

OSM41 SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Laser distance sensor	CONNECTION TYPES (see table)	
SIZE	45.7 x 26.5 x 20 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	TOF ranging		

** Other cable lengths are available on request

TECHNICAL DATA

OPERATING VOLTAGE	10 ... 30 V DC	LOAD CURRENT	≤ 150 mA
DETECTION LIGHT	Infrared laser (940 nm)	HOUSING MATERIAL	Housing: Die-cast zinc Front screen: Glass
INDICATING LIGHT	Red laser (655 nm) / class 1		
REPEATABILITY	5 mm	VOLTAGE WITHSTANDING	650 V/AC, 50/60 Hz, 60 s
LIGHT SPOT SIZE	9 × 5.5 cm @ 2.5 m 13 × 8.5 cm @ 4 m	REVERSE POLARITY PROTECTION	Yes
SWITCH OUTPUT	PNP / NPN	OVERLOAD RESISTANCE	Yes
ANALOG OUTPUT	4 ... 20 mA, 0 ... 5 V or 0 ... 10 V	SHORT CIRCUIT PROTECTION	Yes
COMMUNICATION TYPE	RS-485	MTTF	
RESPONSE FREQUENCY	30 Hz	<ul style="list-style-type: none"> • NPN/PNP + analog 68 years • NPN/PNP + RS-485 80 years 	
SWITCHING MODE	L.O / D.O		
POWER	< 1 W		

ENVIRONMENTAL CONDITIONS

OPERATING ENVIRONMENT HUMIDITY	35 % to 85 % RH (no condensation)	INSULATION IMPEDENCE	≥ 50 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	-20 ... +60 °C	IMPACT RESISTANCE (EN 60068-2-6)	Complex amplitude 1.5 mm 10 ... 50 Hz (2hr X, Y, Z respectively)
AMBIENT TEMPERATURE	-10 ... +50 °C	ANTI-AMBIENT LIGHT	≤ 3000 Lux

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STANDARDS AND DIRECTIVES

EMC DIRECTIVE 2014/30/EU EN IEC 60947-5-2

ROHS DIRECTIVE 2011/65/EU EN IEC 63000

APPROVALS



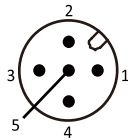
DETECTION MODE TOF RANGING

Article number	Operating distance	Light source	Output (wiring diagram)	Resoluton	Connection	Dimensions
OSM41-K2500CBLI6	50 ... 2500 mm	Infrared laser +Laser indication	NPN / PNP + analog mA (WD1)	3 mm	2 m cable	see Fig. 1
OSM41-K2500CBLU6	50 ... 2500 mm	Infrared laser +Laser indication	NPN / PNP + analog V (WD1)	3 mm	2 m cable	see Fig. 1
OSM41-K4000CBLI6	50 ... 4000 mm	Infrared laser +Laser indication	NPN / PNP + analog mA (WD1)	3 mm	2 m cable	see Fig. 1
OSM41-K4000CBLU6	50 ... 4000 mm	Infrared laser +Laser indication	NPN / PNP + analog V (WD1)	3 mm	2 m cable	see Fig. 1
OSM41-K2500CB6/485	50 ... 2500 mm	Infrared laser +Laser indication	NPN / PNP + RS-485 (WD2)	3 mm	2 m cable	see Fig. 1
OSM41-K4000CB6/485	50 ... 4000 mm	Infrared laser +Laser indication	NPN / PNP + RS-485 (WD2)	3 mm	2 m cable	see Fig. 1
OSM41-K2500CBLI6-0.3-Q12.1	50 ... 2500 mm	Infrared laser +Laser indication	NPN / PNP + analog mA (WD1)	3 mm	0.3 m cable + M12 connector	see Fig. 2
OSM41-K2500CBLU6-0.3-Q12.1	50 ... 2500 mm	Infrared laser +Laser indication	NPN / PNP + analog V (WD1)	3 mm	0.3 m cable + M12 connector	see Fig. 2
OSM41-K4000CBLI6-0.3-Q12.1	50 ... 4000 mm	Infrared laser +Laser indication	NPN / PNP + analog mA (WD1)	3 mm	0.3 m cable + M12 connector	see Fig. 2
OSM41-K4000CBLU6-0.3-Q12.1	50 ... 4000 mm	Infrared laser +Laser indication	NPN / PNP + analog V (WD1)	3 mm	0.3 m cable + M12 connector	see Fig. 2
OSM41-K2500CB6/485-0.3-Q12.1	50 ... 2500 mm	Infrared laser +Laser indication	NPN / PNP + RS-485 (WD2)	3 mm	0.3 m cable + M12 connector	see Fig. 2
OSM41-K4000CB6/485-0.3-Q12.1	50 ... 4000 mm	Infrared laser +Laser indication	NPN / PNP + RS-485 (WD2)	3 mm	0.3 m cable + M12 connector	see Fig. 2

