

Photoelectrics Through-beam for Separate Amplifier Types MNF

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- Range: 15 m
- Easy alignment
- Modulated infrared light
- High immunity to ambient light
- For amplifier series S142.
- Degree of protection IP 66/IP 67
- For harsh environment
- High penetration power
- 15 m shielded PVC cable
- Ø 20 mm Polycarbonate housing



Product Description

High power through-beam photoelectric switch. Range up to 15 m. Very high ambient light immunity. Easy alignment through wide angle beam. Waterproof, for dirty

environment, i.e.: water, dust, steam etc. To be used with amplifier series S142. Ø 20 x 86 mm Polycarbonate housing. 90° angle, 15 m shielded PVC cable.

Ordering Key

MNF TR 15

Type _____
 Emitter / Receiver _____
 Range _____

Type Selection

Housing diameter	Rated operating dist. (S _n)	Optical axis	Ordering no. Emitter	Ordering no. Receiver
Ø 20	15 m	90° angle	MNFT 15	MNFR 15

Specifications Emitter

Rated operational volt. (U _e)	3 V, (square wave) supplied by amplifier
Supply current (I _o)	< 30 mA
Light source	GaAlAs LED, 880 nm
Light type	Infrared, modulated
Optical angle	± 8°
Indications	None

Specifications Receiver

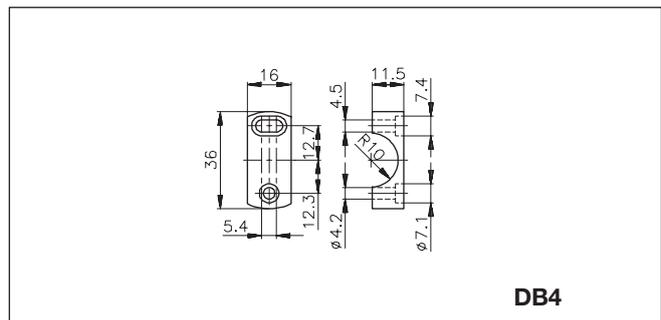
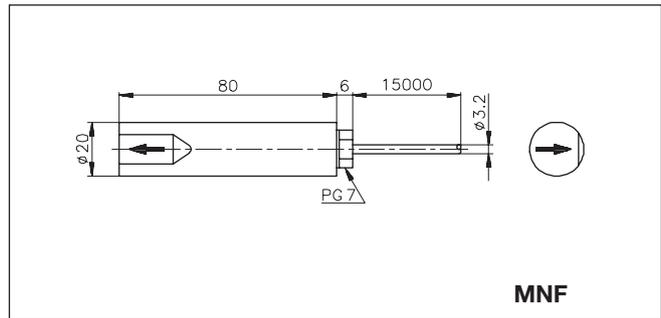
Rated operational volt. (U _e)	8 VDC supplied by amplifier
Supply current (I _o)	≤ 10 mA
Sensitivity	Adjustable on amplifier
Optical angle	± 7.5°
Ambient light	Max. 50,000 lux
Operating frequency (f)	See amplifier data
Response time (t _{ON} & t _{OFF})	See amplifier data
Power ON delay (t _v)	See amplifier data
Indications	On amplifier



General Specifications

Environment	
Overvoltage category	III (IEC 60664/664A; 60947-1)
Pollution degree	3 (IEC 60664/664A; 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 60068-2-32)
Dielectric voltage	500 VAC (rms)
Housing material	
Body	Polycarbonate, black
Front	Polycarbonate, black
Back	Polyamide, black
Mounting bracket DB4	Polycarbonate, black
Connection cable	
Emitter MNFT:	Grey, 15 m oilproof PVC, 1 x 0.25 mm ² shielded
Receiver MNFR:	Black, 15 m oilproof PVC, 1 x 0.25 mm ² shielded
Weight (cable incl.)	300 g
CE-marking	Yes

Dimensions



Note: Operation diagram and truth table please refer to amplifier data sheet, type S1420 or S1421.

Installation Hints

<p><i>To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables</i></p>	<p><i>Relief of cable strain</i></p> <p>The cable should not be pulled</p>	<p><i>Protection of the sensing face</i></p> <p>A proximity switch should not serve as mechanical stop</p>	<p><i>Switch mounted on mobile carrier</i></p> <p>Any repetitive flexing of the cable should be avoided</p>
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Wiring Diagrams

Please refer data sheet type S1420, 1421.

Delivery Contents

- Photoelectric switch: MNFT15 and MNFR15
- 2 mounting brackets DB4
- **Packaging:** plastic bag, emitter and receiver packed together

Accessories

