

Photoelectric sensor - OSM40



Description:

Laser displacement sensor, 655nm laser source, metal housing, LED display and button settings, rich interface. Suitable for pharmaceutical, packaging, automotive, non-standard equipment and others.

Features:

- LED digital display + teaching function
- Strong resistance to ambient light, compact size
- Analog/switch dual output

Type:

| Type | Distance | Beam | Output | Resolution | Connection | Wiring |
|-------------------------|-------------|-----------|-----------------------|------------|---------------|--------|
| OSM40-KL35CBLIU6 | 25...35mm | Red laser | NPN/PNP+analog mA / V | 0.001mm | 2m cable | Fig.1 |
| OSM40-KL35CBLIU6Q12.1 | 25...35mm | Red laser | NPN/PNP+analog mA / V | 0.001mm | M12 connector | Fig.1 |
| OSM40-KL70CBLIU6 | 35...70mm | Red laser | NPN/PNP+analog mA / V | 0.01mm | 2m cable | Fig.1 |
| OSM40-KL70CBLIU6Q12.1 | 35...70mm | Red laser | NPN/PNP+analog mA / V | 0.01mm | M12 connector | Fig.1 |
| OSM40-KL160CBLIU6 | 60...160mm | Red laser | NPN/PNP+analog mA / V | 0.01mm | 2m cable | Fig.1 |
| OSM40-KL160CBLIU6Q12.1 | 60...160mm | Red laser | NPN/PNP+analog mA / V | 0.01mm | M12 connector | Fig.1 |
| OSM40-KL300CBLIU6 | 100...300mm | Red laser | NPN/PNP+analog mA / V | 0.1mm | 2m cable | Fig.1 |
| OSM40-KL300CBLIU6Q12.1 | 100...300mm | Red laser | NPN/PNP+analog mA / V | 0.1mm | M12 connector | Fig.1 |
| OSM40-KL800CBLIU6 | 150...800mm | Red laser | NPN/PNP+analog mA / V | 0.1mm | 2m cable | Fig.1 |
| OSM40-KL800CBLIU6Q12.1 | 150...800mm | Red laser | NPN/PNP+analog mA / V | 0.1mm | M12 connector | Fig.1 |
| OSM40-KL35CB6/485 | 25...35mm | Red laser | NPN/PNP+485 | 0.001mm | 2m cable | Fig.2 |
| OSM40-KL35CB6Q12.1/485 | 25...35mm | Red laser | NPN/PNP+485 | 0.001mm | M12 connector | Fig.2 |
| OSM40-KL70CB6/485 | 35...70mm | Red laser | NPN/PNP+485 | 0.01mm | 2m cable | Fig.2 |
| OSM40-KL70CB6Q12.1/485 | 35...70mm | Red laser | NPN/PNP+485 | 0.01mm | M12 connector | Fig.2 |
| OSM40-KL160CB6/485 | 60...160mm | Red laser | NPN/PNP+485 | 0.01mm | 2m cable | Fig.2 |
| OSM40-KL160CB6Q12.1/485 | 60...160mm | Red laser | NPN/PNP+485 | 0.01mm | M12 connector | Fig.2 |
| OSM40-KL300CB6/485 | 100...300mm | Red laser | NPN/PNP+485 | 0.1mm | 2m cable | Fig.2 |
| OSM40-KL300CB6Q12.1/485 | 100...300mm | Red laser | NPN/PNP+485 | 0.1mm | M12 connector | Fig.2 |

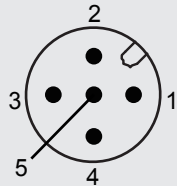
Type:

| Type | Distance | Beam | Output | Resolution | Connection | Wiring |
|-------------------------|-------------|-----------|-----------------|------------|---------------|--------|
| OSM40-KL800CB6/485 | 150...800mm | Red laser | NPN/PNP+485 | 0.1mm | 2m cable | Fig.2 |
| OSM40-KL800CB6Q12.1/485 | 150...800mm | Red laser | NPN/PNP+485 | 0.1mm | M12 connector | Fig.2 |
| OSM40-KL35CB6Q12.1/IO | 25...35mm | Red laser | NPN/PNP+IO-Link | 0.001mm | M12 connector | Fig.3 |
| OSM40-KL70CB6Q12.1/IO | 35...70mm | Red laser | NPN/PNP+IO-Link | 0.01mm | M12 connector | Fig.3 |
| OSM40-KL160CB6Q12.1/IO | 60...160mm | Red laser | NPN/PNP+IO-Link | 0.01mm | M12 connector | Fig.3 |
| OSM40-KL300CB6Q12.1/IO | 100...300mm | Red laser | NPN/PNP+IO-Link | 0.1mm | M12 connector | Fig.3 |
| OSM40-KL800CB6Q12.1/IO | 150...800mm | Red laser | NPN/PNP+IO-Link | 0.1mm | M12 connector | Fig.3 |

