KOBOLD Messring GmbH

Manufacturer of
Innovative Instrumentation

Product Summary

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

Fieldbus · PROFIBUS · HART · FM APPROVED · ATEX Ex CE 0158 · M-Zert Zertifiziertes QM-System · CSA C US · EHEDG · PED GL CE 0098

KOBOLD

www.kobold.com

measuring • monitoring • analysing

The KOBOLD-Catalogue on CD-ROM

Dear customer,

please find enclosed the newest version of our electronic KOBOLD-catalogue.

Besides a short description of our products you may also find detailed data sheets on CD-ROM in Adobe PDF-format*.

INSTALLATION

Option one
Start the installation procedure by starting the program “setup.exe”.
On the hard disk, only a button in Start-menu and a path “Projekte” to save the ordering data is made. That’s why the CD-ROM is to be placed in the drive in order to use the program.
With the input of your personal password you receive also all the prices of our products.

Option two
You can also start the program directly without installation of CD-ROM by clicking the file “KOBOLD.exe” in path KOBOLD.

Hardware requirements
PC with Pentium Processor, CD-ROM or DVD-Drive.

Software requirements
Operating system Win 95 (or higher version) or Win NT.
For display of help file and general sales terms, an internet browser must be installed on your PC.
For display of data sheets, you need the program Adobe® Acrobat® Reader 4.0 (or higher version).

If the Acrobat Reader® is not yet installed on your computer, it can be installed with supplied the set-up program.

Handling
With the new version of the electronic KOBOLD catalogue you can additionally specify most of the products in detail.
A menu guides you through the product code, ordering text and product price.
The data can be transferred to a product specific data sheet or to an ordering form.

Liability
The program has been intensively tested and the CD-ROM is checked for viruses.
KOBOLD Messring GmbH is not in any case responsible for possibly occurring special, accidental or indirect damages or consequential damages.

KOBOLD Messring GmbH
Hofheim/Taunus

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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_N/h ... 0,5 – 2,5 m^3_N/h
t_{max} 120 °C; p_{max} 6 bar
Connection: ⅛ 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_N/min ... 400 – 4000 L_N/min
t_{max} 65 °C; p_{max} 6,5 bar
Connection: ⅛ 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 m^3_N/h ... 20 – 105 m^3_N/h
t_{max} 140 °C; p_{max} PN 10
Connection:
G ¼...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 m^3_N/h ... 300 – 2500 m^3_N/h
t_{max} 140 °C; p_{max}16 bar
Connection: G ½...3½ 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 – 360 L_N/h
t_{max} 70 °C; p_{max} 16 bar
Connection: G ¼, ¼ NPT female thread

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

Water: 0,002 – 0,02 L/h ... 16 – 160 L/h
Air: 0,03 – 0,3 L_N/h ... 500 – 5000 L_N/h
t_{max} 100 °C; p_{max}10 bar
Connection: G ¼, ¼ 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 m^3_N/h ... 0,3 – 3 m^3_N/h
t_{max}100 °C; p_{max}6 bar
Connection: G ¼ female thread
Accuracy: ± 2,5 – 4 % of full scale

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

Water: 2 – 20 L/h ... 3 – 30 m³/h
Air: 30 – 300 L_N/h ... 50 – 500 m^3_N/h
t_{max}100 °C; p_{max}10 bar
Connection:
G ¼...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_N/h ... 5000 – 50000 L_N/h
t_{max}80 °C; p_{max}6 bar
Connection: G 1...1½ 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 m^3_N/h ... 3,2 – 32 m^3_N/h
t_{max}65 °C; p_{max}6 bar
Connection: G ½...1¼ male thread
Accuracy: ± 2,5 – 4 % of full scale

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

Water: 60 – 600 L/h ... 200 – 2000 L/h
Air: 2 – 20 m^3_N/h ... 5 – 50 m^3_N/h
t_{max}100 °C; p_{max}6 bar
Connection: G ⅜, G ½ 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 m^3_N/h ... 10 – 100 m^3_N/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 m^3_N/h ... 40 – 400 m^3_N/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 m^3_N/h ... 40 – 400 m^3_N/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 m^3_N/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 m^3_N/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_N/h ... 600 – 6000 L_N/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_N/h ... 800 – 7000 L_N/h
t_{max} 120 °C; p_{max}PN 160
Connection: G ¼, G ⅜, ¼ NPT, ⅜ 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 m^3_N/h ... 240 – 2400 m^3_N/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 m^3_N/h ... 240 – 2400 m^3_N/h
t_{max} 350 °C; p_{max} 600 bar
Connection:
flange DN 15...150, ANSI ¾...6“
Accuracy: ± 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 ¼...1¼, ¼...1¼ NPT female thread
Accuracy: ± 5 % of full scale

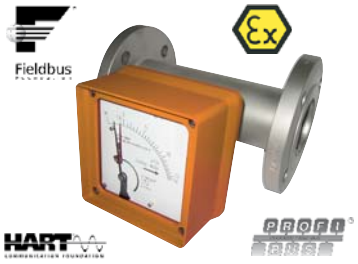
Variable Area - All Metal
Brass, stainless steel
Model: SMV

Water: 0,1 – 1 L/min ... 10 – 110 L/min
t_{max} 100 °C; p_{max} 350 bar
Connection:
G ¼...1¼, ¼...1¼ NPT female thread
Accuracy: ± 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 ¼...1, ¼...¾ NPT female thread
Accuracy: ± 5 % of full scale

