

# Ultrasonic Thru Scan, PNP Output Types UA18CLS..POM1, UA30CLS25POM1

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- Cylindrical M18 and M30 polyester housing
- Sensing distance: 100-600 mm, 200-1500 mm or 300-2500 mm
- Power supply: 18 to 30 VDC
- Output: Transistor PNP, normally open, 500 mA
- 8° beam angle
- Protection: Short-circuit, reverse polarity, transients
- Protection degree IP 67
- Pig tail M12 (UA18) or plug M12 (UA30)

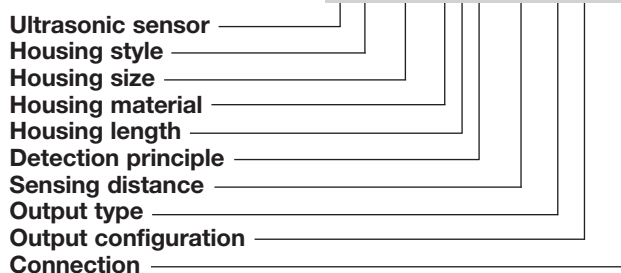
## Product Description

A family of thru scan ultrasonic sensors with sensing range from 100-600 mm, 200-1500 mm and 300-2500 mm with repeatability as low as 0.2 %. Set point is adjustable by potentiometer and output is PNP with NO switching. The family is ideal to use in defining if objects are within defined window and is ideal

for detection of any material independent of material, colour, light or smoke. Due to use of microprocessor control the digital filtering makes the sensor immune to most electromagnetic interferences. The control input enables synchronisation in an easy way.

## Ordering Key

**UA 18 CLS 15 PO M1**



## Type Selection

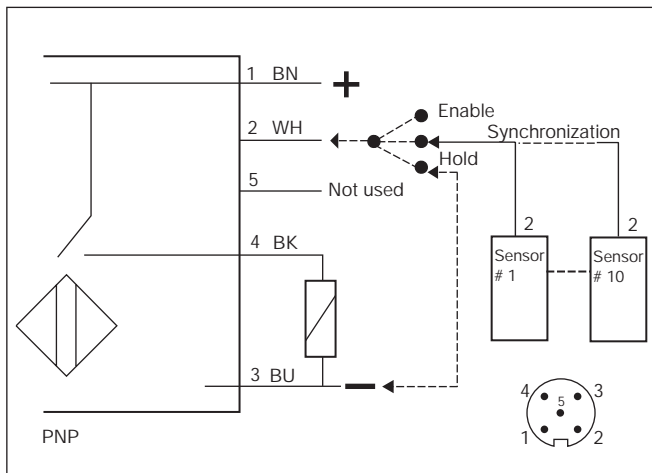
| Housing diameter | Body style | Connec-tion   | Rated operating dist. (S <sub>n</sub> ) | Ordering no.<br>Transistor PNP, normally open |
|------------------|------------|---------------|---|---|
| M18              | Long       | Pig tail, M12 | 100-600 mm                              | <b>UA 18 CLS 06 PO M1</b>                     |
| M18              | Long       | Pig tail, M12 | 200-1500 mm                             | <b>UA 18 CLS 15 PO M1</b>                     |
| M30              | Long       | Plug M12      | 300-2500 mm                             | <b>UA 30 CLS 25 PO M1</b>                     |

