

Fiber optic sensor OJ500-M1K-E23

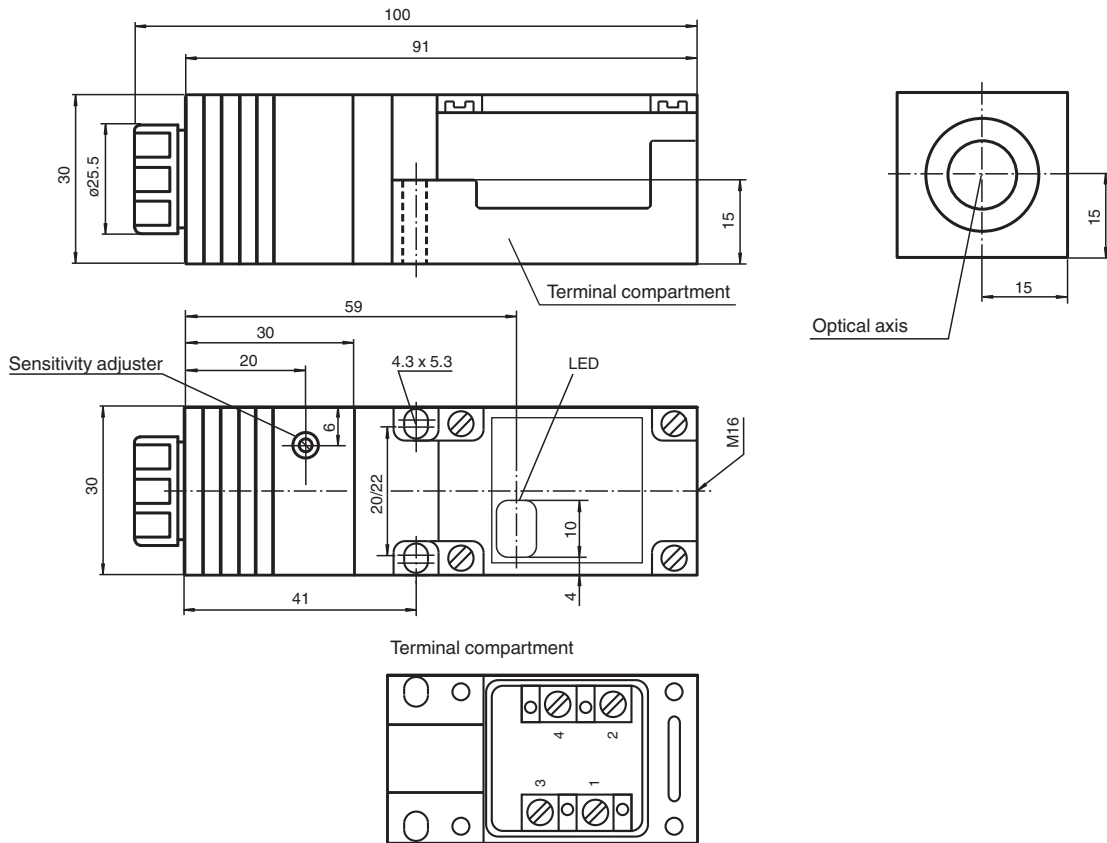
- Light-on/dark-on parameterisable
- Adjustable sensor head



Fiber optic sensor for glass fiber optics



Dimensions



Technical Data

General specifications

Sensor range	up to 100 mm (LMR 18-3,2-1,0-K4)
Detection range	up to 600 mm (LME 18-2,3-0,5-K3)

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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Technical Data

