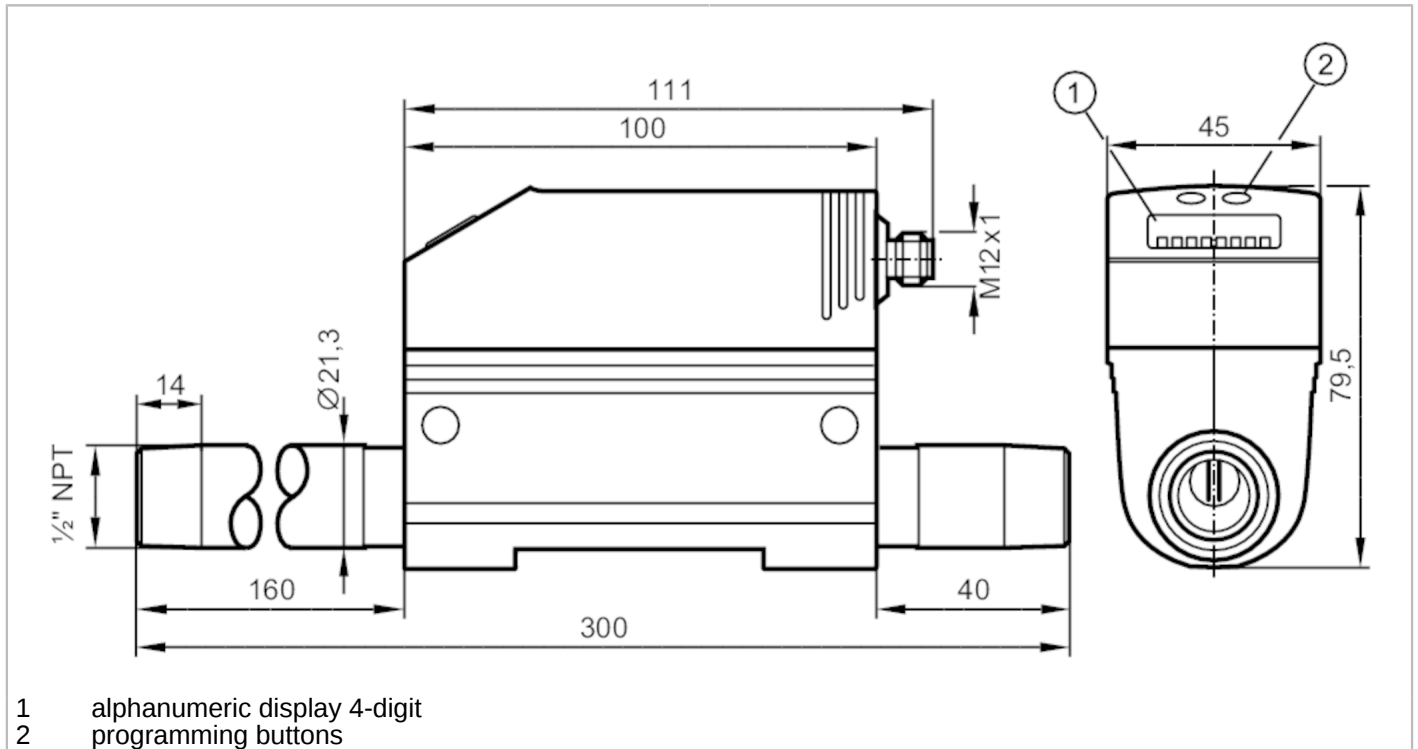


SD6101



Flow rate meter for gases

SDN12DGXFPKG/US-100



Product characteristics			
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
Process connection	threaded connection 1/2 NPT DN15		
Ar			
Measuring range	15...4310 scfh	0.2...71.8 scfm	2...552 sfs
CO ₂			
Measuring range	10...2640 scfh	0.15...44 scfm	1...338.5 sfs
N ₂			
Measuring range	10...2650 scfh	0.15...44.15 scfm	1...339.5 sfs
Application			
Application	for industrial applications		
Media	Argon (Ar); carbon dioxide (CO ₂); nitrogen (N ₂)		
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]	18...30 DC; (according to EN 50178 SELV/PELV)		
Current consumption [mA]	< 100		
Protection class	III		
Reverse polarity protection	yes		
Power-on delay time [s]	1		



