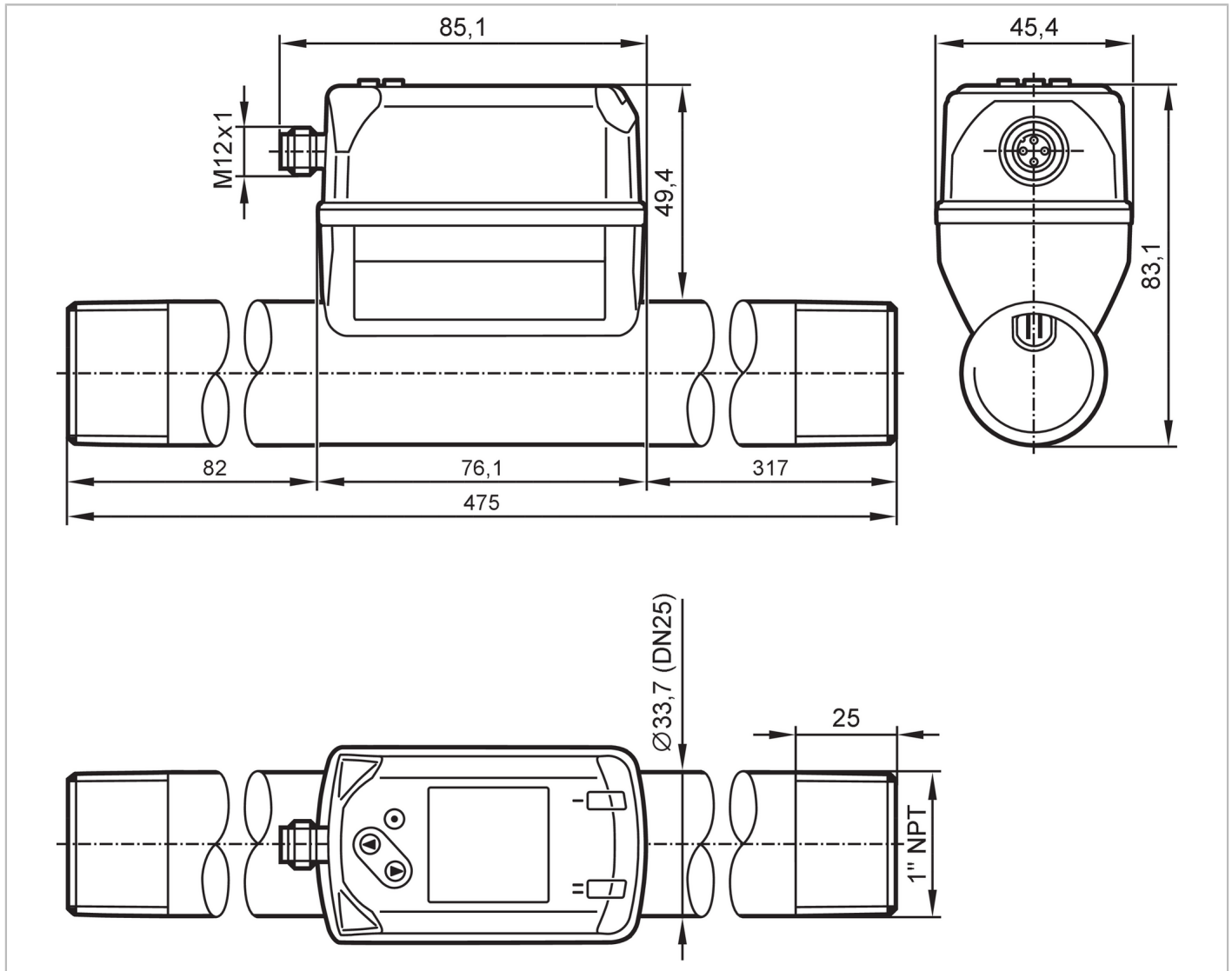


SD8601



Industrial gas counter

SDN11DGXFRKG/US-100



Product characteristics

| | | | |
|------------------------------|---|------------------|------------------|
| Number of inputs and outputs | Number of digital outputs: 2; Number of analog outputs: 1 | | |
| Measuring range | 25...7945 scfh | 0.4...132.4 scfm | 1.2...340.2 ft/s |
| Process connection | threaded connection 1" NPT external thread DN25 | | |

