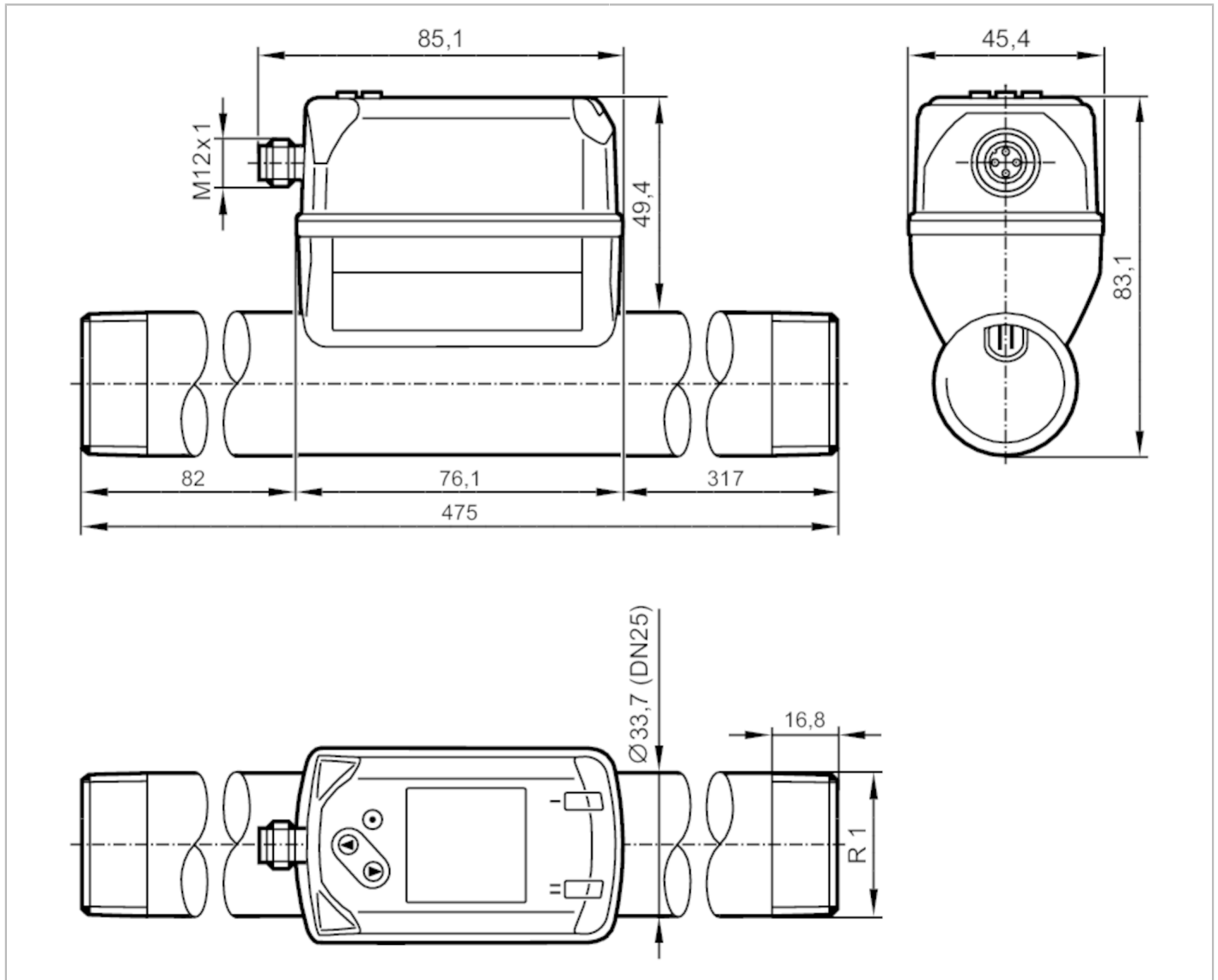


SD8600



Industrial gas counter

SDR11DGXFRKG/US-100



Product characteristics

| | | | |
|------------------------------|---|-----------------|----------------|
| Number of inputs and outputs | Number of digital outputs: 2; Number of analog outputs: 1 | | |
| Measuring range | 14...3750 l/min | 0.4...103.7 m/s | 0.8...225 m³/h |
| Process connection | threaded connection R 1 DN25 | | |

Application

| | | | |
|--|---|--|--|
| Application | for industrial applications | | |
| Media | Argon (Ar); carbon dioxide (CO ₂); nitrogen (N ₂); 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 | | |
| MAWP (for applications according to CRN) [bar] | 10.5 | | |

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SDR11DGXFRKG/US-100

| 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) | |
| 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 | | 14...3750 l/min | 0.4...103.7 m/s |
| Display range | | 0...4500 l/min | 0...124.4 m/s |
| Resolution | | 2 l/min | 0.1 m/s |
| Set point SP | | 32...3749 l/min | 0.9...103.7 m/s |
| Reset point rP | | 14...3730 l/min | 0.4...103.2 m/s |
| Analog start point ASP | | 0...3000 l/min | 0...83 m/s |
| Analog end point AEP | | 750...3750 l/min | 20.7...103.7 m/s |
| Low flow cut-off LFC | | 4...40 l/min | 0.1...1.1 m/s |
| In steps of | | 1 l/min | 0.1 m/s |
| 0.8...225 m³/h | | | |
| 0...270 m³/h | | | |
| 0.1 m³/h | | | |
| 1.9...224.9 m³/h | | | |
| 0.8...223.8 m³/h | | | |
| 0...180 m³/h | | | |
| 45...225 m³/h | | | |
| 0.3...2.4 m³/h | | | |
| 0.1 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 | |

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| | | |
|--|---------------------------------|---|
| 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] | 0.007...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 | | |
| Temperature coefficient | [1/K] | ± 0,07 % MW |
| Accuracy (in the measuring range) | | ± (6 % MW + 0,6 % MEW); at medium temperature 23 °C |
| Repeatability | | ± (0,4 % MW + 0,1 % MEW) |
| 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 |

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Industrial gas counter

SDR11DGXFRKG/US-100

| | | |
|------------------------------|--|-----------------|
| 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 | DeviceID |
| | default | 868 |

| 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 | 003TG |
| | accuracy class | - |
| | maximum allowable error | ± 7 % FS |
| | Q (min) | 0,8 m³/h |
| | Q (t) | - |
| | Q (max) | 225 m³/h |
| Vibration resistance | DIN EN 68000-2-6 5 g (10...2000 Hz) | |
| MTTF [years] | 183 | |
| 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] | 1609 | |
| 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; Al2O3 (ceramics); acrylate | |
| Process connection | threaded connection R 1 DN25 | |

| 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 | |
| | Standard conditions: 1013.25 mbar / 15 °C / 0 % relative humidity | |
| | For information about installation and operation please see the operating instructions. | |
| Pack quantity | 1 pcs. | |

SD8600



Industrial gas counter

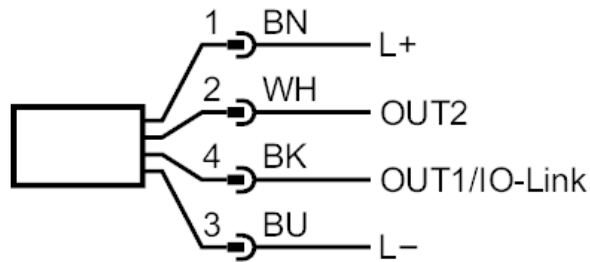
SDR11DGXFRKG/US-100

Electrical connection

Connector: 1 x M12; coding: A



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