



UQ1 series

Cubic Ultrasonic Sensor with M18 head



Cubic Ultrasonic Sensor
with M18 head

features

- Models with digital and analog output
- Models with IO-Link output
- Working area adjusting by Teach-in button
- Complete protection against electrical damages
- Plastic housing, M12 plug exit



web contents



- Application notes
- Photos
- Catalogue / Manuals



code description

UQ 1 A / G 4 - 0 E IO

series	UQ	M18 Ultrasonic Cubic Sensor
function	1	Standard housing
nominal sensing distance Sn	A	40...300 mm
	C	60...800 mm
	D	80...1.200 mm
adjustment	G	Adjustment by Teach-In button
output	4	NPN - NO/NC digital output + 4 ... 20 mA current analogue output
	6	PNP - NO/NC digital output + 4 ... 20 mA current analogue output
	7	PNP - NO/NC digital output + 0 ... 10 V voltage analogue output
	9	NPN - NO/NC digital output + 0 ... 10 V voltage analogue output
housing materials	P	IO-Link output
cable exit / connector	0	Plastic housing
	E	M12 plug cable exit
IO-Link	IO	IO-Link models



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available models

digital + analog mixed outputs

output	distance (mm)	adjusting	PNP + 4...20 mA	NPN + 4...20 mA	PNP + 0...10 V	NPN + 0...10 V
direct diffuse	300	yes	UQ1A/G6-0E	UQ1A/G4-0E	UQ1A/G7-0E	UQ1A/G9-0E
	800		UQ1C/G6-0E	UQ1C/G4-0E	UQ1C/G7-0E	UQ1C/G9-0E
	1.200		UQ1D/G6-0E	UQ1D/G4-0E	UQ1D/G7-0E	UQ1D/G9-0E

available models

single digital output (IO-Link models)

output	distance (mm)	adjusting	IO-Link
direct diffuse	300	yes	UQ1A/GP-0EIO
	800		UQ1C/GP-0EIO
	1.200		UQ1D/GP-0EIO



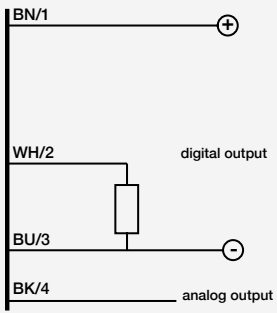
	UQ1A	UQ1C	UQ1D
nominal sensing distance	300 mm ⁽¹⁾	800 mm ⁽²⁾	1.200 mm ⁽²⁾
minimum sensing distance	40 mm	60 mm	80 mm
sensing range	40...300 mm	60...800 mm	80...1.200 mm
beam angle	7° ± 2°	8° ± 2°	
switching frequency	8 Hz	5 Hz	3 Hz
hysteresis	1%		
repeatability	1%		
linearity error	< 1 %		
temperature range	- 20°...+70° C		
temperature compensation	●		
temperature drift of Sr	± 5%		
operating voltage	10...30 V		
max. ripple content	5%		
leakage current	≤ 10 µA @ 30 Vcc		
output voltage drop	≤ 2,2 V (@ IL = 100mA)		
no-load supply current	≤ 35 mA		
output current (digital output)	100 mA		
response time analogue output	≤ 400 ms		
power on delay (digital output)	≤ 400 ms		
short-circuit protection	● (autoreset)		
induction protection	●		
voltage reversal protection	●		
EMC	conforming to EMC Directive, according to EN 60947-5-2		
weight	30 g		
LEDs	green: echo - yellow: output		
protection degree	IP67 (EN 60529)		
housing material	PBT or PA12		
active head material	epoxy glass resin		
storage temperature	- 30°C...+ 80°		

(1) Metallic target 100 x 100 mm (2) Metallic target 200 x 200

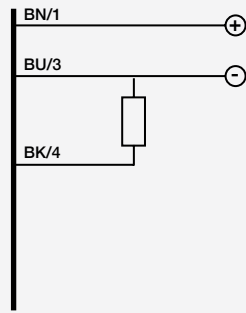


electrical diagrams of the connections

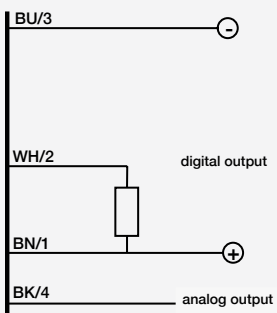
PNP NO/NC models + analog output



IO-Link output models

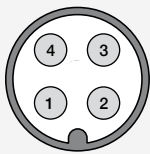


NPN NO/NC models + analog output



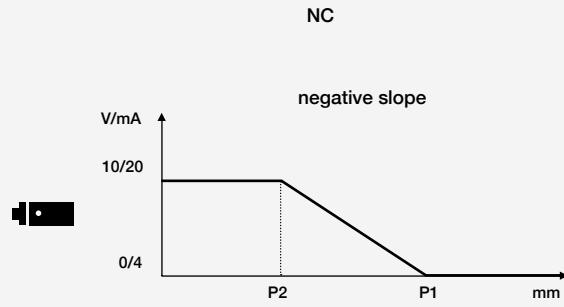
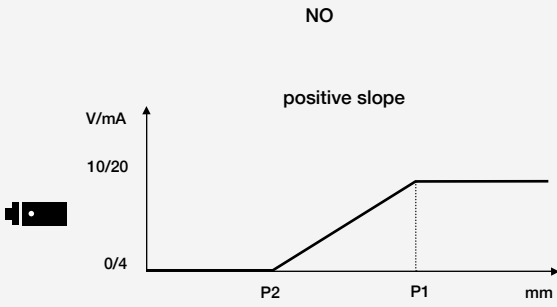
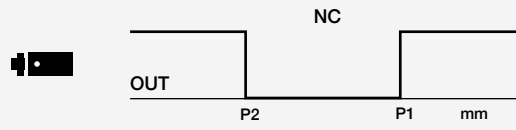
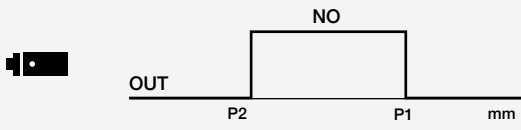
connectors

