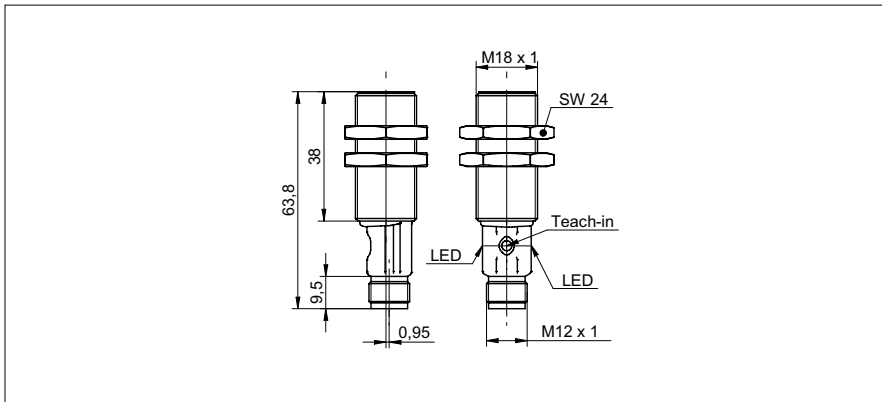


Ultrasonic distance measuring sensors

UR18.DA0.2-11200640

dimension drawing



general data

| | |
|--------------------------------|--------------------------------|
| scanning range Sd | 70 ... 1000 mm |
| scanning range close limit Sdc | 70 ... 1000 mm |
| scanning range far limit Sde | 70 ... 1000 mm |
| version | IO-Link dual channel |
| hysteresis typ. | 4 % Sde |
| repeat accuracy | < 0,5 mm |
| resolution | < 0,3 mm |
| response time ton | < 40 ms |
| release time toff | < 40 ms |
| temperature drift | < 2 % of distance to target So |
| power-up drift | compensated after 15 min. |
| sonic frequency | 200 kHz |
| adjustment | qTeach, line-Teach, IO-Link |
| light indicator | LED yellow |
| power on indication | LED green |
| alignment measuring axis | < 2° |

electrical data

| | |
|-----------------------------|---------------------------|
| voltage supply range +Vs | 12 ... 30 VDC |
| current consumption typ. | 35 mA |
| output circuit | current output |
| output signal | 4 ... 20 mA / 20 ... 4 mA |
| output current | < 100 mA |
| voltage drop Vd | < 3,5 VDC |
| residual ripple | < 10 % Vs |
| short circuit protection | yes |
| reverse polarity protection | yes, Vs to GND |

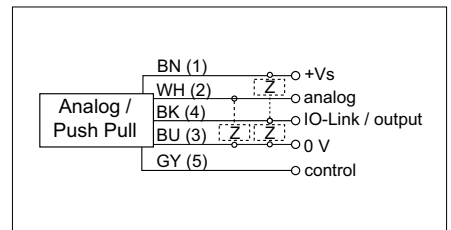
mechanical data

| | |
|---------------------|-----------------------------|
| type | cylindrical threaded |
| housing material | stainless steel (V2A) /TR90 |
| coating active face | PEEK |
| width / diameter | 18 mm |
| height / length | 64 mm |
| connection types | connector M12 5 pin |

photo



connection diagram



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ambient conditions

| | |
|-----------------------|----------------|
| operating temperature | -25 ... +65 °C |
| storage temperature | -40 ... +75 °C |
| protection class | IP 67 |

communications interface

| | |
|------------------------|---|
| interface | IO-Link V1.1 |
| baud rate | 38,4 kBaud (COM 2) |
| cycle time | ≥ 10 ms |
| process data length | 32 Bit |
| process data structure | Bit 0 = SSC1 (distance) Bit 1 = SSC2 (distance) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 8-15 = scale factor Bit 16-47 = 32 Bit measurement |

IO-Link port type

Class A

additional data

- distance
- excess gain
- operating cycles
- operating hours
- boot cycles
- operating voltage
- device temperature
- histograms

adjustable parameters

- switching point
- switching hysteresis
- measured value filtering
- time filters
- LED status indicators
- output logic
- output circuit
- counter
- beam forming
- analog output characteristic
- function of pin 5
- deactivate the sensor element
- Find Me function

typical sonic cone profile

