

# Ultrasonic Diffuse, Analogue Output Types UA18CLD..A..., UA30CLD..A...

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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: 0-10 VDC or 4-20 mA
- Linearity error 0.3%
- Repeatability 0.2%
- 8° beam angle
- Protection: Short-circuit, reverse polarity, transients
- Protection degree IP 67
- 2 m cable or M12 plug

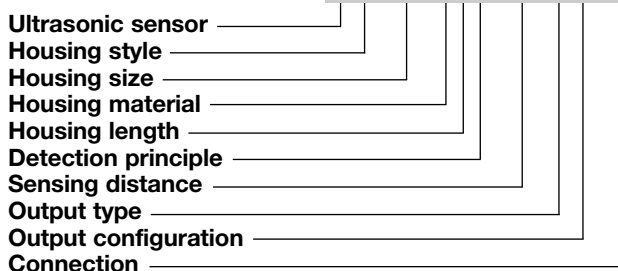
## Product Description

A family of diffuse ultrasonic sensors with sensing range from 100-600 mm, 200-1500 mm and 300-2500 with a resolution as low as 0.5 mm. The outputs are either 0-10V or 4-20 mA which make it an ideal choice for distance measurement, level measure-

ment, diameter measurement or slope control. Due to use of microprocessor control the digital filtering makes the sensor very immune against most electromagnetic interferences. The control input enables synchronisation in an easy way.

## Ordering Key

**UA 18 CLD 15 AK M1**



## Type Selection

Housing diameter	Body style	Connec-tion	Rated operating dist. (S <sub>n</sub> )	Output	Ordering no.
M18	Long	Cable	100-600 mm	0-10 V	<b>UA 18 CLD 06 AK</b>
M18	Long	Plug M12	100-600 mm	0-10 V	<b>UA 18 CLD 06 AK M1</b>
M18	Long	Cable	200-1500 mm	0-10 V	<b>UA 18 CLD 15 AK</b>
M18	Long	Plug M12	200-1500 mm	0-10 V	<b>UA 18 CLD 15 AK M1</b>
M18	Long	Cable	100-600 mm	4-20 mA	<b>UA 18 CLD 06 AG</b>
M18	Long	Plug M12	100-600 mm	4-20 mA	<b>UA 18 CLD 06 AG M1</b>
M18	Long	Cable	200-1500 mm	4-20 mA	<b>UA 18 CLD 15 AG</b>
M18	Long	Plug M12	200-1500 mm	4-20 mA	<b>UA 18 CLD 15 AG M1</b>
M30	Long	Cable	300-2500 mm	0-10 V	<b>UA 30 CLD 25 AK</b>
M30	Long	Plug M12	300-2500 mm	0-10 V	<b>UA 30 CLD 25 AK M1</b>
M30	Long	Cable	300-2500 mm	4-20 mA	<b>UA 30 CLD 25 AG</b>
M30	Long	Plug M12	300-2500 mm	4-20 mA	<b>UA 30 CLD 25 AG M1</b>

## Specifications

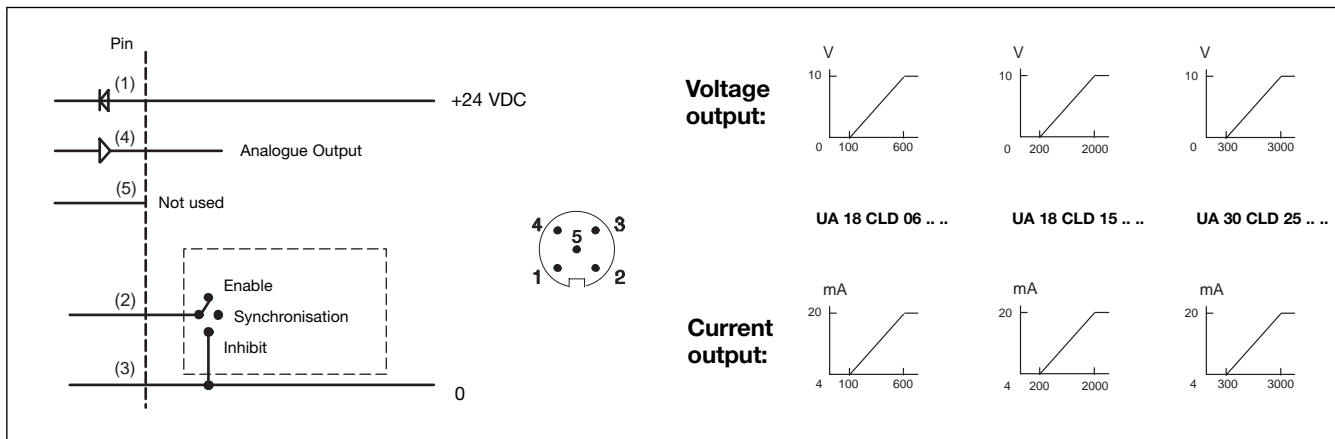
<b>Rated operational volt. (U<sub>e</sub>)</b>	18 to 30 VDC (ripple included)	<b>Output slope</b>	<b>K (mV/mm)</b>	<b>G (µA/mm)</b>
<b>Ripple</b>	≤ 10%	UA18CLD06A ...	20	32
<b>Rated operational current (I<sub>e</sub>)</b>	≤ 35 mA	UA18CLD15A ...	5.5	8.8
Continuous		UA30CLD25A ...	3.7	5.9
<b>No-load supply current (I<sub>0</sub>)</b>	≤ 35 mA	<b>Linearity error</b>	< 0.3%	
<b>Protection</b>	Short-circuit, transients and reverse polarity	<b>Repeat accuracy (R)</b>	≤ 0.2%	
<b>Rated insulation voltage</b>	> 1 kV	<b>Rated operating distance</b>	100-600 mm 200-1500 mm 300-2500 mm	
<b>Power ON delay</b>	< 10 ms	UA18CLD06A ..		
<b>Output</b>		UA18CLD15A ..		
UA..CLD..AK..	0-10 VDC	UA30CLD25A ..		
UA..CLD..AG..	4-20 mA			



