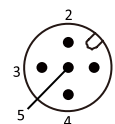


OSM45 SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Laser distance sensor	CONNECTION TYPES (see table)
SIZE	49.4 × 18 × 35.3 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	10 ... 30 V DC	POWER	< 1 W
LIGHT SOURCE	OSM45-KL300/KL310 633nm, class 1 OSM45-KL500/KL510 655nm, class 1	LOAD CURRENT	≤ 100 mA
REPEATABILITY	1 mm @ 25 ... 100 mm 3 mm @ 100 ... 300 mm 5 mm @ 300 ... 510 mm	HOUSING MATERIAL	Housing: Zinc alloy Front screen: glass
LIGHT SPOT SIZE	1 × 2 mm @ 300 mm 1.5 × 3 mm @ 300 mm	VOLTAGE WITHSTANDING	650 V/AC, 50/60 Hz, 60 s
SWITCH OUTPUT	PNP / NPN	REVERSE POLARITY PROTECTION	Yes
COMMUNICATION TYPE	RS-485, IO-Link	OVERLOAD RESISTANCE	Yes
SWITCHING FREQUENCY	≥ 400 HZ	SHORT CIRCUIT PROTECTION	Yes
SWITCHING MODE	L.O / D.O	MTTF	42 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	-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	≤ 5000 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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OSM45 SERIES

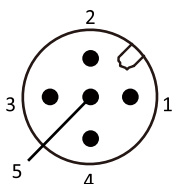
DETECTION MODE CMOS RANGING

Article number	Operating distance	Light source	Output (wiring diagram)	Resoluton	Connection	Dimensions
OSM45-KL300CB6/485	25 ... 300mm	Red laser	NPN / PNP + RS-485 (WD1)	0.1 mm	2 m cable	<i>see Fig. 1</i>
OSM45-KL310CB6/485	35 ... 310 mm	Red laser	NPN / PNP + RS-485 (WD1)	0.1 mm	2 m cable	<i>see Fig. 2</i>
OSM45-KL300CB6Q12.1/485	25 ... 300 mm	Red laser	NPN / PNP + RS-485 (WD1)	0.1 mm	M12 connector	<i>see Fig. 3</i>
OSM45-5-KL310CB6Q12.1/485	35 ... 310 mm	Red laser	NPN / PNP + RS-485 (WD1)	0.1 mm	M12 connector	<i>see Fig. 4</i>
OSM45-KL500CB6/485	25 ... 500 mm	Red laser	NPN / PNP + RS-485 (WD1)	0.1 mm	2 m cable	<i>see Fig. 1</i>
OSM45-KL510CB6/485	35 ... 510 mm	Red laser	NPN / PNP + RS-485 (WD1)	0.1 mm	2 m cable	<i>see Fig. 2</i>
OSM45-KL500CB6Q12.1/485	25 ... 500 mm	Red laser	NPN / PNP + RS-485 (WD1)	0.1 mm	M12 connector	<i>see Fig. 3</i>
OSM45-KL510CB6Q12.1/485	35 ... 510 mm	Red laser	NPN / PNP + RS-485 (WD1)	0.1 mm	M12 connector	<i>see Fig. 4</i>
OSM45-KL300CB6Q12.1/IO	25 ... 300mm	Red laser	NPN / PNP + IO-Link (WD2)	0.1 mm	M12 connector	<i>see Fig. 3</i>
OSM45-KL310CB6Q12.1/IO	35 ... 310 mm	Red laser	NPN / PNP + IO-Link (WD2)	0.1 mm	M12 connector	<i>see Fig. 4</i>
OSM45-KL500CB6Q12.1/IO	25 ... 500 mm	Red laser	NPN / PNP + IO-Link (WD2)	0.1 mm	M12 connector	<i>see Fig. 3</i>
OSM45-KL510CB6Q12.1/IO	35 ... 510 mm	Red laser	NPN / PNP + IO-Link (WD2)	0.1 mm	M12 connector	<i>see Fig. 4</i>

OSM45 SERIES

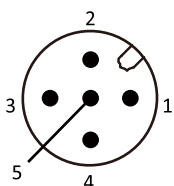
WIRING DIAGRAMS

WD1



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

WD2



Serial number	Function	Core color of cable type
1	Power +	BN
2	NPN / PNP	WH
3	Power -	BU
4	IO-Link-DIO; NPN / PNP	BK
5	NC	GY

