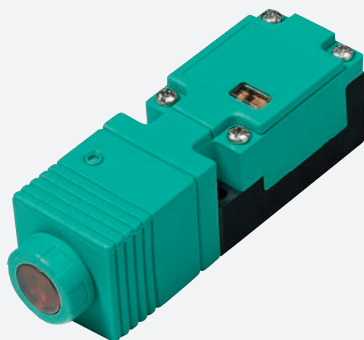
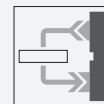




Fiber optic sensor OJ500-M1K-E23

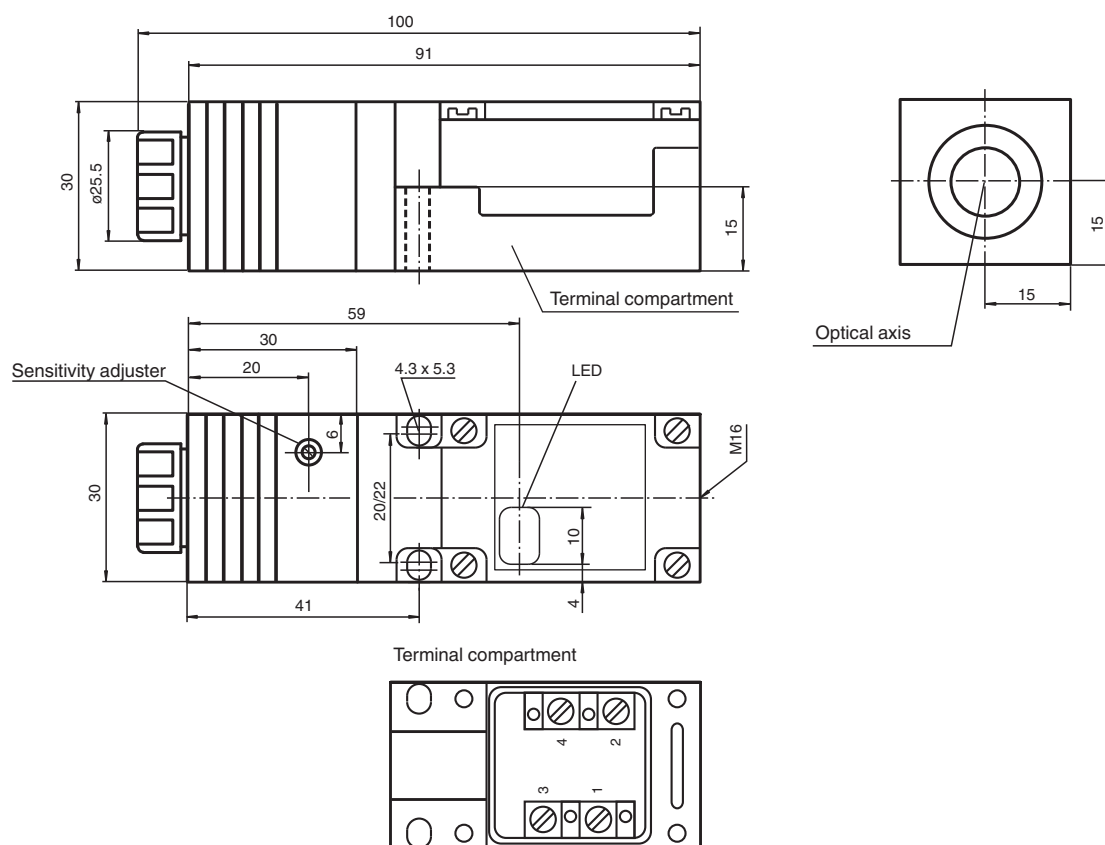
- Light-on/dark-on parameterisable
- Adjustable sensor head



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)

Release date: 2023-03-28 Date of issue: 2023-03-28 Filename: 018937_eng.pdf

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

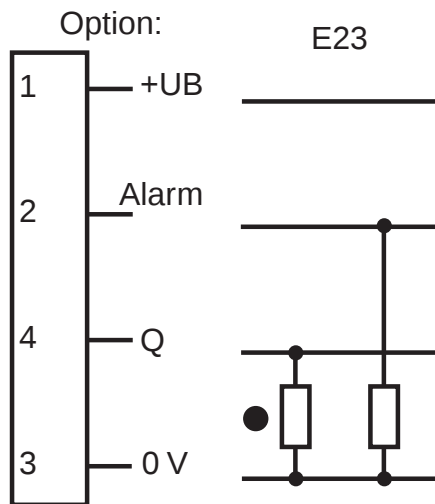
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Technical Data