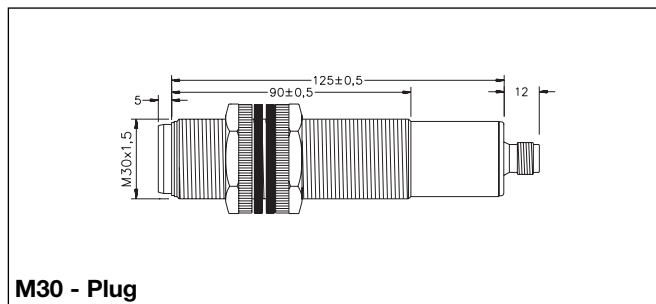
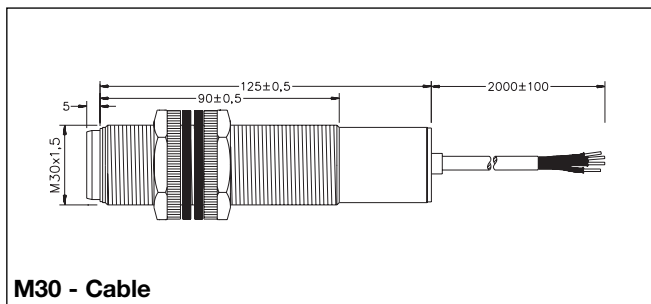
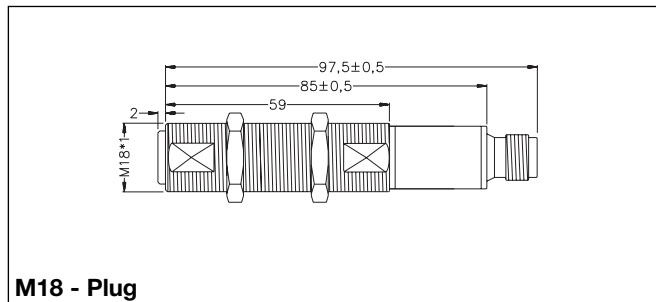
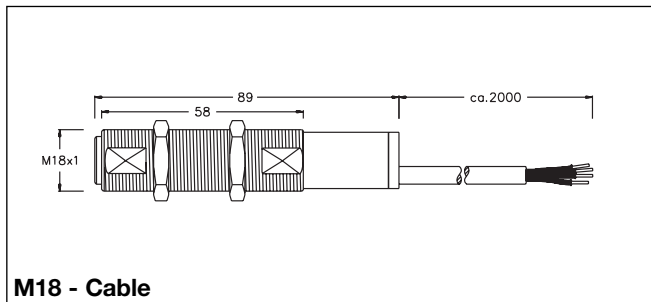
## Specifications (cont.)

