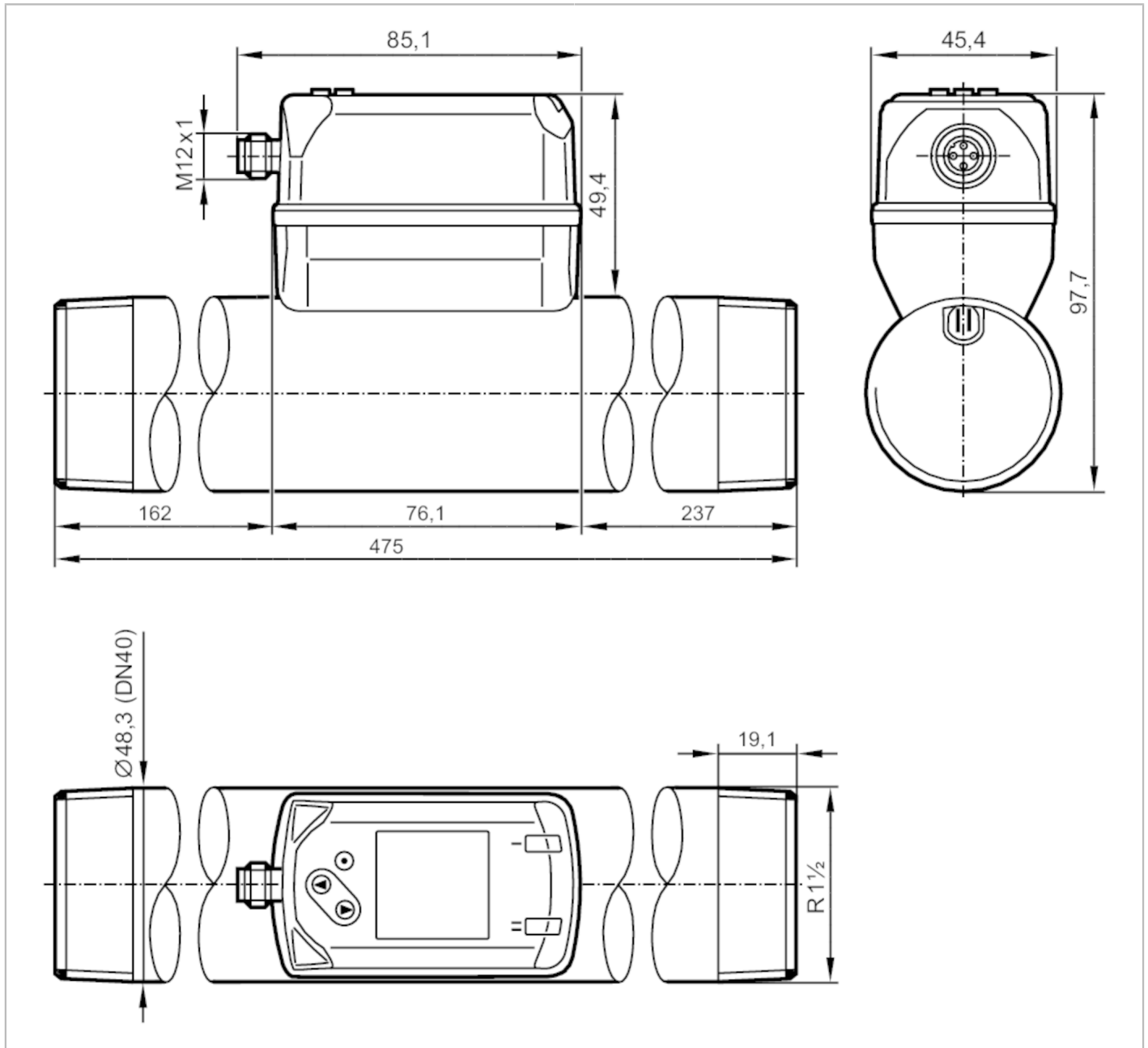


SD9500



Compressed air meter

SDR32DGXFRKG/US-100



Product characteristics

| | | | |
|------------------------------|---|--------------|-----------------------------|
| Number of inputs and outputs | Number of digital outputs: 2; Number of analogue outputs: 1 | | |
| Measuring range | 20...6830 l/min | 0.3...81 m/s | 1.4...410 m ³ /h |
| Process connection | threaded connection R 1 1/2 external thread DN40 | | |