Variable Area All Metal - Mounting Position Independent
Stainless steel, special material on request
Model: BGF

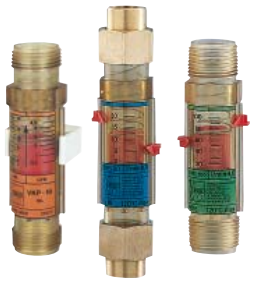


Water: 10 – 100 L/h ... 4000 – 40000 L/h
Air: 0,3 – 3 m^3_N/h ... 110 – 1100 m^3_N/h
t_{max} 350 °C; p_{max} PN 40
Connection:
flange DN 15...80, ANSI ¾“...3“
Accuracy: ± 1,6 according to VDI

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: ± 5 % of full scale

Viscosity Compensated - Plastic
Polysulfone
Model: VKP

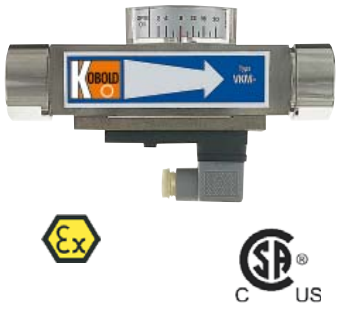


Water: 2 – 20 L/min ... 20 – 100 L/min
Oil: 1 – 18 L/min ... 10 – 75 L/min
t_{max} 120 °C; p_{max} 16 bar
Connection:
G ½, G ¾ female/male thread, G 1, 1 NPT male thread, solded or glue-in connection
Accuracy: ± 5 % of full scale

Viscosity Compensated
Brass, stainless steel
Model: VKG

Viscosity range: 1 – 540 mm^2/s
Oil: 0,1 – 0,45 L/min ... 5 – 80 L/min
t_{max} 100 °C; p_{max} 12 bar
Connection: G ¼...1, ¼...1 NPT
Accuracy: ± 4 % of full scale

Viscosity Compensated - All Metal
Brass, stainless steel
Model: VKM



Viscosity range: 1 – 540 mm^2/s
Oil: 0,01 – 0,07 L/min ... 8 – 80 L/min
t_{max} 100 °C; p_{max} 350 bar
Connection: G ¼...1, ¼...1 NPT
Accuracy: ± 4 % of full scale

Viscosity Compensated - All Metal
Brass, stainless steel
Model: VKM with ADI

Viscosity range: 1 – 540 mm^2/s
Oil: 0,01 – 0,07 L/min ... 8 – 80 L/min
t_{max} 100 °C; p_{max} 350 bar
Connection: G ¼...1, ¼...1 NPT
Accuracy: ± 4 % of full scale

Viscosity Compensated - All Metal
Brass
Model: VKA

Viscosity range: 30 – 540 mm^2/s
Oil: 0,1 – 0,4 L/min ... 30 – 100 L/min
t_{max} 100 °C; p_{max} 250 bar
Connection:
G ¼...1, ½ NPT, ¾ NPT female thread
Accuracy: ± 4 % of full scale

Manifold Valves for Multiple Installation
Aluminium
Model: BVB

t_{max} 100 °C; p_{max} PN 64
Connection: G ½ female thread

Flowmeters/-switches

Paddle Switch
Brass, stainless steel
Model: PSR

Water:
2,3 – 4,7 L/min ... 47,6 – 67,2 L/min
t_{max} 110 °C; p_{max} 100 bar
Connection:
G ¼...1½, ¼...1½ 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 ½, ½ 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: ± 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 ½, G ¾ 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 ⅜...2, ⅜...2 NPT female thread, flange DN 10...50, ANSI ⅜...2", weld-on flange DN 40...500
Accuracy: ± 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 ⅜...2, ⅜...2 NPT female thread, flange DN 10...50, ANSI ⅜...2", weld-on flange DN 40...500
Accuracy: ± 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 ⅜...3, ⅜...3 NPT female
Accuracy: ± 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 ⅜...3, ⅜...3 NPT female
Accuracy: ± 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 ⅜...2, ⅜...2 NPT female thread, flange DN 10...50, ANSI ⅜...2", weld-on flange DN 40...500
Accuracy: ± 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: ± 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 ±0,1%

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 Eletronic
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

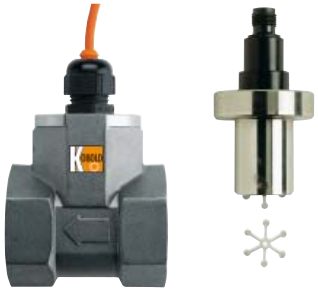
Water: 0,2 – 5 m³/h ... 2,5 – 100 m³/h
t_{max} 70 °C; p_{max} 10 bar
Connection: flange DN 25...100
Accuracy: ± 1 % of full scale

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 ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 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 ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 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 ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 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 ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 2,5 % of full scale

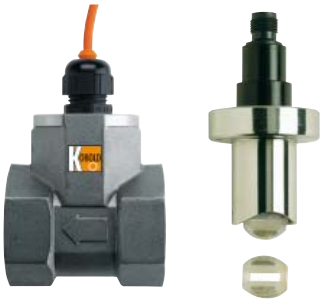
Turbine Wheel - Digital Display
Aluminium-bronze, stainless steel
Model: DPE with ADI

Water: 5 – 30 L/min ... 50 – 750 L/min
t_{max} 80 °C; p_{max} PN 40
Connection: G ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 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 ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 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 ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 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 ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 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 ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 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 ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 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 ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 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 ½...3, ½...3 NPT female thread, weld-on sleeve DN 25...80
Accuracy: ± 3 % of full scale

