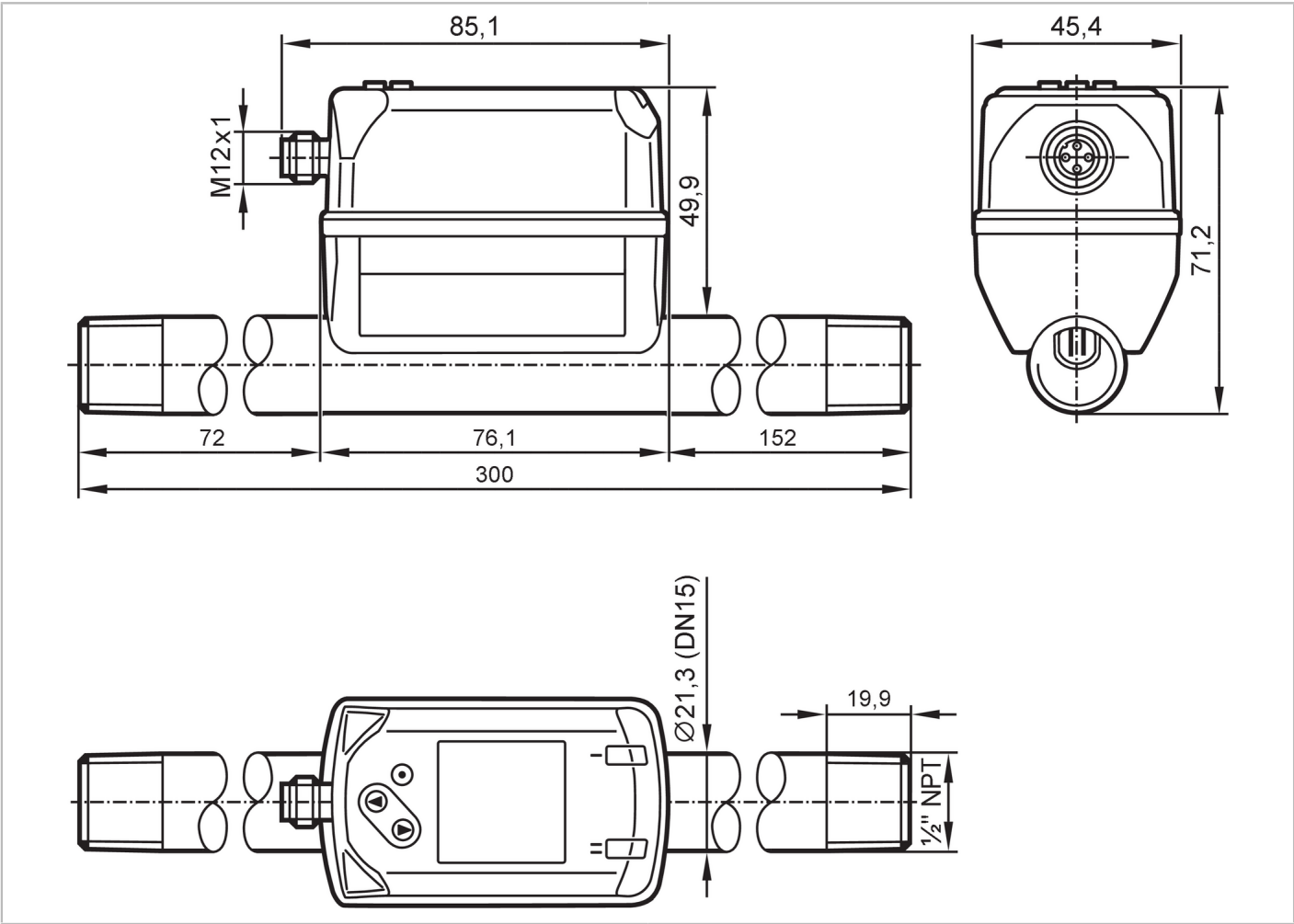


SD6501

Compressed air meter

SDN12DGXFRKG/US-100



CRN



DNV
DNV.COM/AF

IO-Link



UK
CA

Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1		
Measuring range	8...2648 scfh	0.15...44.15 scfm	1...327.4 ft/s
Process connection	threaded connection 1/2" NPT external thread DN15		

Application

Application	for industrial applications	
Media	compressed air	
Medium temperature [°F]	14...140	
Min. burst pressure [psi]	928	
Pressure rating [psi]	232	
MAWP (for applications according to CRN) [bar]	9.7	

Electrical data

Operating voltage [V]	18...30 DC; (to SELV/PELV)
Current consumption [mA]	< 80
Protection class	III
Reverse polarity protection	yes



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Power-on delay time	[s]	1		
Inputs / outputs				
Total number of inputs and outputs		2; (configurable)		
Number of inputs and outputs		Number of digital outputs: 2; Number of analog outputs: 1		
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		8...2648 scfh	0.15...44.15 scfm	1...327.4 ft/s
Display range		0...3178 scfh	0...52.95 scfm	0...393 ft/s
Resolution		2 scfh	0.05 scfm	0.2 ft/s
Set point SP		23...2648 scfh	0.38...44.13 scfm	2.8...327.3 ft/s
Reset point rP		10...2635 scfh	0.16...43.91 scfm	1.2...325.7 ft/s
Analog start point ASP		0...2119 scfh	0...35.31 scfm	0...261.9 ft/s
Analog end point AEP		530...2649 scfh	8.83...44.14 scfm	65.5...327.4 ft/s
Low flow cut-off LFC		3...28 scfh	0.05...0.47 scfm	0.4...3.5 ft/s
In steps of		1 scfh	0.01 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		
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	

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In steps of	0.0001 m³	0.005 scf
Pulse length [s]	0.002...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, T09)	
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	
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

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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	863

Operating conditions		
Ambient temperature [°F]	32...140	
Storage temperature [°F]	-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]	731	
Housing	rectangular	
Dimensions [mm]	300 x 45.4 x 71.2	
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 1/2" NPT external thread DN15	

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.	

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4



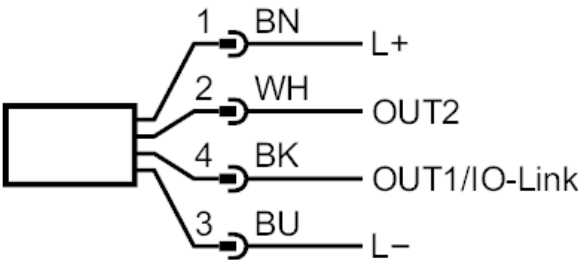
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Connection



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