Switch
Brass, stainless steel

Model: KAL, KAL-E



Water: 0,04 – 2 m/s
 t_{max} 120 °C; p_{max} 100 bar
 Connection:
 G ¼...1½, ¼...¾ NPT, M12, Tri-Clamp

Calorimetric Flowmeter/Switch
Stainless steel

Model: DVK



Air: 1 – 10 L_v/min ... 600 – 12000 L_v/h
 t_{max} 50 °C; p_{max} 15 bar
 Connection: G ¼...2
 Accuracy: 5 % of full scale

Calorimetric Indicator/Switch
Brass

Model: KAL-L



Air: 1 – 20 m/s
 t_{max} 120 °C; p_{max} 8 bar
 Connection:
 G ¼, Rp ½, M18, flange, smooth shaft
 Accuracy: 10 % of reading

Mass-Flowmeter - Thermal
Brass

Model: DGM



Air: 0,04 – 6 m³/h
 t_{max} 40 °C; p_{max} 0,1 bar
 Connection: G 1, G 1½ male thread
 Accuracy: Cl. 1,5

Mass - Flowmeter - Thermal
Aluminium, stainless steel

Model: DMW-A/B



Air: 5 – 100 mL_v/min ... 390 – 7500 L_v/min
 t_{max} 50 °C; p_{max} 10 bar
 Connection: G ¼...1 female thread
 Accuracy: 3 % of full scale

Mass - Flowmeter/Controller - Thermal
Aluminium, stainless steel

Model: DMW-C/D



Air: 5 – 100 mL_v/min ... 50 – 1000 L_v/min
 t_{max} 50 °C; p_{max} 10 bar
 Connection: G ¼...½ female thread
 Accuracy: 3 % of full scale

Mass - Flowmeter - Thermal
Nylon, stainless steel

Model: MAS



Air: 0 – 10 mL_v/min ... 0 – 500 L_v/min
 t_{max} 50 °C; p_{max} 35 bar
 Connection:
 ¼ NPT female thread, Swagelok
 Accuracy: ± 1,5 % of full scale

Mass - Meter/Controller - Thermal
Nylon, stainless steel

Model: MFC



Air: 0 – 10 mL_v/min ... 0 – 50 L_v/min
 t_{max} 50 °C; p_{max} 35 bar
 Connection:
 ¼ NPT female thread, Swagelok
 Accuracy: ± 1,5 % of full scale



Flowmeters/-switches

Mass - Meter/Controller - Thermal
Stainless steel

Model: DMS



Air: 0 – 10 mL_v/min ... 0 – 200 L_v/min
t_{max} 50 °C; p_{max} 35 bar
Connection: 1/4...1/2 FNPT female thread, clamp connection
Accuracy: ± 1 % of full scale

Mass - Flowmeter - Thermal
Stainless steel

Model: KES



Air: 0 – 4,7 m³/s ... 0 – 94 m³/s
t_{max} 80 °C; p_{max} 10 bar
Connection: 1/4...8 NPT, clamp connection with 1/2 NPT, 1 NPT (insert version)
Accuracy: ± 1,0% of full scale
± 0,5% of reading

Mass Flowmeter - Coriolis
Stainless steel

Model: TME



Water: 0 – 60 kg/h ... 0 – 60000 kg/h
t_{max} 180 °C; p_{max} PN 40
Connection: flange DN 10...80, ANSI 1/2"...3"
Accuracy: ± 0,15 – 0,5 % of reading

Mass Flowmeter - Coriolis
Stainless steel, Hastelloy

Model: TMU



Water: 0 – 60 kg/h ... 0 – 2200000 kg/h
t_{max} 260 °C; p_{max} PN 40
Connection: flange DN 10...300, ANSI 1/2"...12"
Accuracy: ± 0,1 % of reading

Mass Flowmeter - Coriolis with Heating
Stainless steel, Hastelloy

Model: TMU-...AC



Water: 0 – 60 kg/h ... 0 – 1900000 kg/h
t_{max} 260 °C; p_{max} PN 40
Connection: flange DN 10...300, ANSI 1/2"...12"
Accuracy: ± 0,1 % of reading

Mass Flowmeter - Coriolis
Stainless steel, Hastelloy, Monel, tantalum, nickel

Model: TM



Water: 0 – 0,8 kg/h ... 0 – 65000 kg/h
t_{max} 260 °C; p_{max} PN 40
Connection: 1/4...1/2 NPT, flange DN 10...100, ANSI 1/2"...4"
Accuracy: ± 0,1 % of reading

Mass Flowmeter - Coriolis
Stainless steel, Hastelloy, Monel, tantalum, zirconium

Model: TMR



Viscosity range: 0,3 – 50000 mPas
Water: 0 – 120 kg/h ... 0 – 120000 kg/h
t_{max} 260 °C; p_{max} PN 40
Connection: flange DN 20...100, ANSI 3/4"...4"
Accuracy: ± 0,1 – 0,15 % of reading

Orifice Plate - Differential Pressure
Steel, stainless steel, Hastelloy C, titanium, Monel, tantalum

Model: KPL



Measuring span: 1:10
Connection: DN 50...1600,
t_{max} 560 °C; p_{max} PN 100
Accuracy: ± 0,5 – 0,75 % of reading

Probe - Differential Pressure
Stainless steel

Model: ANU



Measuring span: 1:4
Connection: DN 80...3000,
t_{max} 300 °C; p_{max} 40 bar
Accuracy: ± 2,5% of reading

Venturi Nozzle - Differential Pressure
Steel, stainless steel, PP, PVC

Model: DDP



Measuring span: 1:10
Connection: DN 50...800,
t_{max} 450 °C; p_{max} PN 100
Accuracy: ± 1,0 – 2,0 % of reading

Venturi Nozzle - Differential Pressure
Aluminium-bronze, stainless steel

Model: RCD-...Z



Water: 3 – 27 L/min ... 300 – 2300 L/min
Air: 6 – 42 m³/h ... 500 – 2800 m³/h
t_{max} 100 °C; p_{max} PN 40
Connection: G 1/2"...3, 1/2"...3 NPT female
Accuracy: ± 3 % of full scale

Venturi Nozzle - Differential Pressure
Aluminium-bronze, stainless steel

Model: RCD-...C3



Water: 3 – 27 L/min ... 300 – 2300 L/min
Air: 6 – 42 m³/h ... 500 – 2800 m³/h
t_{max} 100 °C; p_{max} PN 40
Connection: G 1/2"...3, 1/2"...3 NPT female
Accuracy: ± 3 % of full scale



**Orifice Differential Pressure Flowmeter**

Aluminium-bronze, stainless steel
Model: RCD-...K



Water: 3 – 27 L/min ... 300 – 2300 L/min
Air: 6 – 42 m³/h ... 500 – 2800 m³/h
t_{max} 100 °C; p_{max} PN 40
Connection: G 1/2...3, 1/2...3 NPT female
Accuracy: ± 3 % of full scale

Electromagnetic - Switch
PPS/Stainless steel, PVDF/Hastelloy
Model: MIK-...S3

High Quality - Low Cost



Water: 10 – 500 mL/min ... 40 – 800 L/min
t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/2...2 1/4 male thread
Accuracy: ± 2 % of full scale

Electromagnetic - Analogue Output
PPS/Stainless steel, PVDF/Hastelloy
Model: MIK-...L4 with AUF

High Quality - Low Cost



Water: 10 – 500 mL/min ... 40 – 800 L/min
t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/2...2 1/4 male thread
Accuracy: ± 2 % of full scale

Electromagnetic - Pulse Output
PPS/Stainless steel, PVDF/Hastelloy
Model: MIK-...F3

High Quality - Low Cost



Water: 10 – 500 mL/min ... 40 – 800 L/min
t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/2...2 1/4 male thread
Accuracy: ± 2 % of full scale

Electromagnetic - Compact Electronics
PPS/Stainless steel, PVDF/Hastelloy
Model: MIK-...C3

High Quality - Low Cost



Water: 10 – 500 mL/min ... 40 – 800 L/min
t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/2...2 1/4 male thread
Accuracy: ± 2 % of full scale

Electromagnetic - Counter
PPS/Stainless steel, PVDF/Hastelloy
Model: MIK-...E

High Quality - Low Cost



Water: 10 – 500 mL/min ... 40 – 800 L/min
t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/2...2 1/4 male thread
Accuracy: ± 2 % of full scale

Electromagnetic - Dosing Electronics
PPS/Stainless steel, PVDF/Hastelloy
Model: MIK-...G

High Quality - Low Cost



Water: 10 – 500 mL/min ... 40 – 800 L/min
t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/2...2 1/4 male thread
Accuracy: ± 2 % of full scale

Electromagnetic - Insertion
Stainless steel, PTFE- or PFA-lining
Model: PIT



Water: 0 – 10 m/s
t_{max} 150 °C; p_{max} PN 40
Connection: flange DN 40...80, ANSI 2" ... 3"
Accuracy: ± 1,5% of reading ± 0,5% of full scale

Electromagnetic - Insertion
Stainless steel, PTFE- or PFA-lining
Model: PIT-U



Water: 0 – 10 m/s
t_{max} 100 °C; p_{max} PN 40
Connection: flange DN 40...80, ANSI 2" ... 3"
Accuracy: ± 1,5% of reading ± 0,5% of full scale

Electromagnetic Meter
Lining: hard rubber, soft rubber, Wagunit, PTFE
Model: DMH



Water: 0 – 0,4 m³/h ... 0 – 2500 m³/h
t_{max} 150 °C; p_{max} PN 40
Connection: flange DN 15...300, ANSI 1/2" ... 12"
Accuracy: ± 0,3% of reading ± 0,01% x Q_{max}

Electromagnetic for Partly Filled Systems
Stainless steel, plastic
Model: DUW



Water: 0 – 6 m/s
t_{max} 50 °C
Accuracy: ± 1 % of reading

Vortex - Switch
PPS/Brass, PPS/Stainless steel
Model: DVZ-...S3

High Quality - Low Cost



Water: 0,5 – 4,5 L/min ... 10 – 100 L/min
t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/4 ... 1, 1/4 ... 1 NPT
Accuracy: ± 2,5 % of full scale



Flowmeters/ Switches

Vortex - Analogue Output
PPS/Brass, PPS/Stainless steel
Model: DVZ-...L

High Quality - Low Cost



Water: 0,5 – 4,5 L/min ... 10 – 100 L/min
 t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/4 ... 1, 1/2 ... 1 NPT
Accuracy: \pm 2,5 % of full scale

Vortex - Analogue Output
PPS/Brass, PPS/Stainless steel
Model: DVZ-...L4 with AUF

High Quality - Low Cost



Water: 0,5 – 4,5 L/min ... 10 – 100 L/min
 t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/4 ... 1, 1/2 ... 1 NPT
Accuracy: \pm 2,5 % of full scale

Vortex - Pulse Output
PPS/Brass, PPS/Stainless steel
Model: DVZ-...F3

High Quality - Low Cost



Water: 0,5 – 4,5 L/min ... 10 – 100 L/min
 t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/4 ... 1, 1/2 ... 1 NPT
Accuracy: \pm 2,5 % of full scale

Vortex - Compact Electronic
PPS/Brass, PPS/Stainless steel
Model: DVZ-...C3

High Quality - Low Cost



Water: 0,5 – 4,5 L/min ... 10 – 100 L/min
 t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/4 ... 1, 1/2 ... 1 NPT
Accuracy: \pm 2,5 % of full scale

Vortex - Counter
PPS/Brass, PPS/Stainless steel
Model: DVZ-...E

High Quality - Low Cost



Water: 0,5 – 4,5 L/min ... 10 – 100 L/min
 t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/4 ... 1, 1/2 ... 1 NPT
Accuracy: \pm 2,5 % of full scale

Vortex - Dosing Electronic
PPS/Brass, PPS/Stainless steel
Model: DVZ-...G

High Quality - Low Cost



Water: 0,5 – 4,5 L/min ... 10 – 100 L/min
 t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/4 ... 1, 1/2 ... 1 NPT
Accuracy: \pm 2,5 % of full scale

Vortex - Meter
Stainless steel
Model: PWL



Air: 3 – 23 m³/h ... 1562 – 18350 m³/h
 t_{max} 400 °C; p_{max} PN 40
Connection:
flange DN 15...300, ANSI 1/2" ... 12"
Accuracy: \pm 1 % of reading

Oscillation - Meter/Switch
Cast iron, steel, stainless steel
Model: DOG-1



Air: 0,2 – 20 m³/h ... 160 – 16000 m³/h
 t_{max} 120 °C; p_{max} PN 40
Connection:
Flange DN 25...400, ANSI 1" ... 16"
Accuracy: \pm 1,5 % of reading

Oscillation - Meter/Switch
Cast iron, steel, stainless steel
Model: DOG-3



Air: 0,4 – 20 m³/h ... 400 – 20000 m³/h
 t_{max} 120 °C; p_{max} PN 40
Connection:
Within flange DN 25...400, ANSI 1" ... 16"
Accuracy: \pm 1,5 % of reading

