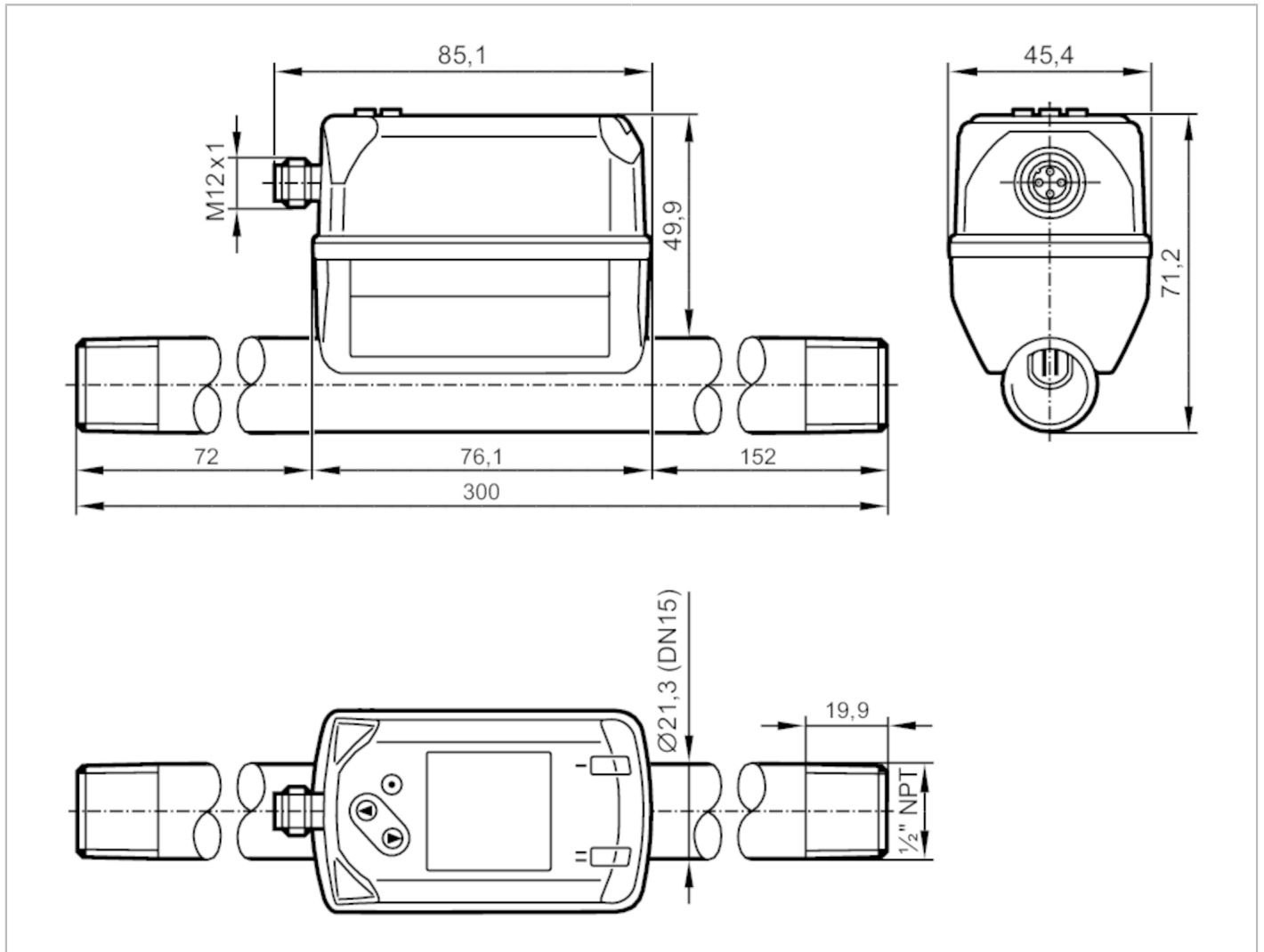


SD6501



Compressed air meter

SDN12DGXFRKG/US-100



Product characteristics

| | | | |
|------------------------------|-------------------------------------------------------------|-------------------|----------------|
| Number of inputs and outputs | Number of digital outputs: 2; Number of analogue outputs: 1 | | |
| Measuring range | 8...2648 scfh | 0.15...44.15 scfm | 1...327.4 ft/s |
| Process connection | threaded connection 1/2 NPT DN15 | | |

