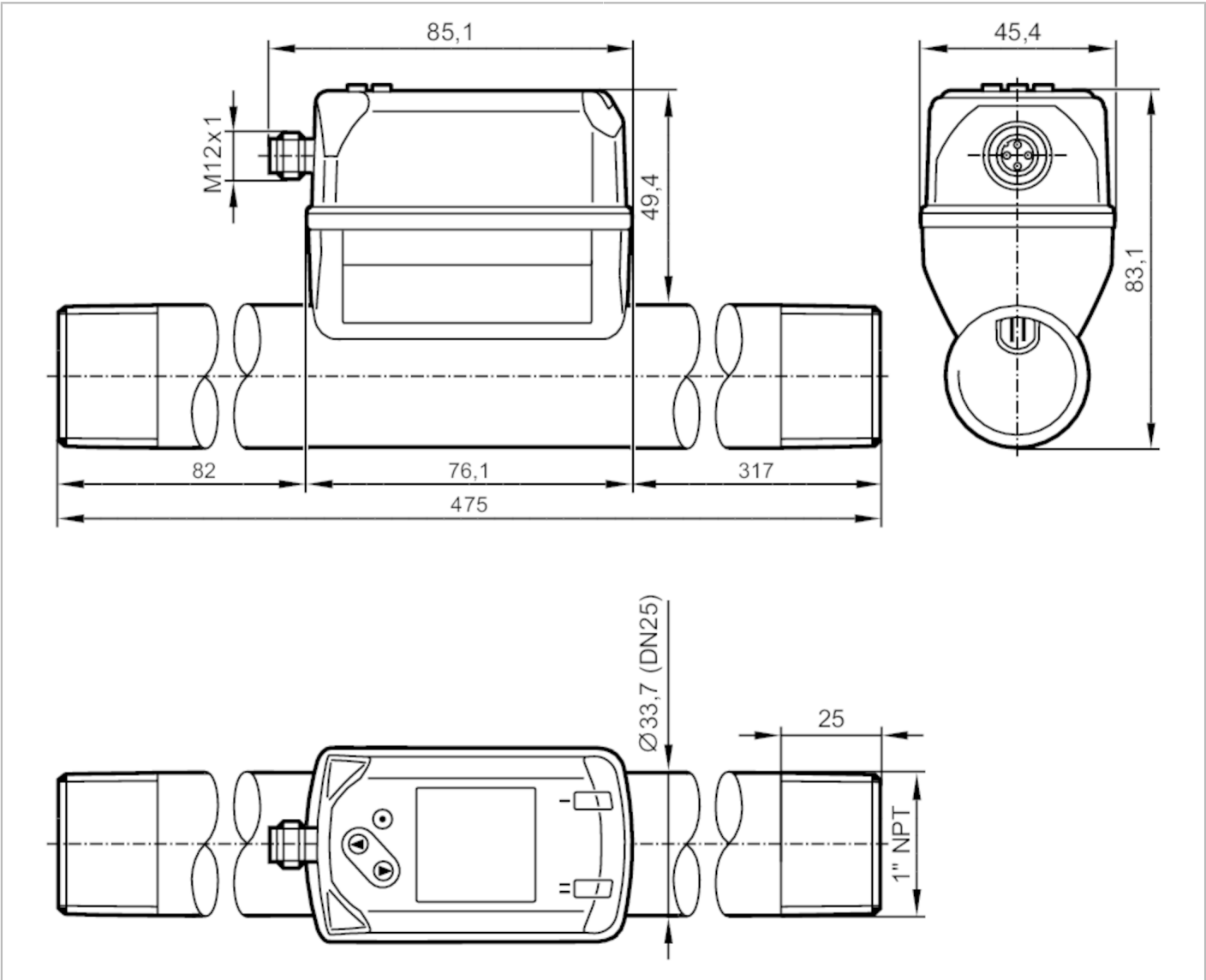


SD8501



Compressed air meter

SDN11DGXFRKG/US-100



Product characteristics			
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Measuring range	25...7945 scfh	0.4...132.4 scfm	1.2...340.2 ft/s
Process connection	threaded connection 1 NPT DN25		
Application			
Application	for industrial applications		
Media	compressed air		
Medium temperature	[°C]	-10...60	
Min. bursting pressure	[psi]	928	
Pressure rating	[psi]	232	



