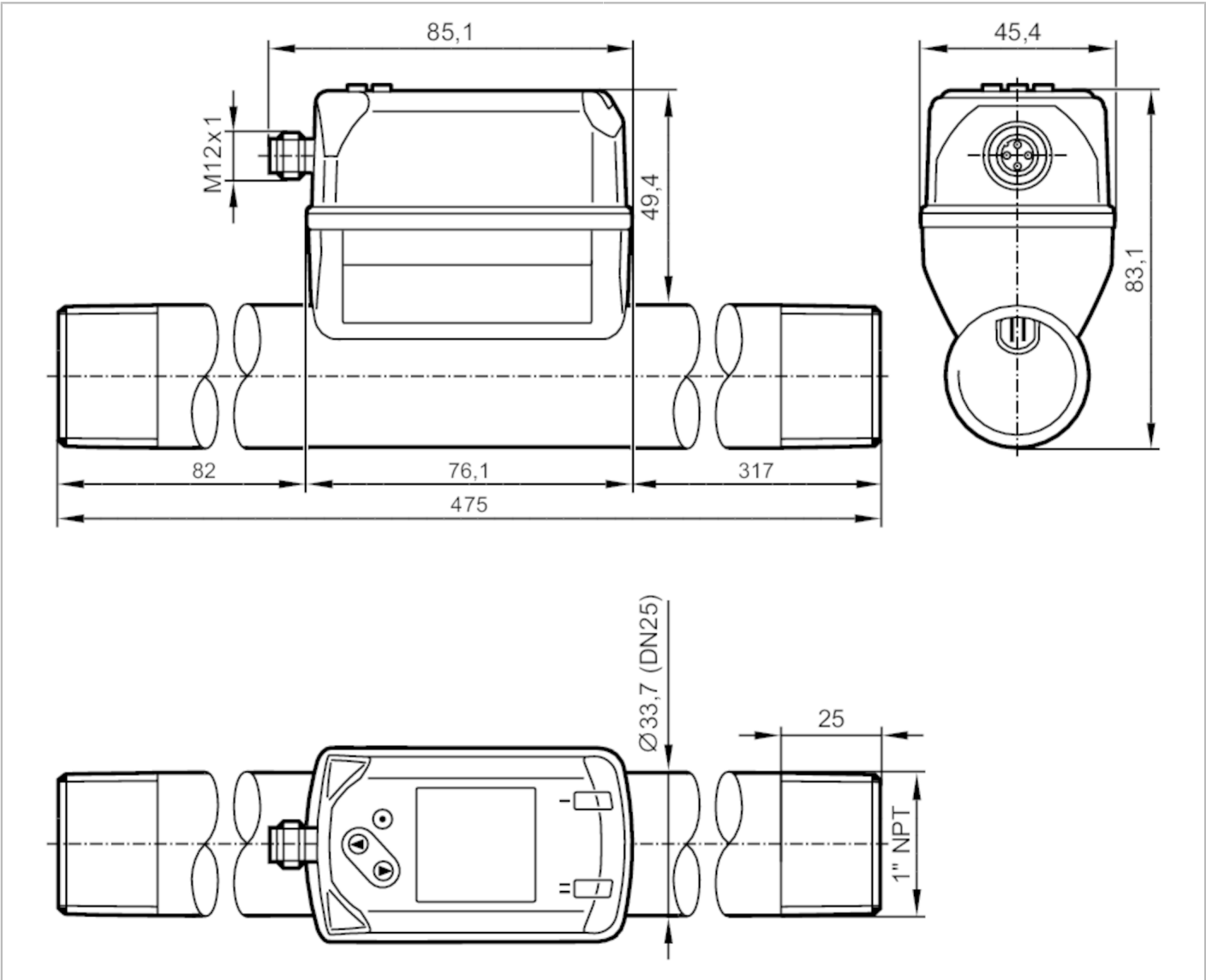


SD8501



Compressed air meter

SDN11DGXFRKG/US-100



Product characteristics			
Number of inputs and outputs		Number of digital outputs: 2; Number of analog outputs: 1	
Measuring range		25...7945 scfh	0.4...132.4 scfm 1.2...340.2 ft/s
Process connection		threaded connection 1" NPT external thread DN25	
Application			
Application		for industrial applications	
Media		compressed air	
Medium temperature	[°C]	-10...60	
Min. burst pressure	[psi]	928	
Pressure rating	[psi]	232	
MAWP (for applications according to CRN)	[bar]	10.5	
Electrical data			
Operating voltage	[V]	18...30 DC; (to SELV/PELV)	

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Current consumption	[mA]	< 80
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	1

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1
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Inputs

Inputs	counter reset
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Outputs

Output signal	switching signal; analog signal; pulse signal; IO-Link; (configurable)
Electrical design	PNP/NPN
Number of digital outputs	2
Output function	normally open / closed; (configurable)
Max. voltage drop switching output DC	[V] 2.5
Permanent current rating of switching output DC	[mA] 150; (per output)
Number of analog outputs	1
Analog current output	[mA] 4...20; (scalable)
Max. load	[Ω] 500
Pulse output	consumed quantity meter
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
Overload protection	yes

Measuring/setting range

Measuring range	25...7945 scfh	0.4...132.4 scfm	1.2...340.2 ft/s
Display range	0...9535 scfh	0...158.9 scfm	0...408.2 ft/s
Resolution	5 scfh	0.1 scfm	0.2 ft/s
Set point SP	69...7943 scfh	1.1...132.4 scfm	3...340.1 ft/s
Reset point rP	30...7904 scfh	0.5...131.7 scfm	1.3...338.4 ft/s
Analog start point ASP	0...6357 scfh	0...105.9 scfm	0...272.2 ft/s
Analog end point AEP	1589...7946 scfh	26.5...132.4 scfm	68...340.2 ft/s
Low flow cut-off LFC	9...85 scfh	0.2...1.4 scfm	0.4...3.6 ft/s
In steps of	1 scfh	0.1 scfm	0.1 ft/s

