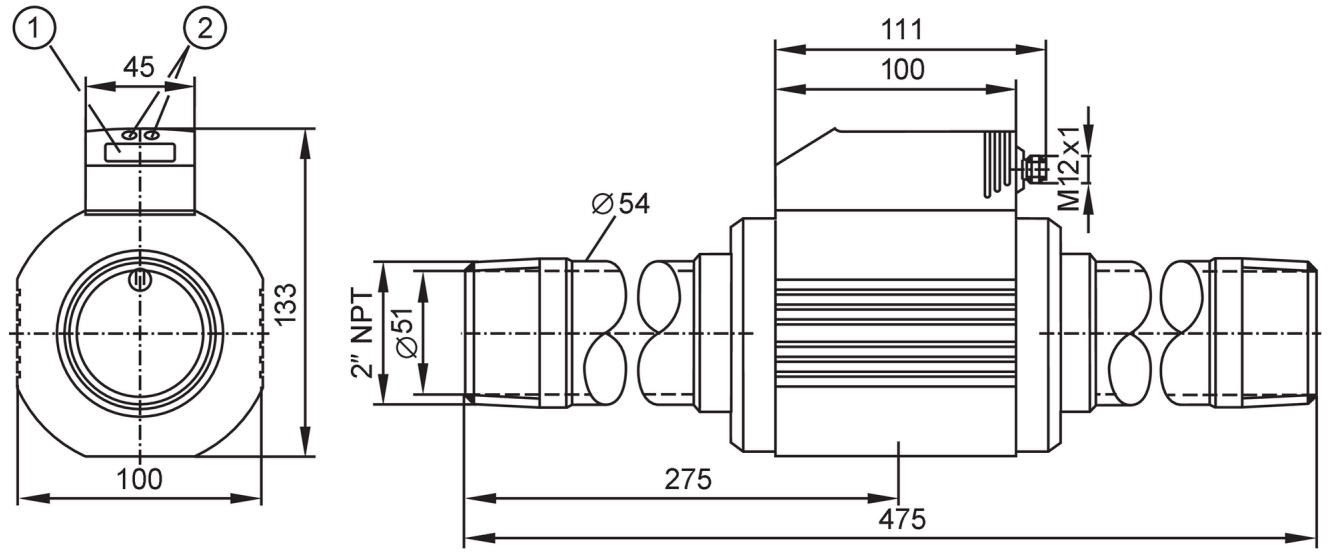
SD2001

Compressed air meter

SDN21DGXFPKG/US-100

phase-out article

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 external thread 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		16 bar	232 psi	1.6 MPa
MAWP for applications according to CRN	[bar]	16	
Electrical data			
Operating voltage	[V]	19...30 DC; (to SELV/PELV)	
Current consumption	[mA]	< 100	
Min. insulation resistance	[MΩ]	100; (500 V DC)	
Protection class		III	
Reverse polarity protection		yes	
Power-on delay time	[s]	0.5	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2; Number of analogue outputs: 1	

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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	[% of the measured value]	± 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	[years]	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
Housing		rectangular
Dimensions	[mm]	475 x 100 x 133
Materials		PBT-GF20; NBR; PC; stainless steel (304/1.4301); PTFE; brass coated; FKM; aluminium powder-coated
Materials (wetted parts)		stainless steel (304/1.4301); FKM; ceramics glass passivated; PEEK GF30; polyester; aluminium
Process connection		threaded connection 2" NPT external thread DN50

Displays / operating elements

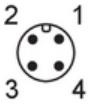
Display	Display unit	4 x LED, green (scfm, scfh, scf, °F)
	function display	1 x LED, yellow
	switching status	2 x LED, yellow
	measured values	alphanumeric display, 4-digit
	programming	alphanumeric display, 4-digit

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.

Electrical connection

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

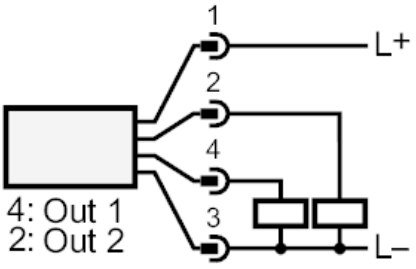


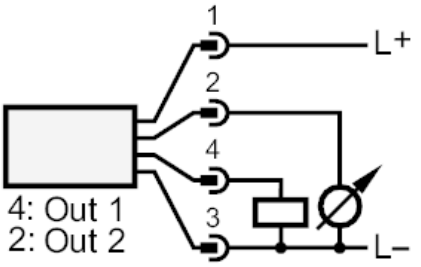
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Connection





OUT1:	switching output Pulse output quantity meter signal output Preset counter
OUT2:	switching output analogue output