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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; IO-Link; (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			
Low flow cut-off LFC	< 46 scfh	< 0.76 scfm	1...5.8 sfs
Measuring dynamics	1:300		
Ar			
Measuring range	15...4310 scfh	0.2...71.8 scfm	2...552 sfs
Display range	0...5170 scfh	0...86.2 scfm	0...663 sfs
Resolution	5 scfh	0.1 scfm	1 sfs
Set point SP	40...4310 scfh	0.7...71.8 scfm	5...552 sfs
Reset point rP	20...4290 scfh	0.4...71.5 scfm	3...550 sfs
Analogue start point ASP	0...3445 scfh	0...57.4 scfm	0...442 sfs
Analogue end point AEP	860...4310 scfh	14.4...71.8 scfm	110...552 sfs
In steps of	5 scfh	0.1 scfm	1 sfs
CO2			
Measuring range	10...2640 scfh	0.15...44 scfm	1...338.5 sfs
Display range	0...3170 scfh	0...52.8 scfm	0...406 sfs
Resolution	5 scfh	0.05 scfm	0.5 sfs
Set point SP	25...2640 scfh	0.4...44 scfm	3...338.5 sfs
Reset point rP	15...2630 scfh	0.2...43.8 scfm	1.5...337 sfs
Analogue start point ASP	0...2110 scfh	0...35.2 scfm	0...271 sfs
Analogue end point AEP	530...2640 scfh	8.8...44 scfm	67.5...338.5 sfs
In steps of	5 scfh	0.05 scfm	0.5 sfs
Volumetric flow quantity monitoring			
Pulse value	0.040...4 000 000 scf		
In steps of	0.020...1000 scf		
Pulse length [s]	0,007...2		

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N2				
Measuring range		10...2650 scfh	0.15...44.15 scfm	1...339.5 sfs
Display range		0...3175 scfh	0...52.95 scfm	0...407.5 sfs
Resolution		5 scfh	0.05 scfm	0.5 sfs
Set point SP		25...2650 scfh	0.4...44.15 scfm	3...339.5 sfs
Reset point rP		15...2635 scfh	0.2...43.95 scfm	1.5...338 sfs
Analogue start point ASP		0...2120 scfh	0...35.3 scfm	0...271.5 sfs
Analogue end point AEP		530...2650 scfh	8.85...44.15 scfm	68...339.5 sfs
In steps of		5 scfh	0.05 scfm	0.5 sfs
Temperature monitoring				
Measuring range	[°F]	32...140		
Display range	[°F]	10.5...161.5		
Resolution	[°F]	0.5		
Set point SP	[°F]	32.5...140		
Reset point rP	[°F]	32...139.5		
Analogue start point	[°F]	32...118.5		
Analogue end point	[°F]	53.5...140		
In steps of	[°F]	0.5		
Accuracy / deviations				
Flow monitoring				
Repeatability	[% of the measured value]	± 1,5		
Accuracy (in the measuring range)		± (6 % MW + 0,6 % MEW); (conditions: installation to DIN ISO 2533; installation in pipes: DN15)		
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)		
Damping for the switching output 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; medium selection		

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Flow rate meter for gases

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Interfaces		
Communication interface		IO-Link
Transmission type		COM2
IO-Link revision		1.1
SDCI standard		IEC 61131-9
IO-Link device ID		266 d / 00 01 0a h
Profiles		Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis
SIO mode		yes
Required master port type		A
Process data analogue		3
Process data binary		2
Min. process cycle time	[ms]	4.1
Operating conditions		
Ambient temperature	[°F]	32...140
Storage temperature	[°F]	-4...185
Max. relative air humidity	[%]	90
Protection		IP 65
Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
Vibration resistance	DIN IEC 68-2-6	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]	925.5
Materials		PBT-GF20; PC; PC; stainless steel (1.4301 / 304); FKM
Materials (wetted parts)		stainless steel (1.4301 / 304); ceramics glass passivated; PEEK; polyester; FKM; aluminium anodised
Process connection		threaded connection 1/2 NPT DN15
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
Display unit		scfm; scfh; scf; °F
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.
Pack quantity		1 pcs.

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Flow rate meter for gases

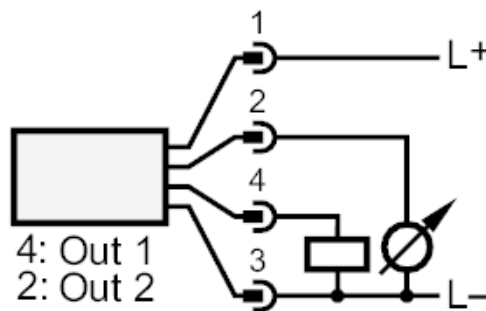
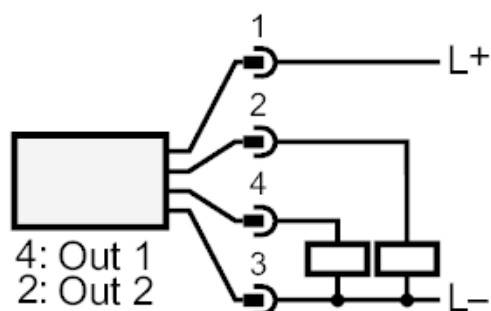
SDN12DGXFPKG/US-100

Electrical connection

Connector: 1 x M12



Connection



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