Light source	LED	
Light type	modulated infrared light	
Ambient light limit	40000 Lux	
Temperature influence	≤ 0.5 mm/K	
Indicators/operating means		
Operation indicator	LED green	
Function indicator	LED yellow: switching state LED red: stability control (flashing)	
Control elements	programming switch: bright/dark changeover switch selection of the operating frequency selection of the switching frequency pulse extension stability control dynamic/static	
Control elements	Sensing range adjuster	
Electrical specifications		
Operating voltage	U _B	10 ... 30 V DC
Ripple	10 %	
No-load supply current	I ₀	≤ 35 mA
Output		
Stability alarm output	1 PNP, active when falling short of the stability control	
Switching type	light/dark on	
Signal output	1 PNP output, short-circuit protected, reverse polarity protected, open collector	
Switching voltage	max. 30 V DC	
Switching current	≤ 200 mA	
Switching frequency	f	≤ 1.5 kHz / 200 Hz switchable
Response time	≤ 0.3 ms at 1.5 kHz ≤ 2.5 ms at 200 Hz	
Timer function	pulse extension 20 ms, switchable	
Conformity		
Product standard	EN 60947-5-2	
Approvals and certificates		
CCC approval	CCC approval / marking not required for products rated ≤36 V	
Approvals	CE	
Ambient conditions		
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)	
Storage temperature	-40 ... 80 °C (-40 ... 176 °F)	
Mechanical specifications		
Housing width	30 mm	
Housing height	30 mm	
Housing depth	102 mm	
Degree of protection	IP67	
Connection	M16&bspterminal compartment, core cross section ≤ 2.5 mm ²	
Material		
Housing	PBT	
Optical face	Scratch resistant mineral glass lens	
Mass	100 g	

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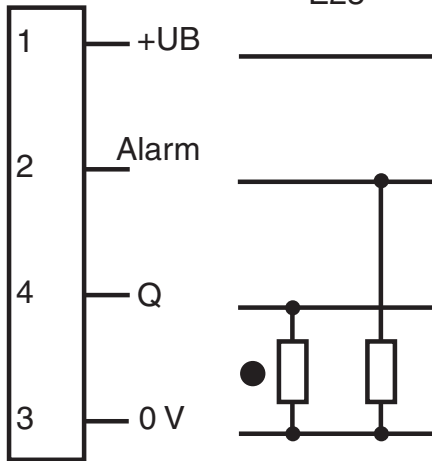
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Connection Assignment

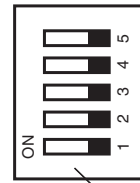
Option:

E23



Selector switches in terminal compartment

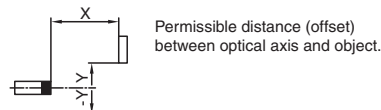
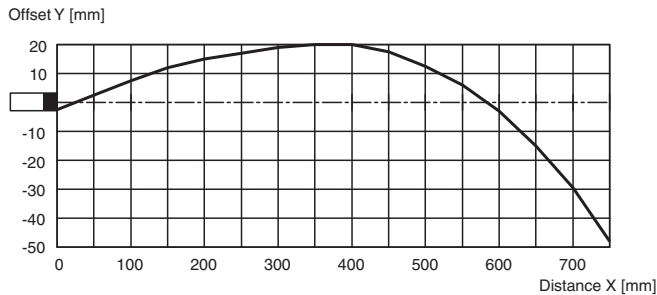
- | | | | |
|----------------------|--------------|--|--------------|
| Switch output: | Dark ON | | Light ON |
| Pulse frequency: | 2. frequency | | 1. frequency |
| Pre-fault indicator: | Dynamic | | Static |
| Pulse extension: | 20 ms | | 0 ms |
| Switch frequency: | 1.5 kHz | | 200 Hz |



- = Light on
- = Dark on

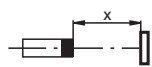
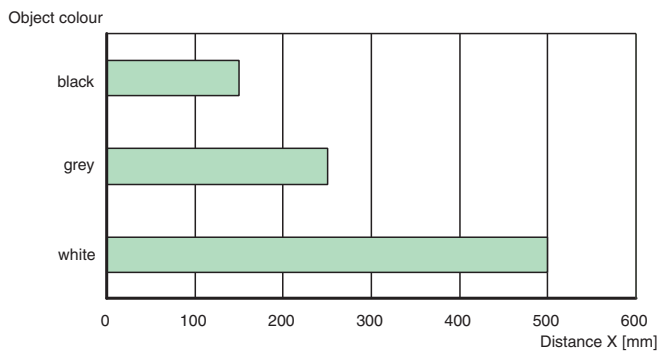
Characteristic Curve