Oscillation - Meter/Switch
Cast iron, steel, stainless steel
Model: DOG-2



Water: 0,075 – 3,75 m³/h ...
70 – 3500 m³/h
 t_{max} 120 °C; p_{max} PN 40
Connection:
flange DN 25...400, ANSI 1" ... 16"
Accuracy: \pm 0,5 % of reading

Ultrasonic - Switch
Brass, stainless steel
Model: DUK-...S3

High Quality - Low Cost



Water: 0,08 – 20 L/min ... 2,5 – 630 L/min
 t_{max} 90 °C; p_{max} 10 bar
Connection: G 1/2 ... 3 female thread
Accuracy: \pm 1,5 % of full scale

Ultrasonic - Analogue Output
Brass, stainless steel
Model: DUK-...L4 with AUF

High Quality - Low Cost



Water: 0,08 – 20 L/min ... 2,5 – 630 L/min
 t_{max} 90 °C; p_{max} 10 bar
Connection: G 1/2 ... 3 female thread
Accuracy: \pm 1,5 % of full scale





Ultrasonic - Pulse Output
Brass, stainless steel
Model: DUK-...F3

High Quality - Low Cost



Water: 0,08 – 20 L/min ... 2,5 – 630 L/min
 t_{max} 90 °C; p_{max} 10 bar
Connection: G ½...3 female thread
Accuracy: ± 1,5 % of full scale

Ultrasonic - Compact Electronics
Brass, stainless steel
Model: DUK-...C3

High Quality - Low Cost



Water: 0,08 – 20 L/min ... 2,5 – 630 L/min
 t_{max} 90 °C; p_{max} 10 bar
Connection: G ½...3 female thread
Accuracy: ± 1,5 % of full scale

Ultrasonic - Counter/Dosing
Brass, stainless steel
Model: DUK-...E,G

High Quality - Low Cost



Water: 0,08 – 20 L/min ... 2,5 – 630 L/min
 t_{max} 90 °C; p_{max} 10 bar
Connection: G ½...3 female thread
Accuracy: ± 1,5 % of full scale

Ultrasonic - Digital Display
Brass, stainless steel
Model: DUK-...K

High Quality - Low Cost



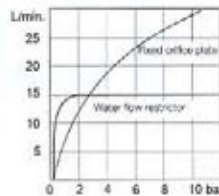
Water: 0,08 – 20 L/min ... 2,5 – 630 L/min
 t_{max} 90 °C; p_{max} 10 bar
Connection: G ½...3 female thread
Accuracy: ± 1,5 % of full scale

Ultrasonic Clamp-On - Meter
Model: DUM



Water: 0 – 20 m/s
 t_{max} 200 °C
Connection:
flange DN 10...80, ANSI ½"...3"
Accuracy: ± 1 – 3 % of reading

Flow Regulators
Brass, stainless steel
Model: REG



Viscosity range: 1 – 30 mm²/s
Flow rates: 0,5 – 40 L/min
 t_{max} 300 °C; p_{max} 200 bar
Connection: G ½, G ¾, ¾ NPT

Flow Regulators - Multiple Element
Brass, stainless steel
Model: REG-8



Viscosity range: 1 – 30 mm²/s
Flow rates: 1 – 280 L/min
 t_{max} 300 °C; p_{max} 200 bar
Connection: flange DN 20...50

Flow Regulators - Multiple Element
Brass, stainless steel
Model: REG-9



Viscosity range: 1 – 30 mm²/s
Flow rates: 1 – 280 L/min
 t_{max} 300 °C; p_{max} 200 bar
Connection: G 1½...G 2½

Flow Indicator with Rotor
Brass, stainless steel
Model: DAA, DAH



Water: 0,4 – 4 L/min ... 8 – 100 L/min
 t_{max} 100 °C; p_{max} 16 bar
Connection: G ½...1½, ¾...1½ NPT female

Flow Indicator with Rotor
Grey cast iron, cast steel, stainless steel
Model: DAR-1



t_{max} 260 °C; p_{max} 40 bar
Connection: G ¾...2, ¾...2 NPT female

Flow Indicator with Rotor
Grey cast iron, cast steel, stainless steel
Model: DAR-2



t_{max} 260 °C; p_{max} 40 bar
Connection:
flange DN 15...200, ANSI ½"...8"

Flow Indicator with Rotating Vane
Brass, stainless steel
Model: DAF-1



Water: 0,03 – 0,1 L/min ... 5 – 150 L/min
 t_{max} 110 °C; p_{max} 16 bar
Connection: G ½...1½, ¾...1½ NPT female





Flow Indicators

Flow Indicator with Rotor
Brass, stainless steel
Model: DAF-2



Water: 0,03 – 0,1 L/min ... 5 – 150 L/min
 t_{max} 110 °C; p_{max} 16 bar
Connection: flange DN 15...50, ANSI ½" ... 2"

Flow Indicator with Rotor
Brass
Model: DKF



Water: 0,14 – 2 L/min ... 1,8 – 83 L/min
 t_{max} 120 °C; p_{max} 6 bar
Connection: G ¼"...1, ½"...1 NPT female

Flow Indicator with Rotor
Brass, stainless steel, POM, PVDF
Model: DIH



Water: 0,2 – 0,5 L/min ... 1 – 50 L/min
 t_{max} 80 °C; p_{max} 16 bar
Connection: G ¾, G 1 female thread, ¾ NPT, 1 NPT

Flow Indicator with Rotor
PP, aluminium-bronze, stainless steel
Model: DIG



Water: 0,5 – 12 L/min ... 3 – 80 L/min
 t_{max} 80 °C; p_{max} 16 bar
Connection: G ¾"...1, ½"...1 NPT female

Flow Indicator with Flap
Grey cast iron, cast steel, stainless steel
Model: DAK-1



t_{max} 280 °C; p_{max} 40 bar
Connection: G ¾"...2, ½"...2 NPT female

Flow Indicator with Flap
Grey cast iron, cast steel, stainless steel
Model: DAK-2



t_{max} 280 °C; p_{max} 40 bar
Connection: flange DN 15...200, ANSI ½" ... 8"

Flow Indicator with Flap
Red cast iron
Model: DAZ



Water: 2,1 – 17 L/min ... 2,1 – 24 L/min
 t_{max} 200 °C; p_{max} 16 bar
Connection: G ½"...1 female thread

Flow Indicator with Ball
Bronze
Model: DAB



t_{max} 100 °C; p_{max} 6 bar
Connection: G ¾"...3 female thread

Flow Indicator with Ball
Brass
Model: DKB



Water: 0,05 – 15 L/min ... 0,14 – 105 L/min
 t_{max} 120 °C; p_{max} 6 bar
Connection: G ¾"...1, ½"...1 NPT female

Flow Indicator with Drip Tube
Grey cast iron, cast steel, stainless steel
Model: DAT-1



t_{max} 280 °C; p_{max} 40 bar
Connection: G ¾"...2, ½"...2 NPT female

Flow Indicator with Drip Tube
Grey cast iron, cast steel, stainless steel
Model: DAT-2



t_{max} 280 °C; p_{max} 40 bar
Connection: flange DN 15...200, ANSI ½" ... 8"

Flow Indicator - Sight Glass
Stainless Steel, PVC
Model: UFJ



Connection: G ¾" ... G 2" female
 t_{max} 100 °C; p_{max} 10 bar



Pressure Gauges

Bourdon Tube Pressure Gauges
Brass, stainless steel
Model: MAN-R,-Q



Measuring range:
-1 ... 0 bar ... 0 ... +1000 bar
Housing: Ø 63, 100, 160 mm
Overload protected: 1,15-1,3 times
Connection: G ¼, G ½ male thread
Accuracy: Cl. 1,0; 1,6

All Stainless Steel Bourdon Tube Pressure Gauges
Stainless steel
Model: MAN-R



Measuring range:
-1 ... 0 bar ... 0 ... +1000 bar
Housing: Ø 63, 100, 160 mm
Overload protected: 1,15-1,3 times
Connection: G ¼, G ½ male thread
Accuracy: Cl. 1,0; 1,6

All Stainless Steel Bourdon Tube Pressure Gauges for Exceptional Safety
Stainless steel
Model: MAN-R...S



Measuring range:
-1 ... 0 bar ... 0 ... +600 bar
Housing: Ø 63, 100, 160 mm
Overload protected: 1,15-1,3 times
Connection: G ¼, G ½ male thread
Accuracy: Cl. 1,0; 1,6

Bourdon Tube - Refrigeration
Brass, stainless steel
Model: MAN-T



Measuring range:
-1 ... +9 bar ... -1 ... +40 bar
Housing: Ø 63, 80, 100 mm
Overload protected: 1,0 times
Connection: 7/16-20 UNF, G ¼ male
Accuracy: Cl. 1,0; 1,6

Capsule Element Pressure Gauges
Brass, stainless steel
Model: MAN-K



Measuring range:
-10 ... 0 bar ... 0 ... +600 bar
Housing: Ø 63, 80, 100, 160 mm
Overload protected: 0,9-10 times
Connection: G ¼, G ½ male thread
Accuracy: Cl. 1,6

Diaphragm Pressure Gauges
Stainless steel
Model: MAN-P



Measuring range:
-16 ... 0 mbar; 0 ... +40 bar
Housing: Ø 100, 160 mm
Overload protected: 1,15-1,3 times
Connection: G ½ male thread, open flange
Accuracy: Cl. 1,6

All Stainless Steel Pressure Transducer
Stainless steel
Model: MAN-ZF



Measuring range:
-1 ... 0 bar ... 0 ... +600 bar
Housing: Ø 100 mm
Overload protected: 0,9-1,0 times
Connection: G ¼ male thread
Accuracy: Cl. 1,0

Pressure Gauges Digital with Ceramic Sensor Element, Battery Powered
Stainless steel/PA glass fibre reinforced
Model: MAN-SD



Measuring range:
-1 ... 0 bar ... 0 ... +1600 bar
Display: LC-Display
Overload protected: 1,3-3 times
Connection:
G ¼, G ½, ¼ NPT, ½ NPT male
Accuracy: Cl. 0,5

Pressure Gauges Digital with Ceramic Sensor Element
Stainless steel/PA glass fibre reinforced
Model: MAN-LD



Measuring range:
-1 ... 0 bar ... 0 ... +1600 bar
Display: LC-Display
Overload protected: 1,3-3 times
Connection:
G ¼, G ½, ¼ NPT, ½ NPT male thread
Accuracy: Cl. 0,5

Pressure Gauges with Ceramic/Thin Film Cell
Stainless steel
Model: PDC



Measuring range:
0 ... +2 bar ... 0 ... +700 bar
Display: 2 x 4½-digit LCD, illuminated
Overload protected:
2 times - max. 1000 bar
Connection: G ¼, ¼ NPT male thread
Accuracy: ± 0,5 % of full scale ... ± 1 Digit

Pressure Gauges Digital with Ceramic Sensor Element
Stainless steel/PA glass fibre reinforced
Model: MAN-SF26



Measuring range:
-1 ... 0 bar ... 0 ... +1600 bar
Display: 4-digit LED
Overload protected: 2 times
Connection: G ½ male thread
Accuracy: Cl. 0,5

U-Pipe Pressure Gauges
Glass
Model: PUM



Measuring range:
0 ... +50 mbar ... 0 ... +100 mbar
Scale division: 2 mm
Hose connection: Ø 10 mm
Overload protected: 1,0 times
Accuracy: ± 0,2 mbar





Pressure Measurement

Differential Pressure Gauge Digital with Ceramic Sensor Element

Stainless steel/
PA glass fibre reinforced
Model: MAN-BF26



Measuring range:
-1 ... 0 bar ... 0 ... +1600 bar
Display: 4-digit LED
Overload protected: 2 times
Connection: G 1/2 male thread
Accuracy: Cl. 0,5

Differential Pressure Gauge Digital with Ceramic Sensor Element

Stainless steel/
PA glass fibre reinforced
Model: MAN-BF20



Measuring range:
-1 ... 0 bar ... 0 ... +1600 bar
Display: 4-digit LED
Overload protected: 2 times
Connection: G 1/2 male thread
Accuracy: Cl. 0,5

Differential Pressure Gauge Digital with Ceramic Sensor Element

Stainless steel/
PA glass fibre reinforced
Model: MAN-BF28V



Measuring range:
-1 ... 0 bar ... 0 ... +1600 bar
Display: 4-digit LED
Overload protected: 2 times
Connection: G 1/2 male thread
Accuracy: Cl. 0,5

Differential Pressure Gauge with Bourdon Tube

Brass, stainless steel
Model: MAN-DF, -DG



Measuring range:
0,1 ... +0,3 bar ... 0 ... +600 bar
Overload protected:
1,3 times - (short time)
Connection: G 1/2 male thread
Accuracy: Cl. 1,6

Differential Pressure Gauge with Bourdon Tube

Aluminium, steel
Model: MAN-DG12R



Measuring range:
0 ... +1 bar ... 0 ... +60 bar
Housing: Ø 160 mm
Overload protected:
1,3 times - (short time)
Connection: G 1/2 male thread
Accuracy: Cl. 1,6

