

Optisches Weg-Mess-System
Precise optical measurement

M7 LR42/10

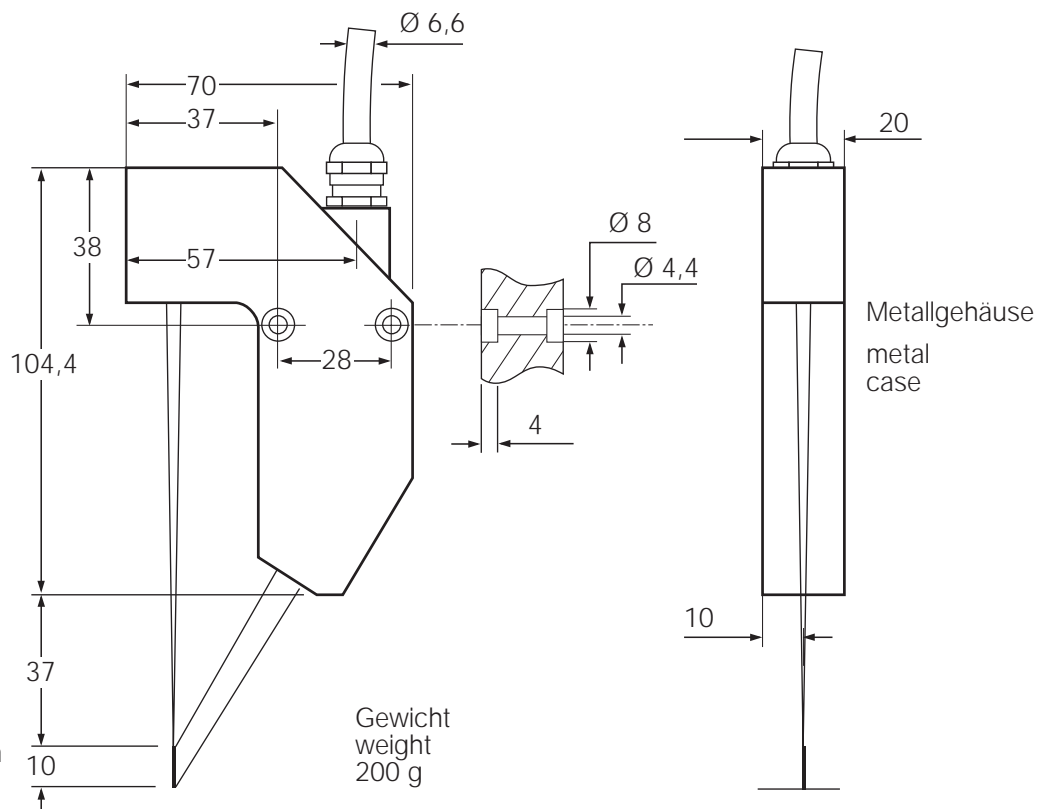


Distanzen messen mit Laser
17.000 Messwerte / s

measure distance with Laser
17.000 measurements / s

- Messen
- Steuern
- Kontrollieren

- Measuring
- Controlling
- Monitoring



Messbereich
range

Gewicht
weight
200 g

Metallgehäuse
metal
case

MTEC

MIKROELEKTRONIK GMBH

| M7 Laser Sensor | | | M7 LR 42/10 |
|-------------------------|--------------------------|------|---|
| Messbereich | Range | (mm) | 10 |
| Beginn Messbereich | Stand-off Distance | (mm) | 37 |
| Linearität | Linearity + / - | (mm) | 0,020 |
| Auflösung* | Resolution* | (mm) | 0,003 |
| Lichtpunkt | Spot Diameter | (mm) | 0,2 |
| Lichtquelle Laser | Light Source Laser | | rot sichtbar / red visible 675 nm |
| Schutzklasse | Safety Class | | 2 |
| Abstands- ausgang | Distance Output | | +/- 10 V (optional 0...10V / 0...5 V) 4 – 20 mA / RS 232 |
| Reaktionszeit | Reaction Time | | 60 µs |
| Frequenzgrenze | Bandwidth | | 0,5...17 kHz (-3 db) |
| Temperaturdrift | Temp. Coefficient | | 0,02 % vom Messbereich 0,02 % °K from range |
| Zu wenig Licht | Not Enough Light | | 24 V / 100mA |
| zul. Fremdlicht | Ambient Light | | 20.000 Lux |
| Betriebsdauer | Life Expectancy | | 50.000 h for Laser Diode |
| Betriebs- temperatur | Operating Temperature | | 0... + 50° C 32 to 122° F |
| Lagertemperatur | Storage Temperature | | - 20... + 70° C - 4 to 158° F |
| Luftfeuchte | Humidity | | < 90 % RH |
| Schutzart | Protection Class | | IP 64 |
| Versorgung | Power Supply | | +24 V DC / 200 mA (10...30 V) |

* Messung bei weißem Objekt 0,5 kHz 4 kHz eingestellt ab Werk
Measuring on white object 0,5 kHz 4 kHz adjustet starting from factory

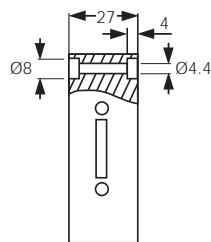
