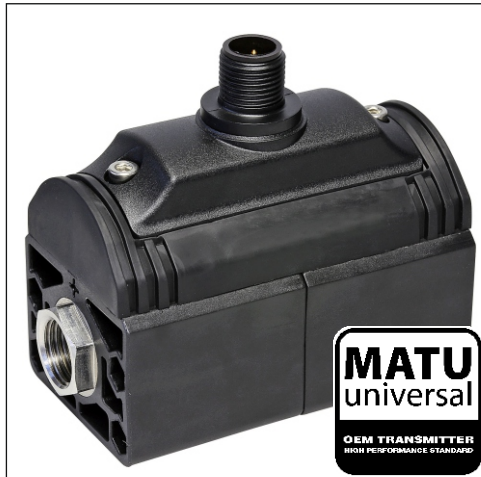


● Characteristics

0200 - MODULAR - UNIVERSAL - PRESSURE - SERIES



- Input:	Differential pressure
- Output:	4...20 mA / 0...10 VDC
- Voltage supply:	9...35 VDC / 12...35 VDC / 14...24 VAC
- Accuracy:	see technical data
- Process connection:	2x 1/4" socket connection (VA inserts)
- Medium:	non-corrosive liquids and gases
- Electrical connection:	several plugs / cable
- Temperature range:	-40...+60 °C (standard) / -40...+80 °C (req.)
- Configuration:	Software
- Material casing:	PBT GF 30 / 1.4571 / Aluminum (anodized)
- Protection class:	at least IP65

● Technical Data

Input

Differential pressure:	for liquid and gaseous media
Pressure ranges:	see table page 2 (with overpressure limit, burst pressure)
Medium:	non-corrosive, non-ionizing liquids and dry, clean gases

Output

Current signal:	4...20 mA (2-wire / 3-wire)
Voltage signal:	0...10 VDC (3-wire)
Load (current output):	$R = (U_B - 9 \text{ V}) / 22 \text{ mA}$
Load (voltage output):	560 kΩ minimum
Load equation:	$V_{\text{Out}} = (10 \text{ V} * R) / (560 \Omega + R)$

Note: The voltage output is created by using an internal resistor. If you wish to use a load below the load minimum, please use the load equation.

Signal on error:	<3,6 mA (sensor short circuit, underflow) >21 mA (sensor break, sensor open circuit, overflow)
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Performance Parameters

Measuring amplifier:	
Accuracy:	< 2% of measuring range (FS) Option: < 1% of measuring range (FS)
Resolution:	24 Bit
Filter setting:	5...5000 ms
Switch-on delay:	<1 s

Supply

Analog:	9...35 VDC (2-wire)
Options:	12...35 VDC (3-wire) / 14...24 VAC and VDC (3-wire)
Reverse voltage protection:	available (no function, no damage, only on input)
Short-circuit strength:	available (on input and output)

● Applications

The MUDS is designed to detect differential pressures in liquid and gaseous media. Typical areas of application are flow and return in heating systems, as well as filters and compressors. Beyond facilities equipment application, the sensor can also be used in general device and industrial applications.



Photo: Erich Westendarp @ pixelio.de



Photo: Poschle@pixelio.de



Photo: Simon Coste @ fotolia.de

● Technical Data (Continued)

Environmental Conditions

Temperature:	Operating range:	-40...+60 °C (nominal range) / -40...+80 °C only on request
	Storage:	-40...+85 °C
Condensation:		uncritical

Mechanics

Dimensions:	see page 3
Process connection:	2x 1/4" socket (VA inserts)
Electrical connection	Plugs and cable: see page 2-3
Material:	Process connection: stainless steel
	Casing body: PBT GF30
	Options: 1.4571 stainless steel / Aluminum (anodized)
	Sealing material: NBR (medium-contacting)
Casing color:	black
Weight:	approx. 153,5 g
Fitting position:	any
max. Drehmoment:	Process connection: 40 Nm
	Mounting: 1,5 Nm
Device protection:	Protection class: at least IP65 (electronics)
	PCBs: potted