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Electrical data				
Operating voltage	[V]	18...30 DC; (according to EN 50178 SELV/PELV)		
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 analogue outputs: 1		
Inputs				
Inputs		counter reset		
Outputs				
Output signal		switching signal; analogue signal; pulse signal; IO-Link; (configurable)		
Electrical design		PNP/NPN		
Number of digital outputs		2		
Output function		normally open / normally closed; (parameterisable)		
Max. voltage drop switching output DC	[V]	2.5		
Permanent current rating of switching output DC	[mA]	150; (per output)		
Number of analogue outputs		1		
Analogue current output	[mA]	4...20; (scalable)		
Max. load	[Ω]	500		
Pulse output		consumed quantity meter		
Short-circuit protection		yes		
Type of short-circuit protection		pulsed		
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
Analogue start point ASP		0...6357 scfh	0...105.9 scfm	0...272.2 ft/s
Analogue 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



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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
Analogue start point	[psi]	-15...186
Analogue end point	[psi]	32...232
In steps of	[psi]	1
Volumetric flow quantity monitoring		
Measuring range	0...100000000 m ³	0...353146667.2 scf
Display range	0...100000000 m ³	0...353146667.2 scf
Set point SP	0.001...10000000 m ³	0.05...353146667.2 scf
Pulse value	0.001...10000000 m ³	0.05...353146667.2 scf
In steps of	0.0001 m ³	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
Analogue start point	-10...46 °C	14...114.8 °F
Analogue 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		0,8 % MW + 0,2 % 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]	± 0,15
Greatest TEMPCO of the zero point	[% MEW / 10 K]	± 0,25
Temperature monitoring		
Accuracy	[K]	± 0,5; (medium flow in the limit area of the flow measurement range)
Response times		
Response time	[s]	0.1; (dAP = 0)
Damping for the switching output dAP	[s]	0...5



Compressed air meter

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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 / normally closed; current/pulse output; display can be rotated and switched off; Display unit; totaliser	
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9 CDV	
IO-Link device ID	867 d / 00 03 63 h	
Profiles	Digital Measuring Sensor (0x800A), Identification and Diagnosis (0x4000)	
SIO mode	yes	
Required master port type	A	
Process data analogue	8	
Process data binary	2	
Min. process cycle time	[ms]	7.2
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 no.	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
Materials	PBT+PC-GF30; PPS GF40; stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); steel (1.5523) galvanised; 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 DN25	
Displays / operating elements		
Display		colour display 1,44", 128 x 128 pixels
		2 x LED, yellow

SD8501



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Remarks	
Remarks	MW = measured value
	MEW = Final value of the measuring range
	Measuring, display and setting ranges refer to the standard volume flow according to DIN ISO 2533.
	For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.

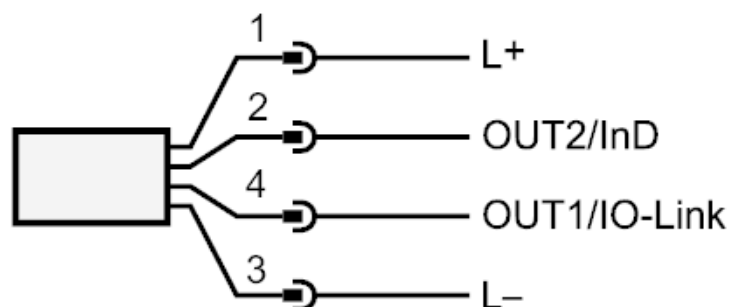
Electrical connection

Connector: 1 x M12





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
- analogue output flow
- analogue output temperature
- analogue output pressure
- signal output Preset counter
- Pulse output quantity meter
- input counter reset