

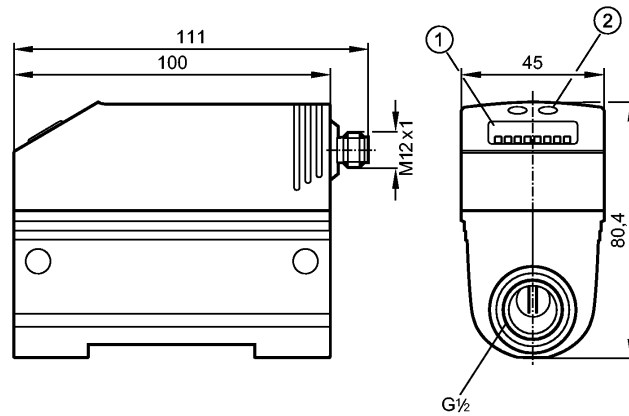


SD6050

SDR12DGXFPKG/US-100



Flow sensors



- 1: 4-digit alphanumeric display
- 2: Programming buttons



Product characteristics

Compressed air meter
Quick disconnect
Process connection: G ½ (DN15)
Function programmable
2 outputs
OUT1: flow monitoring (binary), quantity meter (pulse), preset counter (binary)
OUT2: flow or temperature monitoring (analogue or binary)
flow monitoring
Display range
0.0...90 Nm ³ /h
Measuring range
0.2...75 Nm ³ /h
Temperature monitoring
Display range
-12...72 °C

Application

Application	compressed air
Pressure rating [bar]	16
Medium temperature [°C]	0...60

Electrical data

Electrical design	DC PNP
Operating voltage [V]	18...30 DC ¹⁾
Current consumption [mA]	< 110
Protection class	III
Reverse polarity protection	yes

Outputs

Output function	OUT1: normally open / closed programmable or pulse OUT2: normally open / closed programmable or analog (4...20 mA scaleable)
Current rating [mA]	2 x 250
Voltage drop [V]	< 2
Short-circuit protection	yes (non-latching)



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Overload protection	yes
Analog output	4...20 mA
Max. load [Ω]	< 500
Pulse output	consumed quantity meter

Measuring / setting range

Flow monitoring			
Measuring range	0.2...75 Nm ³ /h	10...1250 NI/min	0.3...103.6 Nm/s
Display range	0.0...90 Nm ³ /h	0...1500 NI/min	0.0...124.3 Nm/s
Set point, SP	0.6...75 Nm ³ /h	10...1250 NI/min	0.8...103.6 Nm/s
Reset point, rP	0.2...74.6 Nm ³ /h	4...1244 NI/min	0.3...103.1 Nm/s
Analog start point, ASP	0.0...56.3 Nm ³ /h	0...938 NI/min	0.0...77.7 Nm/s
Analog end point, AEP	18.7...75.0 Nm ³ /h	312...1250 NI/min	25.9...103.6 Nm/s
in steps of	0.1 Nm ³ /h	1 NI/min	0.1 Nm/s
Volumetric flow quantity monitoring			
Pulse value	0.001...1000000 m ³		
in steps of	0.001 m ³		
Pulse length [s]	≥ 0.02 / ≤ 2		
Temperature monitoring			
Measuring range [°C]	0...60		
Display range [°C]	-12...72		

Accuracy / deviations

Flow monitoring	
Accuracy (within measuring range)	± (15% MW + 1.5% MEW) ***)
Repeatability[% of the measured value]	± 1.5
Temperature monitoring	
Accuracy [K]	± 2 **)

Reaction times

Power-on delay time [s]	1
Flow monitoring	
Response time [s]	< 0.1 (dAP = 0)
Damping, dAP [s]	0 - 0.2 - 0.4 - 0.6 - 0.8 - 1

Software / programming

Programming options	hysteresis / window function; N.O. / N.C; current / pulse output; display can be rotated / deactivated; display unit, totalizer
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Interfaces

IO-Link Device	
Transfer type	COM2 (38.4 kBaud)
IO-Link revision	1.1
SDCI standard	IEC 61131-9 CDV
IO-Link Device ID	262 d / 00 01 06 h
Profiles	no profile
SIO mode	yes
Required master port class	A
Process data analogue	3
Process data binary	2
Min. process cycle time [ms]	4.1

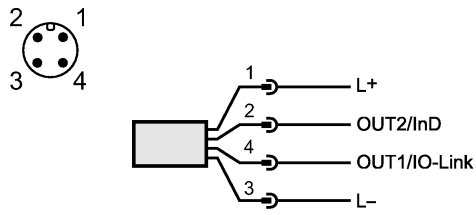


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Environment	
Ambient temperature [°C]	0...60
Storage temperature [°C]	-20...85
Max. relative air humidity [%]	90
Protection	IP 65
Tests / approvals	
Pressure equipment directive	article 3, section 3 - sound engineering practice
EMC	DIN EN 61000-6-2 DIN EN 61000-6-3
Vibration resistance	DIN EN 68000-2-6: 5 g (55...2000 Hz)
MTTF [Years]	227
Mechanical data	
Process connection	G ½ (DN15)
Materials (wetted parts)	stainless steel (304S15); FKM; ceramics glass passivated; PEEK GF30; polyester; aluminum
Housing materials	PBT-GF 20; NBR; PC (polycarbonate); stainless steel (304S15); PTFE; brass coated; FKM; aluminum powder-coated
Tightening torque [Nm]	50
Weight [kg]	0.581
Displays / operating elements	
Display	Display unit 5 x LED green (NI/min, Nm ³ /h, Nm/s, Nm ³ , °C) Function display 1 x LED green Switching status 2 x LED yellow Measured values 4-digit alphanumeric display Programming 4-digit alphanumeric display
Electrical connection	
Connection	M12 connector
Wiring	 <p>OUT1/IO-Link: 3 selection options</p> <ul style="list-style-type: none"> - switching output flow rate monitoring - pulse output quantity meter - signal output preset counter <p>OUT2/InD: 5 selection options</p> <ul style="list-style-type: none"> - switching output flow rate monitoring - switching output temperature monitoring - analogue output flow rate - analogue output temperature - input signal counter reset
Remarks	
Remarks	1) to EN50178, SELV, PELV **) medium flow in the limit area of the flow measurement range ***) maximum value to be achieved for air quality class 344 (DIN 8573-1) and when used in pipes of tolerance class T3 / T4; inlet and outlet pipe lengths without edges and abrupt diameter changes, inner surface of the pipe free of burrs MW = measured value MEW = final value of the measuring range Measuring, display and setting ranges refer to standard volume flow according to DIN ISO 2533. For information about installation and operation please see the operating instructions.
Pack quantity [piece]	1



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