OSM45 SERIES

DIMENSIONS

Fig. 1 M18 screw thread, cable type

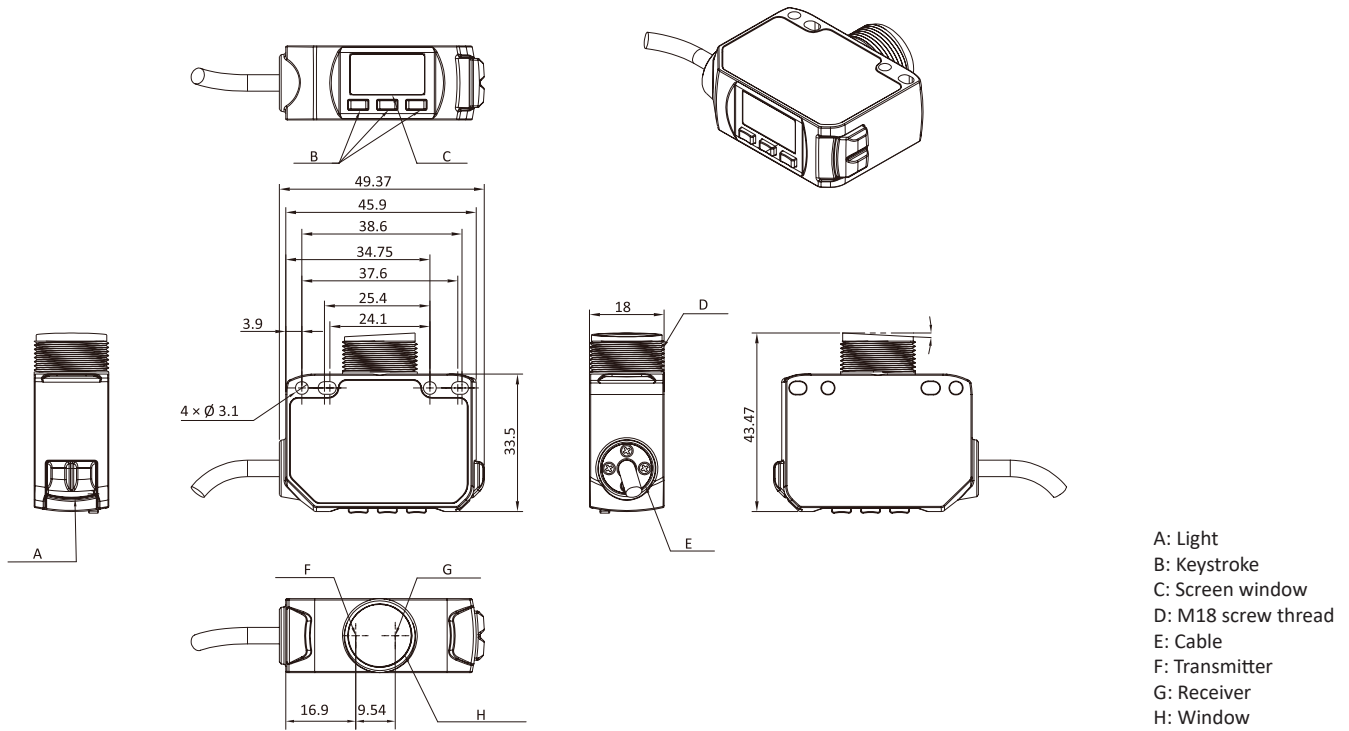
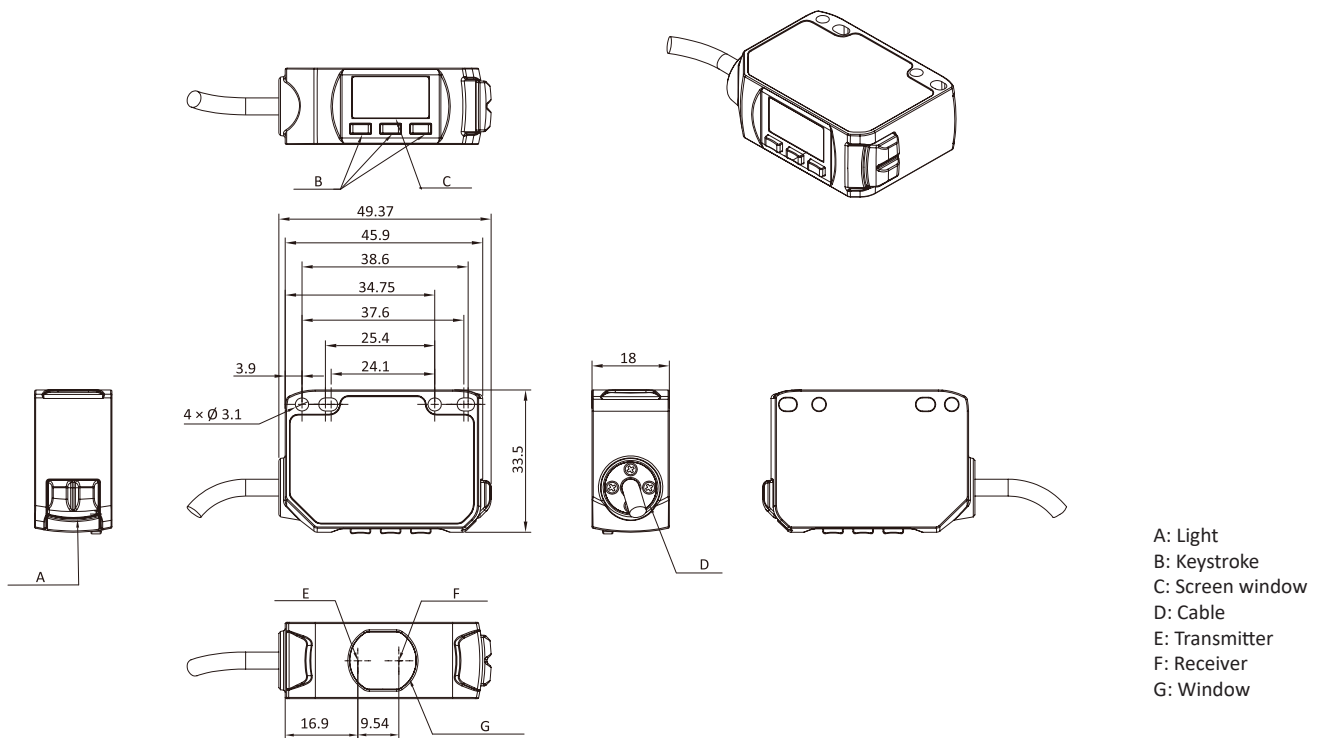