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 ¼...1½ 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 ⅜
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 ½...2, ½...2 NPT, flange DN 5...500
Accuracy: ±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 ½...2 female thread
Accuracy: ± 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 ⅛...1¼, within-flange DN 40/50, glue-in connection DN 15...50
Accuracy: ± 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 ⅛...1¼, within-flange DN 40/50, glue-in conn. DN 15...50
Accuracy: ± 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 ⅛, G ¼, ⅛ NPT, ¼ NPT female thread
Accuracy: ± 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 ⅛, G ¼, ⅛ NPT, ¼ NPT female thread
Accuracy: ± 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 ⅛, G ¼, ⅛ NPT, ¼ NPT
Accuracy: ± 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 ⅛, G ¼, ⅛ NPT, ¼ NPT
Accuracy: ± 1 – 2,5 % of full scale

Rotating Vane - Low Volume - Compact Eletronics
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 ⅛, G ¼, ⅛ NPT, ¼ NPT
Accuracy: ± 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 ⅛, G ¼, ⅛ NPT, ¼ NPT
Accuracy: ± 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 ½ male thread, hose connector
Accuracy: ± 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 ½ male thread, hose connector
Accuracy: ± 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 ½ male thread, hose connector
Accuracy: ± 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 ½ male thread, hose connector
Accuracy: ± 2,5 % of full scale

Rotating Vane - Low Volume - Compact Eletronic
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 ½ male thread, hose connector
Accuracy: ± 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 ½ male thread, hose connector
Accuracy: ± 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_N/min ... 100 – 500 L_N/min
t_{max} 50 °C; p_{max} 35 bar
Connection: hose connection ⅛"...½"
Accuracy: ± 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_N/min ... 2-10 L_N/min
t_{max} 50 °C; p_{max} 35 bar
Connection: hose connection ⅛"...½"
Accuracy: ± 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 ¼, ¼ NPT female thread
Accuracy: ± 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 ¼...1½, ¼...1½ NPT, flange DN 15...50, ANSI ½"...2"
Accuracy: ± 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 ¼...1½, ¼...1½ NPT, flange DN 15...50, ANSI ½"...2"
Accuracy: ± 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 ¼...1½, ¼...1½ NPT, flange DN 15...50, ANSI ½"...2"
Accuracy: ± 2,5 % of full scale

Rotating Vane - Low Volume - Digital Display
Trogamide, Polysulfone, Polypropylen, 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 ⅜, G 1, ⅜ 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 ⅜, G 1, ⅜ 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 ⅜, G 1, ⅜ 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}x 80 °C; p_{max} 100 bar
Connection: G ⅜, G 1, ⅜ 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 ⅜, G 1, ⅜ 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 ⅜, G 1, ⅜ 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 ⅛...1, ⅛...1 NPT
Accuracy: ± 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 ⅛...1, ⅛...1 NPT
Accuracy: ± 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 ⅛...1, ⅛...1 NPT
Accuracy: ± 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 ⅛...1, ⅛...1 NPT
Accuracy: ± 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 ⅛...1, ⅛...1 NPT
Accuracy: ± 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 ⅛...1, ⅛...1 NPT
Accuracy: ± 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 ¾ male thread, ¾ NPT
Accuracy: ± 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 1½, G 2, 1½ NPT, 2 NPT
for tubes Ø40 ... 2500 mm
Accuracy: ±1,5% (linearity)

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 ⅛, Swagelok 6 mm
Accuracy: ± 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 ⅛, G ¼, ⅛ NPT, ¼ NPT
Accuracy: ± 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 ⅛, G ¼, ⅛ NPT, ¼ NPT
Accuracy: ± 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 ⅛, G ¼, ⅛ NPT, ¼ NPT
Accuracy: ± 1 % of reading

Ring Piston Counter
Aluminium, stainless steel
Model: DRT

Viscosity range: up to 1 000 000 cP
Oil: 10 – 500 L/h ... 700 – 20000 L/h
t_{max} 150 °C; p_{max} 350 bar
Connection: G ½...2, ½...2 NPT,
flange DN 15...50, Tri-Clamp
Accuracy: ± 0,5 – 1 % of reading

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 ⅛...4 female thread
Accuracy: ± 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 ⅛...4 female thread
Accuracy: ± 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 ⅛...4 female thread
Accuracy: ± 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 ¾“...2“
Accuracy: ± 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 ¾ male thread,
¾ NPT male thread
Accuracy: ± 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 ⅛...4 female thread
Accuracy: ± 0,2 – 1 % of reading

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: ⅜ NPT
Accuracy: ± 0,5 % 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 ¼...¾, ¼...¾ NPT
Accuracy: ± 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 ¼...¾, ¼...¾ NPT
Accuracy: ± 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 ¼...¾, ¼...¾ NPT
Accuracy: ± 2,5 % of full scale

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

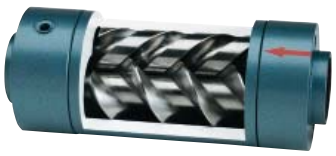
Viscosity range: 10 – 800 mm²/s
Oil: 0,3 – 8 L/min ... 1,6 – 40 L/min
t_{max} 80 °C; p_{max} 40 bar
Connection: G ¼...¾, ¼...¾ NPT
Accuracy: ± 2,5 % of full scale

