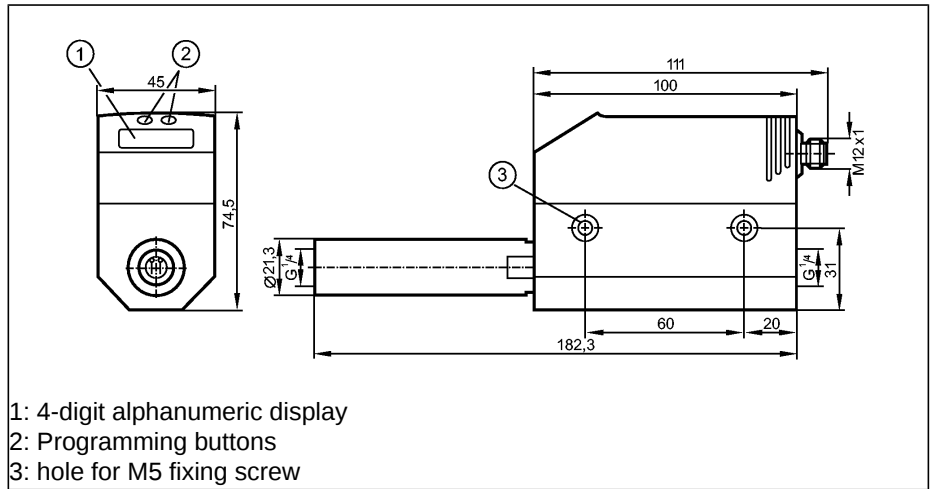


Flow sensors

SD5000

SDR14DGXFPKG/US
Compressed air meter
Plug and socket
Process connection: G $\frac{1}{4}$ (DN8)

Function programmable
2 outputs
OUT1 = flow monitoring (binary), flow rate meter (pulse), preset meter (binary)
OUT2 = flow monitoring (analogue or binary)
Monitoring range
0...18 Nm 3 /h
Measuring range
0.06...15 Nm 3 /h
Temperature indication
0...60 °C



1: 4-digit alphanumeric display
2: Programming buttons
3: hole for M5 fixing screw



Application

Electrical design

Output

Compressed air
Air quality(DIN 8573-1):
Class 141 (measuring error: see below, value A)
Class 344 (measuring error: see below, value B)

DC PNP

OUT1: normally open / closed programmable or pulse
OUT2: normally open / closed programmable or analogue (4...20 mA scaleable)

Operating voltage	[V]
Current rating	[mA]
Short-circuit protection	
Reverse polarity protection	
Overload protection	
Voltage drop	[V]
Current consumption	[mA]
Power-on delay time	[s]
Analogue output	
Pulse output	
Pulse value / setting in steps of [m 3]	
Pulse length [s]	
Programming options	

19...30 DC ¹⁾
2 x 250
pulsed
yes
yes
< 2
< 100
0.5
4...20 mA (< 500 Ω)
consumed quantity meter
0.001...1 000 000 / 0.001...1000
0.2 / max. 2
hysteresis / window function; NO / NC; current / pulse output; display can be rotated / deactivated; display unit

Flow monitoring	
Display range	0.00...18.00 Nm 3 /h
Measuring range	0.06...15.00 Nm 3 /h
Setting range	
Set point, SP	0.14...15.00 Nm 3 /h
Reset point, rP	0.06...14.92 Nm 3 /h
Analogue start point, ASP	0.00...11.24 Nm 3 /h
Analogue end point, AEP	3.74...15.00 Nm 3 /h
in steps of	0.02 Nm 3 /h
Damping, dAP	[s]
Response time	[s]
Accuracy [% of the final value]	
Measuring dynamics	
Temperature monitoring	
Display range	0.0...60.0
Measuring range	0.0...60.0
Accuracy	[°C] ± 2 **)

0.0...300.0 NI/min	0.0...300.0 NI/min
0.83 (0.8)...250.0 *) NI/min	0.83 (0.8)...250.0 *) NI/min
2.5...250.0 NI/min	2.5...250.0 NI/min
1.0...249.0 NI/min	1.0...249.0 NI/min
0.0...187.5 NI/min	0.0...187.5 NI/min
62.5...250.0 NI/min	62.5...250.0 NI/min
0.5 NI/min	0.5 NI/min
0 - 0.2 - 0.4 - 0.6 - 0.8 - 1	0 - 0.2 - 0.4 - 0.6 - 0.8 - 1
< 0.1 (dAP = 0)	< 0.1 (dAP = 0)
A): $\pm (3\% MW + 0.3\% MEW)$ / B): $\pm (6\% MW + 0.6\% MEW)$	A): $\pm (3\% MW + 0.3\% MEW)$ / B): $\pm (6\% MW + 0.6\% MEW)$
1:300	1:300
0.0...60.0	0.0...60.0
0.0...60.0	0.0...60.0
± 2 **)	± 2 **)

SD5000

Max. relative air humidity [%]	90
Ambient temperature [°C]	0...60
Medium temperature [°C]	0...60
Storage temperature [°C]	-20...85
Protection	IP 65, III
Pressure rating [bar]	16
Vibration resistance	DIN IEC 68-2-6:5 g (55...2000 Hz)
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
Housing materials	PBT-GF 20; PC (APEC); Makrolon; stainless steel (304S15); Viton
Materials (wetted parts)	stainless steel (304S15); ceramics; glass passivated; PEEK (polyether ether ketone); polyester; Viton; aluminium; anodised
Display	Display unit 4 LED green (NI/min, Nm ³ /h, Nm ³ , °C) Function display 1 LED yellow Switching status 2 LED yellow Measured values 4-digit alphanumeric display Programming 4-digit alphanumeric display
Connection	M12 connector
Remarks	<p>1) to EN50178, SELV, PELV; referring to UL: "limited voltage" with overcurrent protection in accordance with UL508</p> <p>*) in brackets: displayed value</p> <p>***) medium flow in the limit area of the flow measurement range</p> <p>MW = measured value MEW = final value of the measuring range</p> <p>Measuring, display and setting ranges refer to standard volume flow according to DIN ISO 2533.</p> <p>For information about installation and operation please see the operating instructions.</p>

Wiring

Programming of the output function

-----OUT1-----

- Switching output

Hno = hysteresis / normally open

Hnc = hysteresis / normally closed

Fno = window function / normally open

Fnc = window function / normally closed

- ImP = pulse output for flow rate meter / signal output for preset meter

-----OUT2-----

- Switching output

Hno = hysteresis / normally open

Hnc = hysteresis / normally closed

Fno = window function / normally open

Fnc = window function / normally closed

- Analogue output

I = current output (4...20 mA)

