Fiber-Optic Cable Sensor

UF66MG3

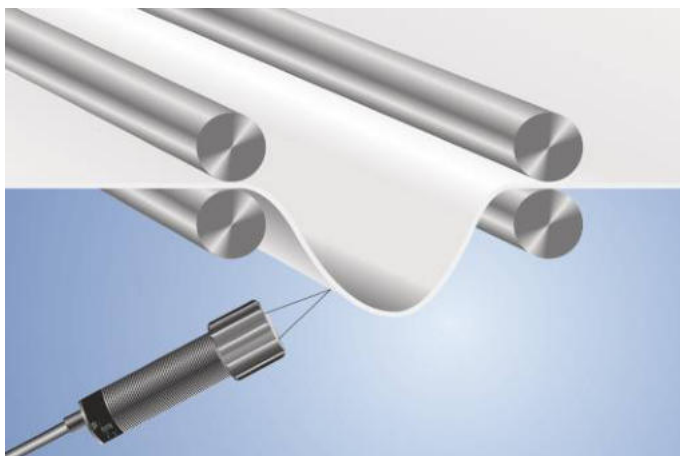Part Number

- **Analog output (0...10 V DC)**
- **Linear output signal proportional to distance**
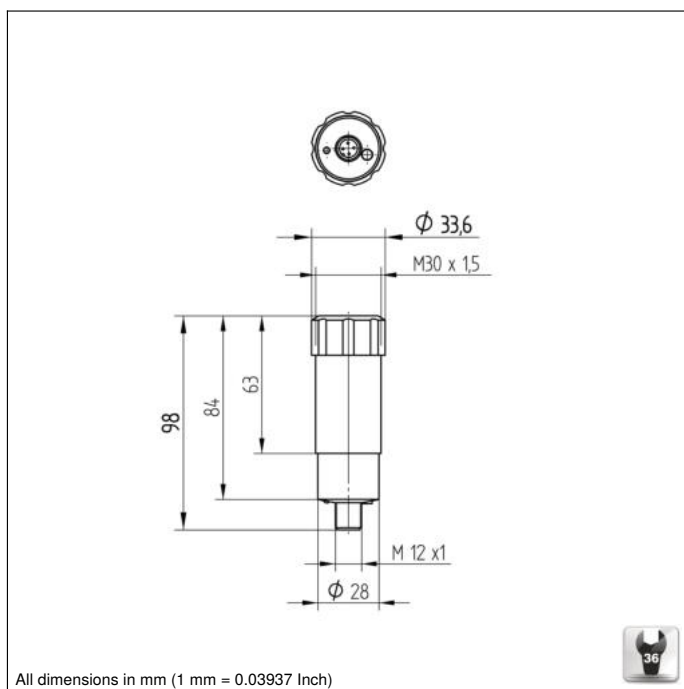- **Usable with or without glass fiber-optic cable**

Technical Data

Optical Data	
Working Range	100...1000 mm
Measuring Range	900 mm
Resolution	20 mm
Linearity	5 %
Light Source	Infrared Light
Wavelength	880 nm
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Opening Angle	12 °
Electrical Data	
Supply Voltage	20...30 V DC
Current Consumption (Ub = 24 V)	< 40 mA
Switching Frequency	30 Hz
Response Time	15 ms
Temperature Drift	1 mm/K
Temperature Range	-10...60 °C
Analog Output	0...10 V DC
Output Resistance Analog Output	1 kOhm
Short Circuit Protection	yes
Reverse Polarity 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

Analog Output	●
Connection Diagram No.	501
Control Panel No.	F7
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	130
Suitable Fiber-Optic Cable Adapter No.	01

This sensor is suitable for analog distance measurements and can be used with or without a glass fiber cable. The output voltage is dependent upon the brightness of the object to be measured, as bright objects reflect transmitted light better than dark objects.
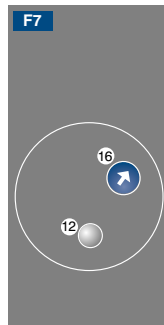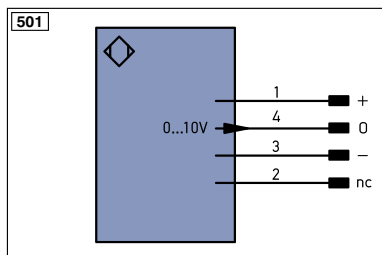
Complementary Products

Glass Fiber-Optic Cable

All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

F7

12 = Analog Output Indicator
16 = Working Distance Adjustment

501

1	+
4	O
3	−
2	nc

0...10V

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)
EN0RS422	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
AMW	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

ENARS422	Encoder A/Ā (TTL)
ENBRS422	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