<b>Response time</b>		<b>Housing material</b>	Polyester PBTP	
UA18CLD06A. ..	50 ms	<b>Connection</b>	2 m, 4 x 0.25 mm <sup>2</sup>	
UA18CLD15A.	< 100 ms	Cable	M12 x 1	
UA18CLD15A. M1	150 ms	Plug	CONH1A serie	
UA30CLD25A. ..	90 ms	Cables for plug (-1)		
<b>Temperature compensation</b>	No	<b>Weight</b>	<b>UA 18 ... .. A.</b>	96 g
<b>Beam angle</b>	8°	<b>UA 18 ... .. A. M1</b>		57 g
<b>Ambient temperature</b>		<b>UA 30 ... .. A.</b>		199 g
Operating	-15° to +70°C (5° to +158°F)	<b>UA 30 ... .. A. M1</b>		140 g
Storage	-25° to +75°C (-13° to +167°F)	<b>Tightening torque</b>	<b>UA 18</b>	2.6 Nm
<b>Degree of protection</b>	IP 67 (Nema 1, 3, 4, 6, 13)	<b>UA 30</b>		7.5 Nm
		<b>CE-marking</b>	Yes	

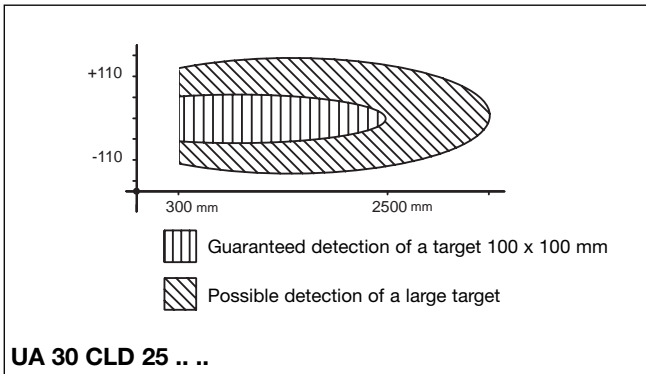
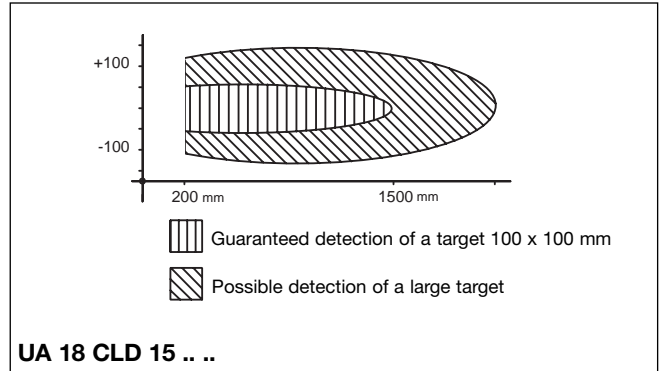
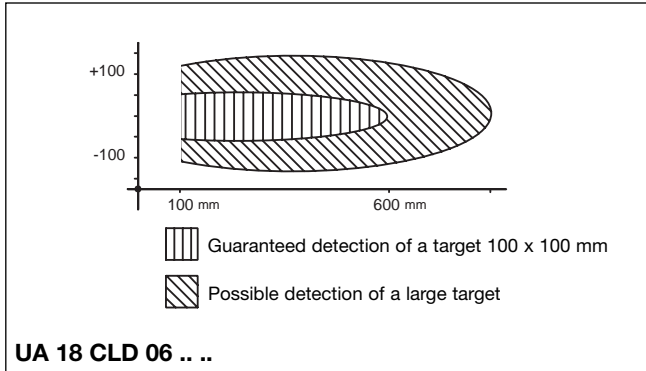
## Wiring Diagram



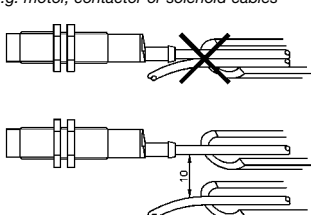
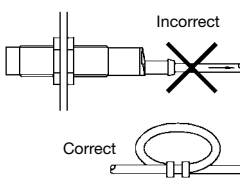
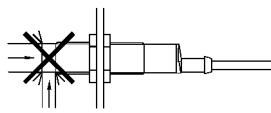
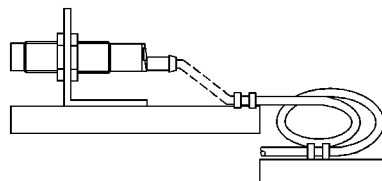
## Dimensions



## Detection Range



## Installation Hints

<p><i>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</i></p> 	<p><i>Relief of cable strain</i></p>  <p>The cable should not be pulled</p>	<p><i>Protection of the sensing face</i></p>  <p>A proximity switch should not serve as mechanical stop</p>	<p><i>Switch mounted on mobile carrier</i></p>  <p>Any repetitive flexing of the cable should be avoided</p>
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