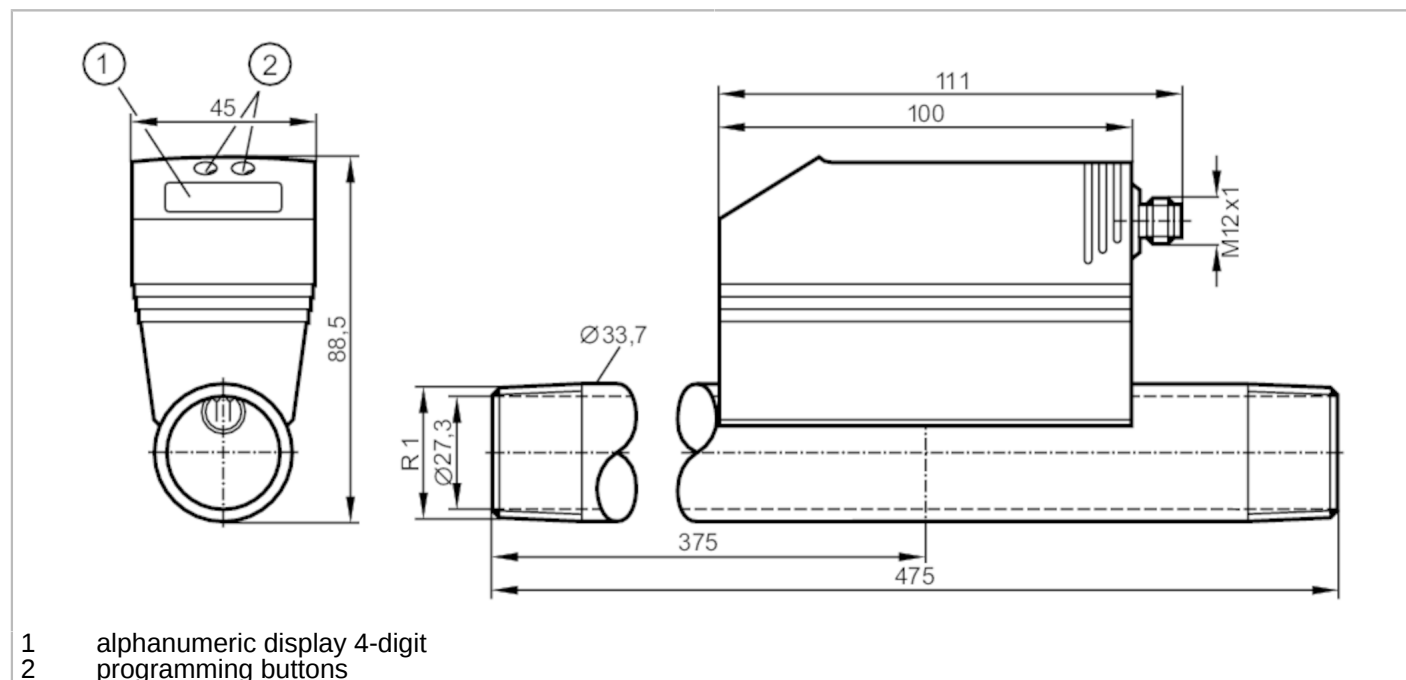


SD8100



Flow rate meter for gases

SDR11DGXFPKG/US-100



Application

Application	for industrial applications
Media	Argon (Ar); carbon dioxide (CO ₂); nitrogen (N ₂)
Medium temperature [°C]	0...60
Pressure rating [bar]	16

Electrical data

Operating voltage [V]	18...30 DC
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 analogue outputs: 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 [m³/h]		< 3.8
Ar		
Measuring range [m³/h]		1.2...366.6
Display range [m³/h]		0...440
Resolution [m³/h]		0.2
Set point SP [m³/h]		3.4...366.6
Reset point rP [m³/h]		1.8...365
Analogue start point ASP [m³/h]		0...293.2
Analogue end point AEP [m³/h]		73.4...366.6
In steps of [m³/h]		0.2
CO2		
Measuring range [m³/h]		0.8...223.6
Display range [m³/h]		0...268.2
Resolution [m³/h]		0.2
Set point SP [m³/h]		2...223.6
Reset point rP [m³/h]		1...222.6
Analogue start point ASP [m³/h]		0...178.8
Analogue end point AEP [m³/h]		44.8...223.6
In steps of [m³/h]		0.2
volumetric flow quantity monitoring		
Pulse value		0.001...3 000 000 Nm³
In steps of		0.001...1000 Nm³
Pulse length [s]		0,004...2



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N2		
Measuring range	[m³/h]	0.8...225
Display range	[m³/h]	0...270
Resolution	[m³/h]	0.2
Set point SP	[m³/h]	2.2...225
Reset point rP	[m³/h]	1...224
Analogue start point ASP	[m³/h]	0...180
Analogue end point AEP	[m³/h]	45...225
In steps of	[m³/h]	0.2
Temperature monitoring		
Measuring range	[°C]	0...60
Display range	[°C]	-12...72
Resolution	[°C]	0.2
Set point SP	[°C]	0.4...60
Reset point rP	[°C]	0...59.8
Analogue start point	[°C]	0...48
Analogue end point	[°C]	12...60
In steps of	[°C]	0.2
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: DN25)		
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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Interfaces		
Communication interface	IO-Link	
Transmission type	COM2	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
IO-Link device ID	443 d / 00 01 bb 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	[°C]	0...60
Storage temperature	[°C]	-20...85
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]	224
Pressure Equipment Directive	Sound Engineering Practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight	[g]	2025
Materials	PBT-GF20; NBR; PC; stainless steel (1.4301 / 304); PTFE; brass coated; FKM; aluminium powder-coated	
Materials (wetted parts)	stainless steel (1.4301 / 304); FKM; ceramics glass passivated; PEEK-GF30; polyester; aluminium	
Process connection	threaded connection R 1 DN25	
Displays / operating elements		
Display	Display unit	4 x LED, green (NI/min, Nm³/h, Nm³, °C)
	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	NI/min; Nm³/h; Nm³; °C	
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		

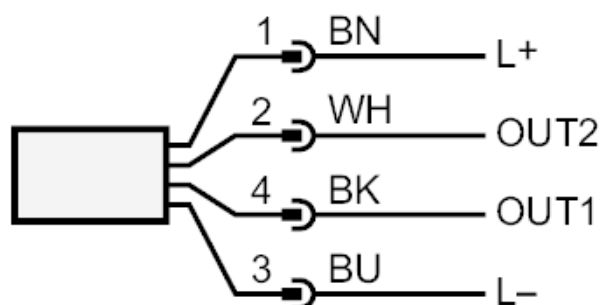
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Connection



OUT1: switching output

Pulse output

OUT2: switching output

analogue output

colours to DIN EN 60947-5-2

Core colours :

BK = black

BN = brown

BU = blue

WH = white