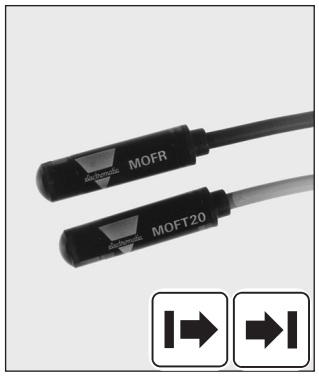
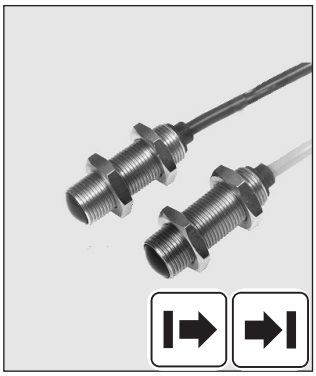
Photoelectrics
Through-beam for Separate Amplifier
Types MOFT, MOFR





- **Built-in lens: 2°, 5° or 8°**
- **Range: 20 m or 50 m**
- **Modulated infrared light**
- **High immunity to ambient light**
- **For amplifier series S142. and S143.**
- **Degree of protection IP 66/IP 67**
- **For harsh environment**
- **High penetration power**
- **15 m shielded PVC cable**
- **Ø 10 mm polycarbonate housing or M12 or M14 stainless steel**

CE

Product Description

Small through beam photoelectric switch. Range up to 50 m. 3 beam angles. Waterproof, for dirty environment, i.e. water, dust, steam etc. To be used with amplifiers series S142. - S143. 15 m shielded cable, PVC. Ø 10 x 42 mm polycarbonate or M12 or M14 stainless steel housing. Straight optical axis.

Ordering Key

MOF T 20-M12-2

- **Type**
- **Emitter**
- **Range**
- **Housing diameter**
- **Optical angle**

Type Selection

Housing diameter	Rated operating dist. (S_n)	Optical angle	Ordering no.: Emitter	Ordering no.: Receiver
Ø 10 mm		2°		**MOFR**
		5°		**MOFR-5**
		8°		**MOFR-8**
	20 m	2°	**MOFT 20**	
	20 m	5°	**MOFT 20-5**	
	20 m	8°	**MOFT 20-8**	
	50 m	2°	**MOFT 50**	
M12		2°		**MOFR-M12-2**
		5°		**MOFR-M12-5**
		8°		**MOFR-M12-8**
	20 m	2°	**MOFT 20-M12-2**	
	20 m	5°	**MOFT 20-M12-5**	
	20 m	8°	**MOFT 20-M12-8**	
	50 m	2°	**MOFT 50-M12-2**	
M14		8°		**MOFR-M14-8**
	20 m	8°	**MOFT 20-M14-8**	

Specifications Emitter

Rated operational volt. (U_e)	3 V, (square wave) supplied by amplifier
Supply current (I_O)	MOFT 20 ≤ 15 mA MOFT 20-5 ≤ 50 mA MOFT 20-8 ≤ 50 mA MOFT 50 ≤ 50 mA

Light source	GaAlAs LED, 880 nm
Light type	Infrared, modulated
Optical angle	± 2°, ± 5°, ± 8°
Indications	On amplifier
Protection	Short-circuit, reverse polarity

Specifications Receiver

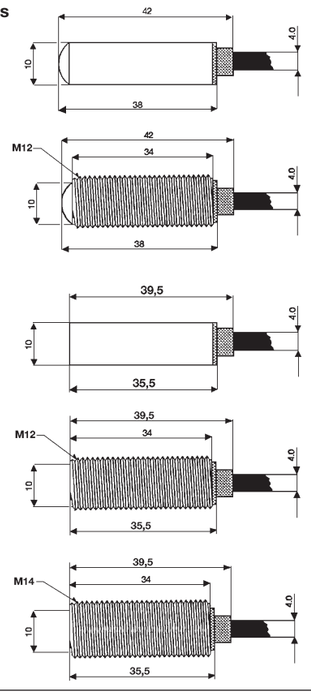
Rated operational volt. (U_e)	8 VDC supplied by amplifier R_{source} 470Ω
Supply current (I_O)	≤ 11 mA
Sensitivity	Adjustable on amplifier
Optical angle	± 2°,± 5°, ± 8°
Ambient light	10,000 lux (sensitivity ±5%)
within ±5% of the set range at	**Note:** The actual range will be an ambient light of 10,000 lux
Operating frequency (f)	See amplifier data
Response time (t_{OFF} & t_{ON})	See amplifier data
Power ON delay (t_v)	See amplifier data
Indications	On amplifier
Protection	Short-circuit, reverse polarity

