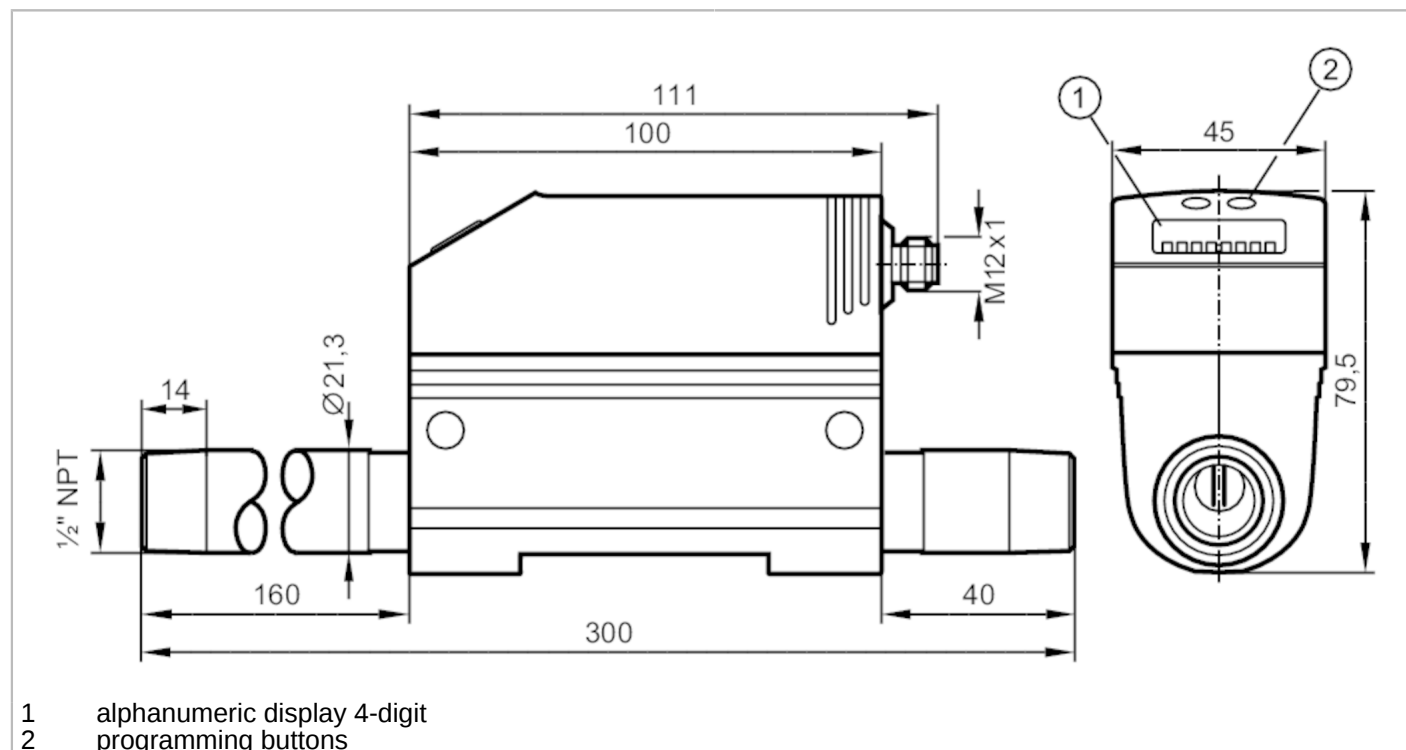


SD6101



Flow rate meter for gases

SDN12DGXFPKG/US-100



Application		
Application		for industrial applications
Media		compressed air
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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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
Low flow cut-off LFC [X27]	1...5.8	
Measuring dynamics	1:300	
Ar		
Measuring range	15...4310 scfh	0.2...71.8 scfm
Measuring range [X27]	2...552	
Display range	0...5170 scfh	0...86.2 scfm
Display range [X27]	0...663	
Resolution	5 scfh	0.1 scfm
Resolution [X27]	1	
Set point SP	40...4310 scfh	0.7...71.8 scfm
Set point SP [X27]	5...552	
Reset point rP	20...4290 scfh	0.4...71.5 scfm
Reset point rP [X27]	3...550	
Analogue start point ASP	0...3445 scfh	0...57.4 scfm
Analogue start point ASP [X27]	0...442	
Analogue end point AEP	860...4310 scfh	14.4...71.8 scfm
Analogue end point AEP [X27]	110...552	
In steps of	5 scfh	0.1 scfm
In steps of [X27]	1	



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CO2		
Measuring range	10...2640 scfh	0.15...44 scfm
Measuring range [X27]	1...338.5	
Display range	0...3170 scfh	0...52.8 scfm
Display range [X27]	0...406	
Resolution	5 scfh	0.05 scfm
Resolution [X27]	0.5	
Set point SP	25...2640 scfh	0.4...44 scfm
Set point SP [X27]	3...338.5	
Reset point rP	15...2630 scfh	0.2...43.8 scfm
Reset point rP [X27]	1.5...337	
Analogue start point ASP	0...2110 scfh	0...35.2 scfm
Analogue start point ASP [X27]	0...271	
Analogue end point AEP	530...2640 scfh	8.8...44 scfm
Analogue end point AEP [X27]	67.5...338.5	
In steps of	5 scfh	0.05 scfm
In steps of [X27]	0.5	
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	
N2		
Measuring range	10...2650 scfh	0.15...44.15 scfm
Measuring range [X27]	1...339.5	
Display range	0...3175 scfh	0...52.95 scfm
Display range [X27]	0...407.5	
Resolution	5 scfh	0.05 scfm
Resolution [X27]	0.5	
Set point SP	25...2650 scfh	0.4...44.15 scfm
Set point SP [X27]	3...339.5	
Reset point rP	15...2635 scfh	0.2...43.95 scfm
Reset point rP [X27]	1.5...338	
Analogue start point ASP	0...2120 scfh	0...35.3 scfm
Analogue start point ASP [X27]	0...271.5	
Analogue end point AEP	530...2650 scfh	8.85...44.15 scfm
Analogue end point AEP [X27]	68...339.5	
In steps of	5 scfh	0.05 scfm
In steps of [X27]	0.5	



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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	
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	

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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]	922	
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.	
Electrical connection		
Connector: 1 x M12		
		

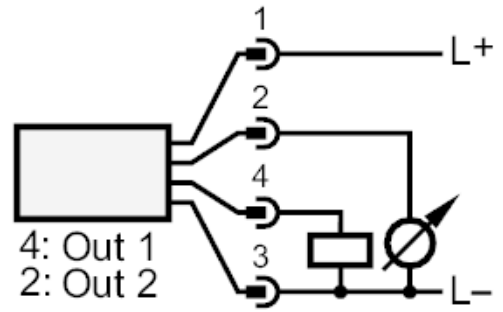
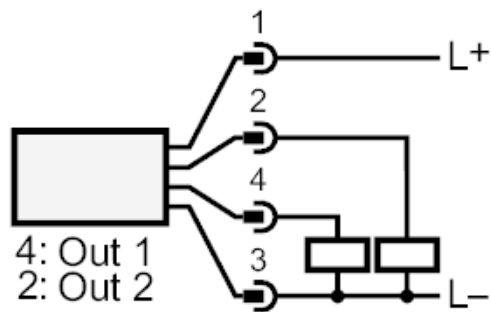
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Connection



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