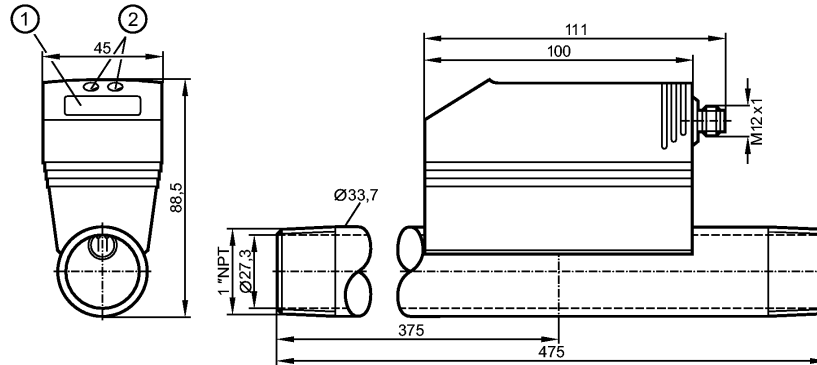


SDN11DGXFPKG/US-100

Flow sensors



1: 4-digit alphanumeric display
2: Programming buttons



Product characteristics

Compressed air meter

Quick disconnect

Process connection: 1" NPT (DN25)

Function programmable

2 outputs

OUT1 = flow monitoring (binary), flow rate meter (pulse), preset meter (binary)

OUT2 = flow monitoring (analog or binary)

Monitoring range

0.0...158.9 scfm

Measuring range

1.0...132.4 scfm

Temperature indication

32...140 °F

Application

Application

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

Pressure rating [psi]

232

MAWP (for applications according to CRN) [bar]

16

Medium temperature [°F]

32...140

Electrical data

DC PNP

Electrical design

Operating voltage [V]

19...30 DC ¹⁾

Current consumption [mA]

< 100

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)

Overload protection

yes

Analog output

4...20 mA

Max. load [Ω]

< 500

SD8001 - Compressed air meter - eclass: 27273101 / 27-27-31-01

Pulse output	consumed quantity meter	
Measuring / setting range		
Flow monitoring		
Measuring range	1.0...132.4 scfm	30...7946 scfh
Display range	0.0...158.9 scfm	0...9535 scfh
Set point, SP	1.2...132.4 scfm	70...7945 scfh
Reset point, rP	0.5...131.7 scfm	30...7905 scfh
Analog start point, ASP	0.0...99.3 scfm	0...5960 scfh
Analog end point, AEP	33.1...132.4 scfm	1985...7945 scfh
in steps of	0.1 scfm	5 scfh
Volumetric flow quantity monitoring		
Pulse value	0.120...4 000 000 scf	
in steps of	0.020...1000 scf	
Pulse length [s]	0.045...2	
Temperature monitoring		
Measuring range [°F]	32...140	
Display range [°F]	32...140	
Accuracy / deviations		
Flow monitoring		
Accuracy (within measuring range)	A): $\pm (3\% MW + 0.3\% MEW)$ / B): $\pm (6\% MW + 0.6\% MEW)$ ***)	
Repeatability[% of the measured value]	± 1.5	
Temperature monitoring		
Accuracy [K]	± 2 **)	
Reaction times		
Power-on delay time [s]	0.5	
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; NO / NC; current / pulse output; display can be rotated / deactivated; display unit	
Environment		
Ambient temperature [°F]	32...140	
Storage temperature [°F]	-4...185	
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	1" NPT (DN25)	
Materials (wetted parts)	1.4306 (V2A / 304L); FKM; ceramics glass passivated; PEEK GF30; polyester; aluminum	
Housing materials	PBT-GF 20; NBR; PC (polycarbonate); 1.4306 (V2A / 304L); PTFE; brass coated; aluminum powder-coated	
Weight [kg]	1.864	
Displays / operating elements		
Display	Display unit 4 x LED green (scfm, scfh, scf, °F) Function display 1 x LED yellow Switching status 2 x LED yellow Measured values 4-digit alphanumeric display Programming 4-digit alphanumeric display	
Electrical connection		
Connection	M12 connector	
Wiring		

SD8001 - Compressed air meter - eclass: 27273101 / 27-27-31-01

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

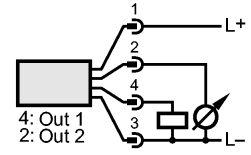
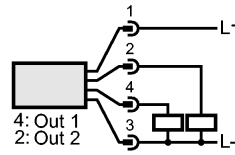
Hnc = hysteresis / normally closed

Fno = window function / normally open

Fnc = window function / normally closed

- Analog output

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



Remarks
Remarks

1) to EN50178, SELV, PELV
 **) medium flow in the limit area of the flow measurement range
 ***) under conditions acc. to DIN ISO 2533 and when installed in DN25 pipes
 scf = standard cubic feet
 scfh = standard cubic feet per hour
 scfm = standard cubic feet per minute
 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