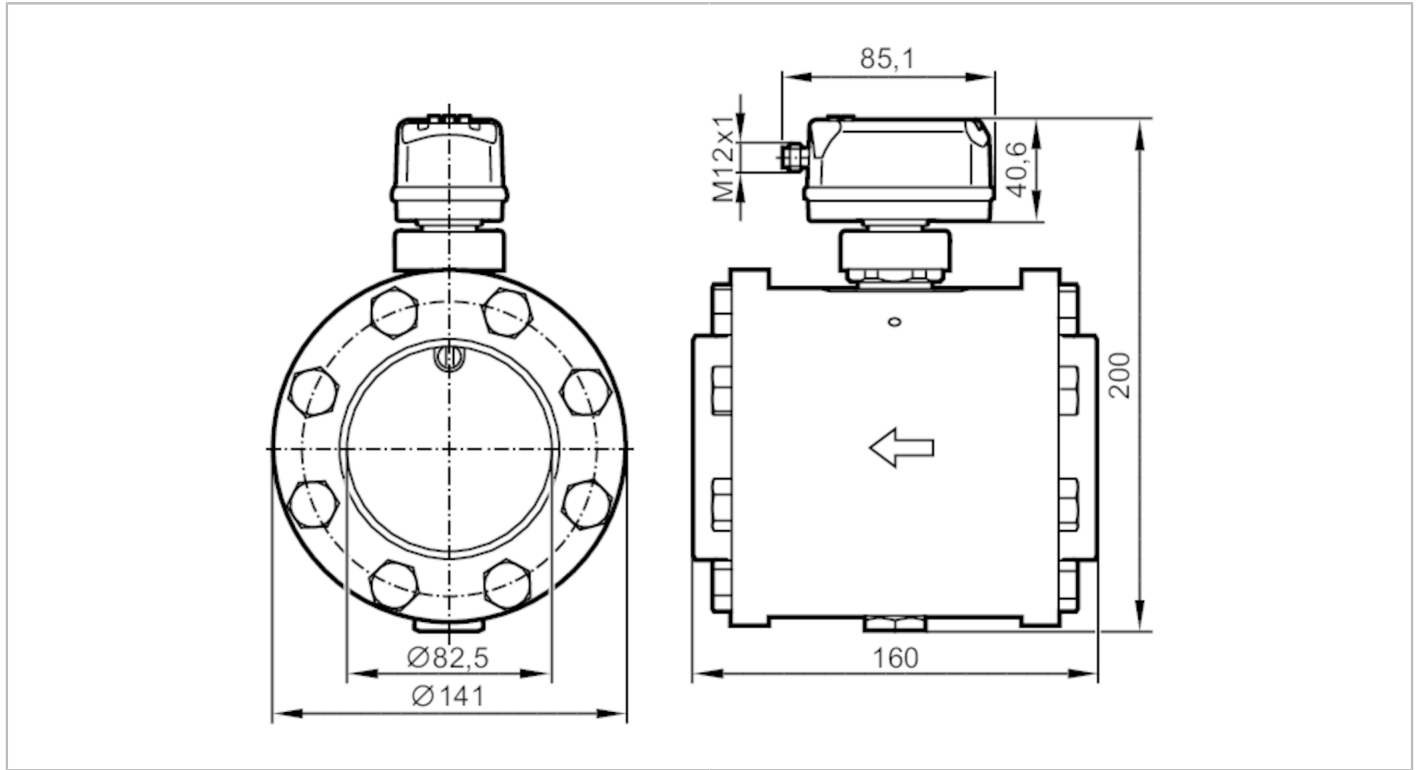


# SDG450



## Compressed air meter

SDG3"/METRIS PB DN80



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1
Process connection	flange DN80 DIN 2448
Pressure monitoring	
Measuring range [bar]	-1...16
Application	
Application	for industrial applications
Media	compressed air
Medium temperature [°C]	-10...60
Min. bursting pressure [bar]	64
Min. bursting pressure [MPa]	6.4
Pressure rating [bar]	16
Pressure rating [Mpa]	1.6
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 analogue outputs: 1



