


OS10S-TOF SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Photoelectric sensor	CONNECTION TYPES (see table)
SIZE	See dimensions	<ul style="list-style-type: none"> M12 connector, A-coded
OPERATING DISTANCE	See table	
DETECTION MODE	BGS TOF	

** Other cable lengths are available on request

TECHNICAL DATA

OPERATING VOLTAGE	10 ... 30 V DC / 5 V DC (OS10S-K4000/UR)	LOAD CURRENT	≤ 100 mA
RIPPLE VOLTAGE	≤ 10 %	HOUSING MATERIAL	PC + PBT
LASER CLASS	Infrared laser (940 nm) / class 1	VOLTAGE WITHSTANDING	1000 V/AC, 50/60 Hz, 60 s
LIGHT SPOT SIZE	See beam pattern	REVERSE POLARITY PROTECTION	Yes
OUTPUT	PNP / NPN	OVERLOAD RESISTANCE	Yes
FREQUENCY	See table	SHORT CIRCUIT PROTECTION	Yes
CURRENT CONSUMPTION	24 V 25 mA	MTTF	141 years

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	-40 ... +70 °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	≤ 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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APPROVALS



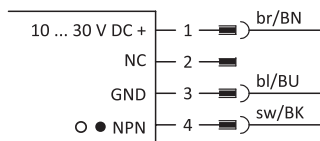
OS10S-TOF SERIES

DETECTION MODE

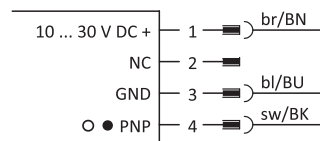
Article number	Operating distance	Light source	Frequency	Output (wiring diagram)	Switching mode	Connection	Dimensions
OS10S-AK1000CN6-0.3-Q12	50 ... 1000 mm	Infrared laser + Red light indication	30 Hz	NPN (WD1)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 1
OS10S-AK1000CP6-0.3-Q12	50 ... 1000 mm	Infrared laser + Red light indication	30 Hz	PNP (WD2)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 1
OS10S-AK1500CN6-0.3-Q12	50 ... 1500 mm	Infrared laser + Red light indication	30 Hz	NPN (WD1)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 1
OS10S-AK1500CP6-0.3-Q12	50 ... 1500 mm	Infrared laser + Red light indication	30 Hz	PNP (WD2)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 1
OS10S-AK4000CN6-0.3-Q12	50 ... 4000 mm	Infrared laser + Red light indication	30 Hz	NPN (WD1)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 1
OS10S-AK4000CP6-0.3-Q12	50 ... 4000 mm	Infrared laser + Red light indication	30 Hz	PNP (WD2)	L.O / D.O	0.3 m cable + M12, 4-pin	see Fig. 1