Differential Pressure Gauge with Diaphragm

Aluminium
Model: MAN-Dx2A



Measuring range:
0 ... +25 mbar ... 0 ... +25 bar
Housing: Ø 100, 160 mm
Connection: G 1/2 female thread
Accuracy: Cl. 1,6

Differential Pressure Gauge with Diaphragm

Stainless steel
Model: MAN-Dxx5



Measuring range:
0 ... +16 mbar ... 0 ... +25 bar
Housing: Ø 100, 160 mm
Connection: G 1/2 female thread
Accuracy: Cl. 1,6

Differential Pressure Gauge with Diaphragm

Stainless steel
Model: MAN-DF2G, -DG2G



Measuring range:
0 ... +60 mbar ... 0 ... +40 bar
special versions up to PN 400
Housing: Ø 100, 160 mm
Connection: G 1/2 female thread
Accuracy: Cl. 1,6

Hand-Held Pressure Measuring Device for Differential Pressure for 2 External Sensors

Model: HND-P215



Measuring range: -2,5 mbar ... +400 bar
depending on sensor
Option: logger, alarm, control function
Accuracy: ± 0,1 % of full scale

Hand-Held Pressure Measuring Device for Differential Pressure for 2 Integrated Sensors

Model: HND-P126, -P236



Measuring range: -100 ... +2000 mbar
Option: logger, alarm
Accuracy: ± 0,2 % of full scale

Differential Pressure Sensor

Model: PMP



Measuring range: 0 ... +50 mbar
Power supply: 24 V_{DC}, 110 V_{AC}, 230 V_{AC}
Display: 4-digit LED
Connection: hose connection 6 x 8 mm

Differential Pressure Transmitter

Stainless steel, Monel, tantalum, Hastelloy
Model: PAD

High Quality - Low Cost



Measuring range: +0,0075 ... +11370 kPa
Power supply: 18-45 V_{DC}
Connection: 1/4 NPT, 1/2 NPT
Accuracy: ± 0,075% of measuring range



Pressure Measurement

Pressure Transmitter for Harsh Conditions

Brass
Model: PNK



Measuring range:
-1 ... 0 bar ... 0 ... +100 bar
Overload protection: 1,6 times
Connection: M16x1,5 with sealing cone,
Adapter: R ¼, R ½, ½ NPT male thread
Accuracy: ± 1 % of full scale

Test Pressure Gauge with Bourdon Tube

Aluminium
Model: MAN-F



Measuring range:
-0,6 ... 0 bar ... 0 ... +2500 bar
Housing: Ø 160, 250 mm
Overload protected: 1,0 times – (calm)
Connection: G ½ male thread
Accuracy: Cl. 0,25; 0,6

Test Pressure Gauge with Bourdon Tube in Case

Stainless steel
Model: MAN-FG1B



Measuring range:
-0,6 ... 0 bar ... 0 ... +600 bar
Housing: Ø 160, 250 mm
Overload protected: 1,0 times – (calm)
Connection: M20x1,5
Accuracy: Cl. 0,6

Pressure Gauge with Membrane Diaphragm Seal

Stainless steel
Model: MAN-RF...D



Measuring range:
-1 ... +3 bar ... 0 ... +40 bar
Housing: Ø 100 mm
Overload protected: 1,3 times
Connection: flange Ø 85 mm
Accuracy: Cl. 1,6

Diaphragm, Capsule, and Inline Diaphragm Seals for Pressure Gauges

Stainless steel, special material on request
Model: DRM



Measuring range:
0 ... +1 bar ... 0 ... +1600 bar
Filling:
glycerine, paraffin- and silicone oil
diverse thread and flange connection,
Tri-Clamp, DIN 11851, SMS- and IDF-Norm
Accuracy: Cl. 1,6

All Stainless Steel Bourdon Tube Pressure Gauge with Membrane Diaphragm

Stainless steel
Model: MAN-RD...DRM-600



Measuring range:
0 ... +6 bar ... 0 ... +1600 bar
Housing: Ø 63 mm
Connection:
G / NPT-thread; M 20x1,5; M 48x3
Accuracy: Cl. 1,6

Contact Pressure Gauges with Membrane Diaphragm Seal

Stainless steel
Model: MAN-RF...M...DRM-601



Measuring range:
0 ... +6 bar ... 0 ... +1600 bar
Housing: Ø 100 mm
Connection: G ½...1½ male thread
Accuracy: Cl. 1,6

Pressure Gauge with Diaphragm Seal DIN 11851 and Cool. Element

Stainless steel
Model: MAN-RF...MZB-711...DRM-602



Measuring range:
0 ... +1 bar ... 0 ... +40 bar
Housing: Ø 100 mm
Connection: DIN 11851 DN 20...100
Accuracy: Cl. 1,6

All Stainless Steel Pressure Gauge with Membrane Diaphragm

Stainless steel
Model: MAN-RF...M1...DRM-628



Measuring range:
0 ... +1 bar ... 0 ... +40 bar
Housing: Ø 100, 160 mm
Connection: flange DN 25...100
Accuracy: Cl. 1,6

All Stainless Steel Pressure Gauge with Membrane Diaphragm

Stainless steel
Model: MAN-RF...M1...DRM-620



Measuring range:
0 ... +1 bar ... 0 ... +40 bar
Housing: Ø 100, 160 mm
Connection: flange DN 25...100
Accuracy: Cl. 1,6

All Stainless Steel Pressure Gauge with In-Line Diaphragm

Stainless steel
Model: MAN-RF...DRM-502



Measuring range:
+1,6 ... +40 bar ... +2,5 ... +40 bar
Connection: Tri-Clamp ½"...2",
hygienic connection ISO DN 15...50
Accuracy: Cl. 1,6

Contact Pressure Gauge with Membrane Diaphragm Seal DIN 11851

Stainless steel
Model: MAN-RF...M21...DRM-602



Measuring range:
0 ... +1 bar ... 0 ... +40 bar
Connection:
Union nut DIN 11851 DN 20...100
Accuracy: Cl. 1,6



Pressure Measurement/ Monitoring

Pressure Gauge with Membrane Diaphragm Seal, DIN 11851

Stainless steel

Model: MAN-RF...DRM-603



Measuring range:
0 ... +1 bar ... 0 ... +40 bar
Connection:
Union nut DIN 11851 DN 25...100
Accuracy: Cl. 1,6

Pressure Gauge with Diaphragm Seal Clamp Connection

Stainless steel

Model: MAN-RF...DRM-613



Measuring range:
0 ... +2,5 bar ... 0 ... +10 bar
Housing: Ø 100 mm
Connection: Tri-Clamp 1" ... 3"
Accuracy: Cl. 1,6

Pressure Gauges with Diaphragm for PCB Manufacture

PVC

Model: MAN...



Measuring range:
0 ... +1 bar ... 0 ... +25 bar
Connection: G 1/4 male thread
Accuracy: Cl. 1,6

Digital Pressure Gauges with Diaphragm Seals for Homogenizing Machines

Stainless steel

Model: MAN-SD...DRM-189



Measuring range:
0 ... +100 bar ... 0 ... +1000 bar
Membrane: flush mounted
Connection: for block flange
Accuracy: Cl. 1,6

Digital Pressure Gauges with Diaphragm Seals for Homogenizing Machines

Stainless steel

Model: SEN...DRM-189...AUF



Measuring range:
0 ... +100 bar ... 0 ... +600 bar
Membrane: flush mounted
 t_{max} 100°C
Connection: for block flange
Accuracy: Cl. 1,0

Digital Pressure Gauges with Diaphragm Seals for Homogenizing Machines

Stainless steel

Model: MAN-SF...DRM-189



Measuring range:
0 ... +100 bar ... 0 ... +600 bar
Housing: Ø 100 mm
Membrane: flush mounted
Display: 4-digit, green LED display
 t_{max} 100°C
Connection: for block flange
Accuracy: Cl. 1,0

Digital Pressure Gauge with Membrane Diaphragm Seal PVC

Model: MAN-SD...DRM-630



Measuring range:
0 ... +1,6 bar ... 0 ... +10 bar
Housing: Ø 74 mm
Connection: G 1/4, G 1/2, 1/2 NPT IG
Accuracy: Cl. 1,0

Pressure Sensor with Membrane Diaphragm Seal PP

Polypropylene

Model: SEN...DRM-631



Measuring range:
0 ... +1,6 bar ... 0 ... +10 bar
Connection: G 1/4, G 1/2, 1/2 NPT female
Accuracy: Cl. 1,6

Pressure Gauge with Membrane Diaphragm Seal

PVDF

Model: MAN-RD...DRM-632



Measuring range:
0 ... +1,6 bar ... 0 ... +16 bar
Housing: Ø 63 mm
Connection: G 1/4, G 1/2, 1/2 NPT female
Accuracy: Cl. 1,6

Pressure Sensor with Diaphragm Seal and AUF

Stainless steel

Model: SEN...DRM-600



Measuring range:
0 ... +6 bar ... 0 ... +600 bar
 t_{max} 70°C
Connection: G 1/2 male thread ...
G 1 1/2 male, stainless steel
Accuracy: Cl. 1,0

Pressure Sensor with Plug-on Display and Process Assembly

Brass, Stainless steel

Model: SEN-86 with AUF, KUG-S



Measuring range:
-1 ... 0 bar ... 0 ... +600 bar
Overload protected: 1,5-2 times
Connection: G 1/2 male thread
Accuracy: Cl. 0,5; 1,0

Pressure Sensor with Ceramic Cell

Stainless steel

Model: PDA



Measuring range:
-1 ... 0 bar ... 0 ... +400 bar
Display: 3-digit LED
Connection: G 1/4, G 1/2, 1/2 NPT,
1/2 NPT male thread
Accuracy: ± 0,5 - 1 % of full scale

Pressure Measurement/
Monitoring**Pressure Switch with Ceramic Cell**Stainless Steel
Model: PDDMeasuring range:
-1 ... 0 bar ... 0 ... +400 bar
Display: 3-digit LED
Connection:
G 1/4, G 3/8, 1/4 NPT, 1/2 NPT male thread
Accuracy: $\pm 0,5 - 1\%$ of full scale**Pressure Transmitter**

Stainless Steel, Hastelloy-C, Tantalum

Model: PAS

Measuring range: -1 ... +600 bar
Power supply: 11,9 - 45 VDC
Connection: 1/4 NPT IG, 1/2 NPT IG
Accuracy: $\pm 0,075\%$ of full scale**Electronic Pressure Switch - Thin Film/Ceramic**Stainless Steel
Model: PSCMeasuring range:
-1 ... +2 bar ... 0 ... +700 bar
Display: 4-digit LED
Connection:
G 1/4, G 3/8, 1/4 NPT, 1/2 NPT male thread
Accuracy: $\pm 1\%$ of full scale ... ± 1 Digit**Pressure Sensor with Ceramic Cell and Plug-On Display AUF**Stainless Steel
Model: SEN-86 with AUFMeasuring range:
-1 ... 0 bar ... 0 ... +600 bar
Display: 4-digit LED
Overload protected: 1,5-2 times
Connection: G 1/4 male thread
Accuracy: Cl. 0,5; 1,0**Pressure Sensor with Ceramic Cell and Plug-On Display AUF**Stainless Steel
Model: SEN-87 with AUFMeasuring range:
-1 ... 0 bar ... 0 ... +600 bar
Display: 4-digit LED
Overload protected: 1,5-2 times
Connection: G 1/4 male thread
Accuracy: Cl. 0,5; 1,0**Pressure Sensor Compact Piezoresistive**Stainless Steel
Model: SEN-3297Measuring range:
0 ... +1 bar ... 0 ... +6 bar
Membrane: internal
Overload protected: 2 times
Connection: G 1/4 male thread
Accuracy: Cl. 1,0**Pressure Sensor Compact Piezoresistive**Stainless Steel
Model: SEN-3247,-3249Measuring range:
-1 ... 0 bar ... 0 ... +25 bar
Membrane: internal
Overload protected: 2-3,5 times
Connection: G 1/4 male thread
Accuracy: $\pm 0,5 - 1\%$ of full scale**Pressure Sensor Industrial Piezoresistive**Stainless Steel
Model: SEN-3276,-3277Measuring range:
-1 ... 0 bar ... 0 ... +25 bar
Membrane: internal
Overload protected: 2-3,5 times
Connection: G 1/4 male thread
Accuracy: $\pm 0,25 - 0,5\%$ of full scale**Pressure Sensor Industrial Piezoresistive**Stainless Steel
Model: SEN-3245,-3248Measuring range:
0 ... +0,25 bar ... 0 ... +16 bar absolute
Membrane: internal
Overload protected: 3,5 times
Connection: G 1/4 male thread
Accuracy: $\pm 0,25 - 0,5\%$ of full scale**Pressure Sensor Industrial Piezoresistive - Flush Mounted**Stainless Steel
Model: SEN-3251,-3252Measuring range:
-1 ... 0 bar ... 0 ... +25 bar
Membrane: flush mounted
Overload protected: 2-3,5 times
Connection: G 1/4, G 1 male thread
Accuracy: $\pm 0,25 - 0,5\%$ of full scale**Pressure Sensor Industrial Piezoresistive - Flush Mounted**Stainless Steel
Model: SEN-3255,-3256Measuring range:
0 ... +0,25 bar ... 0 ... +16 bar absolute
Membrane: flush mounted
Overload protected: 3,5 times
Connection: G 1/4, G 1 male thread
Accuracy: 0,25 - 0,5 % of full scale**Pressure Sensor Compact Thin Film**Stainless Steel
Model: SEN-3397Measuring range:
0 ... +10 bar ... 0 ... +600 bar
Membrane: internal
Overload protected: 2 times
Connection: G 1/4 male thread
Accuracy: Cl. 1,0