M12



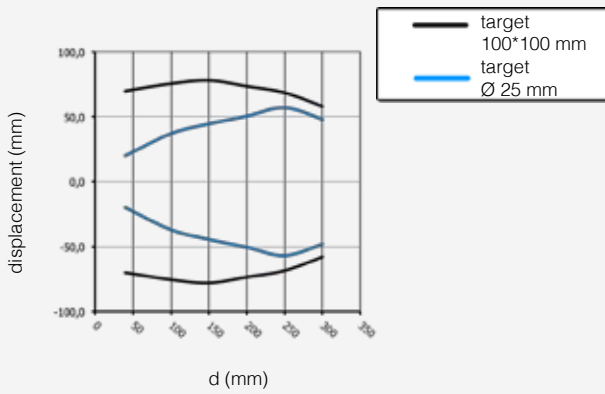


UQ1*/**_**

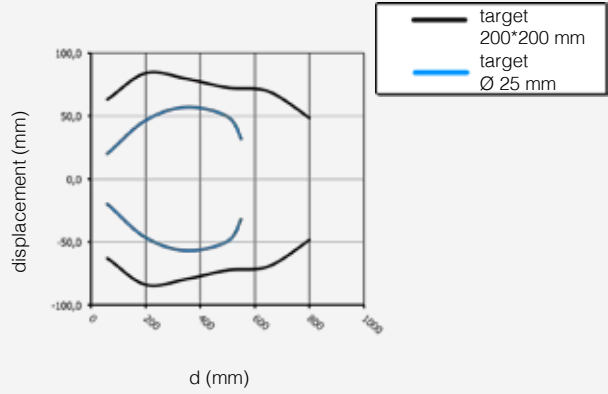


response diagrams

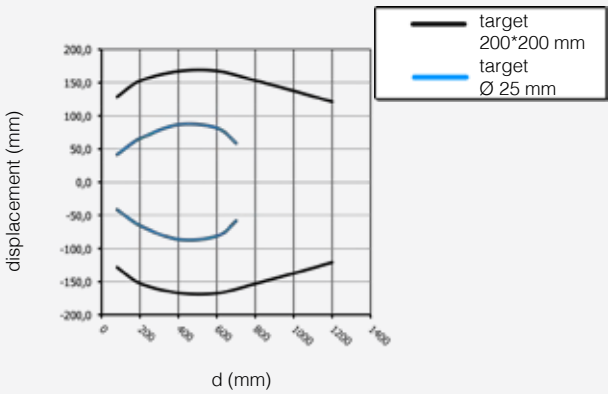
UQ1A/**_** parallel displacement



UQ1C/**_** parallel displacement



UQ1D/**_** parallel displacement

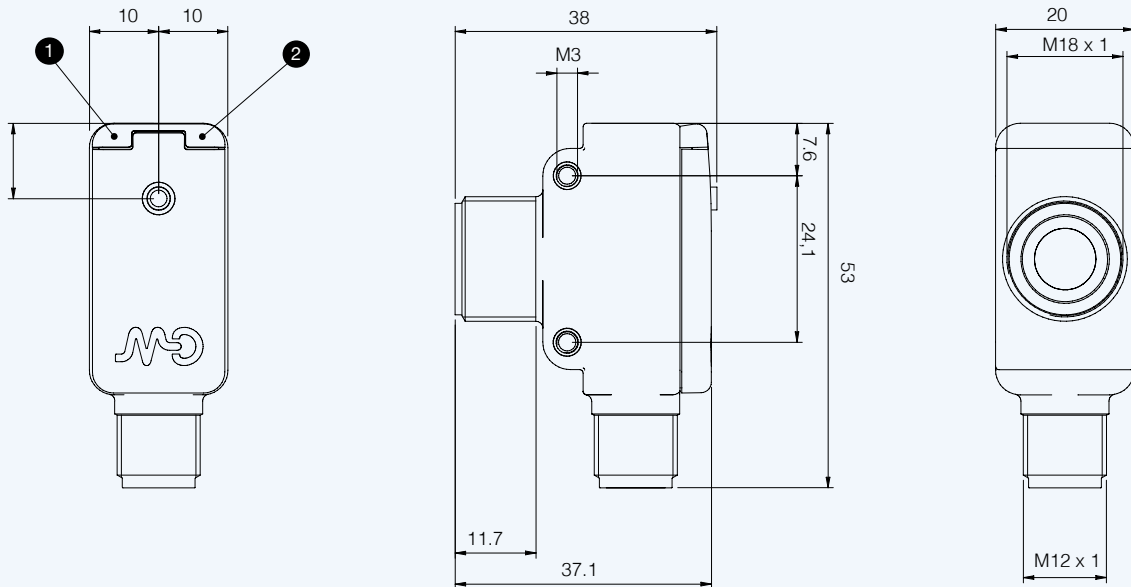




dimensions (mm)

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UQ1*/** - **



1 green LED

2 yellow LED

dimensions (mm)

included accessories

