

SD6101



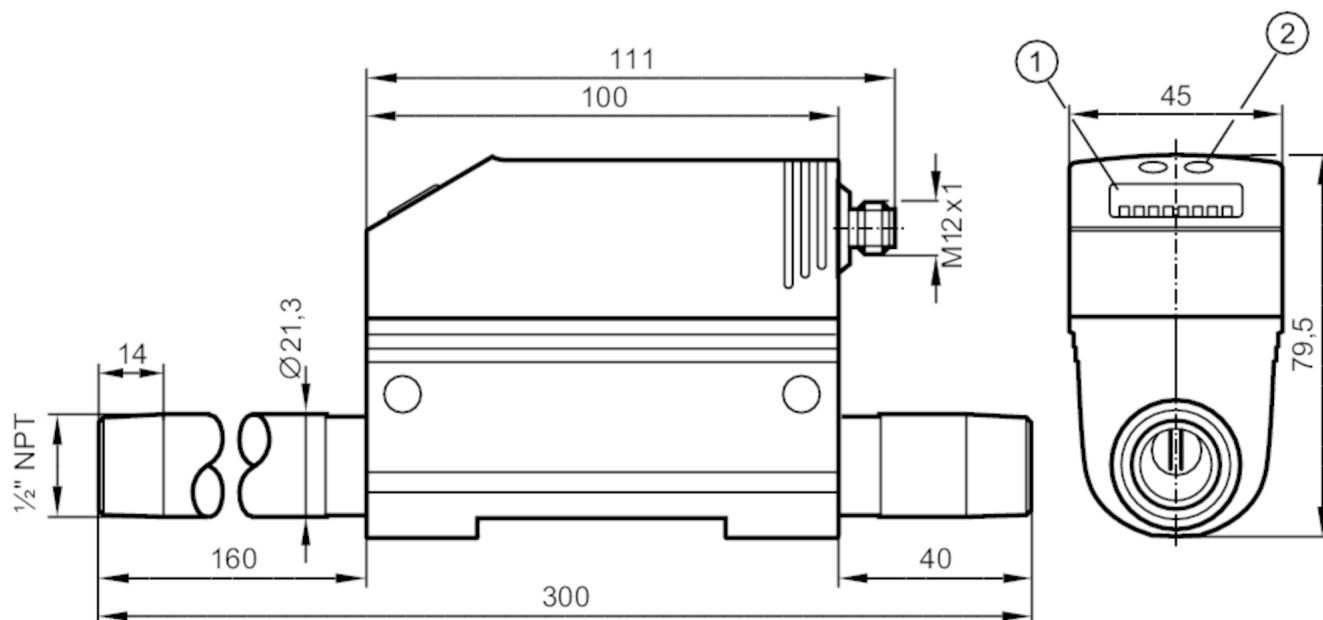
Flow rate meter for gases

SDN12DGXFPKG/US-100

Discontinued article

Alternative articles: SD6601

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		
Process connection	threaded connection 1/2" NPT DN15		

Ar			
Measuring range	15...4310 scfh	0.2...71.8 scfm	2...552 sfs
CO2			
Measuring range	10...2640 scfh	0.15...44 scfm	1...338.5 sfs
N2			
Measuring range	10...2650 scfh	0.15...44.15 scfm	1...339.5 sfs

Application

Application	for industrial applications		
Media	Argon (Ar); carbon dioxide (CO2); nitrogen (N2)		
Medium temperature [°F]	32...140		
Pressure rating [bar]	16		
Pressure rating [psi]	232		
MAWP (for applications according to CRN) [bar]	16		

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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	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2; Number of analog outputs: 1	
Outputs			
Total number of outputs		2	
Output signal		switching signal; analog signal; pulse signal; IO-Link; (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			
Low flow cut-off LFC		< 46 scfh	< 0.76 scfm 1...5.8 sfs
Measuring dynamics		1:300	
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	
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
Analog start point ASP		0...3445 scfh	0...57.4 scfm 0...442 sfs
Analog end point AEP		860...4310 scfh	14.4...71.8 scfm 110...552 sfs
In steps of		5 scfh	0.1 scfm 1 sfs

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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
Analog start point ASP		0...2110 scfh	0...35.2 scfm	0...271 sfs
Analog 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
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
Analog start point ASP		0...2120 scfh	0...35.3 scfm	0...271.5 sfs
Analog 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		
Analog start point	[°F]	32...118.5		
Analog 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)		
Reaction 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 / closed; current/pulse output; display can be rotated and switched off; Display unit; medium selection			

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Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis	
SIO mode	yes	
Required master port class	A	
Process data analog	3	
Process data binary	2	
Min. process cycle time [ms]	4.1	
Supported DeviceIDs	Type of operation	DeviceID
	default	266
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	
Material	PBT-GF20; PC; PC; stainless steel (1.4301 / 304); FKM	
Materials (wetted parts)	stainless steel (1.4301 / 304); ceramics glass passivated; PEEK; polyester; FKM; aluminum anodized	
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 standard volume flow according to DIN ISO 2533.	
Pack quantity	1 pcs.	

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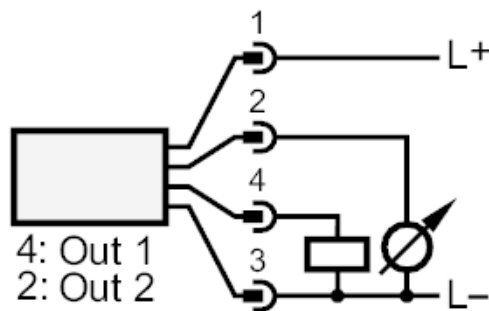
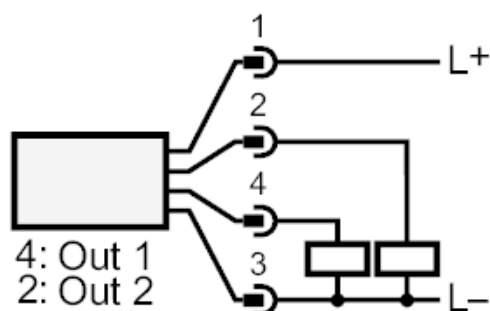
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Electrical connection

Connector: 1 x M12



Connection



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