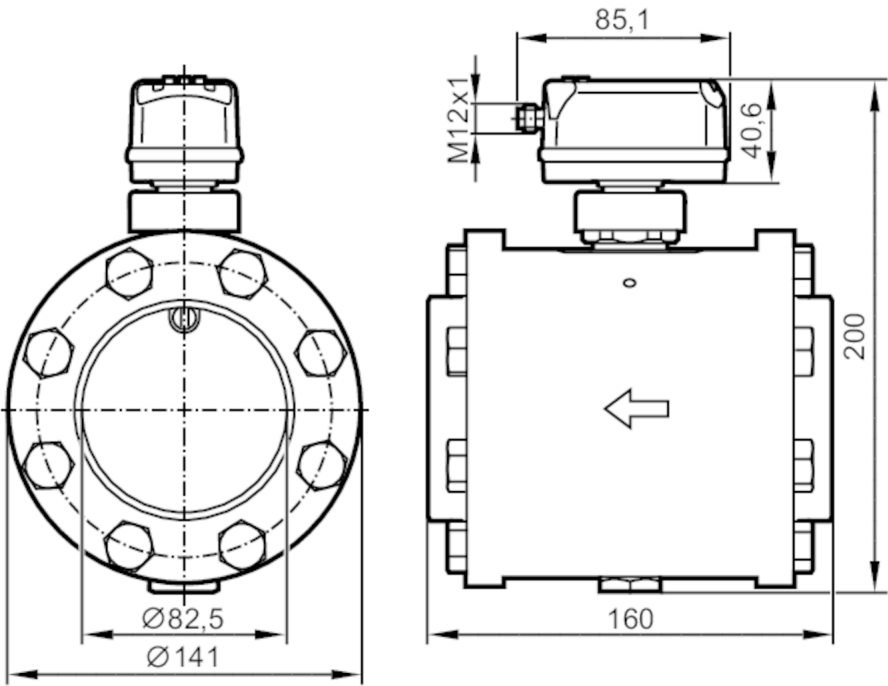


SDG450



Compressed air meter

SDG3"/METRIS PB DN80



Product characteristics		
Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1	
Measuring range	0.6...143.9 m/s	12...2769 m³/h
Process connection	flange DN80 according to:DIN EN 10220	
Application		
Application	for industrial applications	
Media	compressed air	
Medium temperature [°C]	-10...60	
Min. bursting pressure	64 bar	6.4 MPa
Pressure rating	16 bar	1.6 MPa
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	
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)	



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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	0.6...143.9 m/s	12...2769 m³/h
Display range	1.2...172.7 m/s	24...3323 m³/h
In steps of	0.1 m/s	1 m³/h

Pressure monitoring

Measuring range [bar]	-1...16
Display range [bar]	-1...20
Resolution [bar]	0.05
Set point SP [bar]	-0.92...16
Reset point rP [bar]	-1...15.92
Analog start point [bar]	-1...12.8
Analog end point [bar]	2.2...16
In steps of [bar]	0.01

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

Accuracy / deviations

Accuracy (in the measuring range)	class 141: $\pm (3 \% \text{ MW} + 0,3 \% \text{ MEW})$; class 344: $\pm (6 \% \text{ MW} + 0,6 \% \text{ MEW})$; air quality to ISO 8573-1:2010; reference conditions: inlet pipe length $\geq 135 \text{ cm}$ outlet
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pipe length ≥ 19 cm; reference temperature: 18..26 °C; standard volume flow 12...1539 m³/h; (standard volume flow DIN_ISO_2533 15 °C , 1013,25 mbar, 0 % r.H.)

Pressure monitoring		
Repeatability [% of the final value]	± 0,2	
Characteristics deviation [% of the final value]	< ± 0,5; (BFSL = Best Fit Straight Line)	
Greatest TEMPCO of the span [% MEW / 10 K]	± 0,3	
Greatest TEMPCO of the zero point [% MEW / 10 K]	± 0,1	
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)	
Damping process value dAP [s]	0...5	
Pressure monitoring		
Response time [s]	0.05	
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	Digital Measuring Sensor (0x800A), Identification and Diagnosis (0x4000)	
SIO mode	yes	
Required master port class	A	
Process data analog	8	
Process data binary	2	
Min. process cycle time [ms]	7.2	
Supported DeviceIDs	Type of operation default	DeviceID 1539
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	
Vibration resistance	DIN EN 68000-2-6	5 g (10...2000 Hz)

SDG450



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MTTF	[years]	167
Pressure equipment directive	Modul A; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight	[g]	11760
Housing	rectangular	
Dimensions	[mm]	160 x 141 x 200
Material	PBT+PC-GF30; PPS GF40; stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); stainless steel (1.4404 / 316L); FKM	
Materials (wetted parts)	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); FKM; ceramics glass passivated; PPS GF40; Al2O3 (ceramics); acrylate; Pipe section: steel galvanized	
Process connection	flange DN80 according to:DIN EN 10220	
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	
	D = inside pipe diameter	
	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

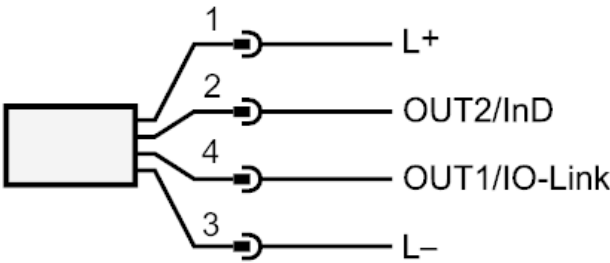




Compressed air meter

SDG3"/METRIS PB DN80

Connection



- OUT1/IO-Link:

Switching output flow
Switching output temperature
Switching output pressure
Pulse output quantity meter
signal output Preset counter
- OUT2/InD:

Switching output flow
Switching output temperature
Switching output pressure
analog output flow
analog output temperature
analog output pressure
signal output Preset counter
Pulse output quantity meter
Input counter reset