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 | |



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| | | |
|--|-------|-----|
| MAWP (for applications according to CRN) | [bar] | 8.9 |
|--|-------|-----|

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 | | |
| 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 | 20...6830 l/min | 0.3...81 m/s | 1.4...410 m³/h |
| Display range | 0...8200 l/min | 0...97.2 m/s | 0...492 m³/h |
| Resolution | 10 l/min | 0.1 m/s | 0.2 m³/h |
| Set point SP | 60...6830 l/min | 0.7...81 m/s | 3.6...409.8 m³/h |
| Reset point rP | 30...6800 l/min | 0.3...80.6 m/s | 1.6...407.8 m³/h |
| Analogue start point ASP | 0...5460 l/min | 0...64.8 m/s | 0...327.9 m³/h |
| Analogue end point AEP | 1370...6830 l/min | 16.2...81 m/s | 82.1...410 m³/h |
| Low flow cut-off LFC | 10...70 l/min | 0.1...0.9 m/s | 0.5...4.4 m³/h |
| In steps of | 1 l/min | 0.1 m/s | 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 |
| Analogue start point | [bar] | -1...12.8 |

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| | | |
|--|---------------------------------|--|
| 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] | 0.004...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 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) |
| 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 |



Compressed air meter

SDR32DGXFRKG/US-100

| 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 | 869 |

| 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 | 001TG |
| | accuracy class | - |
| | maximum allowable error | ± 2,5 % FS |
| | Q (min) | 0,05 m³/h |
| | Q (t) | - |
| | Q (max) | 410 m³/h |
| Vibration resistance | DIN EN 68000-2-6 | 5 g (10...2000 Hz) |
| 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] | 2262 | |
| Housing | rectangular | |
| Dimensions [mm] | 475 x 48.3 x 97.7 | |
| Materials | PBT+PC-GF30; PPS GF40; stainless steel (304/1.4301); stainless steel (303/1.4305); steel (1.5523) galvanised; 2.0401 (brass / CW614N); FKM | |
| Materials (wetted parts) | stainless steel (304/1.4301); stainless steel (303/1.4305); FKM; ceramics glass passivated; PPS GF40; Al2O3 (ceramics); acrylate | |
| Process connection | threaded connection R 1 1/2 external thread DN40 | |

| Displays / operating elements | | |
|-------------------------------|--|--|
| Display | colour display 1,44", 128 x 128 pixels | |
| | 2 x LED, yellow | |

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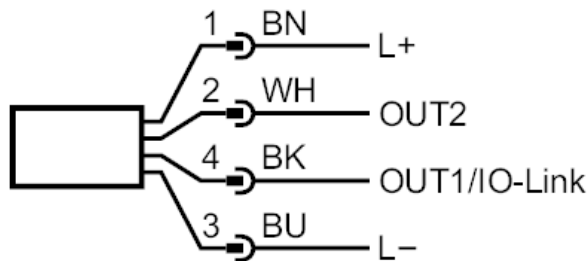
| Remarks | |
|---------------|--|
| Remarks | MW = measured value MEW = Final value of the measuring range Measuring, display and setting ranges refer to the standard volume flow according to DIN ISO 2533. For information about installation and operation please see the operating instructions. |
| Pack quantity | 1 pcs. |

Electrical connection

Connector: 1 x M12; 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
 - analogue output flow
 - analogue output temperature
 - analogue output pressure
 - signal output Preset counter
 - Pulse output quantity meter
 - input counter reset