## Specifications

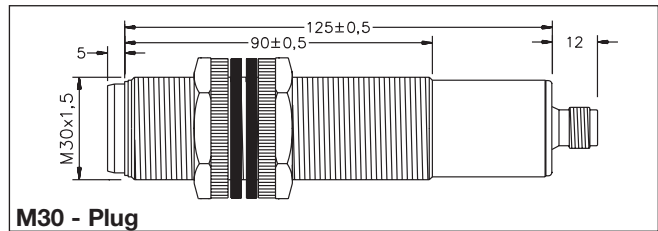
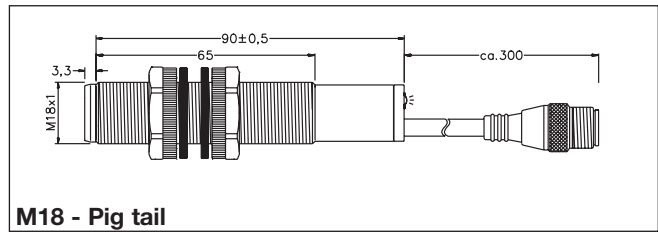
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| <b>Rated operational volt. (U<sub>e</sub>)</b>                                     | 18 to 30 VDC (ripple included)                 | <b>Voltage drop (U<sub>d</sub>)</b>                           | 2.5 V  |
| <b>Ripple</b>  | ≤ 10%  | <b>Off-state current (I<sub>r</sub>)</b>                      | 300 μA   |
| <b>Output current (I<sub>e</sub>)</b>  | max. 500 mA (continuous)                       | <b>Hysteresis (H)</b><br>(differential travel)                | Approx. 2%   |
| <b>No-load supply current (I<sub>o</sub>)</b>                                      | ≤ 35 mA  | <b>Temperature compensation</b>                               | Yes  |
| <b>Protection</b>  | Short-circuit, transients and reverse polarity | <b>Beam angle</b>   | 8°   |
| <b>Rated insulation voltage</b>  | > 1 kV   | <b>Ambient temperature</b><br>Operating<br>Storage            | -15° to +70°C (5° to +158°F)<br>-25° to +75°C (-13° to +167°F) |
| <b>Rated operating distance</b><br>UA18CLS06 ...<br>UA18CLS15 ...<br>UA30CLS25 ... | 100-600 mm<br>200-1500 mm<br>300-2500 mm       | <b>Degree of protection</b>                                   | IP 67 (Nema 1, 3, 4, 6, 13)                                    |
| <b>Adjustment of position</b>  | Potentiometer                                  | <b>Housing material</b>                                       | Polyester PBTP   |
| <b>Output</b>  | Transistor PNP, normally open (NO)             | <b>Connection</b><br>Pig tail<br>Plug<br>Cables for plug (M1) | M12, 4-pin<br>M12, 4-pin<br>CONB14NF series                    |
| <b>Operating frequency</b><br>UA18CLS06 ...<br>UA18CLS15 ...<br>UA30CLS25 ...      | 25 Hz<br>8 Hz<br>1 Hz                          | <b>Weight</b>   | <b>UA18</b> 57 g<br><b>UA30</b> 140 g                          |
| <b>Power-on delay</b>  | < 10 ms  | <b>Tightening torque</b>                                      | <b>UA18</b> 2.6 Nm<br><b>UA30</b> 7.5 Nm                       |
| <b>Carrier frequency</b>   | 180 KHz  | <b>CE-marking</b>   | Yes  |



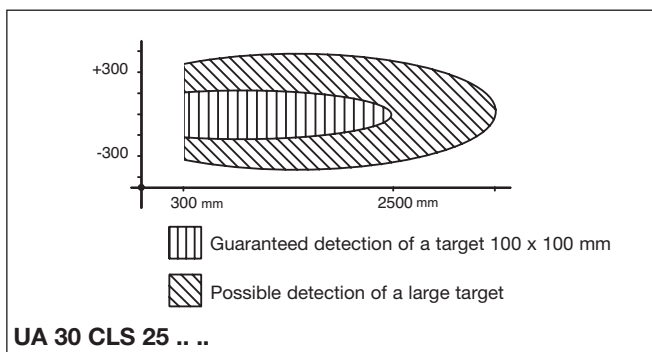
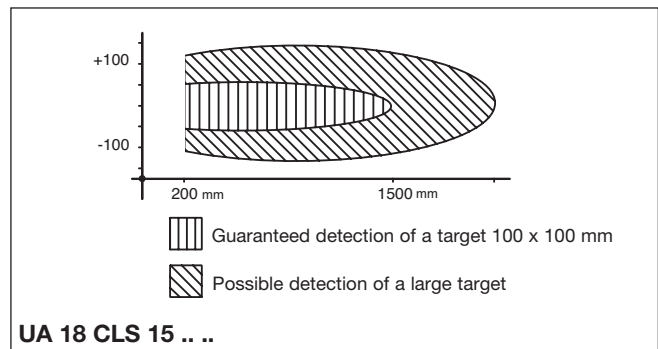
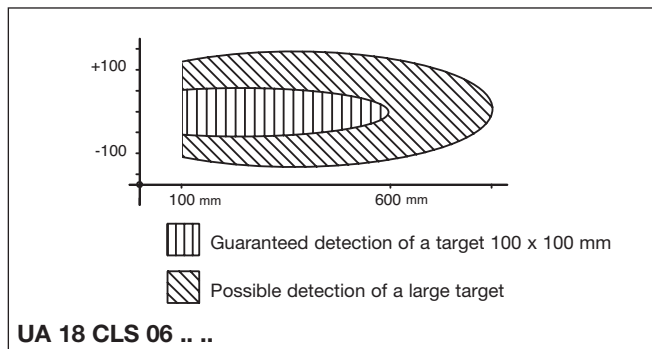
## Wiring Diagram



## Dimensions



## Detection Range



## Installation Hints

|   |   |   |  |
|---|---|---|--|
| <p>To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables</p> | <p>Relief of cable strain</p> <p>The cable should not be pulled</p> | <p>Protection of the sensing face</p> <p>A proximity switch should not serve as mechanical stop</p> | <p>Switch mounted on mobile carrier</p> <p>Any repetitive flexing of the cable should be avoided</p> |
|---|---|---|--|