## Compressed air meter

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Inputs		
Inputs	counter reset	
Outputs		
Output signal	switching signal; analogue signal; pulse signal; IO-Link; (configurable)	
Electrical design	PNP/NPN	
Number of digital outputs	2	
Output function	normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC [V]	2.5	
Permanent current rating of switching output DC [mA]	150; (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		
Measuring range	0.6...143.9 m/s	12...2769 m <sup>3</sup> /h
Display range	1.2...172.7 m/s	24...3323 m <sup>3</sup> /h
In steps of	0.1 m/s	1 m <sup>3</sup> /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	
Analogue start point [bar]	-1...12.8	
Analogue end point [bar]	2.2...16	
In steps of [bar]	0.01	
Volumetric flow quantity monitoring		
Measuring range	0...100000000 m <sup>3</sup>	0...353146667.2 scf
Display range	0...100000000 m <sup>3</sup>	0...353146667.2 scf
Set point SP	0.001...10000000 m <sup>3</sup>	0.05...353146667.2 scf
Pulse value	0.001...10000000 m <sup>3</sup>	0.05...353146667.2 scf
In steps of	0.0001 m <sup>3</sup>	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
Analogue start point	-10...46 °C	14...114.8 °F

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Analogue end point	4...60 °C	39.2...140 °F
In steps of	0.1 °C	0.1 °F
<b>Accuracy / deviations</b>		
Accuracy (in the measuring range)	class 141: $\pm (3 \% MW + 0,3 \% MEW)$ ; class 344: $\pm (6 \% MW + 0,6 \% MEW)$ ; air quality to ISO 8573-1:2010; reference conditions: inlet pipe length $\geq 135$ cm outlet pipe length $\geq 19$ cm; reference temperature: 18..26 °C; standard volume flow 12...1539 m <sup>3</sup> /h; (standard volume flow DIN_ISO_2533 15 °C , 1013,25 mbar, 0 % r.H.)	
<b>Pressure monitoring</b>		
Repeatability [% of the final value]	$\pm 0,2$	
Characteristics deviation [% of the final value]	$< \pm 0,5$ ; (BFSL = Best Fit Straight Line)	
Greatest TEMPCO of the span [% MEW / 10 K]	$\pm 0,3$	
Greatest TEMPCO of the zero point [% MEW / 10 K]	$\pm 0,1$	
<b>Temperature monitoring</b>		
Accuracy [K]	$\pm 0,5$ ; (medium flow in the limit area of the flow measurement range)	
<b>Response times</b>		
Response time [s]	0.1; (dAP = 0)	
Damping process value dAP [s]	0...5	
<b>Pressure monitoring</b>		
Response time [s]	0.05	
<b>Temperature monitoring</b>		
Dynamic response T05 / T09 [s]	T09 = 0,5	
<b>Software / programming</b>		
Parameter setting options	hysteresis / window; normally open / normally closed; current/pulse output; display can be rotated and switched off; Display unit; totaliser	
<b>Interfaces</b>		
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 type	A	
Process data analogue	8	
Process data binary	2	
Min. process cycle time [ms]	7.2	
Supported DeviceIDs	Type of operation	DeviceID
	Default	1539
<b>Operating conditions</b>		
Ambient temperature [°C]	0...60	
Storage temperature [°C]	-20...85	

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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)
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
Materials	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; Al <sub>2</sub> O <sub>3</sub> (ceramics); acrylate; pipe section: steel galvanised
Process connection	flange DN80 DIN 2448

### Displays / operating elements

Display	colour 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 the 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



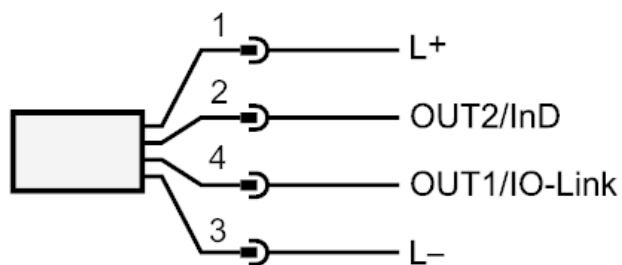
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### Connection



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  
analogue output flow  
analogue output temperature  
analogue output pressure  
signal output Preset counter  
Pulse output quantity meter  
input counter reset