

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

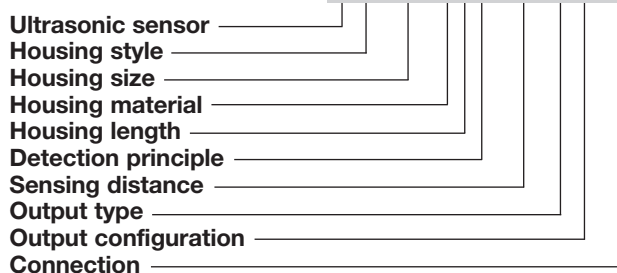
Product Description

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 loop control. 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 CLD 15 AK M1



Type Selection

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

Specifications

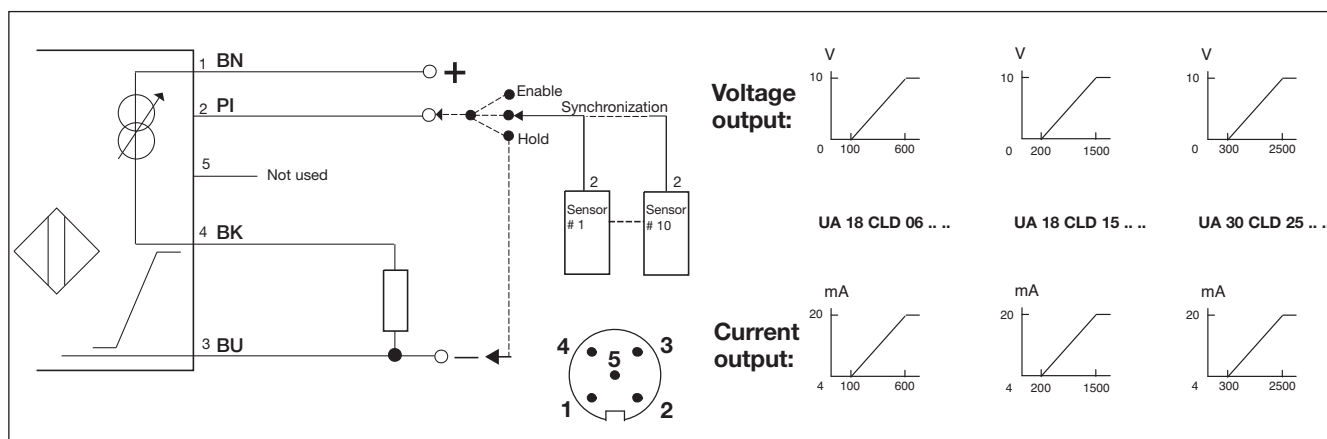
Rated operational volt. (U_o)	18 to 30 VDC (ripple included)	UA18CLD15A ...	5.5	8.8
Ripple	≤ 10%	UA30CLD25A ...	3.7	5.9
No-load supply current (I_o)	≤ 35 mA	Linearity error	< 0.3%	
Protection	Short-circuit, transients and reverse polarity	Repeat accuracy (R)	≤ 0.2%	
Rated insulation voltage	> 1 kV	Rated operating distance/ Resolution		
Power ON delay	< 10 ms	UA18CLD06A. ...	100-600 mm	10.5 mm
Output		UA18CLD15A. ...	200-1500 mm	10.5 mm
UA..CLD..AK..	0-10 VDC	UA30CLD25A. ...	300-2500 mm	10.5 mm
UA..CLD..AG..	4-20 mA	Load		
Output slope	K (mV/mm) G (µA/mm)	4-20 mA	max. 500 Ω	
UA18CLD06A ...	20 32	0-10 V	min. 1 kΩ	
		Carrier frequency	180 KHz	



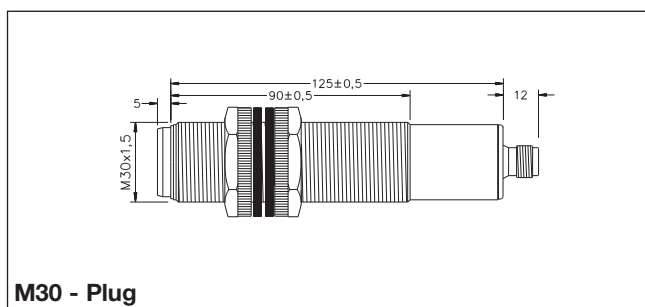
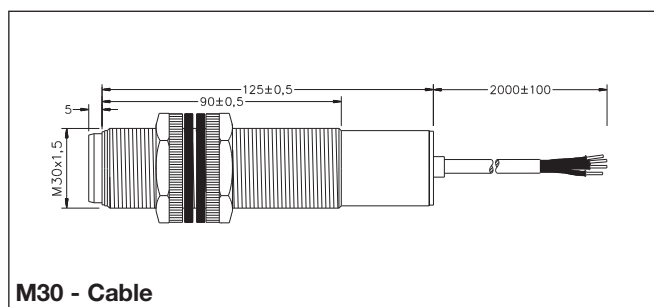
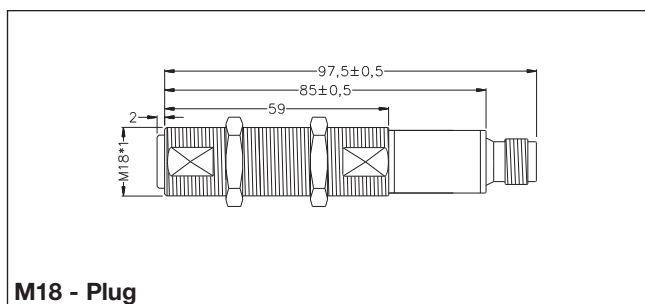
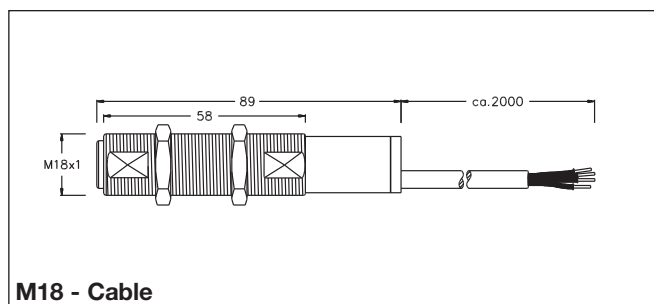
Specifications (cont.)

