

TFM1/1P-0V

time of flight sensor in
miniaturized cubic shape

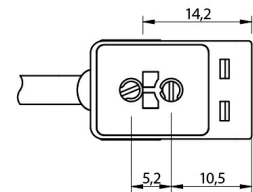
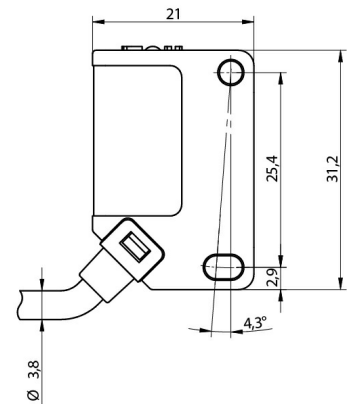
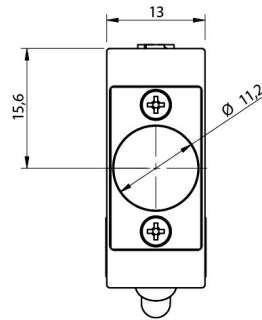


Micro Detectors

Italian Sensors Technology



Indicative image



Detection properties

Nominal sensing distance 0 ... 180mm (white 90% - grey 18% - black 6%)

Spot dimension Divergent (25°) wide angle

Resolution 1mm

Sensitivity adjustment Trimmer

Hysteresis ± 4 mm

Application

Function Principle Time of flight

Outputs

Output type 2 x PNP

Output Function LO

Switching frequency ≤ 10 Hz

Electrical data

Operating Voltage 19,2 ... 28,8 Vdc

No-Load supply current < 40 mA

Load current 50mA

Leakage current $\leq 10\mu\text{A}$ @Vdc max.

Output voltage drop	≤ 2V @IL=50mA
Max ripple content	< 10%
LED indicators	Green: Run (target inside the detection distance) Yellow 1: output 1 active Yellow 2: output 2 active Red: warning (target out of operative range)
Short-circuit protection	Yes
Reverse Polarity Protection	Yes
Emission	infrared (LASER)
Impulsive Overvoltage Protection	Yes

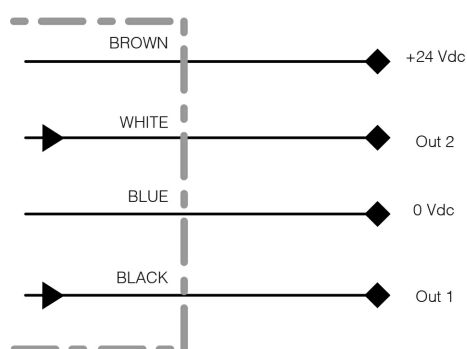
Mechanical data

Dimensions	13 x 2x 31,2mm
Housing Material	PA66 + ABS
Connections	Pigtail 200mm + M8 - 4 poles
Active Head Material	Glass
Operating temperature	-10°C ... + 50°C
Storage temperature	30°C ... +90°C
humidity	< 80% (without condensation)

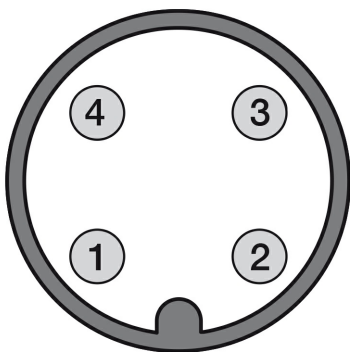
Test/Approvals

Approvals	CE
EMC compatibility	According to IEC60947-5-2
Degree of protection	IP67

ELECTRICAL DIAGRAMS OF THE CONNECTIONS

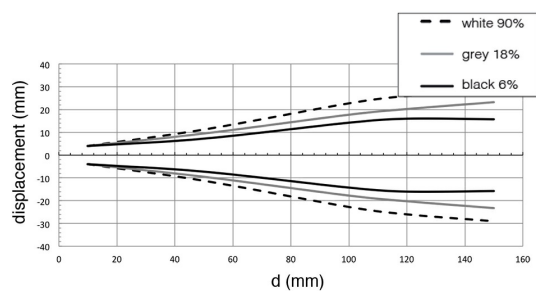


CONNECTOR



RESPONSE CURVES

Disassamento Parallelo



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