



# UK6

## UK6C/HN-1AUL

**Ultra.M18,NPN-NO/NC,Cable,Diffuse**  
**M18 CYLINDRICAL SHORT BODY DIRECT DIFFUSE & RETRO-REFLECTIVE ULTRASONIC SENSOR UK6 WITH TEACH-IN BUTTON**

## OVERVIEW

- M18 diffuse sensors with short housing
- Digital output
- Analogue output



## TECHNICAL FEATURES

### Detection properties

|                          |       |
|--------------------------|-------|
| Nominal sensing distance | 800mm |
|--------------------------|-------|

|                     |            |
|---------------------|------------|
| Thermal drift of Sr | $\leq 2\%$ |
|---------------------|------------|

|                 |       |
|-----------------|-------|
| Repeat Accuracy | 0,50% |
|-----------------|-------|

|            |                           |
|------------|---------------------------|
| Beam angle | $8^{\circ} \pm 2^{\circ}$ |
|------------|---------------------------|

|            |                   |
|------------|-------------------|
| Resolution | $\leq 3\text{mm}$ |
|------------|-------------------|

|                        |                 |
|------------------------|-----------------|
| Sensitivity adjustment | Teach-in button |
|------------------------|-----------------|

|                                       |      |
|---------------------------------------|------|
| Hysteresis                            | 1%   |
| thermal compensation                  | Yes  |
| Minimum sensing distance (blind zone) | 60mm |
| Linearity error                       | 1%   |

Application

|                    |                    |
|--------------------|--------------------|
| Function Principle | Diffuse reflection |
|--------------------|--------------------|

Outputs

|                     |       |
|---------------------|-------|
| Output type         | NPN   |
| Output Function     | NO/NC |
| Switching frequency | 5Hz   |
| Response time       | 400ms |

Electrical data

|                        |                      |
|------------------------|----------------------|
| Operating Voltage      | 10 - 30Vdc           |
| No-Load supply current | ≤35mA @Val = 30V     |
| 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                          |

**Mechanical data**

|                       |                                 |
|-----------------------|---------------------------------|
| Dimensions            | M18 x 1 / L = 46,4mm            |
| Housing material      | stainless steel AISI 316L       |
| Weight                | 140g                            |
| Connections           | 2m PVC Cable                    |
| Tightening torque     | 50Nm                            |
| Operating temperature | - 20°C...+ 70°C                 |
| Storage temperature   | - 35°C...+ 80° C without freeze |
| Transducer Frequency  | 230kHz                          |
| Diameter/Dimension    | M18                             |

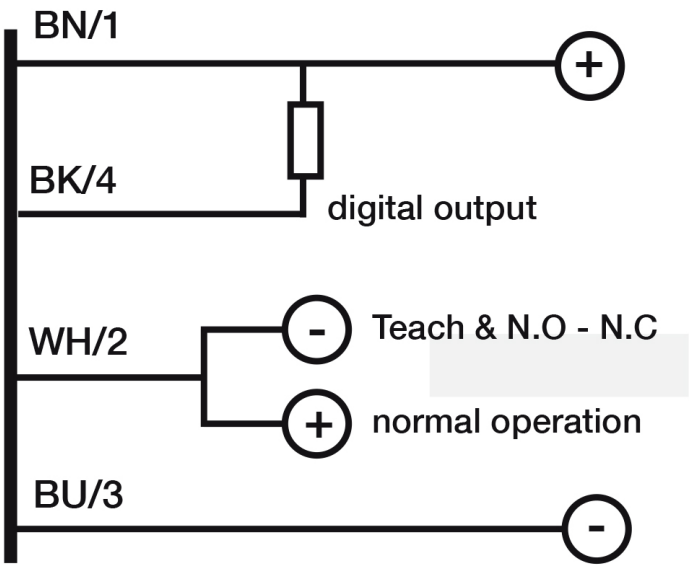
**Test/Approvals**

|                   |               |
|-------------------|---------------|
| Approvals         | CE cULus      |
| EMC compatibility | IEC 60947-5-2 |
|                   |               |

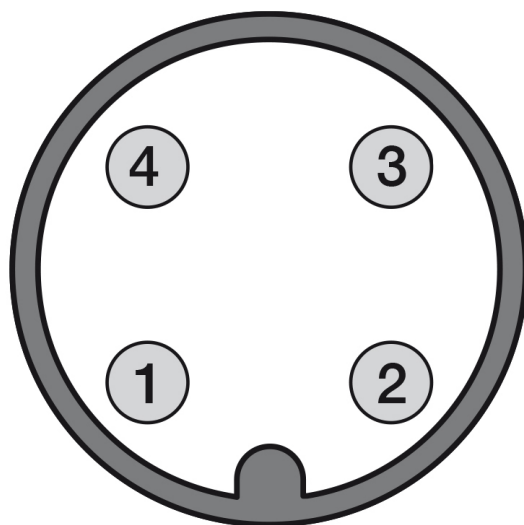
|                       |                              |
|-----------------------|------------------------------|
| Shocks and vibrations | IEC EN60947-5-2 / 7.4        |
| Degree of protection  | IP67                         |
| Accessories           |                              |
| Supplied Accessories  | 2 nuts M18x1, 2 washers Ø 18 |
| Generical Data        |                              |
| Dimensions            | M18 x 1 / L = 46,4mm         |
| Operating Temperature | - 20°C...+ 70°C              |
| Mechanical Protection | IP67                         |