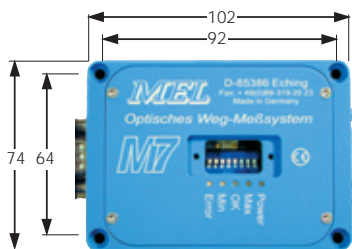
| SW 1 | RS 232-Mode |
|------|-----------------------------------|
| on | RS232 Software Trigger mit RXD |
| off | Dauermode Stop mit RTS |

| SW 2 | SW 3 | Baud rate RS 232 |
|------|------|---------------------|
| on | on | 9,6 kBaud |
| off | on | 19,2 kBaud |
| on | off | 38,4 kBaud |
| off | off | 115,2 kBaud |

| SW 4 | SW 5 | SW 6 | |
|------------|------------|-----------|--------------|
| on | on | on | 0,5 kHz |
| off | on | on | 1 kHz |
| on | off | on | 2 kHz |
| off | off | on | 4 kHz |
| on | on | off | 7 kHz |
| off | on | off | 10 kHz |
| on | off | off | 14 kHz |
| off | off | off | 17 kHz |

| SW 7 | SW 8 | |
|------|------|------------------------------------|
| on | on | Normal – Laser aus I/O = 0 V |
| off | on | Trigger mit I/O = 0 V |
| on | off | Sensor = Master |
| off | off | Sensor = Slave |

| Stiftbelegung Auswerteelektronik | | Pin Connection Electronic Module (Controller) | |
|----------------------------------|-----------------------|---|------------------------------|
| 1 Abstands-Ausgang ± 10V | 14 Analog Masse | 1 Distance Output ± 10 V | 14 Analog Output GND |
| 2 Fehler + 24 V | 15 | 2 Error + 24 V | 15 |
| 3 Laser AUS 0 V | 16 MAX +24 V | 3 Laser OFF GND | 16 MAX Output +24 V |
| 4 TXD | 17 Eingang Sensor 2 | 4 TXD | 17 Input Sensor 2 |
| 5 OK im Bereich +24 V | 18 RTS | 5 Range OK output +24 V | 18 RTS |
| 6 4 ... 20 mA | 19 MIN +24 V | 6 4 ... 20 mA | 19 MIN Output +24 V |
| 7 RXD | 20 Lichtstärke 0-10 V | 7 RXD | 20 Refl. Light Output 0-10 V |
| 8 0 V Versorgung | 21 +24 V Versorgung | 8 GNG Power Supply | 21 +24 V DC Power Supply |
| 9 | 22 | 9 | 22 |
| 10 | 23 | 10 | 23 |
| Steckertyp: 25pol D-Stecker | | Connector Type: 25 pin DB 25 (Male) | |



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