Pressure monitoring

Measuring range	[psi]	-15...232
Display range	[psi]	-15...290
Resolution	[psi]	1
Set point SP	[psi]	-13...232
Reset point rP	[psi]	-15...231
Analog start point	[psi]	-15...186
Analog end point	[psi]	32...232
In steps of	[psi]	1

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Volumetric flow quantity monitoring		
Measuring range	0...100000000 m³	0...353146667.2 scf
Display range	0...100000000 m³	0...353146667.2 scf
Set point SP	0.001...10000000 m³	0.05...353146667.2 scf
Pulse value	0.001...10000000 m³	0.05...353146667.2 scf
In steps of	0.0001 m³	0.005 scf
Pulse length [s]	0.007...2	
Temperature monitoring		
Measuring range	-10...60 °C	14...140 °F
Display range	-24...74 °C	-11.2...165.2 °F
Resolution	0.2 °C	0.5 °F
Set point SP	-9.7...60 °C	14.6...140 °F
Reset point rP	-10...59.7 °C	14...139.4 °F
Analog start point	-10...46 °C	14...114.8 °F
Analog end point	4...60 °C	39.2...140 °F
In steps of	0.1 °C	0.1 °F
Accuracy / deviations		
Temperature coefficient [1/K]	± 0,07 % MW	
Accuracy (in the measuring range)	class 141: ± (2 % MW + 0,5 % MEW); class 344: ± (6 % MW + 0,6 % MEW) ; air quality to ISO 8573-1:2010; at medium temperature 73 °F	
Repeatability	± (0,4 % MW + 0,1 % MEW)	
Pressure monitoring		
Repeatability [% of the final value]	± 0,2	
Characteristics deviation [% of the final value]	< ± 0,5; (BFSL = Best Fit Straight Line)	
Greatest TEMPCO of the span [% MEW / 10 K]	± 0,3	
Greatest TEMPCO of the zero point [% MEW / 10 K]	± 0,1	
Temperature monitoring		
Accuracy [K]	± 0,5; (medium flow in the limit area of the flow measurement range)	
Reaction times		
Response time [s]	0.1; (dAP = 0)	
Damping process value dAP [s]	0...5	
Pressure monitoring		
Response time [s]	0.05	
Temperature monitoring		
Dynamic response T05 / T09 [s]	T09 = 0,5	
Software / programming		
Parameter setting options	hysteresis / window; normally open / closed; current/pulse output; display can be rotated and switched off; Display unit; totalizer	
Interfaces		
Communication interface	IO-Link	

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Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9 CDV	
Profiles	Common - I&D	Identification and Diagnosis
	Function	Measurement data, standard resolution
SIO mode	yes	
Required master port class	A	
Process data analog	8	
Process data binary	2	
Min. process cycle time [ms]	7.2	
Supported DeviceIDs	Type of operation	DeviceID
	default	867

Operating conditions

Ambient temperature [°F]	32...140
Storage temperature [°C]	-4...185
Max. relative air humidity [%]	90
Protection	IP 65; IP 67

Tests / approvals

EMC	DIN EN 60947-5-9	
Vibration resistance	DIN EN 68000-2-6	5 g (10...2000 Hz)
MTTF [years]	183	
UL approval	UL approval number	I012
	File number UL	E174189
Pressure equipment directive	sound engineering practice; can be used for stable gases fluid group 2	

Mechanical data

Weight [g]	1581
Housing	rectangular
Dimensions [mm]	475 x 45.4 x 83.1
Material	PBT+PC-GF30; PPS GF40; stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); steel (1.5523) galvanized; 2.0401 (brass / CW614N); FKM
Materials (wetted parts)	stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); FKM; ceramics glass passivated; PPS GF40; Al2O3 (ceramics); acrylate
Process connection	threaded connection 1" NPT external thread DN25

Displays / operating elements

Display	Color display 1,44", 128 x 128 pixels
	2 x LED, yellow

Remarks

Remarks	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	1 pcs.

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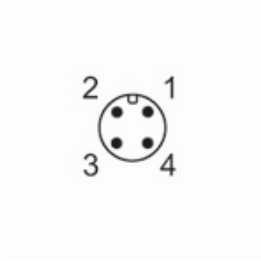


Compressed air meter

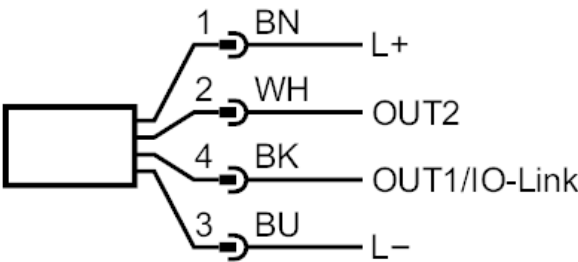
SDN11DGXFRKG/US-100

Electrical connection

Connector: 1 x M12; coding: A



Connection



- OUT1/IO-Link:

Switching output flow
Switching output temperature
Switching output pressure
Pulse output quantity meter
signal output Preset counter
- OUT2/InD:

Switching output flow
Switching output temperature
Switching output pressure
analog output flow
analog output temperature
analog output pressure
signal output Preset counter
Pulse output quantity meter
Input counter reset