Flowmeters/-switches

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 ¼...¾, ¼...¾ NPT
Accuracy: ± 2,5 % of full scale

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 ½...6 female thread, flange DN 15...150
Accuracy: ± 0,3 % of reading

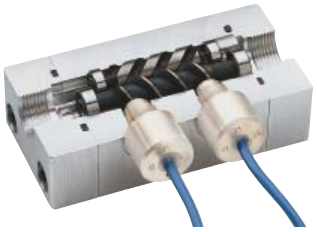
Screw Spindle - Dosing Electronics
Cast iron, stainless steel
Model: OMG with ADI-Z

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 ½...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 ½...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 ½...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 ½...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 ½...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 ⅜...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 ⅜...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 ⅜...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 ¼...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 ¼...1 female thread
Accuracy: ± 0,3 – 3 % of reading

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_N/min ... 600 – 12000 L_N/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 ½, Rp ½, M18, flange, smooth shaft
Accuracy: 10 % of reading

Mass-Flowmeter - Thermal
Brass
Model: DGM

Air: 0,04 – 6 m^3_N/h
t_{max} 40 °C; p_{max} 0,1 bar
Connection: G 1, G 1¼ male thread
Accuracy: Cl. 1,5

Mass - Flowmeter - Thermal
Aluminium, stainless steel
Model: DMW-A/B

Air: 5 – 100 mL_N/min ... 380 – 7500 L_N/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_N/min ... 50 – 1000 L_N/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_N/min ... 0 – 500 L_N/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_N/min ... 0 – 50 L_N/min
t_{max} 50 °C; p_{max} 35 bar
Connection:
¼ NPT female thread, Swagelok
Accuracy: ± 1,5 % of full scale

Flowmeters/-switches

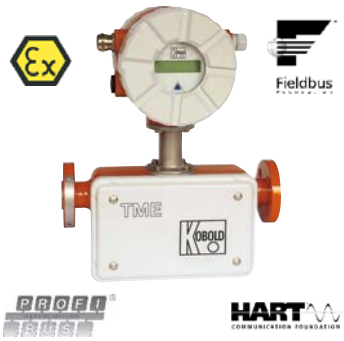
Mass - Meter/Controller - Thermal
Stainless steel
Model: DMS

Air: 0 – 10 mL_N/min ... 0 – 200 L_N/min
t_{max} 50 °C; p_{max} 35 bar
Connection: ¼...½ FNPT female thread, clamp connection
Accuracy: ± 1 % of full scale

Mass - Flowmeter - Thermal
Stainless steel
Model: KES

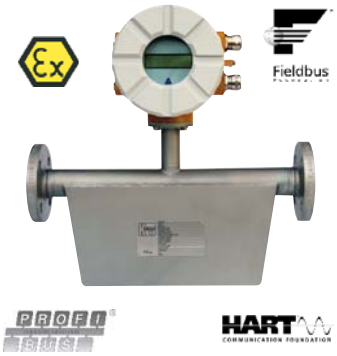
Air: 0 – 4,7 m/s ... 0 – 94 m/s
t_{max} 80 °C; p_{max} 10 bar
Connection: ¼...8 NPT, clamp connection with ½ NPT, 1 NPT (insert version)
Accuracy: ±1,0% of full scale
±0,5% of reading

Mass Flowmeter - Coriolis
Stainless steel
Model: TME



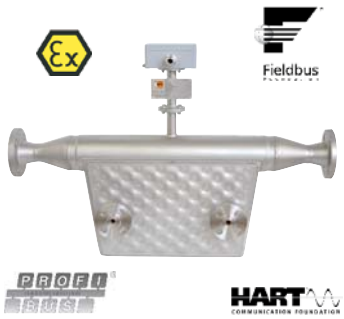
Water: 0 – 60 kg/h ... 0 – 60000 kg/h
t_{max} 180 °C; p_{max} PN 40
Connection:
flange DN 10...80, ANSI ½"...3"
Accuracy: ± 0,15 – 0,5 % of reading

Mass Flowmeter - Coriolis
Stainless steel, Hastelloy
Model: TMU



Water: 0 – 60 kg/h ... 0 – 2 200 000 kg/h
t_{max} 260 °C; p_{max} PN 40
Connection:
flange DN 10...300, ANSI ½"...12"
Accuracy: ± 0,1 % of reading

Mass Flowmeter - Coriolis with Heating
Stainless steel, Hastelloy
Model: TMU-...AC

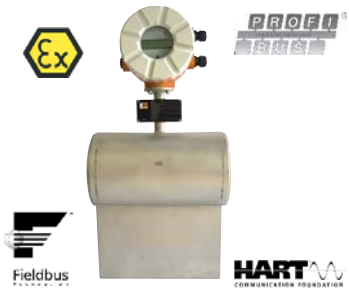


Water: 0 – 60 kg/h ... 0 – 1900000 kg/h
t_{max} 260 °C; p_{max} PN 40
Connection:
flange DN 10...300, ANSI ½"...12"
Accuracy: ± 0,1 % of reading

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: ¼...½ NPT,
flange DN 10...100, ANSI ½"...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 ¾"...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 m^3_N/h ... 500 – 2800 m^3_N/h
t_{max} 100 °C; p_{max} PN 40
Connection: G ½...3, ½...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 m^3_N/h ... 500 – 2800 m^3_N/h
t_{max} 100 °C; p_{max} PN 40
Connection: G ½...3, ½...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 m^3_N/h ... 500 – 2800 m^3_N/h
t_{max} 100 °C; p_{max} PN 40
Connection: G ½...3, ½...3 NPT female
Accuracy: ± 3 % of full scale

