


OSM61 SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Laser distance sensor	CONNECTION TYPES (see table)
SIZE	61 × 21.8 × 58.5 mm	<ul style="list-style-type: none"> • 2 m cable PVC, 0.2 mm², 2 m** • M12 connector A-coded
OPERATING DISTANCE	See table	
DETECTION MODE	CMOS ranging	

** other cable lengths are available on request

TECHNICAL DATA

OPERATING VOLTAGE	24 V DC	SWITCHING MODE	L.O / D.O
RIPPLE VOLTAGE	≤ 10 %	POWER	< 2 W
LIGHT SOURCE	Red laser (635 nm) / class2	LOAD CURRENT	≤ 100 mA
REPEATABILITY	1µm @ 26 ... 34 mm 2 µm @ 40 ... 60 mm 3 µm @ 65 ... 105 mm 8 µm @ 60 ... 180 mm 20 µm @100 ... 400 mm	HOUSING MATERIAL	Housing: aluminum alloy Front screen: glass
LIGHT SPOT SIZE	∅ 0.8 mm @ 30 mm ∅ 1 mm @ 50 mm ∅ 1.2 mm @ 85 mm ∅ 1.2 mm @ 120 mm ∅ 1.3 mm @ 250 mm	VOLTAGE WITHSTANDING	1000 V/AC, 50/60 Hz, 60 s
SWITCH OUTPUT	PNP / NPN	REVERSE POLARITY PROTECTION	Yes
ANALOG OUTPUT	4 ... 20 mA, 0 ... 10 V	OVERLOAD RESISTANCE	Yes
COMMUNICATION TYPE	RS-485	SHORT CIRCUIT PROTECTION	Yes
RESPONSE TIME	200 us / 500 us / 1 ms / 2 ms	MTTF	52 years

ENVIRONMENTAL CONDITIONS

OPERATING ENVIRONMENT HUMIDITY	35 % to 85 % RH (no condensation)	INSULATION IMPEDENCE	≥ 20 MΩ (500 V DC)
PROTECTION CLASS	IP67	SHOCK RESISTANCE (EN 60068-2-27)	500 m/s ² (50 G) 3 times X, Y, Z respectively
STORAGE TEMPERATURE	-10 ... +50 °C	IMPACT RESISTANCE (EN 60068-2-6)	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
AMBIENT TEMPERATURE	-20 ... +60 °C	ANTI-AMBIENT LIGHT	≤ 3000 Lux

STANDARDS AND DIRECTIVES

EMC DIRECTIVE 2014/30/EU	EN IEC 60947-5-2	ROHS DIRECTIVE 2011/65/EU	EN IEC 63000
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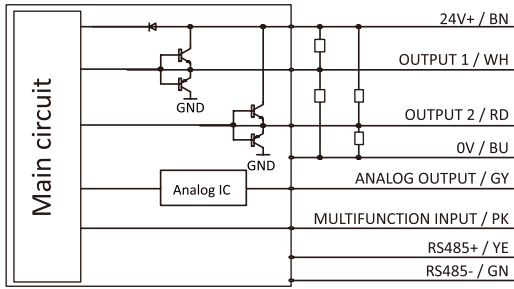
DETECTION MODE CMOS RANGING

Article number	Operating distance	Light source	Output (wiring diagram)	Resoluton	Connection	Dimensions
OSM61-KL30C2BLIU6/485	30±4 mm	Red laser	Push-pull + analog V/mA + RS485 (WD1)	1 um	2m cable	see Fig. 1
OSM61-KL50C2BLIU6/485	50±10 mm	Red laser	Push-pull + analog V/mA + RS485 (WD1)	1 um	2m cable	see Fig. 1
OSM61-KL85C2BLIU6/485	85±20 mm	Red laser	Push-pull + analog V/mA + RS485 (WD1)	1 um	2m cable	see Fig. 1
OSM61-KL120C2BLIU6/485	120±60 mm	Red laser	Push-pull + analog V/mA + RS485 (WD1)	1 um	2m cable	see Fig. 1
OSM61-KL250C2BLIU6/485	250±150 mm	Red laser	Push-pull + analog V/mA + RS485 (WD1)	10 um	2m cable	see Fig. 1
OSM61-KL30C2BLIU6/485-0.3-Q12.8	30±4 mm	Red laser	Push-pull + analog V/mA + RS485 (WD2)	1 um	0.3 m cable + M12 connector	see Fig. 2
OSM61-KL50C2BLIU6/485-0.3-Q12.8	50±10 mm	Red laser	Push-pull + analog V/mA + RS485 (WD2)	1 um	0.3 m cable + M12 connector	see Fig. 2
OSM61-KL85C2BLIU6/485-0.3-Q12.8	85±20 mm	Red laser	Push-pull + analog V/mA + RS485 (WD2)	1 um	0.3 m cable + M12 connector	see Fig. 2
OSM61-KL120C2BLIU6/485-0.3-Q12.8	120±60 mm	Red laser	Push-pull + analog V/mA + RS485 (WD2)	1 um	0.3 m cable + M12 connector	see Fig. 2
OSM61-KL250C2BLIU6/485-0.3-Q12.8	250±150 mm	Red laser	Push-pull + analog V/mA + RS485 (WD2)	10 um	0.3 m cable + M12 connector	see Fig. 2