Pressure Measurement/ Monitoring

Pressure Sensor Compact Thin Film

Stainless steel
Model: SEN-3349, -3373



Measuring range:
0 ... +40 bar ... 0 ... +1000 bar
Membrane: internal
Overload protected: 1,5-3 times
Connection: G 1/4 male thread
Accuracy: Cl. 0,5; 1,0

Press. Sensor Industrial Thin Film

Stainless steel
Model: SEN-3376, -3377



Measuring range:
0 ... +40 bar ... 0 ... +1000 bar
Membrane: Internal
Overload protected: 1,5-3 times
Connection: G 1/4 male thread
Accuracy: Cl. 0,25; 0,5

Pressure Sensor Precision Piezoresistive/Thin Film

Stainless steel
Model: SEN-3382



Measuring range:
-1 ... 0 bar ... 0 ... +1000 bar
Membrane: internal
Overload protected: 1,5-3 times
Connection: G 1/4 male thread
Accuracy: Cl. 0,1

Pressure Sensor Piezoresistive/Thin Film - Flush Mounted

Stainless steel
Model: SEN-3344, -3386



Measuring range:
0 ... +40 bar ... 0 ... +600 bar
Membrane: flush mounted
Overload protected: 2 times
Connection: G 1/4 male thread
Accuracy: Cl. 0,25; 0,5

Pressure Hand-Held Unit for External Sensors

Model: HND-P105



Measuring range:
-1,99 ... +2,5 mbar ... 0 ... +400 bar
(sensor dependent)
Accuracy: $\pm 0,1\%$ of full scale

Pressure Hand-Held Unit for External Sensors

Model: HND-P210, -215



Measuring range:
-1,99 ... +2,5 mbar ... 0 ... +400 bar
(sensor dependent)
Option: logger, alarm, control function
Accuracy: $\pm 0,1\%$ of full scale

Differential Pressure Hand-Held Unit with 2 Integrated Sensors

Model: HND-P121, -123, 126



Measuring range:
-1 ... +25 mbar ... -100 ... +2000 mbar
Option: logger, alarm, control function
Accuracy: $\pm 0,2\%$ of full scale

Pressure Hand-Held Unit with 1 Integrated Sensor

Model: HND-P129, -239



Measuring range: 0 ... +1300 mbar
Option: logger, alarm, control function
Accuracy: 0,2 % of full scale

Pressure Switch with Hall Sensor

Brass/plastic
Model: PDL-0



Switching range:
-0,9 ... -0,05 bar ... 2,5 ... 25 bar
Switching function: N/O/N/C
Connection: G 1/4, 1/4 NPT male thread
Repeatability: < 1% of full scale

Pressure Switch with Hall Sensor

Brass/plastic
Model: PDL-1



Switching range:
0 ... +57 bar ... +30 ... +600 bar
Switching function: N/O/N/C
Connection: G 1/4, 1/4 NPT male thread
Repeatability: < 1% of full scale

Pressure Gauges Accessories

Brass, steel, stainless steel
Model: MZB



Shut off cocks and valves,
syphons, trottle and overpressure
protection equipment, adapters

Sandwich Plug-On Display

Model: AUF



Input: 4-20 mA loop powered
Option: Open-Collector
No additional power supply required



Level Switches

Float Magnet Switch

Brass, stainless steel, PVC, PPH, PVDF, PTFE

Model: N

Density: 0,5 kg/dm³
t_{max} 150 °C; p_{max} 100 bar
Connection: G ½ ... 2 male thread**Float Magnet Switch**

Brass, stainless steel, PVC, PP

Model: NS

Density: 0,6 kg/dm³
t_{max} 150 °C; p_{max} 100 bar
Connection: G ½ male thread**Float Bypass Switch**

Aluminium, stainless steel

Model: NBA/NBE

Density: 0,65 kg/dm³
t_{max} 90 °C; p_{max} 10 bar
Connection: G ¾ female, R ½ male**Plastic Level Switch**

Polypropylene, PVDF

Model: NKP

Density: 0,6 kg/dm³
t_{max} 100 °C; p_{max} 10 bar**Float Switch**

Stainless steel

Model: RFS

Density: 0,7 kg/dm³
t_{max} 120 °C; p_{max} 5 bar
Connection: ½ NPT male thread**Float Switch**

Brass, stainless steel

Model: NV

Density: 0,7 kg/dm³
t_{max} 110 °C; p_{max} 16 bar
Connection: G ¾ male, M27x1,5 male**Float Switch**

Polyethylene, Polypropylene

Model: NSP-S

Density: 0,9 kg/dm³
t_{max} 85 °C; p_{max} 1 bar
Connection: Cable**Float Switch**

Polyethylene, Polypropylene

Model: NSP-K

Density: 0,6 kg/dm³
t_{max} 85 °C; p_{max} 2 bar
Connection: Cable**Float Switch**

Polypropylene

Model: NAB

Density: 0,5 ... 1,15 kg/dm³
t_{max} 85 °C; p_{max} 5 bar
Connection: Cable**Float Switch**

Polypropylene

Model: NSM

Density: 0,6 kg/dm³
t_{max} 95 °C; p_{max} 3 bar
Connection: Cable**Float Switch**

Polypropylene

Model: NEC

Density: 0,7 ... 1,4 kg/dm³
t_{max} 95 °C; p_{max} 5,5 bar
Connection: Cable**Float Switch**

PTFE

Model: NST

Density: 0,79 kg/dm³
t_{max} 150 °C; p_{max} 1 bar
Connection: Cable**Float Switch**

Stainless steel

Model: NSE

Density: 0,8 kg/dm³
t_{max} 150 °C; p_{max} 15 bar
Connection: G ½ male thread**Dual Magnet Float Switch**

Stainless steel

Model: NGS

Density: 0,7 kg/dm³
t_{max} 250 °C; p_{max} 25 bar
Connection: Square box flange, DIN-flange, DN80/100, BSP 2", 2 NPT**Conductive Switch**

Stainless steel, Hastelloy, Titanium, Coating: Polypropylene, PTFE

Model: NES

t_{max} 150 °C; p_{max} 30 bar
Connection: G ¾, G 1 ½ male thread**Conductive Suspended Electrodes**

Stainless steel, Hastelloy, Titanium, Neoprene, PVC

Model: NEH

t_{max} 150 °C; p_{max} 6 bar
Connection: G ¾, G 1 ½ male thread



Level Switches/Transmitters

Conductive Switch § 19 WHG
Stainless steel, Hastelloy, Titanium
Coating: Polypropylene, PTFE
Model: NEW



t_{max} 60 °C; p_{max} atmospheric
Connection: G 1, G 1½ male thread

Conductive Switch
PP, PPS
Model: NEK



t_{max} 85 °C; p_{max} 20 bar
Connection:
G ¾ male thread, ¾ NPT male
Open-Collector or relay

Conductive Switch
Stainless steel, PEEK
Model: LNK



Measuring range: 4 – 1500 mm
 t_{max} 150 °C; p_{max} 10 bar
Connection:
G ¾, G 1 male thread, hygienic
installation system LZE
Open-Collector

Conductive Switch Compact Probe
Stainless steel, PEEK
Model: LNK-K



Measuring range: 4 – 1500 mm
 t_{max} 150 °C; p_{max} 10 bar
Connection: G ¾ male thread, hygienic
installation system LZE
Open-Collector

Electrode Relays for Conductive Switches
Model: NE-104, -304



2 limit contacts or
2 Min/Max control switches
Switch capacity: max. 250 V_{AC},
5 A, 600 VA

Electrode Relay § 19 WHG
Model: NE-204



2 limit contacts or
2 Min/Max control switches
Switch capacity: max. 250 V_{AC},
5 A, 600 VA

Head Mounted Transmitter for Conductive Probes
Model: LNR



t_{max} 80 °C
Open-Collector

Microwave Switch
Stainless steel, PEEK
Model: LNM



t_{max} 100 °C (150 °C for CIP); p_{max} 10 bar
Connection: G ¾, M12x1,5 male thread,
hygienic installation system LZE
Open-Collector

Capacitive Switch Liquids
Stainless steel, PEEK
Model: LNZ



t_{max} 100 °C (150 °C for CIP); p_{max} 10 bar
Connection: G ¾ male thread, hygienic
installation system LZE
Open-Collector

Capacitive Switch Liquids
Stainless steel, PVDF
Model: NCW



t_{max} 90 °C; p_{max} 10 bar
Connection: G 1, G 2 male thread,
Adapter: G 1½, G 1½, round flange,
weld-in sleeve
1 relay, SPDT

Capacitive Switch Liquids - High Temperature
Stainless steel
Model: NCW-H



t_{max} 125 °C; p_{max} 10 bar
Connection: G 1, G 2 male thread,
Adapter: G 1½, G 1½, round flange,
weld-in sleeve
1 relay, SPDT

Ultrasonic Switch Liquids
Stainless steel
Model: NQ-1000



t_{max} 125 °C; p_{max} 70 bar
Connection: R 1 male thread
1 switch output

Optical Switch Liquids
Polypropylene, stainless steel
Model: OPT



t_{max} 80 °C; p_{max} 10 bar
Connection: G ¾, ¾ NPT male thread or
M14 with bulkhead nut
Open-Collector

Vibration Switch Liquids
Stainless steel
Model: NWS



t_{max} 130 °C (150 °C for CIP); p_{max} 50 bar
Viscosity: max. 5000 mm²/s
Connection: R-/NPT-thread, DIN-/ANSI-
flange, Tri-Clamp, milk connection DIN
11851, Aseptic DIN 11864, DRD-flange

Vibration Switch Liquids - Plug Connection
Stainless steel
Model: NWS-...2ES



t_{max} 130 °C (150 °C for CIP); p_{max} 50 bar
Viscosity: max. 5000 mm²/s
Connection: R-/NPT-thread, DIN-/ANSI-
flange, Tri-Clamp, milk connection DIN
11851, Aseptic DIN 11864, DRD-flange

Vibration Switch Liquids - Cable Connection
Stainless steel
Model: NWS-...2F



t_{max} 130 °C (150 °C for CIP); p_{max} 50 bar
Viscosity: max. 5000 mm²/s
Connection:
R-/NPT-thread, DIN-/ANSI-flange,
Tri-Clamp, sanitary connection DIN 11851,
Aseptic DIN 11864, DRD-flange



Level Meter/Transmitters

Vibration Switch - Bulk Materials

Stainless steel

Model: NSV



Switching range: 230 – 3000 mm
 Density: 0,05 kg/dm³
 t_{max} 80 °C; p_{max} atmospheric
 Connection: G 1½ AG
 1 relay, SPDT

Vibration Switch - Bulk Materials

Stainless steel

Model: NVI



Switching range: 235 mm
 Density: 0,05 kg/dm³
 t_{max} 160 °C; p_{max} 25 bar
 Connection: G 1½, 1½ NPT AG
 1 relay, SPDT

Diaphragm Switch - Bulk Materials

Neoprene, FPM, steel, stainless steel

Model: NMF



t_{max} 200 °C; p_{max} 1 bar (over-pressure secure)
 Connection: flange

Pendulum Level Monitor Bulk Materials

Aluminium, EPDM

Model: PLS



Pendulum length up to 2000 mm
 t_{max} 80 °C; p_{max} -0,1 ... 0,5 bar
 Process connection: aluminium flange
 Contact: max. 250 V_{AC}/3A

Rotation Vane Switch - Bulk Materials

Stainless steel

Model: NIR-722-V, -N



Switching range: 120 – 4000 mm
 t_{max} 80 °C; p_{max} 0,5 bar
 Connection:
 G 1 male, Adapter: G 1½, G 1½, round flange, weld-in sleeve
 1 relay, SPDT

Rotation Vane Switch - Bulk Materials

Stainless steel

Model: NIR-8



Switching range: 60 – 4000 mm
 t_{max} 200 °C; p_{max} 0,5 bar
 Connection: G 1 male
 Adapter: G 1½, G 1½, round flange, weld-in sleeve
 1 relay, SPDT

