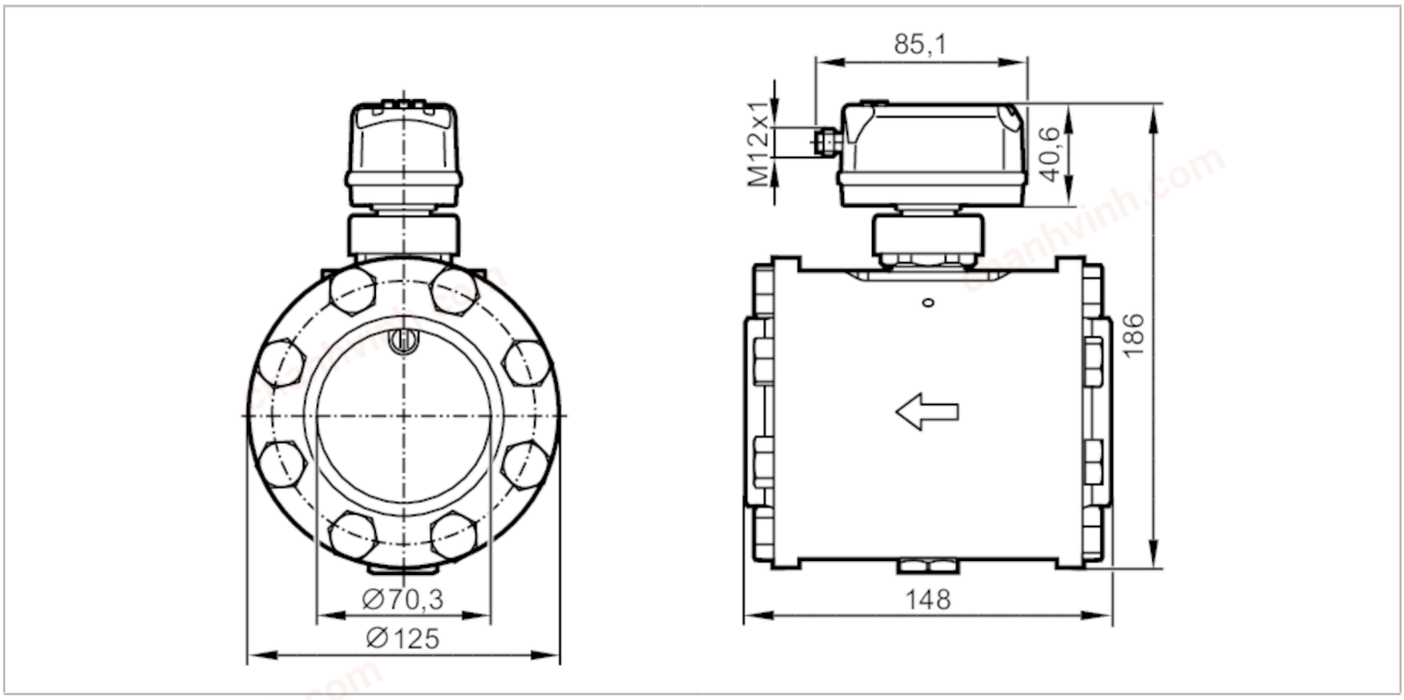
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# SDG350

## Compressed air meter

SDG2 1/2"METRIS PB DN65 SS




| | | | |
|---|---|---|---|
| **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 | 8...2011 m³/h |
| Process connection | | flange DN65 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 analogue outputs: 1 | |
| **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 | |

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| | | | |
|---|---|---|---|
| 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 | 8...2011 m³/h |
| Display range | | 1.2...172.7 m/s | 16...2413 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 | |
| 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 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 |
| 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: ± (3 % MW + 0,3 % MEW); class 344: ± (6 % MW + 0,6 % MEW) ; air quality to ISO 8573-1:2010; reference conditions: inlet pipe length >= 113 cm outlet pipe length >= 15 cm; reference temperature: 18..26 °C; standard volume flow 8...1155 m³/h; (standard volume flow DIN_ISO_2533 15 °C , 1013,25 mbar, 0 % r.H.) | |

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| | | | |
|---|---|---|---|
| **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) | |
| **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 | | 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 | 1537 |
| **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) |
| MTTF | [years] | 167 | |

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# SDG350

## Compressed air meter

SDG2 1/2"METRIS PB DN65 SS

| | | |
|---|---|---|
| Pressure Equipment Directive | | Modul A; can be used for group 2 fluids; group 1 fluids on request |
| **Mechanical data** | | |
| Weight | [g] | 9630 |
| Housing | | rectangular |
| Dimensions | [mm] | 148 x 125 x 186 |
| Materials | | PBT+PC-GF30; PPS GF40; stainless steel (304/1.4301); stainless steel (303/1.4305); stainless steel (316L/1.4404); FKM |
| Materials (wetted parts) | | stainless steel (304/1.4301); stainless steel (316L/1.4404); FKM; ceramics glass passivated; PPS GF40; Al2O3 (ceramics); acrylate; pipe section: stainless steel (304/1.4301) |
| Process connection | | flange DN65 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. |

**Electrical connection**

Connector: 1 x M12; coding: A



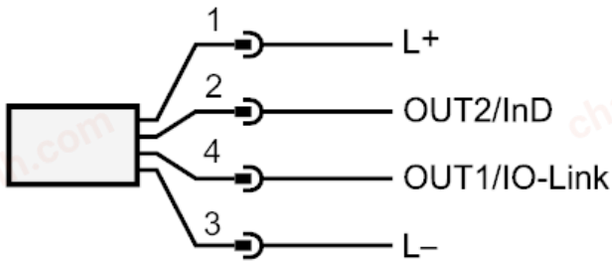
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## Compressed air meter

SDG2 1/2"METRIS PB DN65 SS

## Connection




| | |
|---|---|
| OUT1/IO-Link: | switching output flow<br>switching output temperature<br>switching output pressure<br>Pulse output quantity meter<br>signal output Preset counter |
| OUT2/InD: | switching output flow<br>switching output temperature<br>switching output pressure<br>analogue output flow<br>analogue output temperature<br>analogue output pressure<br>signal output Preset counter<br>Pulse output quantity meter<br>input counter reset |