Fig. 2 Flush, cable type



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DIMENSIONS

Fig. 3 M18 screw thread, M12 connector, 5-pin

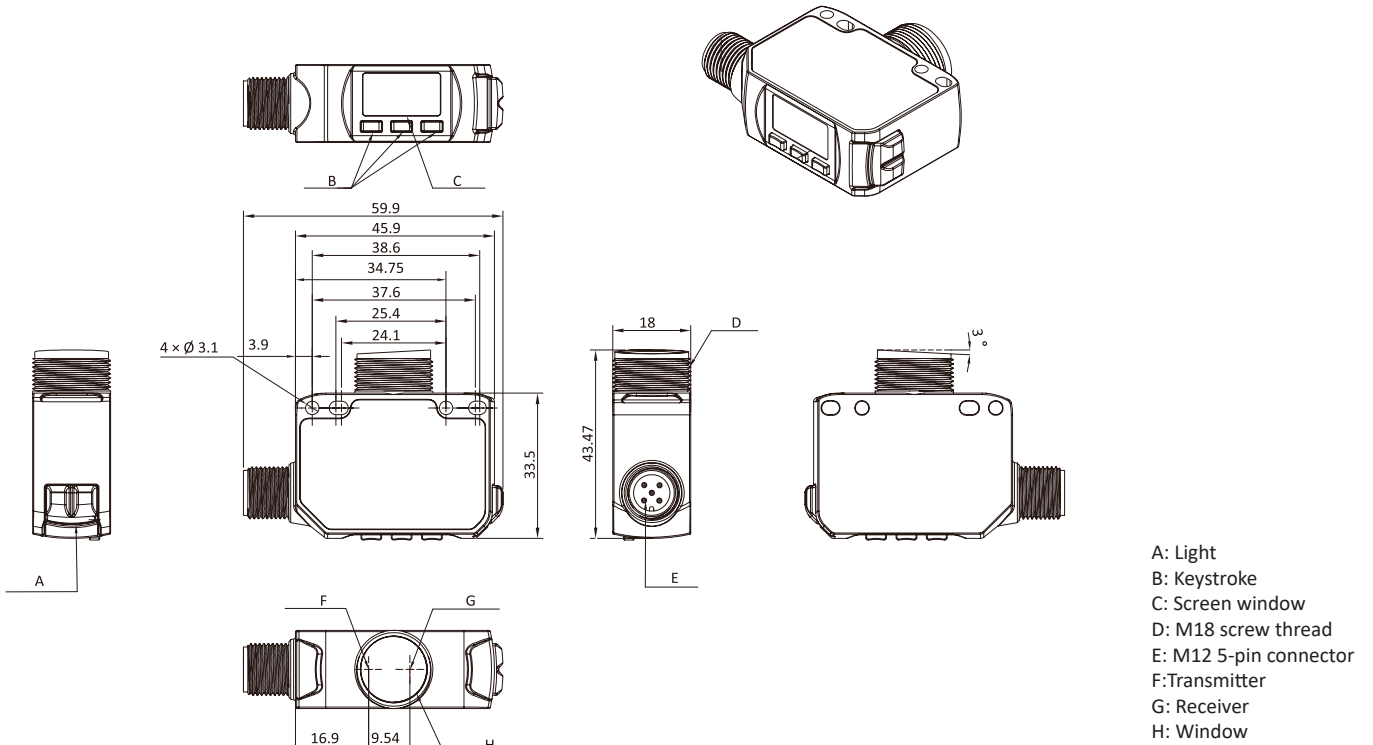