WIRING DIAGRAMS

WD1 NPN / Light on | Dark on



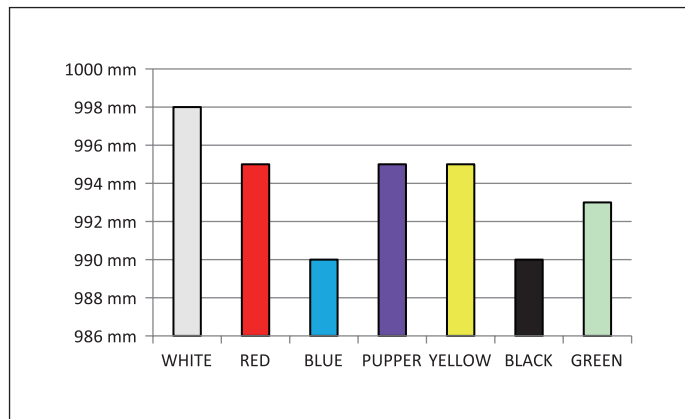
WD2 PNP / Light on | Dark on



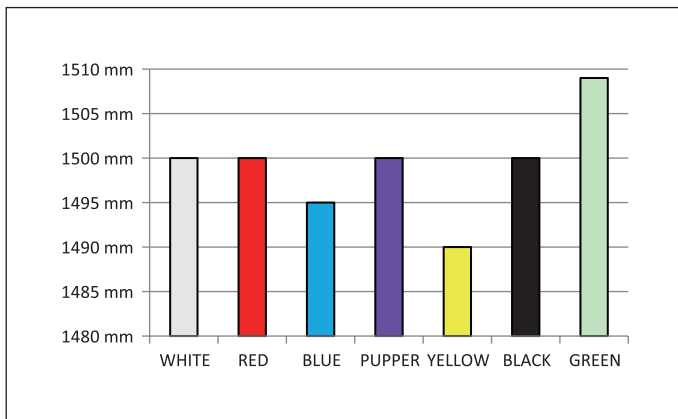
OS10S-TOF SERIES

ATTENUATION FIGURE

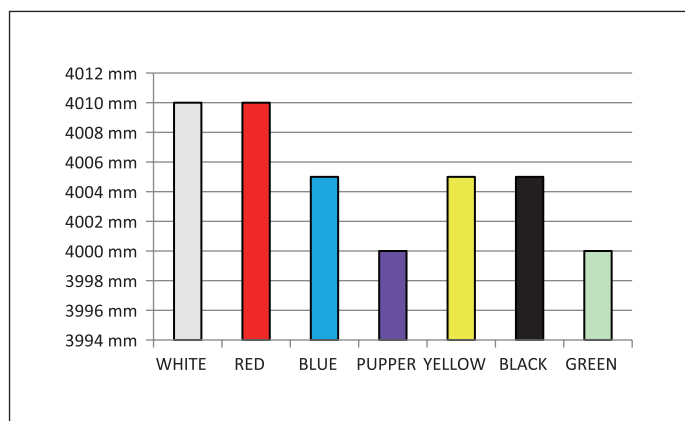
OS10S-AK1000



OS10S-AK1500

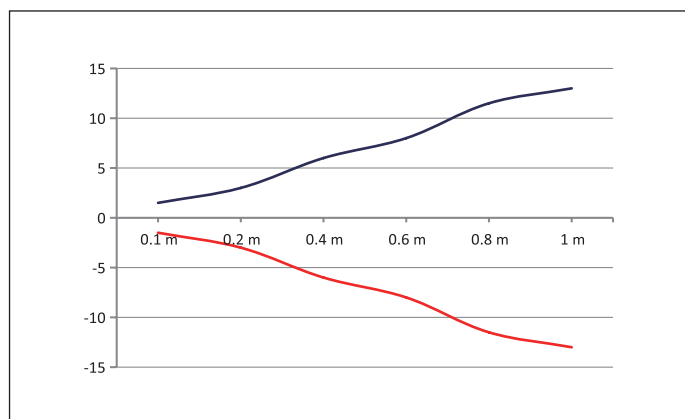


OS10S-AK4000

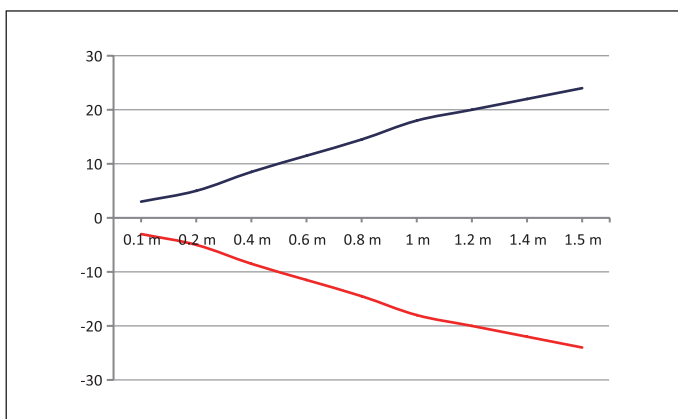


TRANSLATION CHARACTERISTIC CURVE

OS10S-AK1000 (mm)



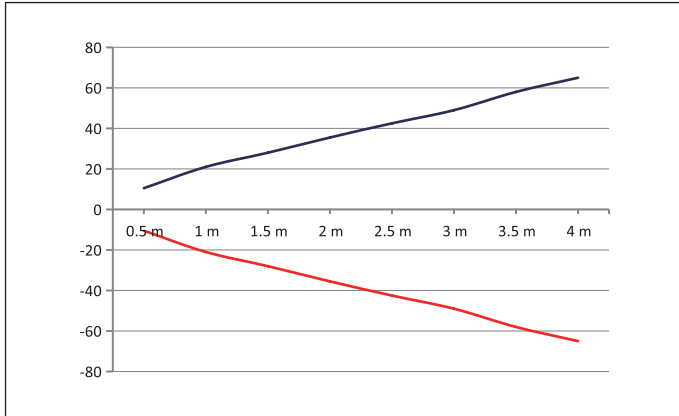
OS10S-AK1500 (mm)



OS10S-TOF SERIES

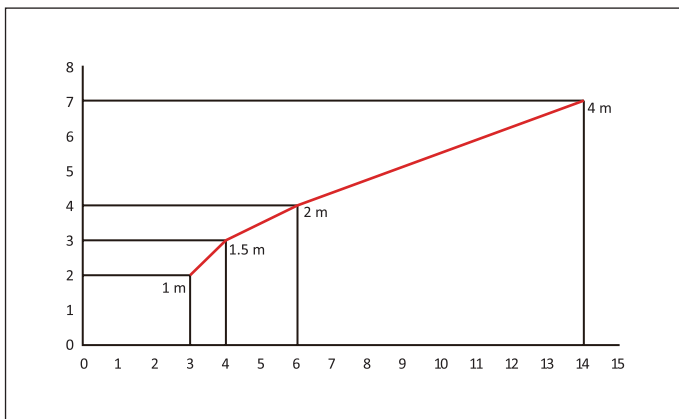
TRANSLATION CHARACTERISTIC CURVE

OS10S-AK4000 (mm)