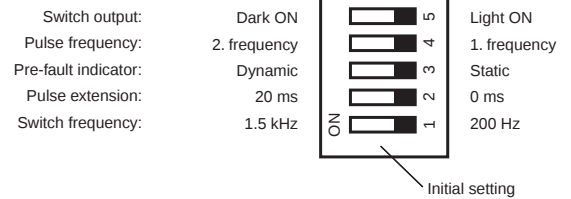
Light source	LED	
Light type		modulated infrared light
Ambient light limit		40000 Lux
Temperature influence		≤ 0.5 mm/K
Indicators/operating means		
Operation indicator		LED green
Function indicator		LED yellow: switching state LED red: stability control (flashing)
Control elements		programming switch: 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

Connection Assignment



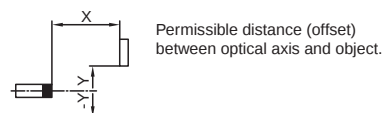
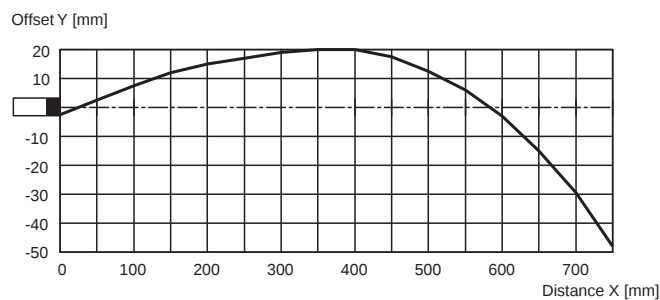
○ = Light on
● = Dark on

Selector switches in terminal compartment



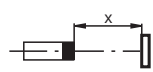
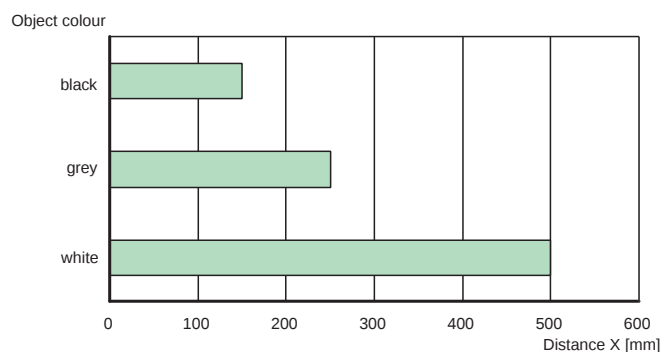
Characteristic Curve

Characteristic response curve



Detection ranges

OJ 500-M1K



Mounting

DIP-Schalter Commutateur DIP Interruttore DIP

DIP-switch Conmutadores DIP

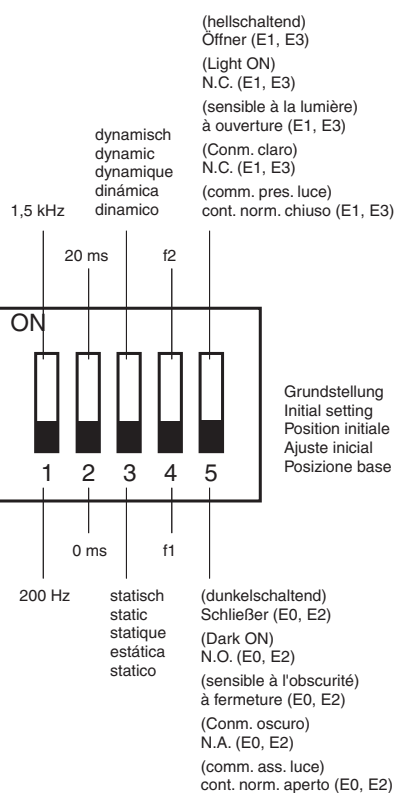
- 1 Schaltfrequenz
Switch frequency
Fréquence de commutation
Frecuencia de conmutación
Frequenza di commutazione

- 2 Impulsverlängerung
Pulse extension
Prolongation des impulsions
Prolongacion de impulsos
Estensione impulsi

- 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

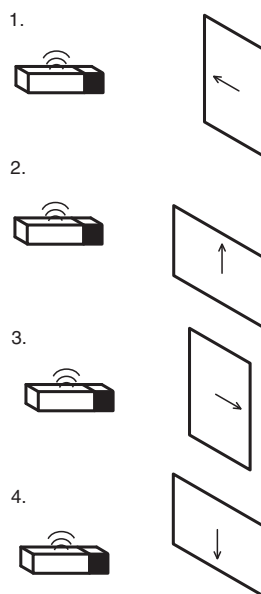
Ein Gegenstand (z. B. Blatt Papier) wird langsam in den Strahlengang bewegt bis der Sensor anspricht. Ist der Überdeckungsgrad beim Ansprechen des Sensors aus allen Richtungen gleich, so ist die Ausrichtung des Sensors optimal.

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.



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