Technical Data:

| | |
|----------------------|--|
| Supply voltage | 10-30VDC |
| Ripple voltage | ≤10% |
| No-load current | ≤150mA |
| Power | 1.5W |
| Analog output | 4...20mA, 0...5V or 0...10V |
| Switch output | NPN/PNP |
| Communication type | RS485, IO-Link |
| Light source | 655nm laser source |
| Protection circuit | Reverse polarity protection, short circuit protection, Overload protection |
| Response time | 1.5ms / 5ms / 10ms switchable |
| Repeatability | 0.05mm@35...70mm; 0.1mm@60...160mm; 0.5mm@150...400mm; 1mm@400...600mm; 3mm@600...800mm |
| Spot diameter | 1mm@150mm; 2mm@600mm |
| Housing material | 316L |
| Ambient temperature | -10 C -45 C |
| Voltage resistance | 1000V/AC 50/60Hz 60s |
| Insulation impedance | ≥50MΩ (500VDC) |
| Shock resistance | Complex amplitude 1.5mm 10... 50Hz (2hr X, Y,Z respectively) |
| Impact resistance | 500m/S ² (50G) 3 times X,Y,Z respectively |
| Protection class | IP67 |
| Dimensions | 60.4*20*35.3mm |

Interface output:



CO12.5-2/WS/P
2m connector

Fig.1

| Serial number | Function | Core color of cable type | Core color of connector type |
|---------------|-----------------|--------------------------|------------------------------|
| 1 | Power + | BN | BN |
| 2 | Analogue output | GY | WH |
| 3 | Power - | BU | BU |
| 4 | NPN/PNP | BK | BK |
| 5 | Enable input | PK | GY |

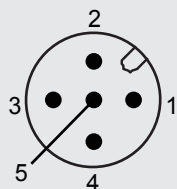


Fig.2

| Serial number | Function | Core color of cable type | Core color of connector type |
|---------------|----------|--------------------------|------------------------------|
| 1 | Power + | BN | BN |
| 2 | 485B | GY | WH |
| 3 | Power - | BU | BU |
| 4 | NPN/PNP | BK | BK |
| 5 | 485A | PK | GY |

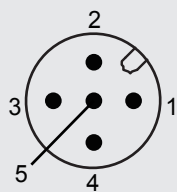
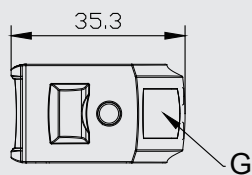
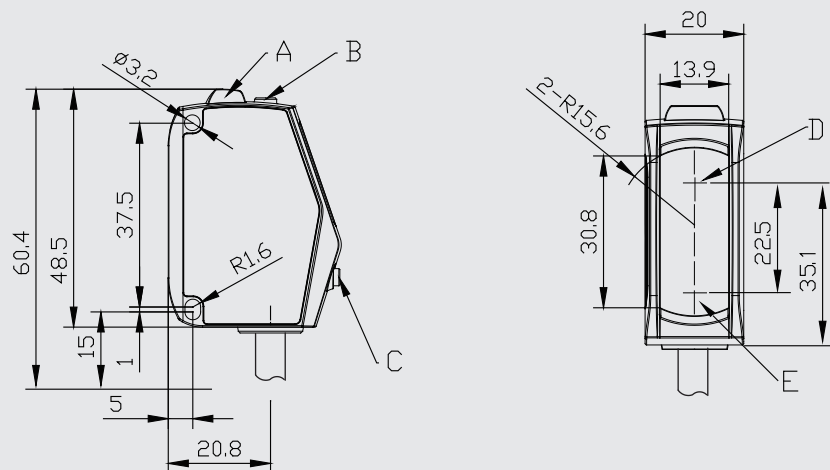
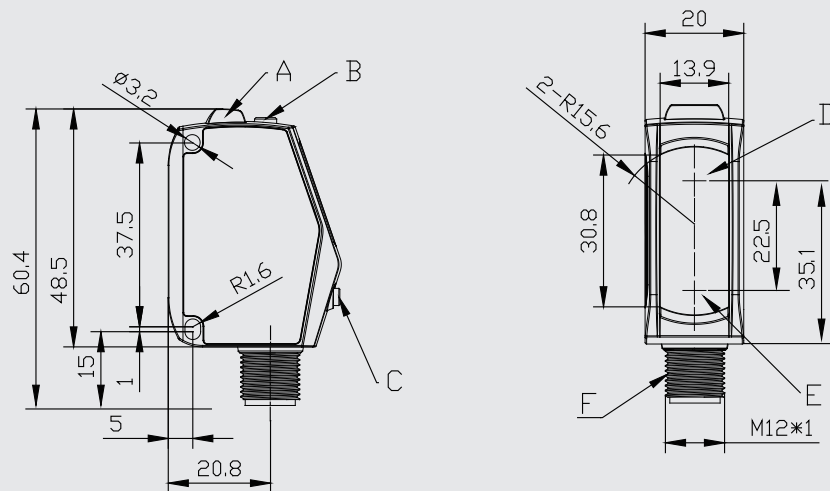


Fig.3

| Serial number | Function | Core color of connector type |
|---------------|-------------|------------------------------|
| 1 | Power + | BN |
| 2 | IO-Link-DIO | WH |
| 3 | Power - | BU |
| 4 | IO-Link-C/Q | BK |
| 5 | NPN/PNP | GY |

Dimensions:



- A alarm indicator
- B function setting button
- C function adjustment button
- D emitting
- E receiving
- F M12*1 connector
- G LED display