BEAM PATTERN

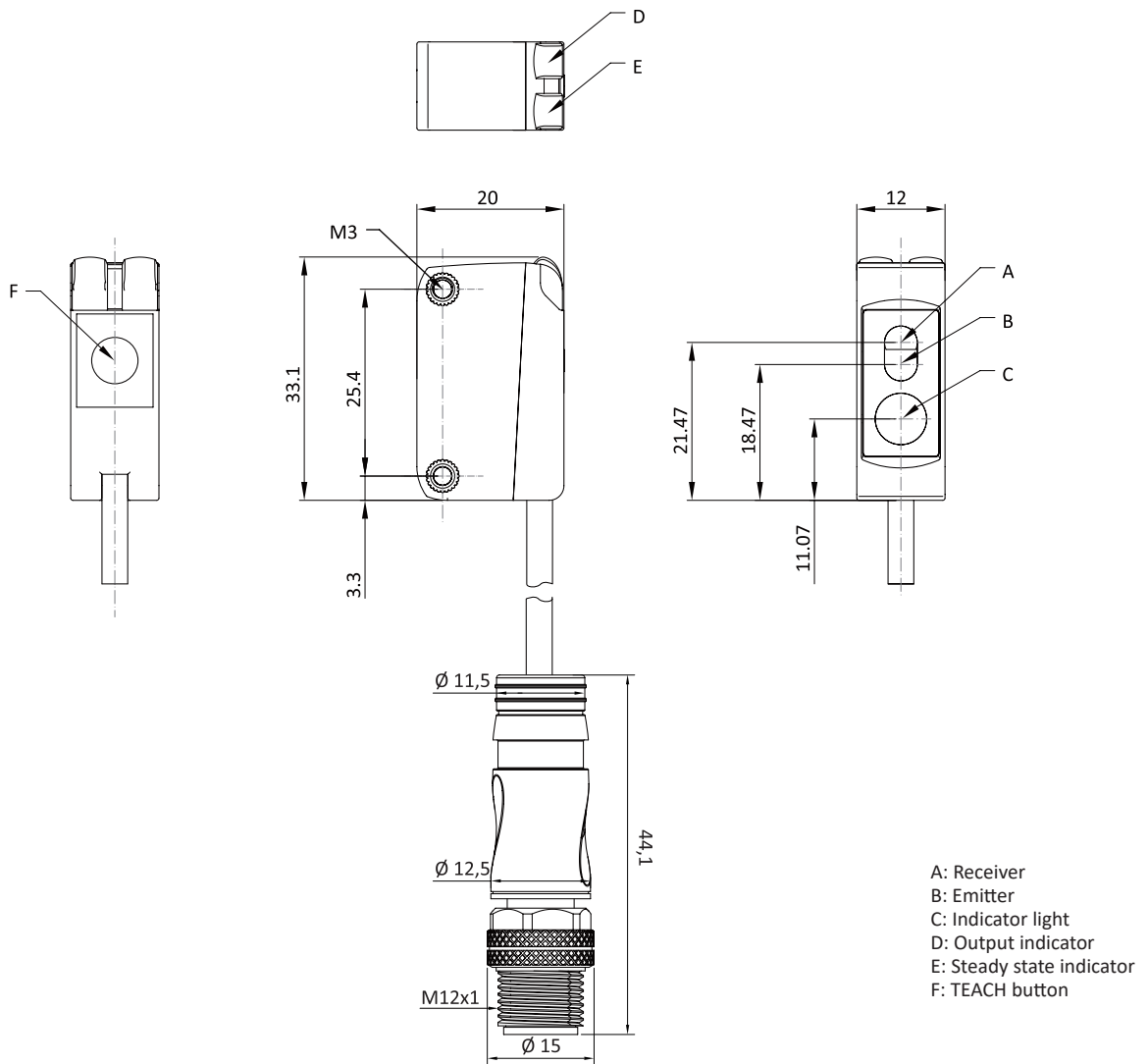
OS10S-AK1000/1500/4000 (cm)



OS10S-TOF SERIES

DIMENSIONS (mm)

Fig. 1



- A: Receiver
- B: Emitter
- C: Indicator light
- D: Output indicator
- E: Steady state indicator
- F: TEACH button

OS10S-TOF SERIES

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