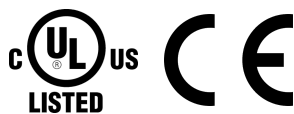


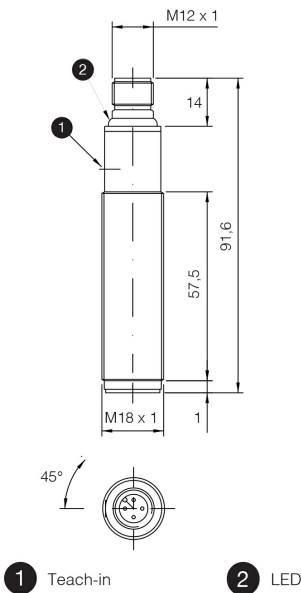


Indicative image



**M18 CYLINDRICAL DIRECT DIFFUSE & RETRO-REFLECTIVE  
ULTRASONIC SENSOR UK1 WITH TEACH-IN BUTTON**

- Models with digital programmable output
- Models with current or voltage analogue outputs
- Adjustable Hysteresis function: model with programmable double digital outputs, specific for levels
- Working area adjusting (window teach or single point teach) by Teach-in button suitable for all models for a fast coming into work
- Multifunction LED indicator: output type, adjustment procedure, NO/NC selection and reverse analog output slope



**Detection properties**

|                                       |                 |
|---------------------------------------|-----------------|
| Nominal sensing distance              | 400mm           |
| Thermal drift of Sr                   | ±2%             |
| Repeat Accuracy                       | 0,50%           |
| Beam angle                            | 10° ± 2°        |
| Resolution                            | ≤3mm            |
| Sensitivity adjustment                | Teach-in button |
| Hysteresis                            | 1%              |
| thermal compensation                  | Yes             |
| Minimum sensing distance (blind zone) | 50mm            |
| Linearity error                       | 1%              |

## Application

Function Principle

Diffuse reflection

## Outputs

Output type

NPN + 0...10V

Output Function

N0/NC + positive/negative slope

Switching frequency

10Hz

Response time

500ms

## Electrical data

Operating Voltage

10 - 30Vdc

No-Load supply current

≤50mA

Load current

100mA

Leakage current

10μA @ 30Vcc

Output voltage drop

2,2Vmax. @ IL=100 mA

Max ripple content

5%

LED indicators

green: echo - yellow: output

Time delay before availability

≤300ms

Short-circuit protection

Yes

Reverse Polarity Protection

Yes

Impulsive Overvoltage Protection

Yes

Minimum load resistance

3kΩ

## Mechanical data

Dimensions

M18 x 1 / L = 91,6mm

Weight

100g

Housing Material

stainless steel AISI 316L

Connections

M12 Plug

Tightening torque

50Nm

Operating temperature

- 20°C...+ 70°C

Storage temperature

- 35°C...+ 80° C without freeze

Transducer Frequency

300kHz

Diameter/Dimension

M18

## Test/Approvals

Approvals

CE cULus

EMC compatibility

IEC 60947-5-2

Shocks and vibrations

IEC EN60947-5-2 / 7.4

Degree of protection

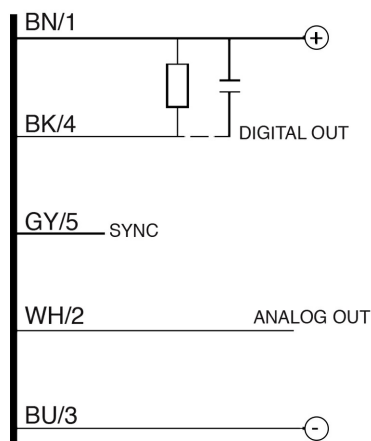
IP67

## Accessories

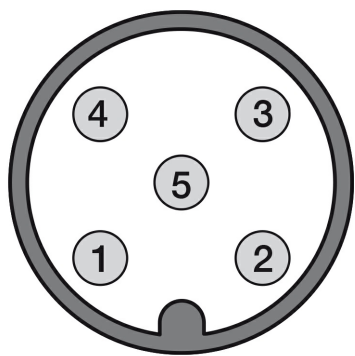
Generical Data

|                       |                      |
|-----------------------|----------------------|
| Dimensions            | M18 x 1 / L = 91,6mm |
| Operating Temperature | - 20°C...+ 70°C      |
| Mechanical Protection | IP67                 |

ELECTRICAL DIAGRAMS OF THE CONNECTIONS

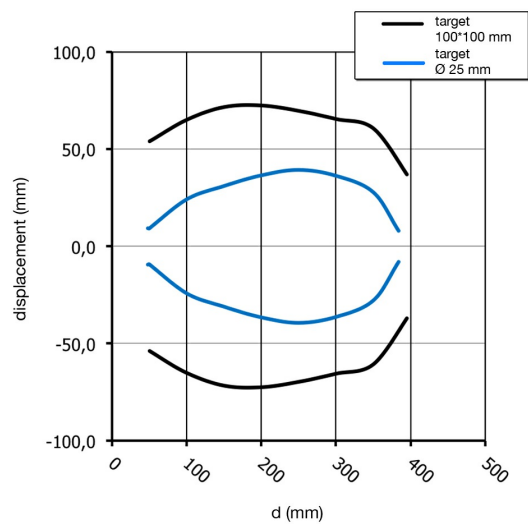


CONNECTOR



RESPONSE CURVES

Parallel offset



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