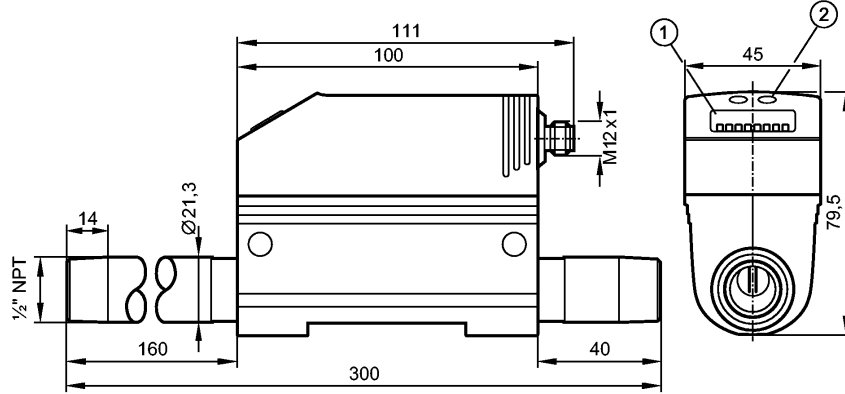


SD6001

SDN12DGXFPKG/US-100

Flow sensors



1: 4-digit alphanumeric display
2: Programming buttons



Product characteristics

Compressed air meter
Quick disconnect
Process connection: ½" NPT (DN15)
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...53.0 scfm
Measuring range
0.2...44.1 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

Electrical design	DC PNP
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



SD6001

SDN12DGXFPKG/US-100

Flow sensors

Short-circuit protection	yes (non-latching)
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...44.1 scfm	10...2650 scfh
Display range	0.0...53.0 scfm	0...3178 scfh
Set point, SP	0.4...44.1 scfm	25...2650 scfh
Reset point, rP	0.2...43.9 scfm	10...2635 scfh
Analog start point, ASP	0.0...33.1 scfm	0...1985 scfh
Analog end point, AEP	11.0...44.1 scfm	660...2650 scfh
in steps of	0.1 scfm	5 scfh
Volumetric flow quantity monitoring		
Pulse value	0.040...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): ± (3% MW + 0.3% MEW) / B): ± (6% MW + 0.6% 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; NO / NC; current / pulse output; display can be rotated / deactivated; display unit
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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

SD6001

SDN12DGXFPKG/US-100

Flow sensors

Mechanical data	
Process connection	½" NPT (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
Weight [kg]	1.164

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

Programming of the output function

-----OUT1-----

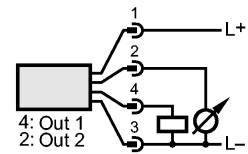
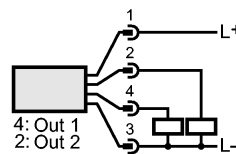
- Switching output
- Hno = hysteresis / normally open
- Hnc = hysteresis / normally closed
- Fno = window function / normally open
- Fnc = window function / normally closed

- 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 DN15 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.
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Pack quantity [piece]	1
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