UQ1 series
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**

IO-Link CE c(UL)us

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
	P	IO-Link output
housing materials	**0**	Plastic housing
cable exit / connector	**E**	M12 plug cable exit
IO-Link	**IO**	IO-Link models

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

technical specifications

	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%		
repeatibility	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		
ouput 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

BN/1 ⊕ +

WH/2   digital output

BU/3 ⊖ −

BK/4   analog output

BN/1 ⊕ +

BU/3 ⊖ −

BK/4

NPN NO/NC models + analog output

BU/3 ⊖ −

WH/2   digital output

BN/1 ⊕ +
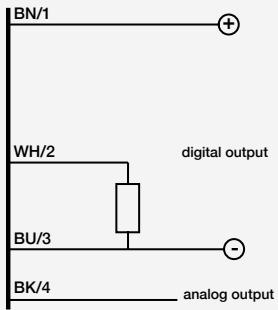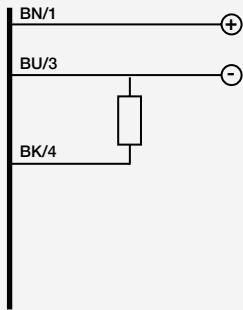
BK/4   analog output

connectors

M12
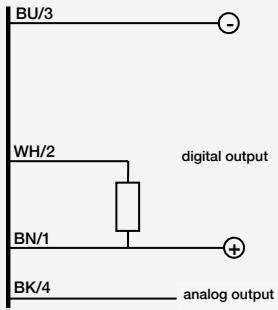
4 3
1 2
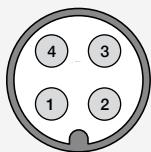
available outputs

UQ1*/**-**

NO

OUT

P2   P1   mm

NC

OUT

P2   P1   mm

NO

positive slope

V/mA

10/20

0/4

P2   P1   mm

NC

negative slope

V/mA

10/20

0/4

P2   P1   mm
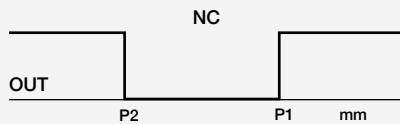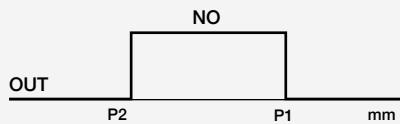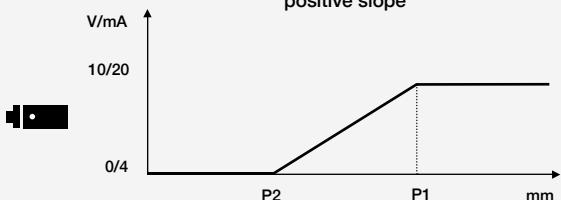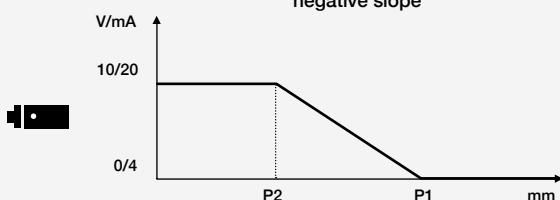
response diagrams

UQ1A/**-** parallel displacement
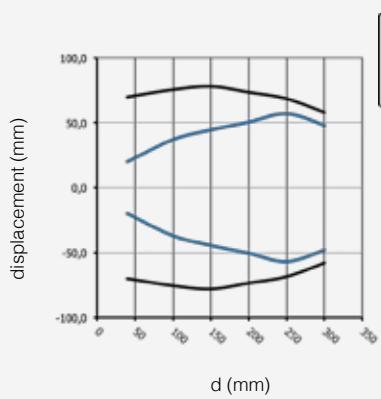
target
100*100 mm

target
Ø 25 mm

displacement (mm)

100,0

50,0

0,0

-50,0

-100,0

0   50 100 150 200 250 300 350

d (mm)

UQ1C/**-** parallel displacement

target
200*200 mm

target
Ø 25 mm

displacement (mm)

100,0

50,0

0,0

-50,0

-100,0

0   200 400 600 800 1000

d (mm)

UQ1D/**-** parallel displacement

target
200*200 mm

target
Ø 25 mm

displacement (mm)

200,0

150,0

100,0

50,0

0,0

-50,0

-100,0

-150,0

-200,0

0   200 400 600 800 1000 1200 1400

d (mm)

dimensions (mm)