Capacitive Switch - Bulk Materials

Stainless steel, PTFE

Model: NSC



Switching range: 265 – 3000 mm
 t_{max} 80 °C; p_{max} 0,5 bar
 Connection:
 G 1 male, Adapter: G 1½, G 1½, round flange, weld-in sleeve
 1 relay, SPDT

Capacitive Switch - Bulk Materials

PPS

Model: NTS



t_{max} 120 °C; p_{max} 25 bar
 Connection: R 1 male, Adapter: R 1½, G 1½ male
 1 switch output

Float Transducer - Reed Chain

Stainless steel, PVC, PP, PTFE, PE

Model: NM



Measuring range: 300 – 6000 mm
 Density: 0,6 kg/dm³
 t_{max} 130 °C; p_{max} 20 bar
 Connection:
 G ¾ ... 2 male thread, flange DN 50 ... 100
 Accuracy: ±10 mm

Float Transducer - Reed Chain with Transmitter

Stainless steel, PVC, PP, PTFE

Model: NM and ADI



Measuring range: 300 – 6000 mm
 Density: 0,6 kg/dm³
 t_{max} 130 °C; p_{max} 20 bar
 Connection:
 G ¾ ... 2 male, flange DN 50 ... 100
 Accuracy: ±10 mm

Float Magnetostrictive

Stainless steel

Model: NMT



Measuring range: 300 – 4000 mm
 Density: 0,7 kg/dm³
 t_{max} -20 ... +70 °C; p_{max} PN 10
 Connection: G 2, 2 NPT AG
 Analogue output
 Accuracy: ±1 mm

Capacitive Measurement

Stainless steel, PVDF

Model: NMC



Measuring range: 265 – 4000 mm
 t_{max} 125 °C; p_{max} 10 bar PN 10
 Connection: G 1, G 2 male thread, Adapter: G 1½, G 1½, round flange, weld-in sleeve
 Analogue output
 Accuracy: ±2 mm

Potentiometric Measurement

Stainless steel

Model: LNP



Measuring range: 200 – 2000 mm
 t_{max} 120 (150) °C; p_{max} 10 bar
 Connection: G 1, 1 NPT male thread, hygienic installation system LZE
 Analogue output
 Accuracy: ±1 % of full scale

Bypass Glass Gauge

Stainless steel, PP

Model: SZM



Measuring range: 370 – 3080 mm
 t_{max} 0 – 100 °C; p_{max} 6 bar
 Connection: flange DN 15 ... 32

Bypass Ball Indicator

Stainless steel

Model: MBSK



Measuring range: 300 – 6000 mm
 over 6000 mm 2-piece or multipart
 t_{max} 400 °C; p_{max} PN 100
 DIN-/ANSI-flange, R-/NPT-thread
 Accuracy: ±1 mm (transmitter)

Mini Bypass with Roller Indicator

Stainless steel

Model: NBK-M



Measuring range: 200 – 3000 mm
 Density: 0,8 kg/dm³
 t_{max} 200 °C; p_{max} PN 40
 Connection:
 flange DN 10 ... 25, ANSI ½" ... 1"
 Accuracy: ±1 mm (transmitter)



Level Switches/Transmitters

Bypass with Roller Indicator
Stainless steel

Model: NBK-03,-06,-07,-10



Measuring range: 300 – 6000 mm
over 6000 mm 2-piece or multipart
Density: 0,54 kg/dm³
t_{max} 400 °C; p_{max} PN 100
Accuracy: ±1 mm (transmitter)

Bypass with Roller Indicator
Stainless steel

Model: NBK-ATEX,-GL



Measuring range: 300 – 6000 mm
over 6000 mm 2-piece or multipart
Density: 0,54 kg/dm³
t_{max} 400 °C; p_{max} PN 100
Accuracy: ±1 mm (transmitter)

Bypass Over-Top Tank Measurement
Stainless steel

Model: NBK-04



Measuring range: 300 – 4000 mm
Density: 0,43 kg/dm³
t_{max} 120 °C; p_{max} PN 16
Connection:
flange DN 50, 65 ANSI 2", 2½"
Accuracy: ±1 mm (transmitter)

Bypass Over-Top Tank Measurement
Stainless steel

Model: NBK-04 ATEX



Measuring range: 300 – 4000 mm
Density: 0,43 kg/dm³
t_{max} 120 °C; p_{max} PN 16
Connection:
flange DN 50, 65 ANSI 2", 2½"
Accuracy: ±1 mm (transmitter)

Bypass Level Roller Indicator Measurement - Plastic
PP, PVC, PVDF

Model: NBK-15,-16,-17



Measuring range: 200 – 4000 mm
Density: 0,57 kg/dm³
t_{max} 80 °C; p_{max} 4 bar
Connection:
flange DN 20...50, ANSI ¾" ...2"
Accuracy: ±10 mm

Bypass Roller Indicator Low Cost
Stainless steel

Model: NBK-01



Measuring range: 300 – 6000 mm over
6000 mm 2-piece or multipart
Density: 0,54 kg/dm³
t_{max} 400 °C; p_{max} PN 100
Accuracy: ±1 mm (transmitter)

Bypass Roll Measuring Rope
PVC

Model: NBK-19



Measuring range: 0,2 – 4,8 m
Density: 1 kg/dm³
t_{max} 60 °C; p_{max} atmospheric
Accuracy: ±1 mm (transmitter)

Limit Contact for Bypass Measurement
Polycarbonate

Model: NBK-R



t_{max} 100 °C
Switch capacity: 80 W/VA, 230 V_{AC} 1 A

Limit Contact for Bypass Measurement
Aluminium

Model: NBK-RT



t_{max} 400 °C
Switch capacity: 80 VA,
250 V_{AC} 1 A

Limit Contact for Bypass Measurement
Stainless steel

Model: NBK-RA



t_{max} 85 °C
Switch capacity: 45 VA,
230 V_{AC} 0,6 A

Displacement Level Meter
Stainless steel

Model: BA



Measuring range: 300 – 6000 mm
Density: 0,4 kg/dm³
t_{max} 250 °C; p_{max} PN 400
Connection: flange DN 50, ANSI 2"
Analogue output, 2 limit contacts
Accuracy: ± 5 mm

Radar Level Sensor
Stainless steel

Model: NRM



Measuring range: 0,2 – 70 m
t_{max} -60...400 °C; p_{max} 160 bar
Connection: G 1½, 1½ NPT male,
flange DN 50...150, ANSI 2...8"
Analogue output
Accuracy: from ± 3 mm

Ultrasonic Measurement
PVDF

Model: NUS



Measuring range: 0,25 – 8 m (liquids),
up to 3,5 m (bulk materials)
t_{max} 80 °C; p_{max} 3 bar
Connection:
G 1½, G 2, 1½ NPT, 2 NPT male
Analogue output
Accuracy: ± 0,25 % of full scale

Differential Pressure Transmitter
Stainless steel, Hastelloy

Model: PAD

High Quality - Low Cost



Measuring range: 0,75 – 4000 m
Power supply: 18-45 V_{DC}
Connection: ½ NPT, ½ NPT
Accuracy: ± 0,075% of measuring range

Deep-Well Probe
Stainless steel, cable polyurethane

Model: NTB



Measuring range: 0 – 1...0 – 200 mWS
Cable length 200 m
Accuracy: ± 0,5 % of full scale

Hydrostatic Diaphragm Measurement
Stainless steel

Model: NPF



Measuring range:
0 – 600...0 – 6000 mWS
Density: 1 kg/dm³
t_{max} 80 °C
Connection: G ½ male thread
Accuracy: ± 1,6 % of full scale



Temperature Switches/indicators

Bi-metal Switch
Brass, stainless steel
Model: TWR



Switching range: 30 ... +120 °C
 t_{max} 150 °C; p_{max} 64 bar
Connection: G 3/4 male thread

Thermal Reed Switch
Brass, stainless steel
Model: TRS



Switching range: 10 ... 120 °C
 t_{max} 120 °C; p_{max} 25 bar
Connection: G 1/4...1, 1/2...1 NPT

Temperature Switch Digital
Stainless steel
Model: TDD-1, -3, -5, -7



Measuring range: -20 ... +120 °C
 t_{max} 125 °C; p_{max} 80 bar
Connection:
G 1/2, G 3/4, 1/2 NPT, 3/4 NPT male thread
Accuracy: $\pm 0,5$ °C

Temperature Switch Digital
Stainless steel
Model: TDD-...D6



Measuring range: -50 ... +125 °C
 t_{max} 125 °C; p_{max} 80 bar
Connection: M20x1,5
Accuracy: $\pm 0,5$ °C

V-Form - Machinery Glass Thermometer
Aluminium casing, brass
Model: TGL



Measuring range:
-80 ... +40 °C ... 0 ... 200 °C
Connection: G 1/2, 1/2 NPT male thread
Accuracy: ± 1 % of full scale

V-Form - Machinery Glass Thermometer
Plastic casing, brass
Model: TGK



Measuring range:
-60 ... +40 °C ... 0 ... +200 °C
Connection: G 1/2, 1/2 NPT male thread
Accuracy: ± 1 % of full scale

Bi-metal Thermometer
Copper alloy, steel, stainless steel
Model: TBI-S



Measuring range:
-30 ... +50 °C ... 0 ... +500 °C
 p_{max} 25 bar
Connection:
G 1/2 male thread, welding sleeve
Accuracy: Cl. 1,0 according to VDI

Bi-metal Thermometer
Stainless steel
Model: TBI-H



Measuring range:
-30 ... +50 °C ... 0 ... +500 °C
 p_{max} 25 bar
Connection:
G 1/2 male thread, welding sleeve
Accuracy: Cl. 1,0 according to VDI

Shaft Thermometers according to DIN 16205
Stainless steel
Model: TNS



Measuring range:
-40 ... +40 °C ... 0 ... +600 °C
 p_{max} 25 bar
Connection: G 1/2...1, 1/2...1 NPT, DIN 11851, Tri-Clamp, helix probe
Accuracy: Cl. 1,0 ; 1,6

Capillary Thermometer according to DIN 16205
Stainless steel
Model: TNF



Measuring range:
-40 ... +40 °C ... 0 ... +600 °C
 p_{max} 25 bar
Connection: G 1/2...1, 1/2...1 NPT, DIN 11851, Tri-Clamp, helix probe
Accuracy: Cl. 1,0 ; 1,6

Safety Thermometer with Contacts
Stainless steel
Model: TNS, TNF



Measuring range:
-40 ... +40 °C ... 0 ... +600 °C
 p_{max} 25 bar
Connection: G 1/2...1, 1/2...1 NPT, DIN 11851, Tri-Clamp, helix probe
Accuracy: Cl. 1,0 ; 1,6

Shaft Thermometer for Diesel Engines
Steel, stainless steel
Model: TND



Measuring range:
0 ... +600 °C ... 0 ... +800 °C
 p_{max} 25 bar
Connection: G 1/2, G 3/4 male thread
Accuracy: Cl. 1,0 ; 1,6

Thermowells for Shaft and Capillary Thermometer
Stainless steel
Model: TSH



p_{max} 25 bar
Connection:
G 1/2 male thread, welding sleeve

Electronic Temperature Sensor
Stainless steel
Model: TDA



Measuring range: -50 ... +125 °C
 p_{max} 80 bar
Connection:
G 1/2, G 3/4, 1/2 NPT, 3/4 NPT male
Accuracy: $\pm 0,5$ °C

Infrared Hand-Held Thermometer
Model: TIR-HN



Measuring range:
-32 ... +400 °C ... -32 ... +900 °C
Accuracy: $\pm 1\%$...2% of reading

Infrared Fixed Thermometer
Stainless steel
Model: TIR-SA



Measuring range:
0 ... +120 °C ... 100 ... +500 °C
4...20 mA, 10 mV/K or
voltage model J, K
Accuracy: $\pm 1,5$ % of full scale



Temperature Switches/indicators

Infrared Fixed Thermometer

Stainless steel

Model: TIR-S



Measuring range:
-20...+300 °C ... +1100 ... +2500 °C
Analogue output
Accuracy: ± 1,5 % of full scale

Precision Hand-Held Thermometer

Model: HND-T120



Measuring range: -50...+1150 °C
Sensor: Type K (NiCr-Ni)
Accuracy: 0,1 – 1,5 % of reading

Precision Hand-Held Thermometer

Model: HND-T125



Measuring range: -50...+1150 °C
Sensor: Type K (NiCr-Ni)
Accuracy: ± 0,1 – 1,5 % of reading

Precision Hand-Held Thermometer

Model: HND-T105, -T205, -T110



Measuring range: -65...+1768 °C)
Sensor:
Pt 100 or thermocouple types K, N, S
Option: Logger, alarm, control function
Accuracy: ± 0,03 % of full scale

Double / Differential Hand-Held Thermometer

Model: HND-T115, -T215



Measuring range: -220 ... +1750 °C
Sensor: thermocouple types K, N, S, J, T
Accuracy: ± 0,03 % of full scale

Digital Thermometer

Stainless steel

Model: DTM



Measuring range:
-30 ... +40 °C ... 0 ... +400 °C
p_{max} 25 bar
G 1/2...1, 1/2...1 NPT
Analogue output, limit switches
Accuracy: Cl. 0,5

