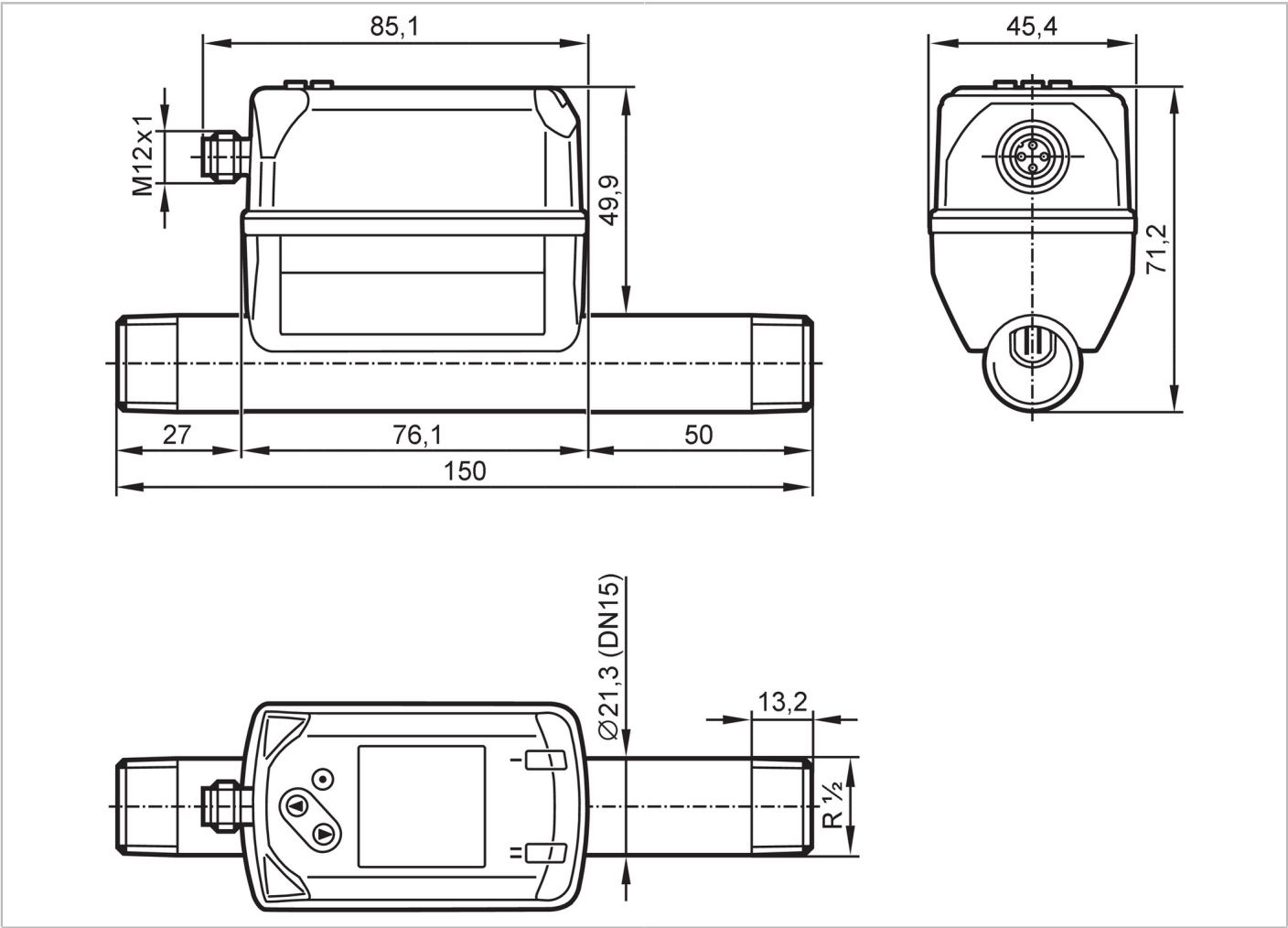


SD6020



Compressed air meter

SDR12DGXFRKG/US-100



CRN



DNV
DNV.COM/AF



UK
CA

Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1		
Measuring range	4...1250 l/min	0.3...99.8 m/s	0.25...75 m³/h
Process connection	threaded connection R 1/2 external thread DN15		

Application

Application	for industrial applications	
Media	compressed air	
Medium temperature [°C]	-10...60	
Min. burst pressure	64 bar	6.4 MPa
Pressure rating	16 bar	1.6 MPa
MAWP (for applications according to CRN) [bar]	16	