Response time		Housing material	Polyester PBTP	
UA18CLD06A. ..	50 ms	Connection	2 m, 4 x 0.25 mm ²	
UA18CLD15A.	< 100 ms	Cable	M12 x 1	
UA18CLD15A. M1	150 ms	Plug	CONM14NF serie	
UA30CLD25A. ..	90 ms	Cables for plug M1		
Temperature compensation	0 to 50°C	Weight	UA 18 A.	96 g
Beam angle	8°	UA 18 A. M1	57 g	
Ambient temperature		UA 30 A.	199 g	
Operating	-15° to +70°C (5° to +158°F)	UA 30 A. M1	140 g	
Storage	-25° to +75°C (-13° to +167°F)	Tightening torque	UA 18	2.6 Nm
Degree of protection	IP 67 (Nema 1, 3, 4, 6, 13)	UA 30	7.5 Nm	
		CE-marking	Yes	

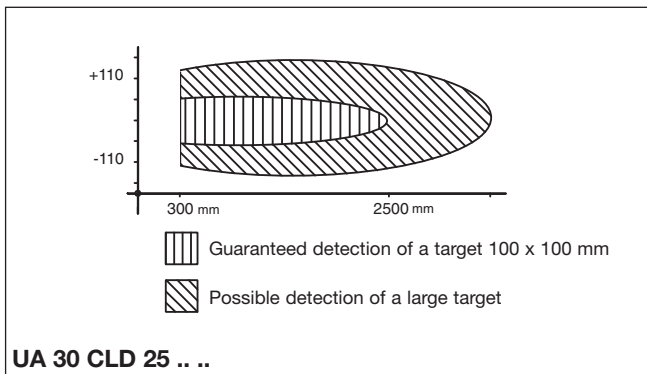
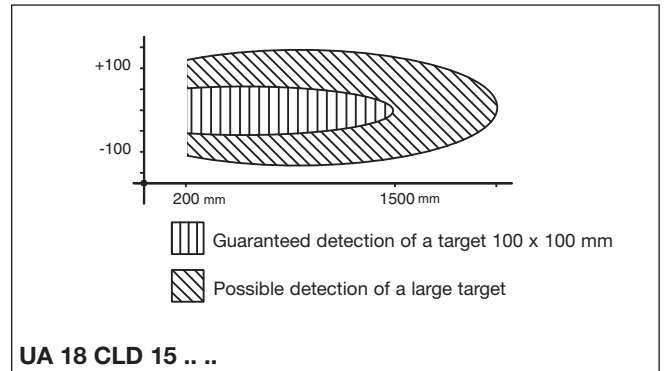
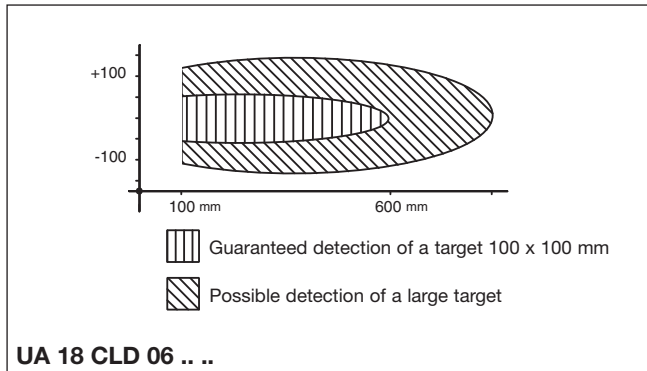
Wiring Diagram



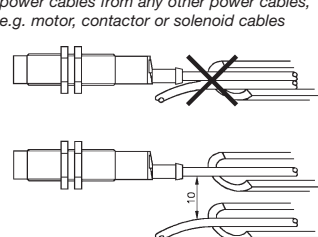
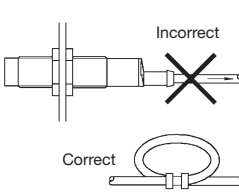
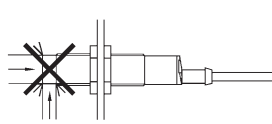
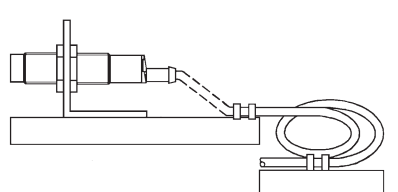
Dimensions



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>Incorrect</p> <p>Correct</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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