# CONNECTIONS

Eletrical diagram



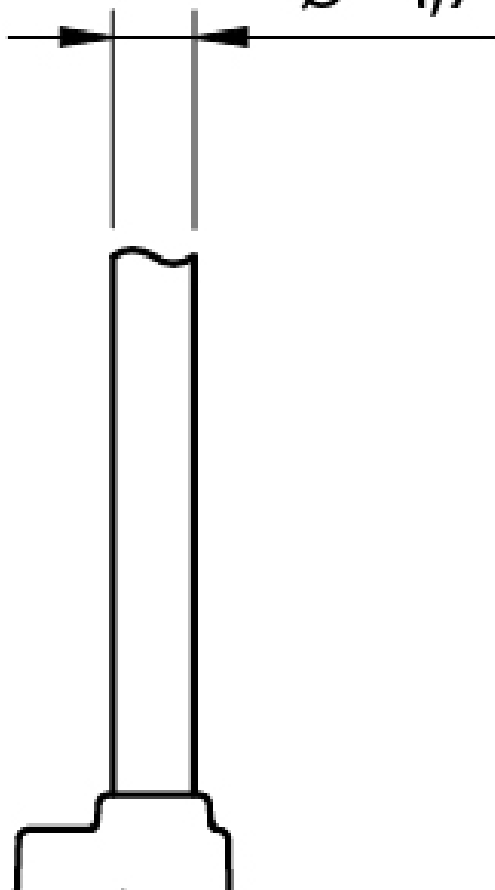
Connector

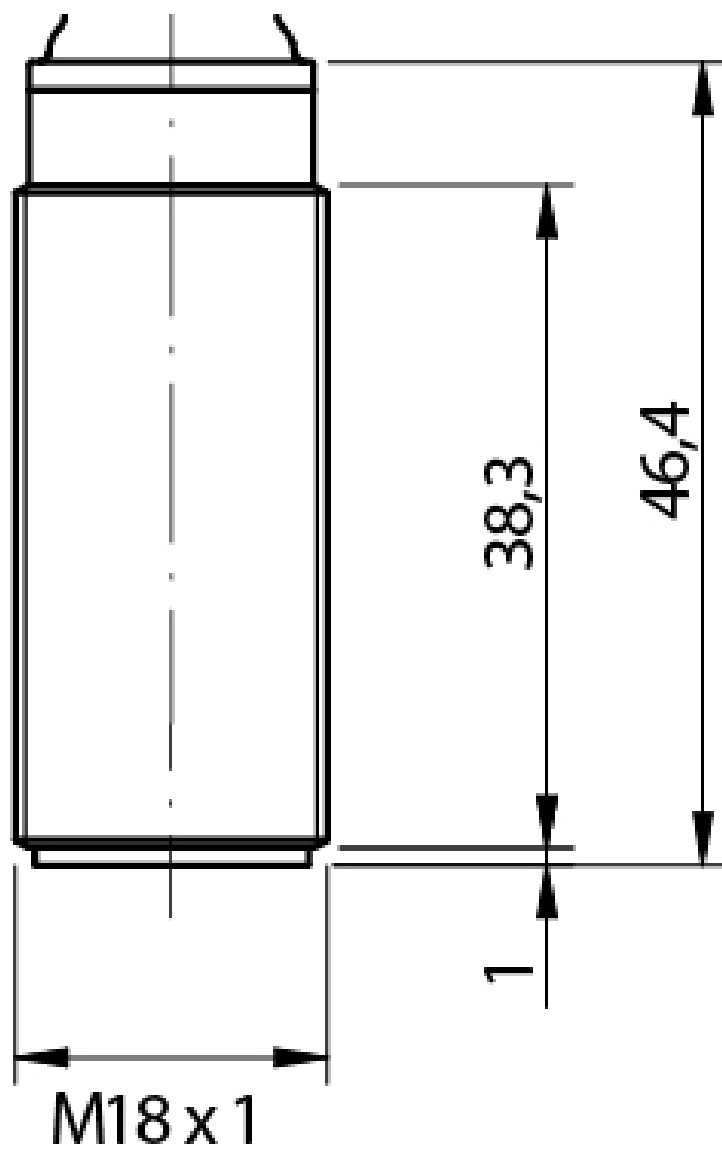


## OTHERS

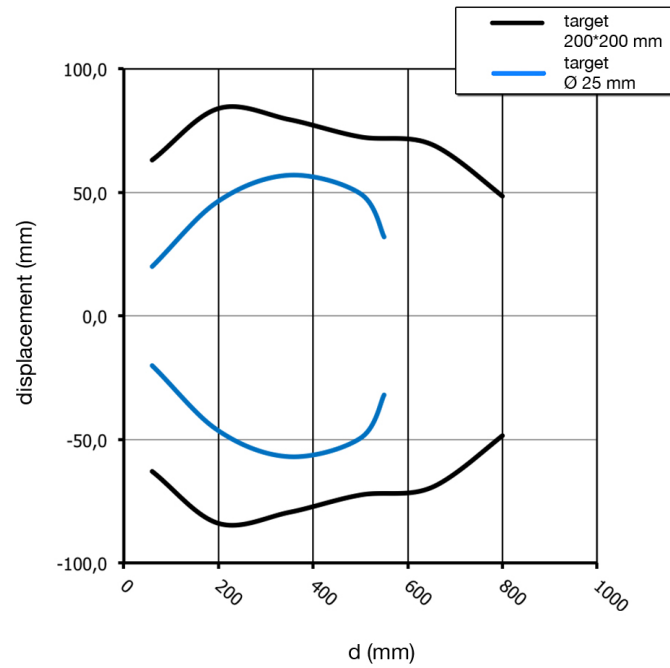
Dimensions

Ø 4,7





Response curves



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