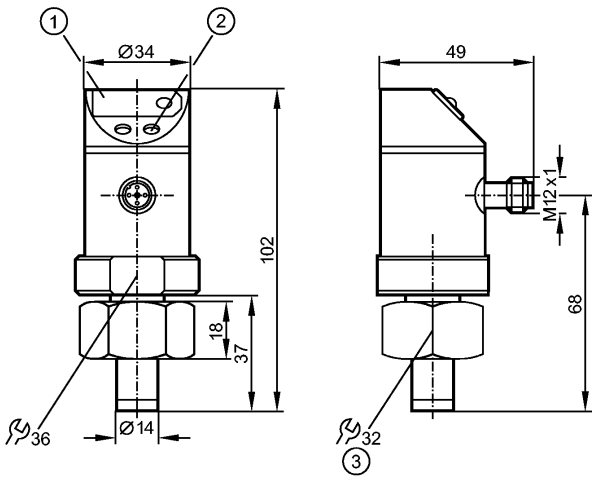
SA3010

SAD18BBDFRKG/W/US-100-IPF

Flow sensors



1: 7-segment LED display
2: Programming buttons
3: internal thread M26 x 1.5

CE

Product characteristics		
Flow monitor		
Can be calibrated for specific T-pieces		
Quick disconnect		
Function programmable		
2 outputs OUT1 = switching output OUT2 = switching output or analog output		
7-segment LED display		
Application		
Application		water*) T-shape fittings (DIN 2353) QL 18-18-18 (nominal diameter 15 mm) / QL 22-18-22 (nominal diameter 19 mm) / QL 28-18-28 (nominal diameter 24 mm)
Pressure rating	[bar]	30
Medium temperature	[°C]	0...80
Electrical data		
Electrical design		DC PNP/NPN
Operating voltage	[V]	20...28 DC
Current consumption	[mA]	< 80
Protection class		III
Reverse polarity protection		yes
Outputs		
Output function		2 x normally open / closed programmable or 1 x normally open / closed programmable + 1 x analogue (4...20 mA / 0...10 V; scaleable)
Current rating	[mA]	2 x 250
Voltage drop	[V]	< 2
Short-circuit protection		yes (non-latching)
Overload protection		yes
Analog output		4...20 mA; 0...10 V
Max. load	[Ω]	500

Min. load	[Ω]	2000
Measuring / setting range		
Flow monitoring		
Measuring range	[l/min]	0...10 (NW15) 0...20 (NW19) 0...40 (NW24)
Display range	[l/min]	0...12 (NW15) 0...24 (NW19) 0...48 (NW24)
Set point, SP	[l/min]	0.1...12.0 (NW15) 0.2...24.0 (NW19) 0.4...48.0 (NW24)
Reset point, rP	[l/min]	0.0...11.9 (NW15) 0.0...23.8 (NW19) 0.0...47.6 (NW24)
Analog start point, ASP	[l/min]	0.0...8.0 (NW15) 0.0...16.0 (NW19) 0.0...32.0 (NW24)
Analog end point, AEP	[l/min]	4.0...12.0 (NW15) 8.0...24.0 (NW19) 16.0...48.0 (NW24)
in steps of	[l/min]	0.1 0.1 0.1
Accuracy / deviations		
Flow monitoring		
Accuracy	[% of the final value]	max. ± 10
Repeatability	[% of the measured value]	3 (Q < 30%) / 7 (Q < 100%)
Max. temperature gradient of medium	[K/min]	200
Reaction times		
Power-on delay time	[s]	10
Flow monitoring		
Start-up delay	[s]	0...50
Response time	[s]	5 (10%...90%)
Software / programming		
Programming options		hysteresis / window function; N.O. / N.C; output polarity; current / voltage output; inside pipe diameter; start-up delay; calibration of displayed values; display can be rotated / deactivated; display unit
Environment		
Ambient temperature	[°C]	-20...60
Protection		IP 67
Tests / approvals		
EMC		EN 61000-4-2 ESD: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 10 V/m EN 61000-4-4 Burst: 2 kV EN 61000-4-6 HF conducted: 10 V
MTTF	[Years]	184
Mechanical data		
Materials (wetted parts)		stainless steel 316L / 1.4404; O-ring: FKM 16 x 1.5 gr 70° Shore A
Housing materials		stainless steel 316L / 1.4404; PBT (Pocan); PC (Makrolon); PA; EPDM/X (Santoprene); FPM (Viton)
Weight	[kg]	0.325
Displays / operating elements		
Display		Switching status 2 x LED red Measured values 7-segment LED display Programming 7-segment LED display
Electrical connection		
Connection		M12 connector; gold-plated contacts
Wiring		

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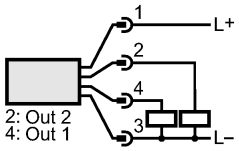
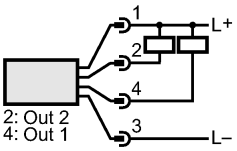
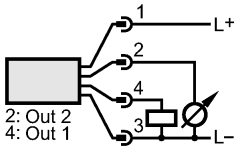
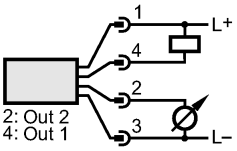
Programming of the output function
(OUT1 / OUT2):
Hno = hysteresis / normally open
Hnc = hysteresis / normally closed
Fno = window function / normally open
Fnc = window function / normally closed
Complementary outputs:
output 1: = Hno, output 2: = Hnc
(with the same SP / rP)









Programming of the analog output (OUT2):
I = current output (4...20 mA)
U = voltage output (0...10 V)

Remarks

Remarks	NW = nominal diameter *) Clean water without contamination and additives. Dirt/build-up on the sensor tip affects the measurement accuracy. Recommended maintenance: Check the sensor tip for build-up from time to time. If necessary, clean it with a soft cloth and a vinegar cleansing agent.
Pack quantity [piece]	1