UQ1*/** - **

10   10

38

M3

7,6

24,1

53

11.7

37.1

20

M18 x 1
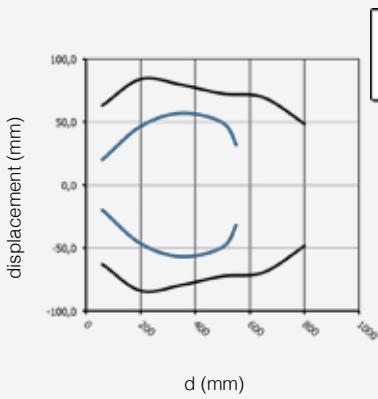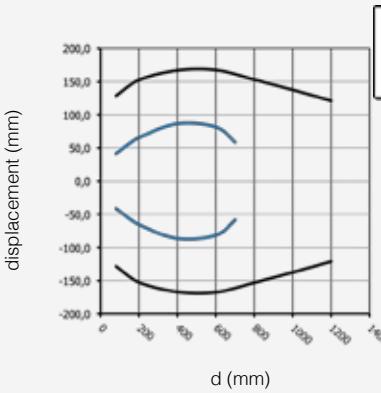
M12 x 1
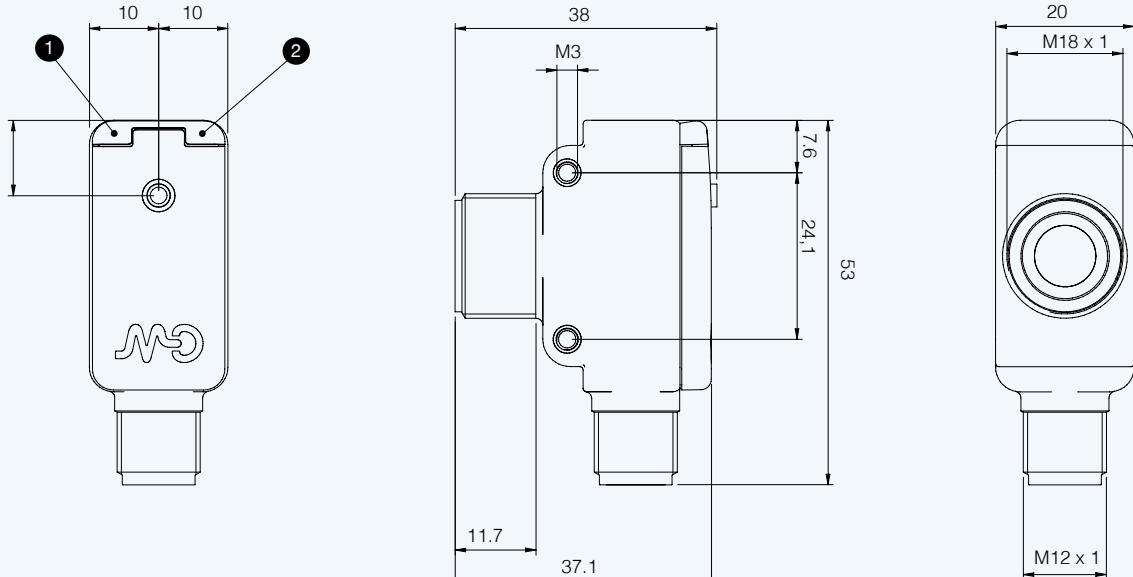
1 green LED   **2** yellow LED

dimensions (mm)

included accessories

24

SW, 22

M18 X 1   8.3

plastic
clamping ring (1x)
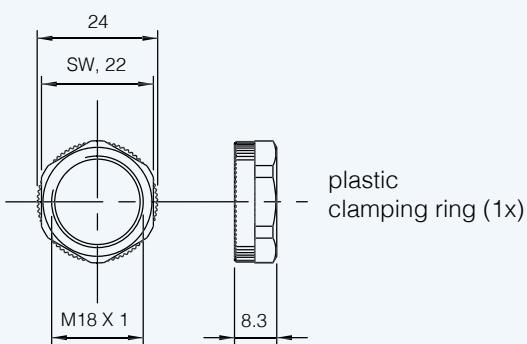
X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Proximity Sensors *category:*

Click to view products by Micro Detectors *manufacturer:*

Other Similar products are found below :

01.001.5653.1 70.340.1028.0 70.360.2428.0 70.364.4828.0 70.810.1053.0 72.360.1628.0 73.363.6428.0 8027AL20NL2CPXX FYCC8E1-2 9221350022 922AA2W-A9P-L PLS2 GL-12F-C2.5X10(LOT3) 972AB2XM-A3N-L 972AB3XM-A3P-L PS3251 980659-1 QT-12 E2E2-X5M41-M4 E2E-X14MD1-G E2E-X2D1-G E2EX2ME2N E2EX3D1SM1N E2E-X4MD1-G E2E-X5E1-5M-N E2E-X5Y2-N E2E-X7D1-M1J-T-0.3M-N E2FMX1R5D12M E2K-F10MC1 5M EH-302 EI3010TBOP EI5515NPAP MS605AU EP175-32000 IFRM04N35B1/L IFRM04P1513/S35L IFRM06P1703/S35L IFRM08P1501/S35L IFRM12N17G3/L IFRM12P17G3/L IFRM12P3502/L IFRM12P37G1/S14L ILFK12E9189/I02 ILFK12E9193/I02 IMM2582C OISN-013 25.161.3253.0 25.332.0653.1 25.352.0653.0 25.352.0753.0