

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

CARLO GAVAZZI



- 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 very immune against most electromagnetic interferences and enables synchronisation in an easy way.

## Ordering Key

**UA 18 CLS 15 PO M1**

Ultrasonic sensor	_____
Housing style	_____
Housing size	_____
Housing material	_____
Housing length	_____
Detection principle	_____
Sensing distance	_____
Output type	_____
Output configuration	_____
Connection	_____

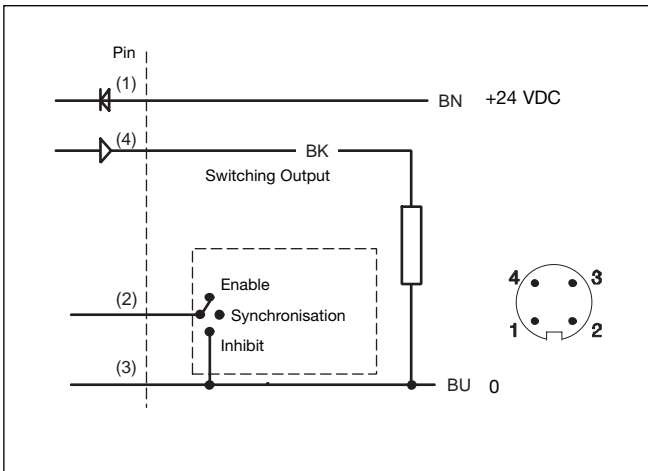
## Type Selection

Housing diameter	Body style	Connec- tion	Rated operating dist. (S <sub>n</sub> )	Ordering no. 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>

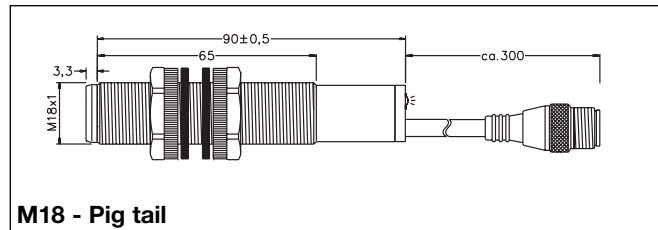
## Specifications

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

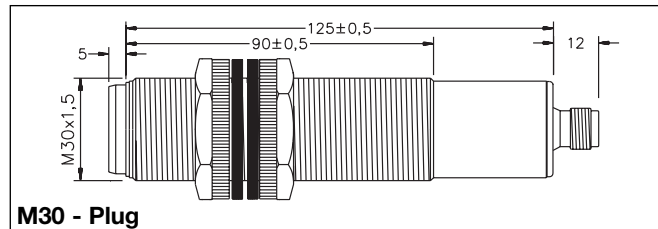
## Wiring Diagram



## Dimensions

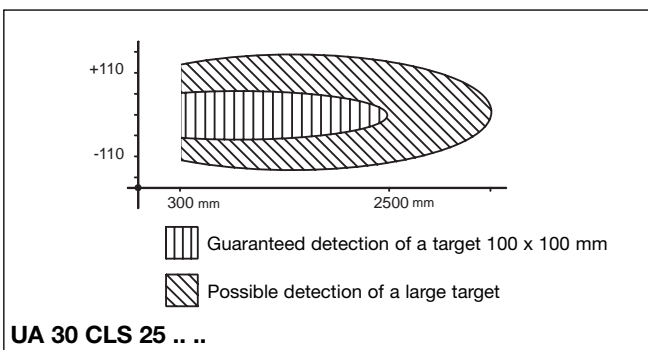
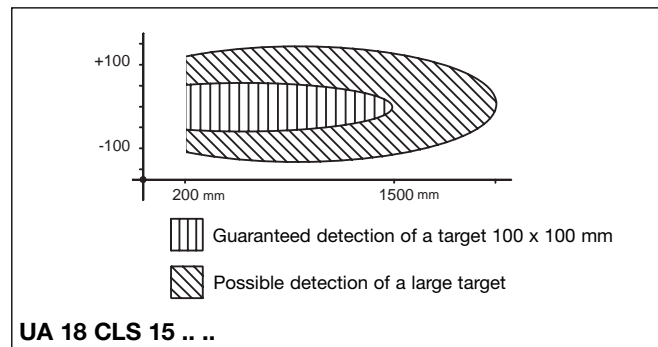
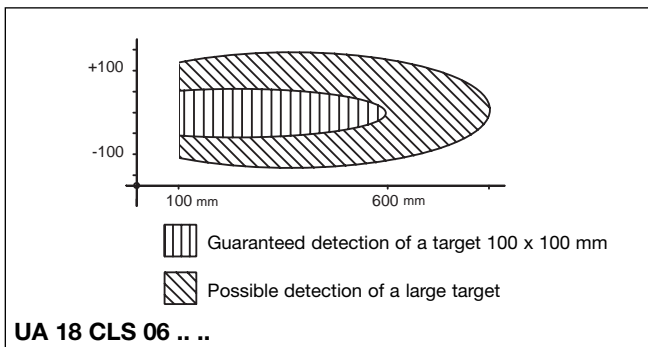


M18 - Pig tail



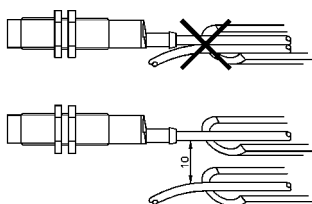
M30 - Plug

## Detection Range

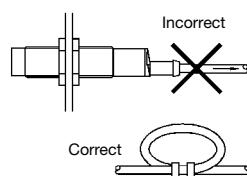


## Installation Hints

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

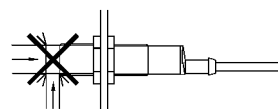


Relief of cable strain



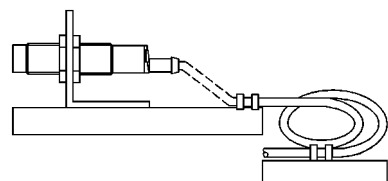
The cable should not be pulled

Protection of the sensing face



A proximity switch should not serve as mechanical stop

Switch mounted on mobile carrier



Any repetitive flexing of the cable should be avoided