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

High Quality - Low Cost

Water: 0,05 – 1 L/min ... 40 – 800 L/min
t_{max} 80 °C; p_{max} 10 bar
Connection: G ½...2¾ 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: 0,05 – 1 L/min ... 40 – 800 L/min
t_{max} 80 °C; p_{max} 10 bar
Connection: G ½...2¾ male thread
Accuracy: ± 2 % of full scale

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

High Quality - Low Cost

Water: 0,05 – 1 L/min ... 40 – 800 L/min
t_{max} 80 °C; p_{max} 10 bar
Connection: G ½...2¾ male thread
Accuracy: ± 2 % of full scale

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

High Quality - Low Cost

Water: 0,05 – 1 L/min ... 40 – 800 L/min
t_{max} 80 °C; p_{max}10 bar
Connection: G ½...2¾ male thread
Accuracy: ± 2 % of full scale

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

High Quality - Low Cost

Water: 0,05 – 1 L/min ... 40 – 800 L/min
t_{max}80 °C; p_{max} 10 bar
Connection: G ½...2¾ male thread
Accuracy: ± 2 % of full scale

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

High Quality - Low Cost

Water: 0,05 – 1 L/min ... 40 – 800 L/min
t_{max}80 °C; p_{max} 10 bar
Connection: G ½...2¾ 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 m^3/h ... 0 – 2500 m^3/h
t_{max} 150 °C; p_{max} PN 40
Connection:
flange DN 15...300, ANSI ¾"...12"
Accuracy:
±0,3% of reading ±0,01% x Qmax

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 ¼... 1, ¼... 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 ¼ ... 1, ¼ ... 1 NPT
Accuracy: ± 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 ¼ ... 1, ¼ ... 1 NPT
Accuracy: ± 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 ¼ ... 1, ¼ ... 1 NPT
Accuracy: ± 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 ¼ ... 1, ¼ ... 1 NPT
Accuracy: ± 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 ¼ ... 1, ¼ ... 1 NPT
Accuracy: ± 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 ¼ ... 1, ¼ ... 1 NPT
Accuracy: ± 2,5 % of full scale

Vortex - Meter
Stainless steel
Model: PWL

Air: 3 – 23 m^3_N/h ... 1562 – 18350 m^3_N/h
t_{max} 400 °C; p_{max} PN 40
Connection:
flange DN 15...300, ANSI ¾“...12“
Accuracy: ± 1 % of reading

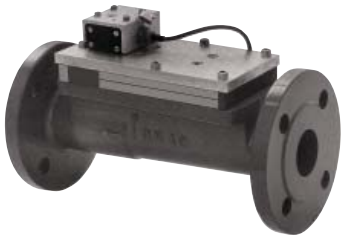
Oscillation - Meter/Switch
Cast iron, steel, stainless steel
Model: DOG-1

Air: 0,2 – 20 m^3_N/h ... 160 – 16000 m^3_N/h
t_{max} 120 °C; p_{max} PN 40
Connection:
Flange DN 25...400, ANSI 1“...16“
Accuracy: ± 1,5 % of reading

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

Air: 0,4 – 20 m^3_N/h ... 400 – 20000 m^3_N/h
t_{max} 120 °C; p_{max} PN 40
Connection:
Within flange DN 25...400, ANSI 1“...16“
Accuracy: ± 1,5 % of reading

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



Water: 0,075 – 3,75 m^3/h ...
70 – 3500 m^3/h
t_{max} 120 °C; p_{max} PN 40
Connection:
flange DN 25...400, ANSI 1“...16“
Accuracy: ± 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 ½...3 female thread
Accuracy: ± 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 ½...3 female thread
Accuracy: ± 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

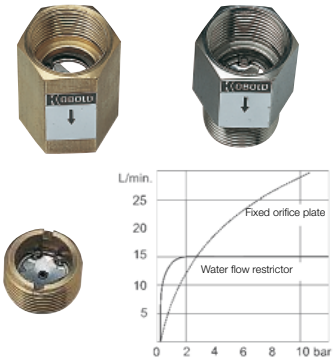
High Quality - Low Cost

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 ¼...1½, ¼...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 ¼...2, ¼...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 ⅛...1½, ⅛...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 ⅛...1, ⅛...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 ⅜, G 1 female thread,
⅜ 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 ⅛...1, ⅛...1 NPT female

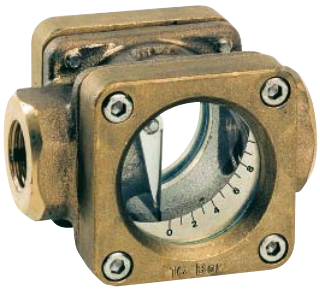
Flow Indicator with Flap
Grey cast iron, cast steel, stainless steel
Model: DAK-1

t_{max} 280 °C; p_{max} 40 bar
Connection: G ¼...2, ¼...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 ⅛...1, ⅛...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 ¼...2, ¼...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 ¼ ... 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 ½ 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 ½ 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 ½ 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 ½ 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 ½ 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 ½ 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 ¼ 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 ¼ 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 ½ 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

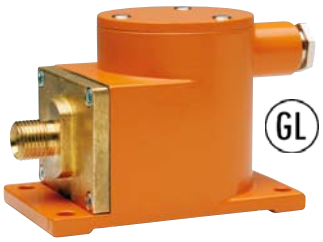
Measuring range: 0 ... +50 mbar
Power supply: 24 $V_{AC/DC}$, 110 V_{AC}, 230 V_{AC}
Display: 4-digit LED
Connection: hose connection 6 x 8 mm

Differential Pressure Transmitter
Stainless steel, Monel, tantalum, Hastelloy
Model: PAD

High Quality - Low Cost

Measuring range: +0,0075 ... +41370 kPa
Power supply: 18-45 V_{DC}
Connection: ¼ NPT, ½ NPT
Accuracy: ± 0,075% of measuring range

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, DIN11851, 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
PPH
Model: MAN...