Temperature Sensor

Brass, stainless steel

Model: TSA



Measuring range: -40 ... +150 °C
t_{max} 150 °C; p_{max} 25 bar
G 1/2...1, 1/2...1 NPT
Accuracy: from 0,7 °C

Resistance Thermometer

Brass, bronze, stainless steel

Model: TNK



Measuring range: -80 ... +150 °C
t_{max} 150 °C; p_{max} 50 bar
M18x1,5; G 1/2; 1/2 NPT
Accuracy: Cl. A or B

Screw-In Resistance Thermometer

Brass, stainless steel

Model: TMA with AUF and KUG-S



Measuring range:
0 ... +50 °C ... -200 ... +600 °C
p_{max} 36 bar
Accuracy: Cl. B

Resistance Temperature Probe with Connection Box

Model: LTS-A



Measuring range: -50 ... +250 °C
p_{max} 10 bar
Connection: G 1/2, M12x1,5 male thread,
hygienic installation system LZE
Accuracy: Cl. A

Resistance Temperature Probe - Compact Version

Stainless steel

Model: LTS-K



Measuring range: -50 ... +250 °C
p_{max} 10 bar
Connection: G 1/2, M12x1,5 male thread,
hygienic installation system LZE
Pt 100, 4...20 mA
Accuracy: Cl. A

Temperature Transducer-Head Mounting

Model: TUM-K



Measuring range:
-270 ... +1300 °C ... -50 ... +1750 °C
Analogue output

Temperature Transducer Rail or Wall Mounting

Model: TUM-S



Measuring range:
-270 ... +1300 °C ... -50 ... +1750 °C
Analogue output

Screw-In Resistance Thermometer according to DIN

Stainless steel

Model: TWD-B9



Measuring range: -80 ... +600 °C
p_{max} 25 bar (40 bar)
Connection: G 1/2...1, 1/2...1 NPT
Analogue output
Accuracy: Cl. A or B

Weld-In and Insertion Resistance Thermometer according to DIN

Stainless steel

Model: TWD-D, -F



Measuring range: -80 ... +600 °C
p_{max} 25 bar (40 bar)
Analogue output
Accuracy: Cl. A or B

Pipe Resistance Thermometer

Stainless steel

Model: TWP



Measuring range: -20 ... +200 °C
Union nut DIN 11851 DN 25...100
Accuracy: Cl. A or B



Temperature Indicators

Screw-In Resistance Thermometer

Stainless steel
Model: TWE-1



Measuring range: -20 ... +600 °C
Connection: G 1/4, G 1/2, M 10
Accuracy: Cl. A or B

Screw-In Resistance Thermometer

Stainless steel
Model: TWE-2



Measuring range: -20 ... +400 °C
Connection: M 10
Accuracy: Cl. A or B

Screw-In Resistance Thermometer

Stainless steel
Model: TWE-3



Measuring range: -20 ... +300 °C
Connection: M 8
Accuracy: Cl. A or B

Insertion Resistance Thermometer

Stainless steel
Model: TWE-5



Measuring range: -20 ... +350 °C
Accuracy: Cl. A or B

Immersion-/Insertion Resistance Thermometer

Stainless steel
Model: TWE-5



Measuring range: -20 ... +350 °C
Accuracy: Cl. A or B

Screw-In Resistance Thermometer

Stainless steel
Model: TWE-5



Measuring range: -20 ... +150 °C
Connection: G 1/4, G 1/2, G 3/4, M 12
Accuracy: Cl. A or B

Sheath Resistance Thermometer

Stainless steel
Model: TWM



Measuring range: -20 ... +600 °C
Accuracy: Cl. A or B

Resistance Temperature Measuring Unit

Stainless steel
Model: TWL



Measuring range: -200 ... +750 °C
p_{max} 250 bar
Connection: Thread, flange, weld-in sleeve
Pt 100, 4...20 mA
Accuracy: Cl. A or B

Room Thermometer

Aluminium
Model: TWL-ST



Measuring range: -20 ... +60 °C
p_{max} atmospheric
Wall socket
Pt 100, 4...20 mA
Accuracy: Cl. A or B

Contact Resistance Thermometer

Aluminium, stainless steel
Model: TWA



Measuring range: -20 ... +250 °C
Accuracy: Cl. A or B

Weld-In and Insertion Thermocouples according to DIN

Steel, stainless steel, ceramic
Model: TTD



Measuring range: -200...+1150 °C
p_{max} 25 bar (40 bar)
Connection: G 1/4 male thread
Accuracy: Cl. 1,0

Screw-In Thermocouples with Compensating Lead

Stainless steel
Model: TTE-1



Measuring range: -200...+600 °C
Connection: G 1/2, M10x1
Accuracy: Cl. 1,0

Insertion Thermocouples with Bayonet Lock

Stainless steel
Model: TTE-1



Measuring range: 0 ... +400 °C
Accuracy: Cl. 1,0

Immersion-/Insertion Thermocouples with Compensating Lead

Stainless steel
Model: TTE-1



Measuring range: 0 ... +600 °C
Accuracy: Cl. 1,0

Immersion and Insertion Thermocouples

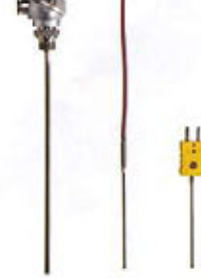
Stainless steel
Model: TTL



Measuring range: -200 ... +1600 °C
p_{max} 250 bar
Connection: thread, flange, weld-in sleeve
4...20 mA
Accuracy: Cl. 1,0 or 2,0

Sheath - Thermocouples

Brass, stainless steel
Model: TTM



Measuring range: -50 ... +1100 °C
Accuracy: Cl. 1,0





Analysis

Transmitter for pH-Value and ORP

Model: APM-Z, ARM-Z, APM-X



Outputs: 1 binary output,
2 analogue outputs
Switch output:
2 relays with adjustable setpoints

pH-Combined Electrodes

Glass, plastic

Model: APS



Measuring range: pH 1...12
 t_{max} 80 °C; p_{max} 6 bar
Diaphragm: PTFE-ring or ceramic
Electrode also in plastic housing

pH-, Redox- and Temperature Hand-Held Measurement

Model: HND-R



Measuring range: pH: 0...14;
Redox: -1999...+2000 mV
Temperature: -100...+250 °C
Accuracy: $\pm 0,01$ pH; $\pm 0,1\%$ of reading

Transmitter for Specific Conductivity

Model: ACM-Z, ACM-X



Measuring range: 0...200 mS/cm
Outputs: 1 binary output,
2 analogue outputs,
Switch output:
2 relays with adjustable setpoints

Conductive/Inductive Conductivity Measuring Cells

Stainless steel, PEEK

Model: ACS, ACS-X01



Measuring range:
0,04 μ S/cm ... 2000 mS/cm
 t_{max} 150 °C; p_{max} 16 bar
Process connection G 1, G $\frac{1}{2}$ NPT, 1 NPT
Accuracy: $\pm 0,5 - 1\%$ of reading

Inductive Conductivity Measuring System

PEEK, PVDF, stainless steel

Model: LCI



Measuring range: 0...2000 mS/cm
 t_{max} 150 °C; p_{max} 10 bar
integrated Pt 100
Accuracy: $\pm 0,5 - 1\%$ of full scale

Hand-Held Conductivity Measuring Unit

Model: HND-C



Measuring range:
0...200 μ S/cm - 0...200 mS/cm
Options: Resistance; salinity, TDS
Accuracy: from $\pm 0,1\%$

Humidity/Temperature Transmitter

Model: AFK-G2



Measuring range:
0...100% rH; -60...200 °C
 t_{max} 200 °C; p_{max} 25 bar
Outputs: 2 x 4...20 mA
Accuracy: $\pm 2\%$ rH

Humidity Transmitter with Display

Model: AFA-G



Measuring range: 5...95 % rH; 0...60 °C
 t_{max} 80 °C
Outputs: 4...20 mA
Accuracy: $\pm 2\%$ rH

Humidity/Temperature Transmitter

Model: AFK-E



Measuring range: 0...100 % rH;
-40...+180 °C
 t_{max} 180 °C; p_{max} 15 bar
Outputs: analogue outputs and switches
Accuracy: $\pm 1,5\%$ of reading % rH

Hygrostat, Humidity Annex Switch

Model: AFS-G1, AFS-G2, AFS-G3



Measuring range: 30...100% rH
 t_{max} 60 °C
Switch output: 1 SPDT
Accuracy: 3% rH

Hand-Held Humidity Precision Measuring Unit

Model: HND-F



Measuring range: 0...2000 mS/cm
 t_{max} 150 °C; p_{max} 10 bar
Material: PEEK / PVDF
Integrated Pt 100
Accuracy: $\pm 0,1 - 0,2\%$ of reading

Turbidity Measuring System

Stainless steel

Model: ATA-K, ATS-K



Measuring range: 0...500 ppm;
0...4 CU, 0...10 - 200 FTU
 t_{max} 150 °C; p_{max} 16 bar
Output: 4...20 mA
Accuracy: $\pm 2\%$ of full scale

Transmitter for Turbidity Measuring System

Model: ATT-K



Output: 4...20 mA
Switching Output:
2 Alarm contacts (potential-free SPDT),
1 Alarm (lamp and function control)

Turbidity Probe

Stainless steel

Model: ATL



Measuring range:
0...500 ppm; 0...4 CU
 t_{max} 90 °C; p_{max} 10 bar
Outputs: 4...20 mA
Accuracy: $\pm 2\%$ of full scale

Density Meter

Stainless steel

Model: DWF



Measuring range: 700...1900 g/L
 t_{max} 150 °C
Process connection
flange DN 25...50, ANSI 1"...2"
Accuracy: $\pm 1,25...6$ g/L

**Calimetric Meter/Switch**
Stainless steel

Model: KAL-K4440

Water: 0,04 – 2 m³/s
 t_{max} 120 °C; p_{max} 100 bar
Connection:
G 1/4...1 1/2, 1/4...3/4 NPT, M12, Tri-Clamp**Rotating Vane - Low Volume**
POM, Polypropylene

Model: DPL

Water: 0,025 – 0,5 L/min ... 1 – 25 L/min
 t_{max} 70 °C; p_{max} 10 bar
Connection: G 1/2 male thread
Accuracy: \pm 2,5 % of full scale**Variable Area - Plastic**
Trogamide, Polysulfone, PVDF

Model: KSM

Water: 15 – 150 L/h ... 8000 – 60000 L/h
Air: 0,8 – 5 m³/h ... 100 – 880 m³/h
 t_{max} 140 °C; p_{max} 16 bar
Connection: G 1/2...3 1/2 female/male thread
Accuracy: \pm 4 % of full scale**Variable Area - All Metal**
Stainless steel, special material on request

Model: BGN-...E

Water: 0,5 – 5 L/h ... 13000 – 130000 L/h
Air: 0,015 – 0,15 m³/h ... 240 – 2400 m³/h
 t_{max} 350 °C; p_{max} PN 40
Connection:
Union nut DIN 11851 DN 20...100
Accuracy: \pm 1,6 – 2,2 % of full scale**Vortex - Switch**
PPS/Brass, PPS/Stainless steel

Model: DVZ-...S3

High Quality - Low Cost

Water: 0,5 – 4,5 L/min ... 10 – 100 L/min
 t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/4...1, 1/4...1 NPT
Accuracy: \pm 2,5 % of full scale**Electromagnetic Measurement**
PPS/Stainless steel, PVDF/Hastelloy

Model: MIK-...C3

High Quality - Low Cost

Water: 10 – 500 mL/min ... 40 – 800 L/min
 t_{max} 80 °C; p_{max} 10 bar
Connection: G 1/2...2 1/4 male thread
Accuracy: \pm 2 % of full scale**Electromagnetic Measurement**
Lining: hard rubber, soft rubber,
Wagunit, PTFE

Model: DMH

Water: 0 – 0,4 m³/h ... 0 – 2500 m³/h
 t_{max} 150 °C; p_{max} PN 40
Connection:
flange DN 15...300, ANSI 1/2"...12"
Accuracy: \pm 0,3% of reading
 \pm 0,01% x Qmax**Contact Pressure Gauge with Diaphragm Seal, DIN 11851**
Stainless steel

Model: MAN-RF...M21...DRM-602

Measuring range: 0 ... +1 bar ... 0 ... +40 bar
Housing: \varnothing 100, 160 mm
Connection:
Union nut DIN 11851 DN 20...100
Accuracy: Cl. 1,6**Pressure Gauge with Diaphragm Seal, DIN 11851**
Stainless steel

Model: MAN-RF...DRM-603

Measuring range: 0 ... 1 bar ... 0 ... +40 bar
Connection:
Union nut DIN 11851 DN 25...100
Accuracy: Cl. 1,6**Pressure Gauge with Diaphragm Seal Clamp Connection**
Stainless steel