General Specifications

Environment	
Overvoltage category	III (IEC 60664/60664A; 60947-1)
Pollution degree	3 (IEC 60664/60664A; 60947-1)
Degree of protection	IP 66/IP 67 (IEC 60529; 60947-1)
Temperature	
Operating	-20° to +60°C (-4° to +140°F)
Storage	-40° to +80°C (-40° to +176°F)
Vibration	10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6)
Shock	2 x 1 m & 100 x 0.5 m (IEC 60068-2-6)
Dielectric voltage	500 VAC (rms)
Housing material	Polycarbonate, black
Connection cable	
Emitter	Grey, 15 m oilproof PVC, Ø 4 mm, 1 x 0.25 mm², shielded
Receiver	Black, 15 m oilproof PVC, Ø 4 mm, 1 x 0.25 mm², shielded
Weight (cable incl.)	347 g emitter 347 g receiver
CE-marking	Yes

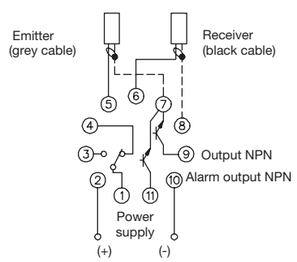
Dimensions

2° and 5° types

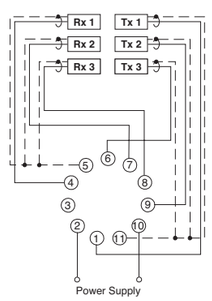


8° types

Wiring Diagrams



S142....



S143....

Installation

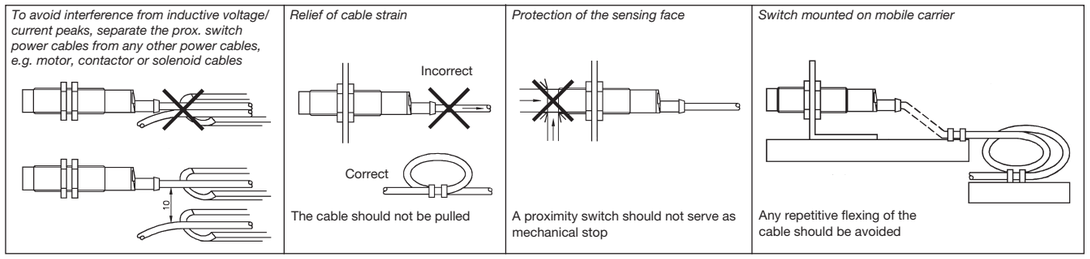
Mounting

1) When installing the sensors, make sure that the maximum range is not exceeded and - if 2 separate systems are mounted close to each other - place the sensors so cross-talk is avoided.

2) To protect the receiver and the transmitter against damage, proper fittings must be used in the installation.

3) Connect the receiver and the emitter to the dedicated terminals on the S142... system.

Installation Hints



Delivery Contents

- MOFT.. and MOFR
- All M12-types: 2 pcs. M12 nuts
- All M14-types: 2 pcs. M14 nuts
- **Packaging**: Plastic bag, emitter and receiver packed separately

Accessories

- Mounting bracket MB-M01

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

Carlo Gavazzi:

RCP1100324VDC BPH ICB12L50F06POM1 RSE4012-B ER 1830 NPAS-1 FAA08DW24 GMB633PC15 RZ3A60D40 WM20AV63H CC65/4SA120 DAC01CM40 DCB51CM24 DUA52C724 GMS-63H 40A DIB01CD4810A DLA71DB232P DMB71DW24 GT32S8A NRGC-PN PA18CAT20M1 RM1A23A50 GFX11 NRGC-EIP RSBS2332A2V23C24HP RKD2A60D75C EM24DINAV53XE1X ICB18S30N08PO RGC3A60A65GGEAFM CGMS-12A-120-01 CGT-12M-1.0