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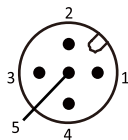
WIRING DIAGRAMS

WD1



Number	Colour	Function
1	BN	Power +
2	GY	Analogue output
3	BU	Power -
4	BK	NPN / PNP
5	PK	Enable input

WD2

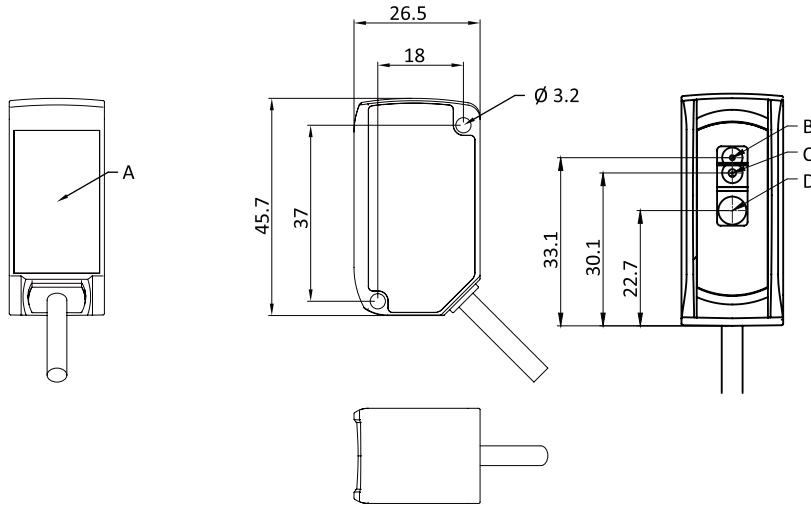


Number	Colour	Function
1	BN	Power +
2	GY	485B
3	BU	Power -
4	BK	NPN / PNP
5	PK	485A

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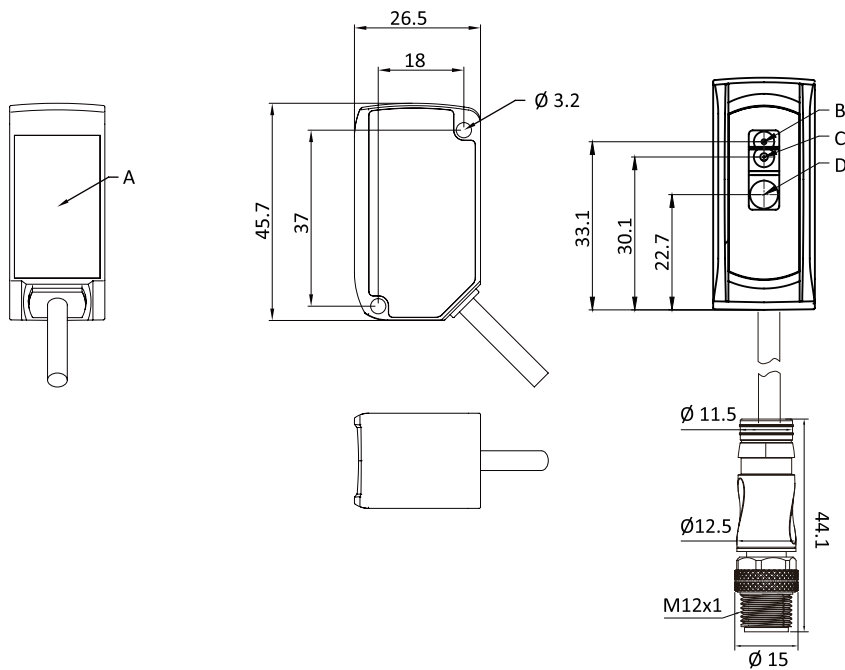
DIMENSIONS

Fig. 1 Cable



A:Teach button & indicator
 B:Receiver
 C:Transmitter
 D:Indicator

Fig. 2 Connector



A:Teach button & indicator
 B:Receiver
 C:Transmitter
 D:Indicator

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