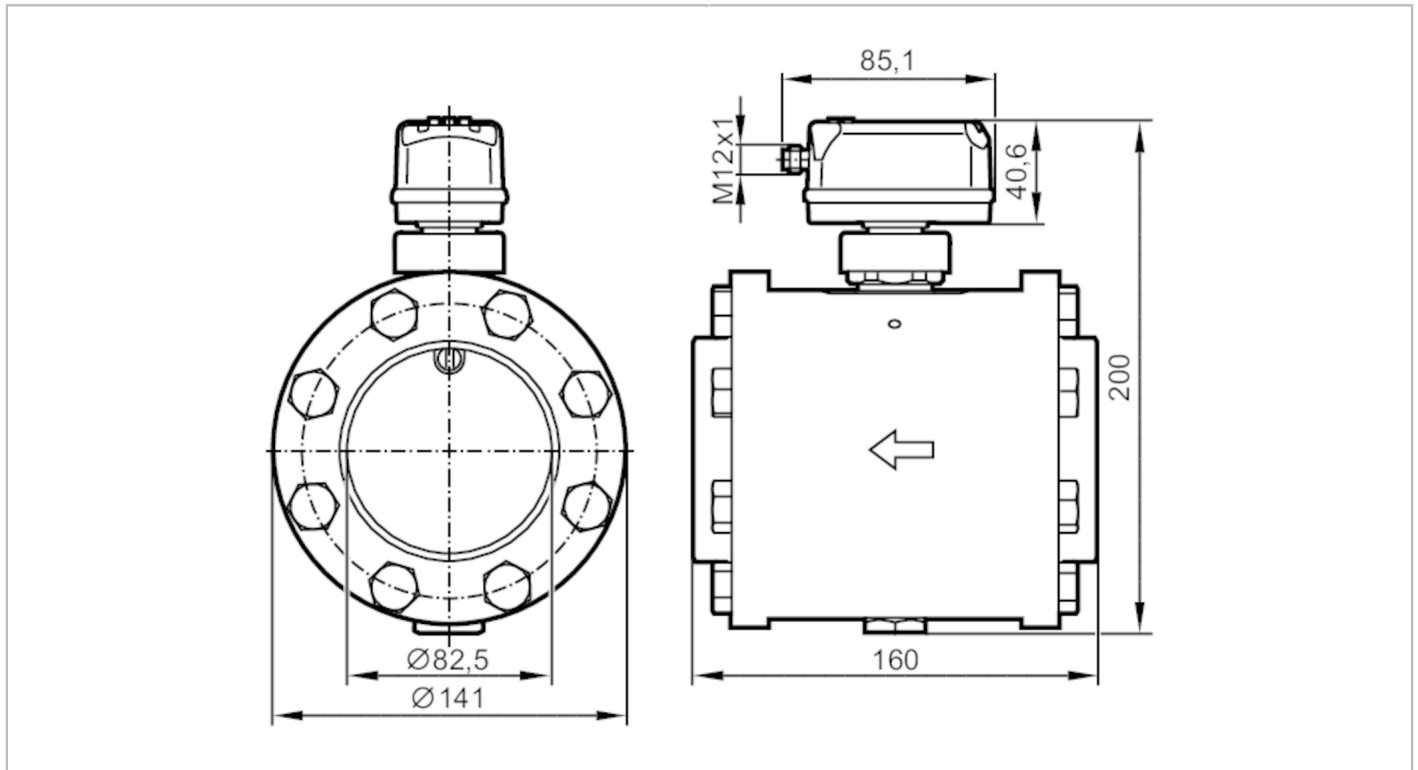


SDG450



Compressed air meter

SDG3"/METRIS PB DN80



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1
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. burst 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 analogue outputs: 1
Inputs	
Inputs	counter reset
Outputs	
Output signal	switching signal; analogue signal; pulse signal; IO-Link; (configurable)



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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 ³ /h
Display range	1.2...172.7 m/s	24...3323 m ³ /h
In steps of	0.1 m/s	1 m ³ /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 ³	0...353146667.2 scf
Display range	0...100000000 m ³	0...353146667.2 scf
Set point SP	0.001...10000000 m ³	0.05...353146667.2 scf
Pulse value	0.001...10000000 m ³	0.05...353146667.2 scf
In steps of	0.0001 m ³	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
Analogue 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: $\pm (3 \% MW + 0,3 \% MEW)$; class 344: $\pm (6 \% MW + 0,6 \% MEW)$; air quality to ISO 8573-1:2010; reference conditions: inlet pipe length ≥ 135 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]	$\pm 0,2$
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]	$\pm 0,1$
Temperature monitoring	
Accuracy [K]	$\pm 0,5$; (medium flow in the limit area of the flow measurement range)
Response 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 / normally closed; current/pulse output; display can be rotated and switched off; Display unit; totaliser
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 Function
	Identification and Diagnosis Measurement data, standard resolution
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 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

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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	
Housing	rectangular	
Dimensions [mm]	160 x 141 x 200	
Materials	housing sensor: PBT+PC-GF30; PPS GF40; electronics fastener: stainless steel (304/1.4301), stainless steel (303/1.4305); Lock nut: stainless steel (316L/1.4404); Display Sealing: FKM	
Materials (wetted parts)	sensor feedthrough: stainless steel (304/1.4301), stainless steel (316L/1.4404); Sealing sensor - pipe section: FKM; sensor tip: ceramics glass passivated; PPS GF40; Al ₂ O ₃ (ceramics); acrylate; pipe section: steel galvanised (1.0460 / 1.0565); flange: steel galvanised (1.0460 / 1.0565)	
Process connection	flange DN80 according to: DIN EN 10220	

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.	
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Electrical connection

Connector: 1 x M12; coding: A



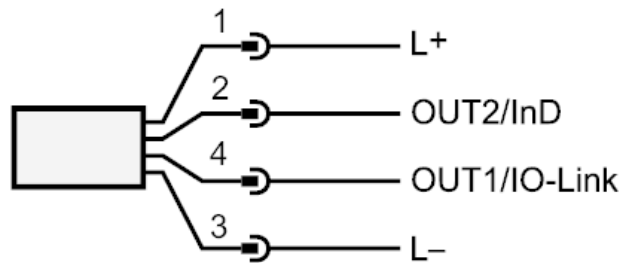
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Connection



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