Model: MAN-RF...DRM-613

Measuring range: 0 ... +2,5 bar ... 0 ... +bar
Housing: \varnothing 100, 160 mm
Connection: Tri-Clamp 1"...3"
Accuracy: Cl. 1,6**Pressure Gauges Digital with Diaphragm Seals for Homogenizing Machines**
Stainless steel

Model: MAN-SD...DRM-189

Measuring range:
0 ... 100 bar ... 0 ... +1000 bar
Housing: \varnothing 74 mm
Connection: for block flange
Accuracy: Cl. 1,6**All Stainless Steel Bourdon Tube Pressure Gauge**
Stainless steel

Model: MAN-R

Measuring range:
-1 ... 0 bar ... 0 ... +1000 bar
Housing: \varnothing 63, 100, 160 mm
Overload protection: 1,15-1,3 times
Connection: G 1/4, G 1/2 male thread
Accuracy: Cl. 1,0; 1,6**Digital Pressure Gauges with Diaphragm Seals for Homogenizing Machines**
Stainless steel

Model: SEN...DRM-189...AUF

Measuring range:
0 ... +100 bar ... 0 ... +600 bar
Membrane: flush mounted
 t_{max} 100 °C
Connection: for block flange
Accuracy: Cl. 1,0**Digital Pressure Gauges with Ceramic Sensor Element**
Stainless steel

Model: MAN-SD,-LD

Measuring range: -1 ... 0 °C ... 0 ... +1600 °C
Housing: \varnothing 74 mm
Display: LC-Display
Overload protection: 1,3-3 times
Connection:
G 1/4, G 1/2, 1/4 NPT, 1/2 NPT male
Accuracy: Cl. 0,5**Digital Pressure Gauges with Ceramic Sensor Element**
Stainless steel

Model: MAN-SF,-BF

Measuring range:
-1 ... 0 bar ... 0 ... +1600 bar
Housing: \varnothing 100 mm
Overload protection: 2 times
Connection: G 1/2 male thread
Accuracy: Cl. 0,5**Pressure Switch with Ceramic Sensor Element**
Stainless steel

Model: PDD-1, -2

Measuring range:
-1 ... 0 bar ... 0 ... +400 bar
Overload protection: 1,5-2 times
Connection:
G 1/4, G 1/2, 1/4 NPT, 1/2 NPT male thread
Accuracy: \pm 0,5 – 1 % of full scale



Food and Pharmaceutical

Pressure Switch with Ceramic Sensor Element
Stainless steel

Model: PDD-5, -7



Measuring range:
-1 ... 0 bar ... 0 ... +400 bar
Overload protection: 1,5-2 times
Connection:
G 1/4, G 1/2, 1/2 NPT, 1/2 NPT male thread
Accuracy: $\pm 0,5 - 1\%$ of full scale

Pressure Sensor with Ceramic Sensor Element
Stainless steel

Model: PDA



Measuring range:
-1 ... 0 bar ... 0 ... +400 bar
Connection:
G 1/4, G 1/2, 1/2 NPT, 1/2 NPT male thread
Accuracy: $\pm 0,5 - 1\%$ of full scale

Conductive Switch
Stainless steel, PEEK

Model: LNK



Measuring range: 4 – 1500 mm
 t_{max} 150 °C; p_{max} 10 bar
Connection: G 1/4 male G 1 male, hygienic
installation system LZE
Open-Collector

Conductive Switch - Compact Probe
Stainless steel, PEEK

Model: LNK-K



Measuring range: 4 – 1500 mm
 t_{max} 150 °C; p_{max} 10 bar
Connection: G 1/4 male thread, hygienic
installation system LZE
Open-Collector

Head Mounted Transmitter for Conductive Probes

Model: LNR



t_{max} 80 °C
Open-Collector

Microwave Switch
Stainless steel, PEEK

Model: LNM



t_{max} 100 °C (150 °C for CIP); p_{max} 10 bar
Connection:
G 1/2, M12x1,5 male thread, hygienic
installation system LZE
Open-Collector

Capacitive Switch Liquids
Stainless steel, PEEK

Model: LNZ



t_{max} 100 °C (150 °C for CIP); p_{max} 10 bar
Connection: G 1/2 male thread, hygienic
installation system LZE
Open-Collector

Capacitive Switch Bulk Materials
Stainless steel, PTFE

Model: NSC



Switching range: 265 – 3000 mm
 t_{max} 80 °C; p_{max} 0,5 bar
Connection: G 1 male thread, Adapter:
G 1 1/2, G 1 1/2, round flange, weld-in sleeve
1 relay, SPDT

Bypass Roller Indicator
Stainless steel

Model: NBK-03,-06,-07,-10



Measuring range: 300 – 6000 mm
over 6000 mm 2-piece or multipart
 t_{max} 400 °C; p_{max} PN 100
Connection:
DIN-/ANSI-flange, R-/NPT-thread
Accuracy: ± 1 mm (transmitter)

Potentiometric Measurement
Stainless steel, PEEK

Model: LNP



Measuring range: 200 – 2000 mm
 t_{max} 150 °C; p_{max} 10 bar
Connection: G 1, 1 NPT male thread
Accuracy: $\pm 1\%$ of full scale

Vibration Switch Bulk Materials
Stainless steel

Model: NSV



Switching range: 230 – 3000 mm
Density: 0,06 kg/dm³
 t_{max} 80 °C; p_{max} atmospheric
Connection: G 1 1/2 male
1 relay, SPDT

Vibration Switch Liquids
Stainless steel

Model: NWS-...2ES



t_{max} 130 °C (150 °C for CIP); p_{max} 50 bar
Connection: R-/NPT-thread, DIN-/ANSI-
flange, Tri-Clamp, milk connection DIN
11851, Aseptic DIN 11864, DRD-flange

Rotation Vane Switch - Bulk Materials
Stainless steel

Model: NIR-722-V, -N



Switching range: 120 – 4000 mm
 t_{max} 80 °C; p_{max} 0,5 bar
Connection: G 1 male, Adapter: G 1 1/2,
G 1 1/2, round flange, weld-in sleeve
1 relay, SPDT

Rotation Vane Switch - Bulk Materials
Stainless steel

Model: NIR-8



Switching range: 60 – 4000 mm
 t_{max} 200 °C; p_{max} 0,5 bar
Connection: G 1 male, Adapter: G 1 1/2,
G 1 1/2, round flange, weld-in sleeve
1 relay, SPDT

Resistance Temperature Probe with Connection Box
Stainless steel

Model: LTS-A



Measuring range: -50 ... +250 °C
 p_{max} 10 bar
Connection: G 1/2, M12x1,5 male thread,
hygienic installation system LZE
Pt 100, 4...20 mA
Accuracy: Cl. A

Resistance Temperature Probe - Compact Version
Stainless steel

Model: LTS-K



Measuring range: -50 ... +250 °C
 p_{max} 10 bar
Connection: G 1/2, M12x1,5 male thread,
hygienic installation system LZE
Pt 100, 4...20 mA
Accuracy: Cl. A



Shaft Thermometers according to DIN 16205

Steel, aluminium, stainless steel

Model: TNS



Measuring range:
-40 ... +40 °C ... 0 ... +600 °C
p_{max} 25 bar
Connection: G ½...1, ¾...1 NPT,
DIN 11851, Tri-Clamp, helix probe
Accuracy: Cl. 1,0 ; 1,6

Capillary Thermometer according to DIN 16206

Steel, aluminium, stainless steel

Model: TNF



Measuring range:
-40 ... +40 °C ... 0 ... +600 °C
p_{max} 25 bar
Connection: G ½...1, ¾...1 NPT,
DIN 11851, Tri-Clamp, helix probe
Accuracy: Cl. 1,0 ; 1,6

Digital-Thermometer

Stainless steel

Model: DTM



Measuring range:
-30 ... +40 °C ... 0 ... +400 °C
p_{max} 25 bar
Connection: G ½...1, ¾...1 NPT
Analogue output, 2 limit contacts
Accuracy: Cl. 0,5

Thermowells for Shaft and Capillary Thermometer

Stainless steel

Model: TSH



p_{max} 25 bar
Connection:
G ½ male thread, welding sleeve

Inductive Conductivity Measuring System

PEEK, PVDF, stainless steel

Model: LCI



Measuring range: 0 ... 2000 mS/cm
t_{max} 150 °C; p_{max} 10 bar
Integrated Pt 100
Accuracy: ± 0,5 – 1 % of full scale

Turbidity Probe

Stainless steel

Model: ATL



Measuring range: 0 ... 500 ppm; 0 ... 4 CU
t_{max} 90 °C; p_{max} 10 bar
Output: 4...20 mA
Accuracy: ± 2 % of full scale

Humidity/Temperature Measurement

Model: AFH-G



Measuring range:
30 ... 100% rH; -30 ... 80 °C
t_{max} 80 °C
Outputs: 2 x 4...20 mA
Accuracy: >40% rH: ± 2,5% rH;
<40% rH: 3,5% rH

Humidity/Temperature Measurement

Model: AFK-G



Measuring range:
0 ... 100% rH; -25 ... +125 °C
t_{max} 125 °C
Outputs: 2 x 4...20 mA
Accuracy: ± 2% rH

Humidity/Temperature Measurement

Model: AFK-G2



Measuring range:
0 ... 100% rH; -60 ... 200 °C
t_{max} 200 °C; p_{max} 25 bar
Outputs: 2 x 4...20 mA
Accuracy: ± 2% rH

Humidity Annex Switch

Model: AFS-G3



Measuring range: 30 ... 100% rH
t_{max} 80 °C
Accuracy: ± 3% rH

Precision Hand-Held Thermometer

Model: HND-T105, -T205, -T110



Measuring range: -65 ... +1768 °C
Sensor:
Pt 100 or thermocouple types K, N, S
Option: Logger, alarm, control function
Accuracy: 0,03 % of full scale

Hand-Held Humidity Precision Measuring Unit

Model: HND-F



Measuring range:
0 ... 100 % weight moisture
Option: Logger, alarm
Accuracy: 0,1 – 0,2 % of reading

Hand-Held Humidity Precision Measuring Unit

Model: HND-F110



Measuring range:
0 ... 100% weight moisture
Accuracy: from ± 0,2%

pH-, Redox- and Temperature Hand-Held Measuring Unit

Model: HND-R



Measuring range: pH: 0...14
Redox: -1999...+2000 mV
Temperature: -100...+250 °C
Accuracy: ± 0,01 pH; ± 0,1% of full scale

Electronic Multi-channel Data Logger

Model: ZLS



Input: 4-20 mA, Pt 100, Pt 500, Pt 1000
interface, sensor supply

Hygienic Mounting Systems

Stainless steel

Model: LZE



t_{max} 250 °C; p_{max} 10 bar
M12x1,5; G ½; G 1
Seals: metallic, PEEK-ring

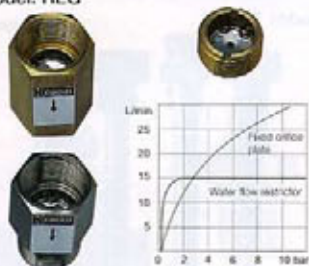




Assemblies

Flow Regulators
Brass, stainless steel

Model: REG



Viscosity range: 1 – 30 mm²/s
Flow rates: 0,5 – 40 L/min
t_{max} 300 °C; p_{max} 200 bar
G ½, G ¾, ¼ NPT

Flow Regulators - Multiple Element
Brass, stainless steel

Model: REG-8



Viscosity range: 1 – 30 mm²/s
Flow rates: 1 – 280 L/min
t_{max} 300 °C; p_{max} 200 bar
Flange DN 20...50

Flow Regulators - Multiple Element
Brass, stainless steel

Model: REG-9



Viscosity range: 1 – 30 mm²/s
Flow rates: 1 – 280 L/min
t_{max} 300 °C; p_{max} 200 bar
G 1½...G 2½

Brass Ball Valves

Model: KUG-TB, -VN, -VC



t_{max} 160 °C; p_{max} PN 40
G ¼...3
hand lever

Stainless Steel - Ball Valves

Model: KUG-ZE, -KD



t_{max} 180 °C; p_{max} PN 64
G ¼...4 female thread
1-, 2- and 3-piece versions

Grey Cast Iron - Flange - Ball Valves

Model: KUG-VO



t_{max} 180 °C; p_{max} PN 40
Flange DN 15...200
according to DIN 3202 F4/5

Stainless Steel - Flange - Ball Valves

Model: KUG-VK



t_{max} 180 °C; p_{max} PN 40
Flange DN 15...200
according to DIN 3202 F4/5

Ball Valves Shut-off for Measuring Device

Brass, stainless steel

Model: KUG-S



t_{max} 120 °C; p_{max} PN 25
G ¼...2 female thread
Sensoraufnahme: G ¼, G ½

Pneumatic Actuator

Model: KUP



Control pressure: 2 – 10 bar
Angle of traverse 90°
Torque: 5...30 Nm/bar

Brass Ball Valves with Pneumatic Actuator

Model: KUP-KA, KUP-VN



t_{max} 120 °C; p_{max} PN 16
G ½...4 female thread
Control pressure: 6 – 8 bar
Single or Double acting
T- and L-bore

