Fiber-Optic Cable Sensor

UF66VCF3

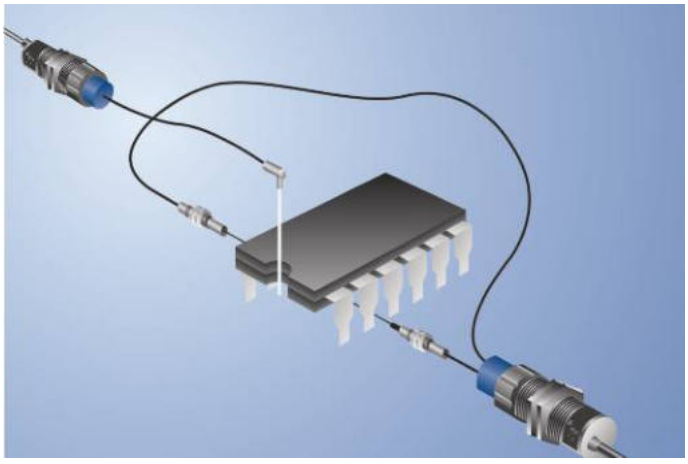
Part Number

- **Adaptable for glass fiber-optic cable**
- **Adjustable time delay**
- **Recognition of small parts**
- **Switching frequency: 5 kHz**

Technical Data

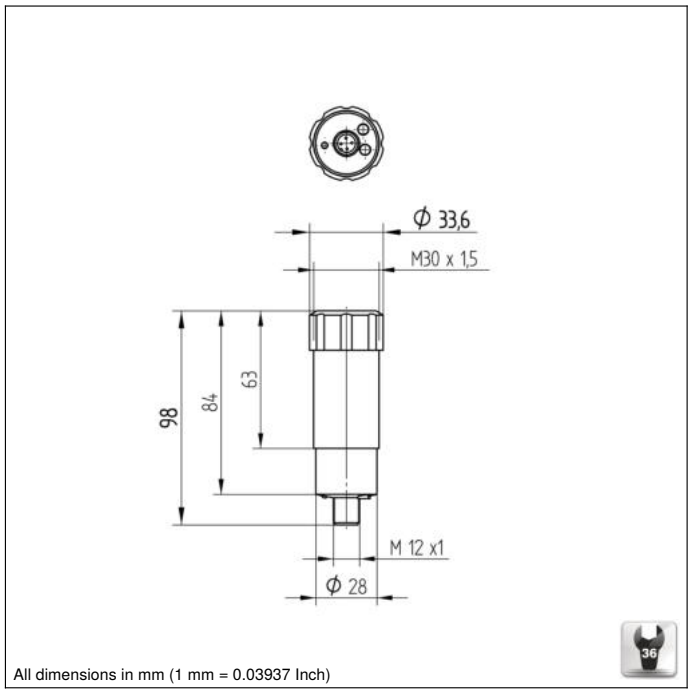
Optical Data	
Range	1000 mm
Switching Hysteresis	< 15 %
Light Source	Infrared Light
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Opening Angle	12 °
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 40 mA
Switching Frequency	5 kHz
Response Time	100 µs
On-/Off-Delay	0...1 s
Temperature Drift	< 10 %
Temperature Range	-10...60 °C
Switching Output Voltage Drop	< 2,5 V
Switching Output/Switching Current	200 mA
Residual Current Switching Output	< 50 µA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Setting Method	Potentiometer
Housing Material	CuZn, nickel-plated
Full Encapsulation	yes
Degree of Protection	IP65
Connection	M12 × 1; 4-pin
PNP NO/NC switchable	●
Connection Diagram No.	1013
Control Panel No.	F3 Fo2
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	130
Suitable Fiber-Optic Cable Adapter No.	01

These sensors are equipped for use with glass fiber optic cables but can be used with or without one. The transmitter and receiver are located in a single housing. The sensor evaluates transmitted light reflected back from the object and the output is switched as soon as an object passes the selected range. Bright objects reflect more light than dark objects, and can thus be recognized from greater distances.



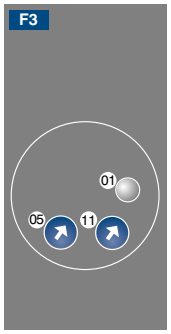
Complementary Products

Glass Fiber-Optic Cable
PNP-NPN Converter BG2V1P-N-2M

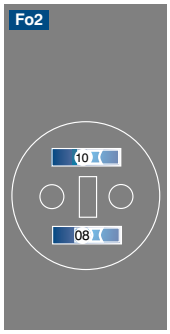


All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

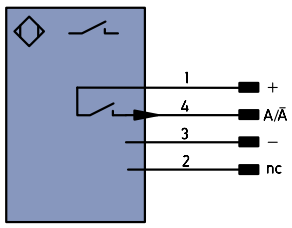


Optic



01 = Switching Status Indicator
05 = Switching Distance Adjuster
08 = NO/NC Switch
10 = ON-Delay/OFF-Delay Switch
11 = ON-Delay/OFF-Delay Adjuster

1013



Legend

+	Supply Voltage +	
–	Supply Voltage 0 V	
~	Supply Voltage (AC Voltage)	
A	Switching Output	(NO)
Ā	Switching Output	(NC)
V	Contamination/Error Output	(NO)
V̄	Contamination/Error Output	(NC)
E	Input (analog or digital)	
T	Teach Input	
Z	Time Delay (activation)	
S	Shielding	
RxD	Interface Receive Path	
TxD	Interface Send Path	
RDY	Ready	
GND	Ground	
CL	Clock	
E/A	Output/Input programmable	
	IO-Link	
PoE	Power over Ethernet	
IN	Safety Input	
OSSD	Safety Output	
Signal	Signal Output	
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	
EN0 RS422	Encoder 0-pulse 0-0̄ (TTL)	
PT	Platinum measuring resistor	
nc	not connected	
U	Test Input	
Ū	Test Input inverted	
W	Trigger Input	
W–	Ground for the Trigger Input	
O	Analog Output	
O–	Ground for the Analog Output	
BZ	Block Discharge	
AW	Valve Output	
a	Valve Control Output +	
b	Valve Control Output 0 V	
SY	Synchronization	
SY–	Ground for the Synchronization	
E+	Receiver-Line	
S+	Emitter-Line	
⏚	Grounding	
SnR	Switching Distance Reduction	
Rx+/–	Ethernet Receive Path	
Tx+/–	Ethernet Send Path	
Bus	Interfaces-Bus A(+)/B(–)	
La	Emitted Light disengageable	
Mag	Magnet activation	
RES	Input confirmation	
EDM	Contactor Monitoring	
ENA RS422	Encoder A/Ā (TTL)	
ENB RS422	Encoder B/B̄ (TTL)	
ENA	Encoder A	
ENB	Encoder B	
AMIN	Digital output MIN	
AMAX	Digital output MAX	
AOK	Digital output OK	
SY In	Synchronization In	
SY OUT	Synchronization OUT	
OLT	Brightness output	
M	Maintenance	
rsv	reserved	

Wire Colors according to DIN IEC 757

BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
GNYE	Green/Yellow