Application

| | | | |
|------------------------------|-----------------------------|--|--|
| Application | for industrial applications | | |
| Media | compressed air | | |
| Medium temperature [°F] | 14...140 | | |
| Min. bursting pressure [psi] | 928 | | |
| Pressure rating [psi] | 232 | | |

Electrical data

| | | | |
|-----------------------------|-----------------------------------------------|--|--|
| Operating voltage [V] | 18...30 DC; (according to EN 50178 SELV/PELV) | | |
| Current consumption [mA] | < 80 | | |
| Protection class | III | | |
| Reverse polarity protection | yes | | |
| Power-on delay time [s] | 1 | | |



Compressed air meter

SDN12DGXFRKG/US-100

| Inputs / outputs | | | |
|------------------------------------------------------|--------------------------------------------------------------------------|-------------------|-------------------|
| Total number of inputs and outputs | 2; (configurable) | | |
| Number of inputs and outputs | Number of digital outputs: 2; Number of analogue outputs: 1 | | |
| 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 | 8...2648 scfh | 0.15...44.15 scfm | 1...327.4 ft/s |
| Display range | 0...3178 scfh | 0...52.95 scfm | 0...393 ft/s |
| Resolution | 2 scfh | 0.05 scfm | 0.2 ft/s |
| Set point SP | 23...2648 scfh | 0.38...44.13 scfm | 2.8...327.3 ft/s |
| Reset point rP | 10...2635 scfh | 0.16...43.91 scfm | 1.2...325.7 ft/s |
| Analogue start point ASP | 0...2119 scfh | 0...35.31 scfm | 0...261.9 ft/s |
| Analogue end point AEP | 530...2649 scfh | 8.83...44.14 scfm | 65.5...327.4 ft/s |
| Low flow cut-off LFC | 3...28 scfh | 0.05...0.47 scfm | 0.4...3.5 ft/s |
| In steps of | 1 scfh | 0.01 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 | | |
| Analogue start point [psi] | -15...186 | | |
| Analogue end point [psi] | 32...232 | | |
| In steps of [psi] | 1 | | |

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| 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 | | |
| Temperature coefficient [1/K] | ± 0,07 % MW | |
| Accuracy (in the measuring range) | class 141: ± (2 % MW + 0,5 % MEW); class 344: ± (6 % MW + 0,6 % MEW) ; air quality to ISO 8573-1:2010; at medium temperature 73 °F | |
| Repeatability | 0,8 % MW + 0,2 % 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] | ± 0,15 | |
| Greatest TEMPCO of the zero point [% MEW / 10 K] | ± 0,25 | |
| 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 for the switching output 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 | |

SD6501



Compressed air meter

SDN12DGXFRKG/US-100

| Interfaces | |
|------------------------------|--------------------------------------------------------------------------|
| Communication interface | IO-Link |
| Transmission type | COM2 (38,4 kBaud) |
| IO-Link revision | 1.1 |
| SDCI standard | IEC 61131-9 CDV |
| IO-Link device ID | 867 d / 00 03 63 h |
| 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 |

| Operating conditions | |
|--------------------------------|--------------|
| Ambient temperature [°F] | 32...140 |
| Storage temperature [°F] | -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 | |
| MTTF [years] | 183 | |
| UL approval | UL Approval no. | I012 |
| | File number UL | E174189 |
| Pressure Equipment Directive | Sound engineering practice; can be used for stable gases fluid group 2 | |

| Mechanical data | |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight [g] | 731 |
| Materials | PBT+PC-GF30; PPS GF40; stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); steel (1.5523) galvanised; 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 1/2 NPT DN15 |

| 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 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 |

SD6501

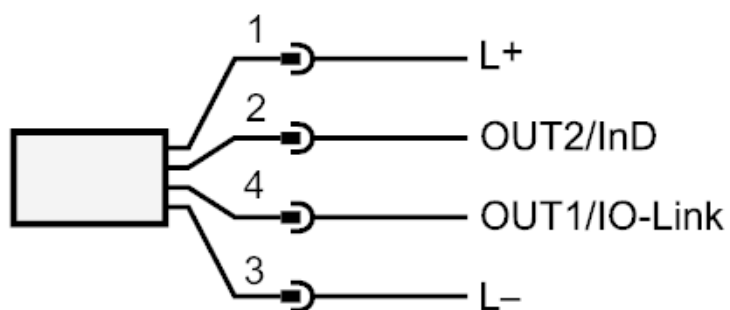


Compressed air meter

SDN12DGXFRKG/US-100



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