

Compressed air meter

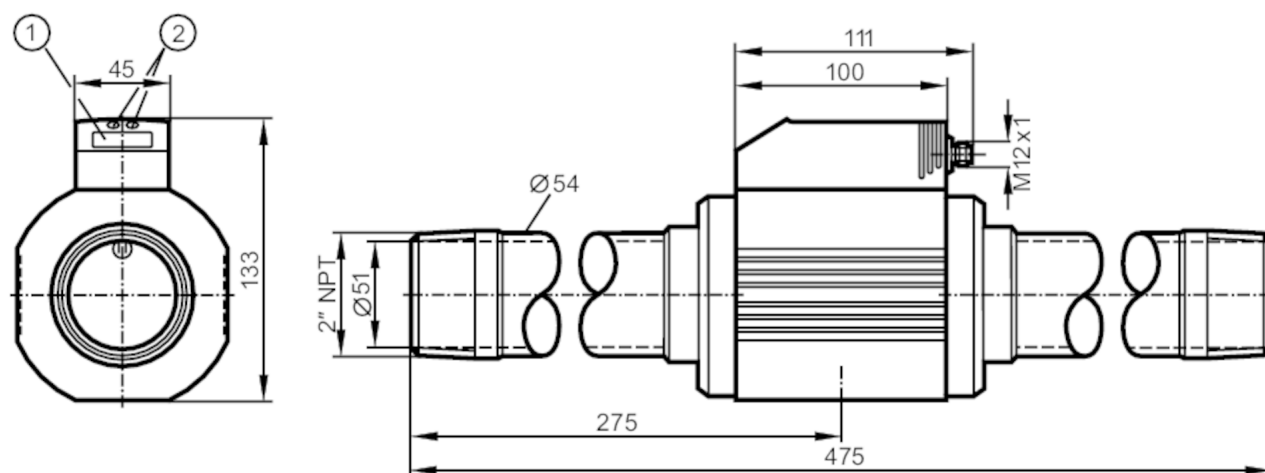
SDN21DGXFPKG/US-100

phase-out article

Discontinuation date: 12/31/2024

Alternative articles: SD2501

When selecting an alternative article and accessories please note that technical data may differ!



- 1 alphanumeric display 4-digit
2 programming buttons



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1	
Measuring range	90...24720 scfh	1.4...412 scfm
Process connection	threaded connection 2" NPT DN50	

Application

Application	for industrial applications	
Media	compressed air	
Note on media	air quality ISO 8573-1	
	class 141	
	class 344	
Medium temperature	[°F]	32...140
Pressure rating	[bar]	16
Pressure rating	[psi]	232
MAWP (for applications according to CRN)	[bar]	16

Electrical data

Operating voltage	[V]	19...30 DC; (to SELV/PELV)
Current consumption	[mA]	< 100
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	0.5



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Inputs / outputs		
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1	
Outputs		
Total number of outputs	2	
Output signal	switching signal; analogue signal; pulse signal; (configurable)	
Electrical design	PNP	
Number of digital outputs	2	
Output function	normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC [V]	2	
Permanent current rating of switching output DC [mA]	250; (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	90...24720 scfh	1.4...412 scfm
Display range	0...29670 scfh	0...494.4 scfm
Set point SP	220...24720 scfh	3.7...412 scfm
Reset point rP	100...24600 scfh	1.6...409.9 scfm
Analogue start point ASP	0...18540 scfh	0...309 scfm
Analogue end point AEP	6180...24720 scfh	103...412 scfm
In steps of	10 scfh	0.1 scfm
Volumetric flow quantity monitoring		
Pulse value	0.400...4 000 000 scf	
In steps of	0.020...1000 scf	
Pulse length [s]	0,049... 2	
Temperature monitoring		
Measuring range [°F]	32...140	
Display range [°F]	32...140	
Accuracy / deviations		
Flow monitoring		
Repeatability [X17]	± 1,5	
Accuracy (in the measuring range)	± (3 % MW + 0,3 % MEW) / ± (6 % MW + 0,6 % MEW); (class 141 /; class 344; conditions: installation to DIN ISO 2533; installation in pipes: DN50)	
Temperature monitoring		
Accuracy [K]	± 2; (medium flow in the limit area of the flow measurement range)	
Response times		
Flow monitoring		
Response time [s]	0.1; (dAP = 0)	



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Damping process value dAP in steps	[s]	0 - 0,2 - 0,4 - 0,6 - 0,8 - 1	
Software / programming			
Parameter setting options		Flow monitoring; quantity meter; Preset counter; hysteresis / window; normally open / normally closed; current/pulse output; display can be rotated and switched off; Display unit	
Operating conditions			
Ambient temperature	[°F]	32...140	
Storage temperature	[°F]	-4...185	
Max. relative air humidity	[%]	90	
Protection		IP 65	
Tests / approvals			
EMC		DIN EN 61000-6-2	
		DIN EN 61000-6-3	
Vibration resistance		DIN EN 68000-2-6	5 g (55...2000 Hz)
MTTF		[ANN]	227
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data			
Weight	[g]	4269.5	
Materials		PBT-GF20; NBR; PC; stainless steel (1.4301 / 304); PTFE; brass coated; FKM; aluminium powder-coated	
Materials (wetted parts)		stainless steel (1.4301 / 304); FKM; ceramics glass passivated; PEEK GF30; polyester; aluminium	
Process connection		threaded connection 2" NPT DN50	
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	alphanumeric display, 4-digit
		programming	alphanumeric display, 4-digit
Remarks			
Remarks		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 the 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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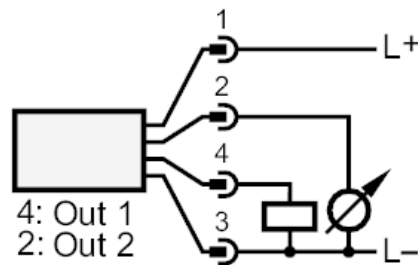
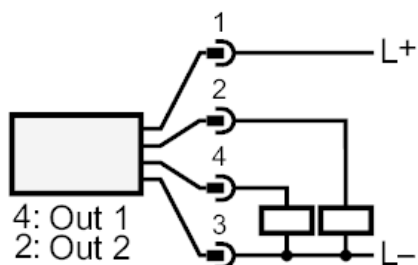
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Electrical connection

Connector: 1 x M12; coding: A



Connection



OUT1: switching output
Pulse output quantity meter
signal output Preset counter

OUT2: switching output
analogue output