Stainless Steel - Ball Valves with Pneumatic Actuator

Model: KUP-ZA, -VH, VN, -PD



G ½...4 female thread
Control pressure: 2 – 10 bar
Single and Double acting
T- and L-bore

Grey Cast Iron - Flange Ball Valves with Pneumatic Actuator

Model: KUP-VO



t_{max} 160 °C; p_{max} PN 16
Flange DN 15...200
Control pressure: 6 – 8 bar
Single or double acting

Stainless Steel - Flange - Ball Valves with Pneumatic Actuator

Model: KUP-VK



t_{max} 160 °C; p_{max} PN 16
Flange DN 15...200
Control pressure: 6 – 8 bar
Single or double acting

Accessories for Pneumatic Actuator

Model: KUP-RE



3/2- and 5/2-way solenoid valve several voltages, mechanical limit switch and proximity switch

Electric Actuators

Model: KUE



Power supply: 24 V_{DC}, 230 V_{AC}
additional limit switch, overload protection, optical position indicator, emergency manual operation

Brass Ball Valves with Electric Actuator

Model: KUE-KA, -VN



t_{max} 120 °C; p_{max} PN 16
G ¼...2
Power Supply: 24 V_{DC}, 230 V_{AC}
Through hole-, T- and L-bore





Assemblies, Control Devices and Relays

Stainless Steel - Flange Ball Valves with Electric Actuator

Model: KUE-VH, -ZA, -PD



t_{max} 120 °C; p_{max} PN 16
G 1/2...G 2 female thread, weld-on sleeve
DN 15...50
Power Supply: 24 V_{DC}, 230 V_{AC}
Through hole-, T- and L-bore

Brass Ball Valves with Electric Actuator

Model: KUE-CO



t_{max} 120 °C; p_{max} PN 8
G 1/2...2 female thread
Power Supply: 24 V_{DC}, 230 V_{AC}
full-bore

Grey Cast Iron - Flange Ball Valve with Electric Actuators

Model: KUE-VO



t_{max} 120 °C; p_{max} PN 16
Flange DN 20...50
Power Supply: 24 V_{DC}, 230 V_{AC}
according to DIN 3202 F4

Stainless Steel - Flange Ball Valve with Electric Actuators

Model: KUE-VK



t_{max} 160 °C; p_{max} PN 16
Flange DN 15...50
Power Supply: 24 V_{DC}, 230 V_{AC}
full-bore

Butterfly Valves
Aluminium, GGG-40

Model: KLA



t_{max} 200 °C; p_{max} PN 16
Flange DN 40...300
Seals: NBR, FKM, PTFE

Butterfly Valves with Pneumatic Actuator

Aluminium, GGG-40

Model: KLP



t_{max} 200 °C; p_{max} PN 16
Flange DN 40...300
Seals: EPDM, FKM
Control pressure: 6 – 8 bar
Double acting or spring resetting

Butterfly Valves with Electric Actuator

Aluminium, GGG-40

Model: KLE



t_{max} 200 °C; p_{max} PN 16
Flange DN 40...80
Seals: EPDM, FKM
incl. optical position indicator
emergency manual operation
2 additional limit switches

Needle Valve
Brass

Model: NAD-AC



t_{max} 100 °C; p_{max} PN 100
G 1/2...2 female thread

Needle Valve - Stainless Steel

Model: NAD-M, -Z



t_{max} 120 °C; p_{max} PN 250
G 1/4...1 1/4, 1/2...1 NPT

Angle Seat Valves

Brass, stainless steel

Model: NAD-AD, -BE



t_{max} 180 °C; p_{max} PN 16
G 1/2...3 female thread

Outlet Globe Valves

Brass, stainless steel

Model: NAD-AB, -BF



t_{max} 130 °C; p_{max} PN 16
G 1/2...3

Check Valves

Red cast iron, brass, stainless steel

Model: KUR-TD, KUR-MR



t_{max} 110 °C; p_{max} PN 25
G 1/2...4 female thread

Threaded Magnetic Filter

Bronze, brass

Model: MFR



t_{max} 200 °C; p_{max} PN 16
Rp 1/2...3 female thread
Filter grade: 280 µm

Magnetic Filter Dirt Trap

Brass, stainless steel

Model: MFR-IG, MFR-EA



t_{max} 180 °C; p_{max} PN 40
G 1/2...2 female thread
Filter grade: 250 µm

Flange Magnetic Filter

Grey cast iron

Model: MFF



t_{max} 200 °C; p_{max} PN 16
R 1/2...3, soldering connection 22...35 mm,
flange DN 50...200
Filter grade: 750 µm

Air Eliminator

Aluminium

Model: ZAL



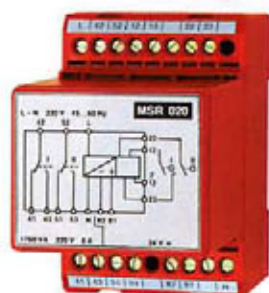
t_{max} 70 °C; p_{max} 10 bar
Flange ANSI 1"...4"
Filter grade: 40 – 200 µm



Control Devices, Relays and Rotary Encoders

Contact Protection Relay

Model: MSR



Input: potential-free contacts
1 or 2 relay outputs, SPDT

Isolation Switching Amplifier for Initiators

Model: KFD-2, KFA-6



Input:
Initatoren (Namur), potential-free contacts
1 relay, SPDT

Sandwich Plug-On Display

Model: AUF



Input: 4-20 mA loop powered
Option: Open-Collector

KOBUS KOBOLD-BUS-System

Model: BUS



2-wire, Min/Max-values available
configuration with RS232
Plug- & Play-Software

Digital - Panel Mount - Indicators

Model: DAG



Input: current, voltage,
Temperatur, frequency
Analogue output, 2 limit contacts,
Min/Max-memory

Universal Indicator

Model: ADI-B...X



Input: current, voltage, frequency
Analogue output, 2 limit contacts, sensor
supply

Universal Indicator

Model: ADI-D...X



Input: current, voltage, frequency
Analogue output, 2 limit contacts, sensor
supply

Universal Indicator

Model: ADI-K...X



Input: current, voltage, frequency
Analogue output, 2 limit contacts, sensor
supply

Universal Indicator

Model: ADI-B...F



Input: current, voltage, frequency
Analogue output, 2 limit contacts, sensor
supply

Universal Indicator

Model: ADI-D...S



Input: current, voltage, frequency
Analogue output, 2 limit contacts,
sensor supply

Universal Indicator

Model: ADI-K...R



Input: current, voltage, frequency
Analogue output, 2 limit contacts, sensor
supply

Universal Dosing Unit

Model: ADI-Z



Input: frequency, temperature, pressure
2 limit contacts

Electronic for Measuring and Monitoring

Model: ZED-K



Input: frequency
Analogue output, 2 limit contacts, sensor
supply

Counter Electronics

Model: ZED-Z



Input: frequency
Analogue output, 2 limit contacts,
sensor supply

Batch Controller

Model: ZED-D



Input: frequency
Analogue output, 2 limit contacts, sensor
supply

Industrial Dosing, Counter- and Flow Indicator

Model: DAG-AXI



Input: frequency
4 limit contacts





Rotary Encoders, Time Measurement

Electronic Multi-Channel Data Logger
Model: ZLS



Input: 4-20 mA, Pt 100, Pt 500, Pt 1000 interface, sensor supply

Compact Continuous Line and Dotted-Line Recorder
Model: KLS



Input: current, voltage, Pt 100, Pt 500, Pt 1000, thermocouples 4 limit contacts, interface

Micro Totaliser
Model: ZMZ-1S



Input: pulse totaliser

Mini Pulse Totaliser
Model: ZMZ-2S



Input: pulse totaliser with hand zero point adjustment

Robust Counter for Bracket Mounting
Model: ZMZ-2R



Input: pulse totaliser with/without hand zero point adjustment

Micro Totaliser for Rail Mounting
Model: ZMZ-9S



Input: pulse totaliser DIN-rail mounting

Batch Counter with Indicated Preset
Model: ZMZ-5V



Input: pulse totaliser 1 relay, SPDT Batch counter with hand zero point adjustment

Electronic Preset Totaliser
Model: ZEZ-2B



Input: pulse totaliser 1 relay N/C/N/O Preset value with 6 keys adjustable

Miniature Incremental Rotary Encoder
Stainless steel
Model: ZDI-AW



Max. number of revolutions: 12000 RPM
Max. impulse frequency: 160 kHz
Push-pull
t_{max} -20 ... +85 °C

Miniature Incremental Rotary Encoder
Stainless steel
Model: ZDI-AH



Max. number of revolutions: 12000 RPM
Max. impulse frequency: 160 kHz
Push-pull
t_{max} -20 ... +85 °C

Incremental Rotary Encoder
Stainless steel
Model: ZDI-BW



Max. number of revolutions: 12000 RPM
Max. impulse frequency: 300 kHz
RS422 or push-pull
t_{max} -20 ... +70 °C

Incremental Rotary Encoder
Stainless steel
Model: ZDI-BH



Max. number of revolutions: 12000 RPM
Max. impulse frequency 300 kHz
RS422 or push-pull
t_{max} -20 ... +70 °C

Incremental Rotary Encoder
Stainless steel
Model: ZDI-CH



Max. number of revolutions: 6000 RPM
Max. impulse frequency: 300 kHz
RS422 or push-pull
t_{max} -20 ... +70 °C

Incremental Rotary Encoder
Stainless steel
Model: ZDI-DH



Max. number of revolutions: 6000 RPM
Max. impulse frequency: 300 kHz
RS422 or push-pull
t_{max} -20 ... +80 °C

EX-Incremental Rotary Encoder
Stainless steel
Model: ZDI-E



Max. number of revolutions: 6000 RPM
Max. impulse frequency: 300 kHz
RS422 or push-pull
t_{max} -20 ... +60 °C

Absolute Rotary Encoder Singleturn
Stainless steel
Model: ZDA-SW



Max. number of revolutions: 12000 RPM
Resolution: 13 bit
Parallel interface
t_{max} -20 ... +80 °C





Rotary Encoders, Time Measurement

**Absolute Rotary Encoder
Single turn**
Stainless steel
Model: ZDA-SH



Max. number of revolutions: 6000 RPM
Resolution: 14 bit
Parallel interface
 t_{max} -20 ... +80 °C

**Absolute Rotary Encoder
Multi-turn**
Stainless steel
Model: ZDA-M



Max. number of revolutions: 6000 RPM
Resolution: 25 bit
SSI-interface, programmable
 t_{max} -20 ... +70 °C

**EX Absolute Rotary Encoder-
Single turn**
Stainless steel
Model: ZDA-E



Max. number of revolutions: 6000 RPM
Resolution: 14 bit
Parallel interface
 t_{max} -20 ... +60 °C

Accessoires Rotary Encoder
Model: ZDZ



Plug
metal bellow clutches, flange, Stator
coupling, fixing set

Electronic Service Hour Meter
Model: ZEC-1Z



Input: time totaliser
Display: 6-digit LED
opto-coupler
Housing: 48 x 24 mm

Electronic Service Hour Meter
Model: ZEC-1K



Input: time totaliser, pulse totaliser
Display: 6-digit LED
Housing: 48 x 24 mm

Electronic Service Hour Meter
Model: ZEC-1M



Input: time totaliser, pulse totaliser,
Positionsanzeige, frequency
Display: 6-digit LED
opto-coupler
Housing: 48 x 24 mm

Electronic Service Hour Meter
Model: ZEC-4Z



Input: time totaliser
Display: 6-digit LED
opto-coupler
Housing: 96 x 48 mm

Electronic Service Hour Meter
Model: ZEC-4K



Input: time totaliser, pulse totaliser
Display: 6-digit LED
Housing: 96 x 48 mm

Electronic Service Hour Meter
Model: ZEC-4M



Input: time totaliser, pulse totaliser,
position indication, frequency
Display: 6-digit LED
opto-coupler
Housing: 96 x 48 mm

Micro Service Hour Meter
Model: ZBS-1S



Input: time totaliser
Display: 7-digit
Housing: 32 x 15 mm

Mini Service Hour Meter
Model: ZBS-2S



Input: time totaliser
Display: 7-digit, 8-digit
Housing: 36 x 26 mm

Small Service Hour Meter
Model: ZBS-3S



Input: time totaliser
Display: 7-digit, 8-digit
Housing: 48 x 24 mm

Standard Hour Meter
Model: ZBS-4S



Input: time totaliser
Display: 7-digit, 8-digit
Housing: 48 x 48 mm

**Combination of Time And Pulse
Totaliser**
Model: ZBS-4K



Input: time totaliser, pulse totaliser
Display: 7-digit, 8-digit
Housing: 48 x 48 mm

**Service Hour Meter for DIN-Rail
Mounting**
Model: ZBS-9S



Input: time totaliser
Display: 6-digit
Housing: clip-on mounting