Measuring range:
0 ... +1 bar ... 0 ... +25 bar
Connection: G ¾ 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
PVC
Model: MAN-SD...DRM-630

Measuring range:
0 ... +1,6 bar ... 0 ... +10 bar
Housing: Ø 74 mm
Connection: G ¼, G ½, ½ 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 ¼, G ½, ½ NPT female
Accuracy: Cl. 1,6

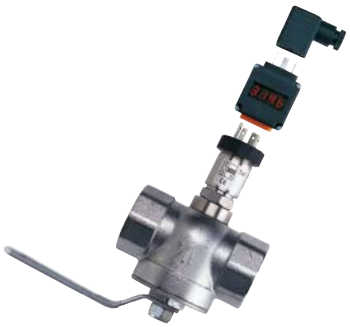
Pressure Gauge with Membrane Diaphragm Seal
PVDF
Model: MAN-RD...DRM-632

Measuring range:
0 ... +1,6 bar ... 0 ... +16 bar
Housing: Ø 63 mm
Connection: G ¼, G ½, ½ 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 ½ male thread ...
G 1½ 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 ½ 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 ¼, G ½, ¼ NPT,
½ NPT male thread
Accuracy: ± 0,5 – 1 % of full scale

Pressure Measurement/ Monitoring

Pressure Switch with Ceramic Cell
Stainless Steel
Model: PDD

Measuring range:
-1 ... 0 bar ... 0 ... +400 bar
Display: 3-digit LED
Connection:
G ¼, G ½, ¼ NPT, ½ NPT male thread
Accuracy: ± 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: ¼ NPT IG, ½ NPT IG
Accuracy: ± 0,075% of full scale

Electronic Pressure Switch - Thin Film/Ceramic
Stainless Steel
Model: PSC

Measuring range:
-1 ... +2 bar ... 0 ... +700 bar
Display: 4-digit LED
Connection:
G ¼, G ½, ¼ NPT, ½ NPT male thread
Accuracy: ± 1 % of full scale ... ±1 Digit

Pressure Sensor with Ceramic Cell and Plug-On Display AUF
Stainless Steel
Model: SEN-86 with AUF

Measuring range:
-1 ... 0 bar ... 0 ... +600 bar
Display: 4-digit LED
Overload protected: 1,5-2 times
Connection: G ½ male thread
Accuracy: Cl. 0,5; 1,0

Pressure Sensor with Ceramic Cell and Plug-On Display AUF
Stainless Steel
Model: SEN-87 with AUF

Measuring range:
-1 ... 0 bar ... 0 ... +600 bar
Display: 4-digit LED
Overload protected: 1,5-2 times
Connection: G ¼ male thread
Accuracy: Cl. 0,5; 1,0

Pressure Sensor Compact Piezoresistive
Stainless Steel
Model: SEN-3297

Measuring range:
0 ... +1 bar ... 0 ... +6 bar
Membrane: internal
Overload protected: 2 times
Connection: G ¼ male thread
Accuracy: Cl. 1,0

Pressure Sensor Compact Piezoresistive
Stainless Steel
Model: SEN-3247,-3249

Measuring range:
-1 ... 0 bar ... 0 ... +25 bar
Membrane: internal
Overload protected: 2-3,5 times
Connection: G ¼ male thread
Accuracy: ± 0,5 – 1 % of full scale

Pressure Sensor Industrial Piezoresistive
Stainless Steel
Model: SEN-3276,-3277

Measuring range:
-1 ... 0 bar ... 0 ... +25 bar
Membrane: internal
Overload protected: 2-3,5 times
Connection: G ½ male thread
Accuracy: ± 0,25 – 0,5 % of full scale

Pressure Sensor Industrial Piezoresistive
Stainless Steel
Model: SEN-3245,-3248

Measuring range:
0 ... +0,25 bar ... 0 ... +16 bar absolute
Membrane: internal
Overload protected: 3,5 times
Connection: G ½ male thread
Accuracy: ± 0,25 – 0,5 % of full scale

Pressure Sensor Industrial Piezoresistive - Flush Mounted
Stainless Steel
Model: SEN-3251,-3252

Measuring range:
-1 ... 0 bar ... 0 ... +25 bar
Membrane: flush mounted
Overload protected: 2-3,5 times
Connection: G ½, G 1 male thread
Accuracy: ± 0,25 – 0,5 % of full scale

Pressure Sensor Industrial Piezoresistive - Flush Mounted
Stainless Steel
Model: SEN-3255,-3256

Measuring range:
0 ... +0,25 bar ... 0 ... +16 bar absolute
Membrane: flush mounted
Overload protected: 3,5 times
Connection: G ½, G 1 male thread
Accuracy: 0,25 – 0,5 % of full scale