Electrical data

Operating voltage [V]	18...30 DC; (to SELV/PELV)
Current consumption [mA]	< 80
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 analog outputs: 1	
Inputs			
Inputs		counter reset	
Outputs			
Output signal		switching signal; analog signal; pulse signal; IO-Link; (configurable)	
Electrical design		PNP/NPN	
Number of digital outputs		2	
Output function		normally open / closed; (configurable)	
Max. voltage drop switching output DC [V]		2.5	
Permanent current rating of switching output DC [mA]		150; (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		4...1250 l/min	0.3...99.8 m/s
Display range		0...1500 l/min	0...119.8 m/s
Resolution		1 l/min	0.1 m/s
Set point SP		11...1250 l/min	0.9...99.8 m/s
Reset point rP		5...1243 l/min	0.4...99.3 m/s
Analog start point ASP		0...1000 l/min	0...79.8 m/s
Analog end point AEP		250...1250 l/min	20...99.8 m/s
Low flow cut-off LFC		1...13 l/min	0.1...1.1 m/s
In steps of		1 l/min	0.1 m/s
Volumetric flow quantity monitoring			
Measuring range		0...100000000 m³	0...353146667.2 scf
Display range		0...100000000 m³	0...353146667.2 scf
Set point SP		0.001...10000000 m³	0.05...353146667.2 scf
Pulse value		0.001...10000000 m³	0.05...353146667.2 scf
In steps of		0.0001 m³	0.005 scf
Pulse length [s]		0.002...2	
Temperature monitoring			
Measuring range		-10...60 °C	14...140 °F
Display range		-24...74 °C	-11.2...165.2 °F
Resolution		0.2 °C	0.5 °F
Set point SP		-9.7...60 °C	14.6...140 °F
Reset point rP		-10...59.7 °C	14...139.4 °F
Analog start point		-10...46 °C	14...114.8 °F
Analog end point		4...60 °C	39.2...140 °F
In steps of		0.1 °C	0.1 °F



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Accuracy / deviations		
Temperature coefficient	[1/K]	± 0,07 % MW
Accuracy (in the measuring range)		± (15 % MW + 1,5 % MEW); (maximum value to be achieved for air quality class 344 (DIN8573-1:2010); when using pipes of tolerance class T3/T4; inlet and outlet pipe lengths without edges and abrupt diameter changes; inner surface of the pipe free of burrs)
Repeatability		± 1,5 % MW
Temperature monitoring		
Accuracy	[K]	± 0,5; (medium flow in the limit area of the flow measurement range)
Reaction times		
Response time	[s]	< 0.1; (dAP = 0, T09)
Damping process value dAP	[s]	0...5
Temperature monitoring		
Dynamic response T05 / T09	[s]	T09 = 0,5
Software / programming		
Parameter setting options		hysteresis / window; normally open / closed; current/pulse output; display can be rotated and switched off; Display unit; totalizer
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9 CDV
Profiles	Common - I&D	Identification and Diagnosis
	Function	Measurement data, standard resolution
SIO mode		yes
Required master port class		A
Process data analog		6
Process data binary		2
Min. process cycle time	[ms]	5.9
Supported DeviceIDs	Type of operation	DeviceID
	default	1001
Operating conditions		
Ambient temperature	[°C]	0...60
Storage temperature	[°C]	-20...85
Max. relative air humidity	[%]	90
Protection		IP 65; IP 67
Tests / approvals		
EMC	DIN EN 60947-5-9	
CPA approval	model number	004TG
	accuracy class	-
	maximum allowable error	± 16,5 % FS
	Q (min)	0,25 m³/h
	Q (t)	-
	Q (max)	75 m³/h
Vibration resistance	DIN EN 68000-2-6	5 g (10...2000 Hz)
MTTF	[years]	195

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UL approval	UL approval number	I012
	File number UL	E174189
Pressure equipment directive	sound engineering practice; can be used for stable gases fluid group 2	

Mechanical data		
Weight	[g]	546.5
Housing		rectangular
Dimensions	[mm]	150 x 45.4 x 71.2
Material		PBT+PC-GF30; PPS GF40; stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); steel (1.5523) galvanized; 2.0401 (brass / CW614N); FKM
Materials (wetted parts)		stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); FKM; ceramics glass passivated; PPS GF40; acrylate
Process connection		threaded connection R 1/2 external thread DN15

Displays / operating elements		
Display		Color display 1,44", 128 x 128 pixels
		2 x LED, yellow

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.
		For information about installation and operation please see the operating instructions.
Pack quantity		1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4



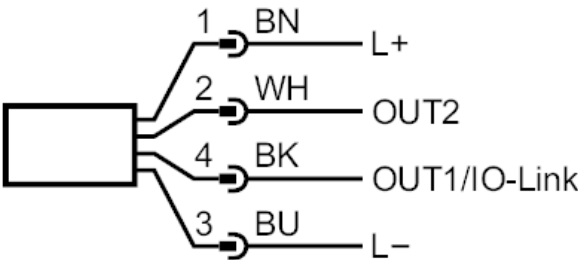
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Connection



OUT1/IO-Link:	Switching output flow Switching output temperature Pulse output quantity meter signal output Preset counter
OUT2/InD:	Switching output flow Switching output temperature analog output flow analog output temperature signal output Preset counter Pulse output quantity meter Input counter reset