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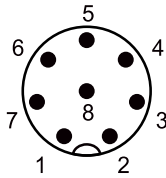
WIRING DIAGRAMS

WD1



Number	Colour	Feature
1	BN	24 V+
2	BU	0 V
3	WH	Switching quantity 1
4	RD	Switching quantity 2
5	YE	RS485+
6	GN	RS485-
7	GY	Analog V/mA
8	PK	External input

WD2

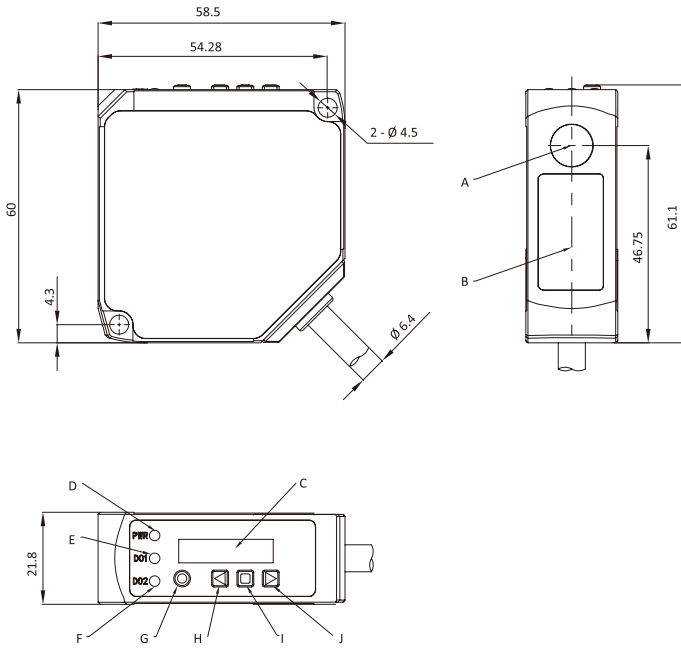


Number	Colour	Feature
1	WH	RS485 -
2	BN	24 V+
3	GN	Analog V/mA
4	YE	Switching quantity 1
5	GY	Switching quantity 2
6	PK	RS485 +
7	BU	0 V
8	RD	External input

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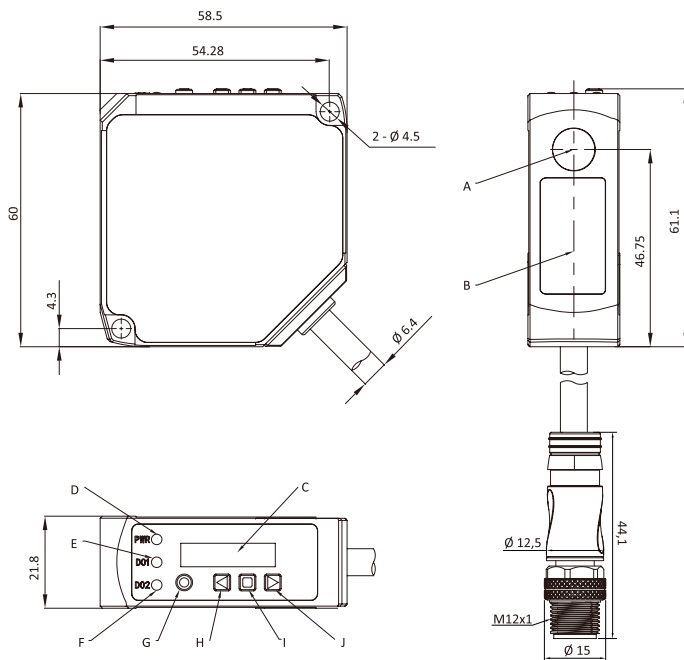
DIMENSIONS

Fig. 1 Cable



- A: Emitter
- B: Receiver
- C: Display
- D: Power indicator/alarm indicator
- E: Switching quantity 1 output indicator
- F: Switching quantity 2 output indicator
- G: Backspace key
- H: Page up key
- I: Confirm key
- J: Scroll down key

Fig. 2 Connector



- A: Emitter
- B: Receiver
- C: Display
- D: Power indicator/alarm indicator
- E: Switching quantity 1 output indicator
- F: Switching quantity 2 output indicator
- G: Backspace key
- H: Page up key
- I: Confirm key
- J: Scroll down key

OSM61 SERIES

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