

SD2001



Compressed air meter

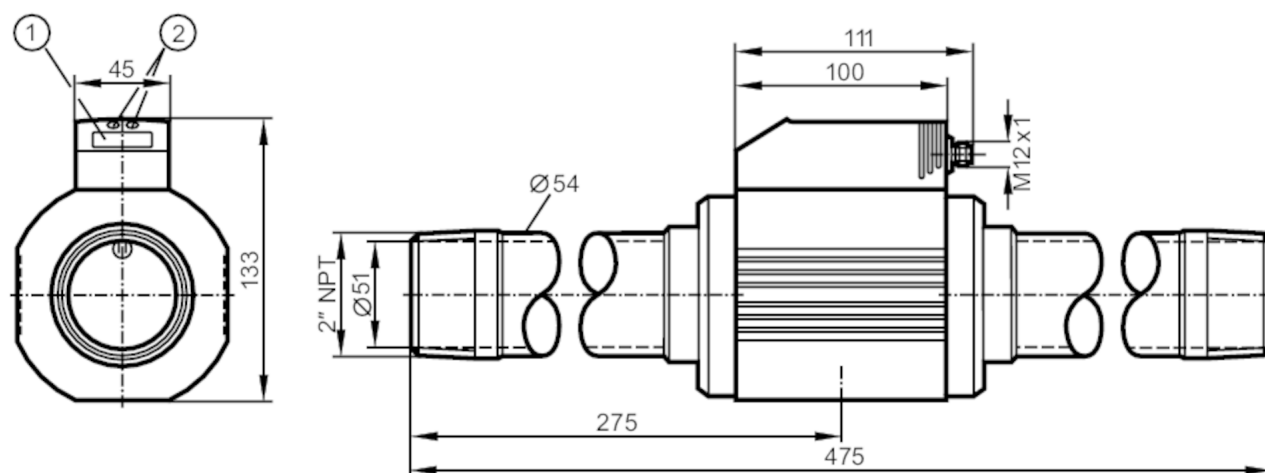
SDN21DGXFPKG/US-100

Article to be discontinued

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 analog 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
MAWP (for applications according to CRN)	[bar]	1.6 MPa	
		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	

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1
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SDN21DGXFPKG/US-100

Outputs		
Total number of outputs	2	
Output signal	switching signal; analog signal; pulse signal; (configurable)	
Electrical design	PNP	
Number of digital outputs	2	
Output function	normally open / closed; (configurable)	
Max. voltage drop switching output DC [V]	2	
Permanent current rating of switching output DC [mA]	250; (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	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
Analog start point ASP	0...18540 scfh	0...309 scfm
Analog 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)	
Reaction times		
Flow monitoring		
Response time [s]	0.1; (dAP = 0)	

SD2001



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Damping process value dAP in steps	[s]	0 - 0,2 - 0,4 - 0,6 - 0,8 - 1
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Software / programming

Parameter setting options	Flow monitoring; quantity meter; Preset counter; hysteresis / window; normally open / closed; current/pulse output; display can be rotated and switched off; Display unit
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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
Material		PBT-GF20; NBR; PC; stainless steel (1.4301 / 304); PTFE; brass coated; FKM; aluminum powder-coated
Materials (wetted parts)		stainless steel (1.4301 / 304); FKM; ceramics glass passivated; PEEK GF30; polyester; aluminum
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 standard volume flow according to DIN ISO 2533.
	For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.

SD2001



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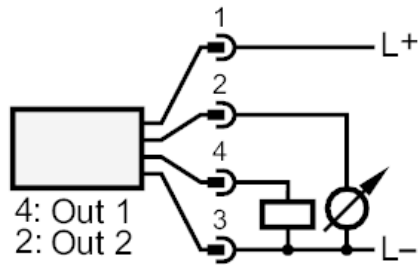
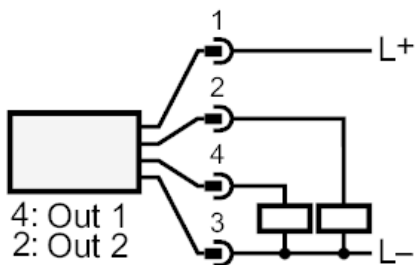
SDN21DGXFPKG/US-100

Electrical connection

Connector: 1 x M12; coding: A



Connection



- OUT1: Switching output
 Pulse output quantity meter
 signal output Preset counter
- OUT2: Switching output
 analog output