Accessories:



Software:	TrComm
Configuration:	DEV-KMA Configurator

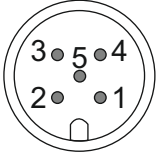
Pressure Table (in bar)

Pressure range	0...1	0...2,5	0...4	0...6	0...10
Overload pressure	6	6	6	15	15
Burst pressure	8	8	8	25	25

● Electrical Connection

M12x1	Super Seal ¹	Deutsch ¹	Deutsch	Bayonet	Valve
					
4-, 5-, 8-pole	3-pole	3-pole	4-pole	4-pole	4-pole

MIL	Cable
	
6-pole	4-pole

M12x1 (Socket, Example) 5-pole, 3-wire		
	AC	DC
	1 = U+	U+
	2 = OUT	OUT
	3 = U-	U-
	4 = PROG	X
	5 = X	X

Note:

1) only 2-wire or 3-wire DC

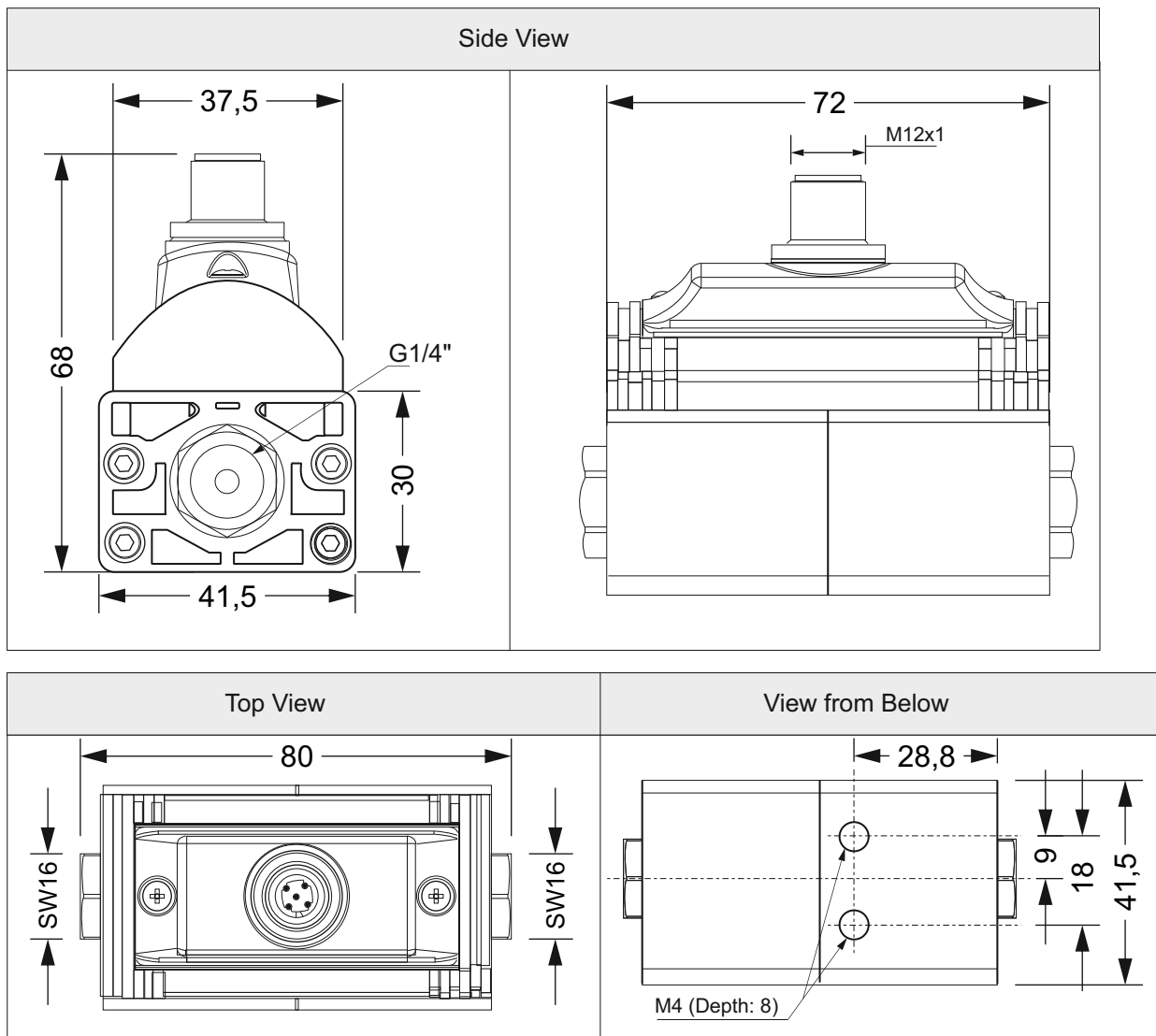
X = NC (not connected / not used)