Pressure Sensor Compact Thin Film
Stainless Steel
Model: SEN-3397

Measuring range:
0 ... +10 bar ... 0 ... +600 bar
Membrane: internal
Overload protected: 2 times
Connection: G ¼ 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 ¼ 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 ½ 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 ½ 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 ½ 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: ± 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: ± 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: ± 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 ¼, ¼ 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 ¼, ¼ 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

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 ⅛ ... 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 ⅜ 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 ⅜ 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

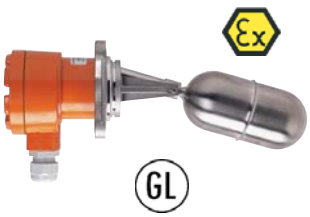
Float Switch
PTFE
Model: NST

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, DN 80/100, 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 ½, G 1½ male thread

Conductive Suspended Electrodes
Stainless steel, Hastelloy, Titanium, Neoprene, PVC
Model: NEH

t_{max} 150 °C; p_{max} 6 bar
Connection: G ½, G 1½ 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 ½, 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 ½ 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 ½, 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 ½ 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 1¼, 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 1¼, 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 ½, ½ 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-*2*ES...**

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-*2*F...**

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

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 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}/3 A

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 1¼, 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 1¼, 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 1¼, 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 ⅜...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 ⅜...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 1¼, 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: 60 W/VA, 230 $V_{AC/DC}$, 1 A

Limit Contact for Bypass Measurement
Aluminium
Model: NBK-RT

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

Limit Contact for Bypass Measurement
Model: NBK-RA

t_{max} 85 °C
Switch capacity: 45 VA,
230 $V_{AC}/_{DC}$, 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: ¼ 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 ¾ 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 ¼...1, ¼...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 ½, G ¾, ½ NPT, ¾ NPT male thread
Accuracy: ± 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: ± 0,5 °C

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

Measuring range:
-60 ... +40 °C ... 0 ... 200 °C
Connection: G ½, ½ 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 ½, ½ 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 ½ male thread, welding sleeve
Accuracy: Cl. 1,0 according to VDI

Bi-metal Thermometer
Stainless steel
Model: TBI-I

Measuring range:
-30...+50 °C ... 0 ... +500 °C
p_{max} 25 bar
Connection:
G ½ 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 ½...1, ½...1 NPT, DIN 11851, Tri-Clamp, helix probe
Accuracy: Cl. 1,0 ; 1,6

Capillary Thermometer according to DIN 16206
Stainless steel
Model: TNF

Measuring range:
-40...+40 °C ... 0 ... +600 °C
p_{max} 25 bar
Connection: G ½...1, ½...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 ½...1, ½...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 ½, G ¾ male thread
Accuracy: Cl. 1,0 ; 1,6

Thermowells for Shaft and Capillary Thermometer
Stainless steel
Model: TSH

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

Electronic Temperature Sensor
Stainless steel
Model: TDA

Measuring range: -50 ... +125 °C
p_{max} 80 bar
Connection:
G ½, G ¾, ½ NPT, ¾ NPT male
Accuracy: ± 0,5 °C

Infrared Hand-Held Thermometer
Model: TIR-HN

Measuring range:
-32...+400 °C ...-32 ... +900 °C
Accuracy: ±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: ± 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 ½...1, ½...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 ¼...1, ¼...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 ½; ½ 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 ½, M12 x 1,5 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 ½, M12 x 1,5 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 ½...1, ½...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

Screw-In Resistance Thermometer
Stainless steel
Model: TWE-1

Measuring range: -20 ... +600 °C
Connection: G¼, G½, 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: G¼, G½, G¾, M 12
Accuracy: Cl. A or B

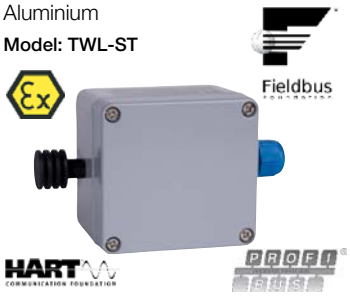
Sheath Resistance Thermometer
Stainless steel
Model: TWM

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 ... +260 °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 ½ male thread
Accuracy: Cl. 1,0

Screw-In Thermocouples with Compensating Lead
Stainless steel
Model: TTE-1

Measuring range: -200 ... +600 °C
Connection: G ½, 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: ±0,01 pH; ±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-X0I

Measuring range:
0,04 µS/cm... 2000 mS/cm
t_{max} 150 °C; p_{max} 16 bar
Process connection G 1, G ¾ ½ NPT, 1 NPT
Accuracy: ± 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: ± 0,5 – 1 % of full scale

Hand-Held Conductivity Measuring Unit
Model: HND-C

Measuring range: 0...200 µS/cm - 0... 200 mS/cm
Options: Resistance; salinity, TDS
Accuracy: from ±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: ±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: ± 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: ±1,6% 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: ± 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: ± 2 % of full scale

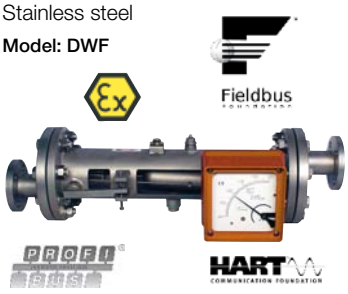
Transmitter for Turbidity Measuring System
Model: ATT-K

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: ± 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: ± 1,25...6 g/L