Characteristic response curve



Detection ranges

OJ 500-M1K



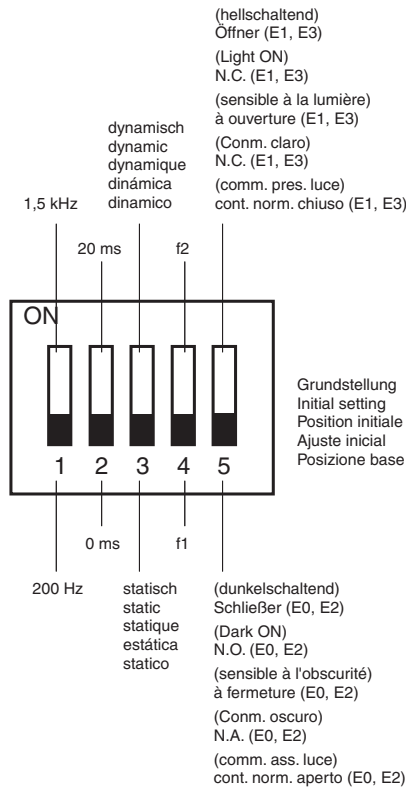
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Mounting

DIP-Schalter
Commutateur DIP
Interruttore DIP

DIP-switch
Conmutadores DIP

- 1 Schaltfrequenz
Switch frequency
Fréquence de commutation
Frecuencia de conmutación
Frequenza di commutazione
- 2 Impulsverlängerung
Pulse extension
Prolongation des impulsions
Prolongacion de impulsos
Estensione impulsu
- 3 Vorausfallanzeige
Pre-fault indicator
Contrôle de la portée
Indicación de reserva de función
Indicazione preallarme
- 4 Pulsfrequenz
Pulse frequency
Fréquence d'émission
Frecuencia de impulsos
Frequenza di impulso
- 5 Schaltausgang
Switch output
Sortie de commutation
Salida de conmutación
Uscita di commutazione



Montage und Justage
Montage et Alignement
Montaggio e Aggiustaggio

Mounting and Alignment
Montaje y Ajuste

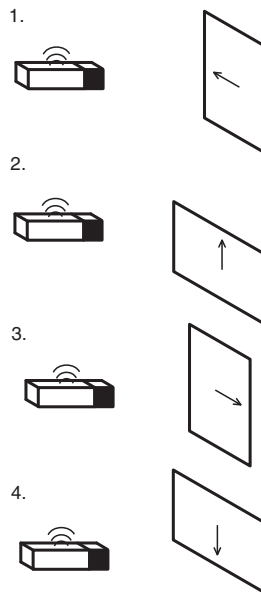
Ein Gegenstand (z. B. Blatt Papier) wird langsam in den Strahlengang bewegt bis der Sensor anspricht. Ist der Überdeckungsgrad beim Ansprechen des Sensors aus allen Richtungen gleich, so ist die Ausrichtung des Sensors optimal.

An object (e. g. piece of paper) is being moved into the beam until the sensor responds. An optimum sensor adjustment is provided if the engagement factor is the same from all directions when the sensor responds.

Un objet (p.e. une feuille de papier) est déplacé latéralement jusqu'à ce que la cellule commute. L'orientation de la cellule est optimale si son point de commutation dans chaque direction de déplacement de l'objet est situé au même.









Se introduce un objeto (por ejemplo hoja de papel) lentamente en el haz de luz, hasta que el sensor efectue la conmutación. La orientación de la célula es óptima, cuando el grado de cobertura, al efectuarse la conmutación, es igual en todas las direcciones.

Un oggetto (per esempio con un foglio di carta) viene lentamente e progressivamente, fino a quando il sensore reagisce. Quando il grado di copertura è uguale in tutte le direzioni, l'allineamento è ottimale.



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Accessories

	LMR 18-3,2-0,5-K1	Glass fiber optic - diffuse with metal covering
	LCR 18-3,2-0,5-K5	Glass fiber optic - diffuse with PVC covering
	LMR 18-3,2-0,5-K4	Glass fiber optic - diffuse with metal covering
	LME 18-2,3-0,5-K1	Glass fiber optic - thru-beam with metal covering
	LME 18-2,3-0,5-K3	Glass fiber optic - thru-beam with metal covering
	LME 18-2,3-0,5-K5	Glass fiber optic - thru-beam with metal covering
	LSE 18-2,3-0,5-K9	Glass fiber optic - thru-beam with silicon covering
	LME 18-1,9-0,5-K9	Glass fiber optic - thru-beam with metal covering

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