● **Electrical Connection (Continued)**

Connection Type	Pin Assignment											
	2-Wire				3-Wire AC				3-Wire DC			
	+	OUT	-	PROG	+	OUT	-	PROG	+	OUT	-	PROG
M12, 4-pole	1	X	3	X	1	2	3	4	1	2	3	X
M12, 5-pole	1	X	3	X	1	2	3	4	1	2	3	X
M12, 8-pole	1	X	3	X	1	3	8	4	1	3	8	X
Super Seal, 3-pole	1	X	3	X	n/a				1	2	3	X
Deutsch DT04, 3-pole	A	X	B	X	n/a				A	C	B	X
Deutsch DT04, 4-pole	1	X	3	X	1	2	3	4	1	2	3	X
Bayonet, 4-pole	1	X	3	X	1	2	3	4	1	2	3	X
Valve, 4-pole	1	X	2	X	1	3	2	4	1	3	2	X
MIL, 6-pole	A	X	C	X	A	E	C	B	A	E	C	X
Cable, n-pole	ye	X	wt	X	ye	gn	wt	gr	ye	gn	wt	X

Note: X = NC (not connected / not used)

● **Dimensions (in mm)**



● **Order Code**

J R X X X X X X X - X X

Pressure ranges:	0...1 bar	0																		
	0...2,5 bar	1																		
	0...4 bar	2																		
	0...6 bar	3																		
	0...10 bar	4																		
Output:	4...20 mA (2-wire)	1																		
	4...20 mA (3-wire)	2																		
	0...10 VDC (3-wire)	3																		
Accuracy:	< 2% of measuring range (FS)	0																		
	< 1% of measuring range (FS)	1																		
Supply:	12...35 VDC (3-Leiter)	0																		
	14...24 VAC and VDC (3-Leiter)	1																		
	9...35 VDC (2-Leiter)	2																		
Process connection:	2x G1/4"	0																		
Casing:	PBT GF 30	0																		
	1.4571 stainless steel	1																		
	Aluminum (anodized)	2																		
Electr. connection:	M12, 4-pole	0																		
	M12, 5-pole	1																		
	M12, 8-pole	2																		
	Deutsch DT04, 3-pole ¹	3																		
	Deutsch DT04, 4-pole	4																		
	Super Seal 1.5, 3-pole ¹	5																		
	Bajonett (DIN), 4-pole	6																		
	Ventilstecker, 4-pole	7																		
	MIL, 6-pole	8																		
Cable, 2 m	9																			
Configuration:	Factory setting ²	0																		
	customized (please specify) ³	1																		
Special model:	No	0																		
	Yes (please specify) ⁴	1																		

- 1) only 2-wire or 3-wire DC
- 2) Configuration: The factory setting follows the order code, the measurement range is equivalent to the pressure range.
- 3) Please select options as per technical data. Values deviating from the order code are possible on request.
- 4) Option *Environmental Temperature -40...+80 °C* is a special model. If this option is requested, please select 1 here and note the special temperature range of -40...+80 °C.