Application

| | | | |
|--|---|----------|--|
| Application | for industrial applications | | |
| Media | Argon (Ar); carbon dioxide (CO ₂); nitrogen (N ₂); compressed air | | |
| Medium temperature | [°F] | 14...140 | |
| Min. burst pressure | [psi] | 928 | |
| Pressure rating | [psi] | 232 | |
| MAWP (for applications according to CRN) | [bar] | 10.5 | |

Electrical data

| | | |
|---------------------|------|----------------------------|
| Operating voltage | [V] | 18...30 DC; (to SELV/PELV) |
| Current consumption | [mA] | < 80 |

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Industrial gas counter

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| | |
|-----------------------------|-----|
| 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 | 25...7945 scfh | 0.4...132.4 scfm | 1.2...340.2 ft/s |
| Display range | 0...9535 scfh | 0...158.9 scfm | 0...408.2 ft/s |
| Resolution | 5 scfh | 0.1 scfm | 0.2 ft/s |
| Set point SP | 69...7943 scfh | 1.1...132.4 scfm | 3...340.1 ft/s |
| Reset point rP | 30...7904 scfh | 0.5...131.7 scfm | 1.3...338.4 ft/s |
| Analog start point ASP | 0...6357 scfh | 0...105.9 scfm | 0...272.2 ft/s |
| Analog end point AEP | 1589...7946 scfh | 26.5...132.4 scfm | 68...340.2 ft/s |
| Low flow cut-off LFC | 9...85 scfh | 0.2...1.4 scfm | 0.4...3.6 ft/s |
| In steps of | 1 scfh | 0.1 scfm | 0.1 ft/s |

Pressure monitoring

| | |
|--------------------------|-----------|
| Measuring range [psi] | -15...232 |
| Display range [psi] | -15...290 |
| Resolution [psi] | 1 |
| Set point SP [psi] | -13...232 |
| Reset point rP [psi] | -15...231 |
| Analog start point [psi] | -15...186 |
| Analog end point [psi] | 32...232 |
| In steps of [psi] | 1 |

Volumetric flow quantity monitoring

| | | |
|-----------------|------------------------------|---------------------|
| Measuring range | 0...100000000 m ³ | 0...353146667.2 scf |
|-----------------|------------------------------|---------------------|

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Industrial gas counter

SDN11DGXFRKG/US-100

| | | |
|--|---------------------------------|---|
| 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 73 °F) |
| 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, T09) |
| 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 |

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Industrial gas counter

SDN11DGXFRKG/US-100

| | | |
|------------------------------|--------------------------|---------------------------------------|
| Profiles | Common - I&D | Identification and Diagnosis |
| | Function | Measurement data, standard resolution |
| 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 | 1292 |

| Operating conditions | | |
|--------------------------------|--|--------------|
| Ambient temperature [°F] | | 32...140 |
| Storage temperature [°C] | | -4...185 |
| 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] | | 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 | |

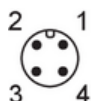
| Mechanical data | | |
|--------------------------|--|-------------------|
| Weight [g] | | 1608.8 |
| Housing | | rectangular |
| Dimensions [mm] | | 475 x 45.4 x 83.1 |
| Material | PBT+PC-GF30; PPS GF40; stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); steel (1.5523) galvanized; 2.0401 (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 1" NPT external thread 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. | |

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4



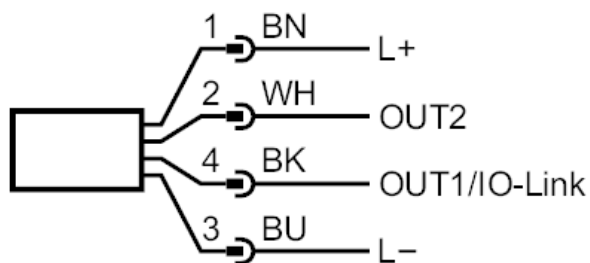
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Industrial gas counter

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