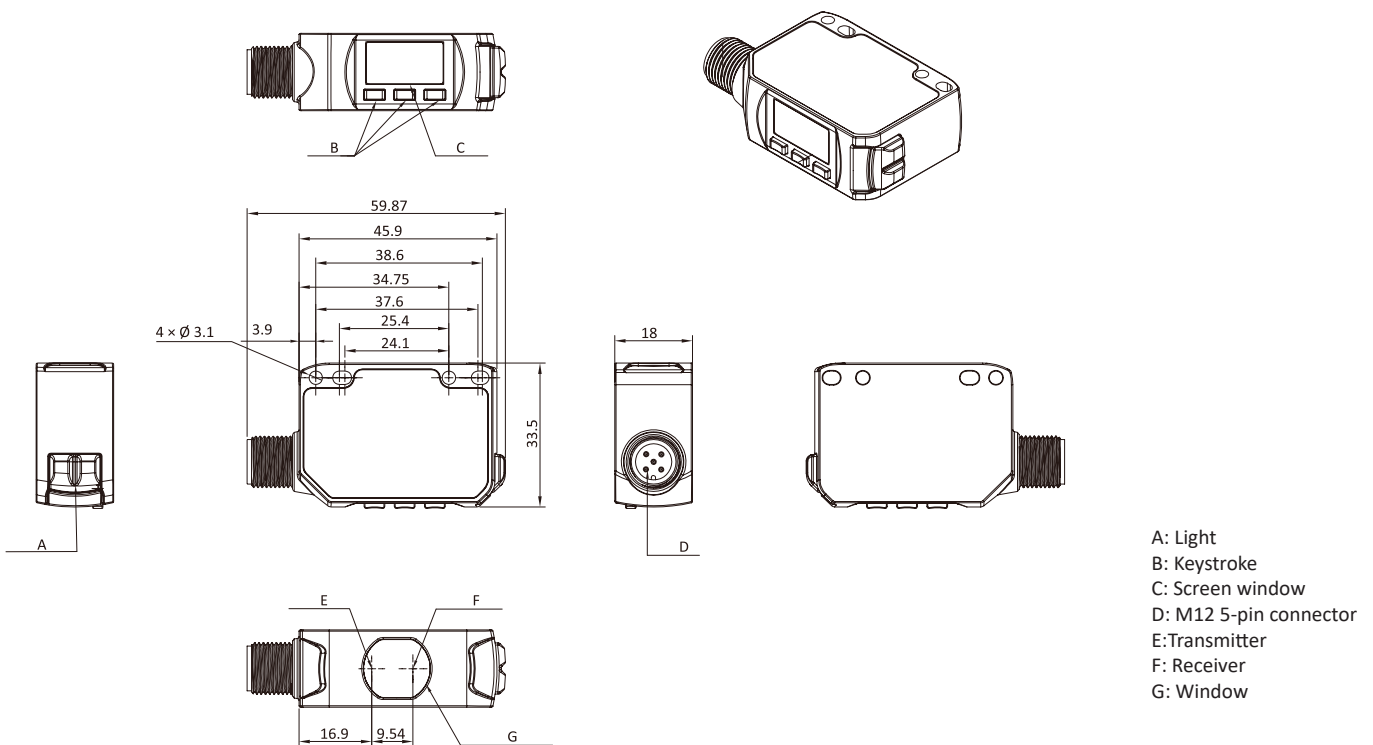


Fig. 4 Flush, M12 connector, 5-pin



OSM45 SERIES

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