Caliometric Meter/Switch
Stainless steel
Model: KAL-K4440

Water: 0,04 – 2 m/s
t_{max} 120 °C; p_{max} 100 bar
Connection:
G ¼...1½, ¼...¾ 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 ½ male thread
Accuracy: ± 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 m^3_N/h ... 100 – 860 m^3_N/h
t_{max} 140 °C; p_{max} 16 bar
Connection: G ½...3½ female/male thread
Accuracy: ± 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 m^3_N/h ... 240 – 2400 m^3_N/h
t_{max} 350 °C; p_{max} PN 40
Connection:
Union nut DIN 11851 DN 20...100
Accuracy: ± 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 ¼... 1, ¼ ... 1 NPT
Accuracy: ± 2,5 % of full scale

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

High Quality - Low Cost

Water: 0,05 – 1 L/min ... 40 – 800 L/min
t_{max} 80 °C; p_{max} 10 bar
Connection: G ½...2¾ male thread
Accuracy: ± 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 ¾“...12“
Accuracy: ± 0,3% of reading
± 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: Ø 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: Ø 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: Ø 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: Ø 63, 100, 160 mm
Overload potection.: 1,15-1,3 times
Connection: G ¼, G ½ 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: Ø 74 mm
Display: LC-Display
Overload potection: 1,3-3 times
Connection:
G ¼, G ½, ¼ NPT, ½ 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: Ø 100 mm
Overload potection: 2 times
Connection: G ½ 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 potection: 1,5-2 times
Connection:
G ¼, G ½, ¼ NPT, ½ NPT male thread
Accuracy: ± 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 ¼, G ½, ¼ NPT, ½ NPT male thread
Accuracy: ± 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 ¼, G ½, ¼ NPT, ½ NPT male thread
Accuracy: ± 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 ½ male G 1 male, hygienic installation system LZE
Open-Collector

Head Mounted Transmitter for Conductive Probes
Model: LNR

t_{max} 80 °C
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 ½ male thread, hygienic installation system LZE
Open-Collector

Microwave Switch
Stainless steel, PEEK
Model: LNM

t_{max} 100 °C (150 °C for CIP); p_{max} 10 bar
Connection:
G ½, M12 x 1,5 male thread, hygienic installation system LZE
Open-Collector

Conductive Switch Liquids
Stainless steel, PEEK
Model: LNZ

t_{max} 100 °C (150 °C for CIP); p_{max} 10 bar
Connection: G ½ male thread, hygienic installation system LZE
Open-Collector

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

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

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: ± 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 1½ male
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 thread, Adapter: G 1¼, G 1½, round flange, weld-in sleeve
1 relay, SPDT

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 1¼, 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 1¼, G 1½, 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 ½, M12 x 1,5 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 ½, M12 x 1,5 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, ½...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, ½...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, ½...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} 60 °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

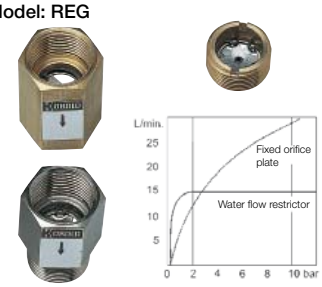
Hygienic Mounting Systems
Stainless steel
Model: LZE

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, 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
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

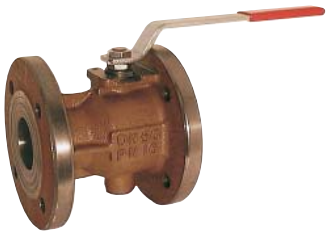
Stainless Steel - Ball Valves

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 ½...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

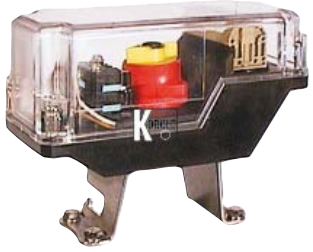
Stainless Steel - Flange - Ball Valves with Pneumatic Actuator

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 ½...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 6
G ½...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 ⅛...2 female thread

Outlet Globe Valves

Brass, stainless steel

Model: NAD-AB, -BF

t_{max} 130 °C; p_{max} PN 16
G ¼...3

Angle Seat Valves

Brass, stainless steel

Model: NAD-AD, -BE

t_{max} 180 °C; p_{max} PN 16
G ⅜...3 female thread

Needle Valve - Stainless Steel

Model: NAD-M, -Z

t_{max} 120 °C; p_{max} PN 250
G ⅛...1¼, ⅛...1 NPT

Check Valves

Red cast iron, brass, stainless steel

Model: KUR-TD, KUR-MR

t_{max} 110 °C; p_{max} PN 25
G ¼...4 female thread

Threaded Magnetic Filter

Bronze, brass

Model: MFR

t_{max} 200 °C; p_{max} PN 16
Rp ½...3 female thread
Filter grade: 280 µm

Flange Magnetic Filter

Grey cast iron

Model: MFF

t_{max} 200 °C; p_{max} PN 16
R ½...3, solding connection 22...35 mm, flange DN 50...200
Filter grade: 750 µm

Magnetic Filter Dirt Trap

Brass, stainless steel

Model: MFR-IG, MFR-EA

t_{max} 180 °C; p_{max} PN 40
G ⅜...2 female thread
Filter grade: 250 µm

Air Eliminator

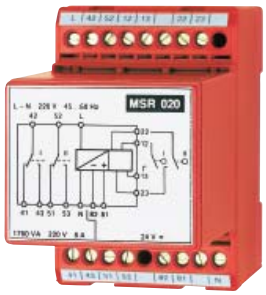
Aluminium

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 availlable
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

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