

⊗ YE

⊗ GN

⊗ OFF

⊗ ON

⊗ Flashing

⊗ Alternately

⊗ YE

⊗ GN

Object

Action duration

Push

GN: Green

YE: Yellow

Setting

The sensor has an analogue and a switching output, which can be set independent of each other.

Analog output: The two teach points identify the beginning and end of the measuring area and scale the analog output (see Chapter B).

Teach 1: 4 mA / 0,1 V .

Teach 2: 20 mA / 10 V .

Switching output: The two teaching points identify the beginning and end of the switching window (see Chapter C).

Setting modes: The teach sequence and object distance determine the characteristics of the analog output Q_A and the window width of the switching output Q (see Chapter D).

Overview

Function	Action Step 1 (1)		See illustration
	Teach-button	External teach	
Analog characteristic	press Q _A > 3 s	connect IN > 3 s	B
Switching window	press Q > 3 s	connect IN > 6 s	C
N.O. / N.C.	press Q > 10 s	connect IN > 10 s	E
Auto-Detect / NPN / PNP	press Q > 13 s	connect IN > 13 s	F

(1) Step 2: press Q_A (or Q) / connect IN > 1 s

Factory setting

Power OFF

green LED OFF

Press any button

green LED OFF

Power ON

green LED Flash

3 x

> 10 s

Hold any button down and power on for more than 10s until both yellow LEDs flash fast at the same time.

ok

Analog Output

Step 1: Object position 1

Q_A

Near distance

Teach 1 = 0.1 V / 4 mA

> 3 s

GN

YE

Q

Q_A

Press Q_A > 3 s until green and yellow LED flash at the same time.

Step 2: Object position 2

Press Q_A > 1 s

Far distance

Teach 2 = 10 V / 20 mA

External Teach-in: G

ok

Switching Output

Step 1: Object position 1

Q

Near distance

Teach 1

> 3 s

GN

YE

Q

Q_A

Press Q > 3 s until green and yellow LED flash at the same time.

Step 2: Object position 2

Press Q > 1 s

Far distance

Teach 2

External Teach-in: G

ok

Setting modes

Teach 1

Teach 2

Q_A

21 mA / 11 V

20.1 mA / 10.05 V

20 mA / 10 V

4 mA / 0.1 V

3.9 mA / 0.09 V

3.6 mA / 0.06 V

near

LED Q_A

far

Q

High

Low

Q

High

Low

Teach 1

Measurement range

Teach 2

Teach 1

Teach 2

Q_A

21 mA / 11 V

20.1 mA / 10.05 V

20 mA / 10 V

4 mA / 0.1 V

3.9 mA / 0.09 V

3.6 mA / 0.06 V

near

LED Q_A

far

Q

High

Low

Q

High

Low

Teach 1

Measurement range

Teach 2

Teach 1

Teach 2

Q_A

21 mA / 11 V

20.1 mA / 10.05 V

20 mA / 10 V

12 mA / 5 V

4 mA / 0.1 V

3.9 mA / 0.09 V

3.6 mA / 0.06 V

± 40 mm / 1.57 in.

Zone A (1)

Teach 1=Teach 2

Measurement range

(1) Automatic reflector mode: All non-transparent objects in zone A are reliably detected.

(2) Min. switching window ± 80 mm (3.15 in)

External Teach-In

BN

GY

+U_S

IN

Setting via control input IN:
Closing and opening times according to the respective information stated in the overview A.

Switching N.O./N.C./Slope

> 10 s

GN

YE

Q

Q_A

N.O.

< 1 s

GN

YE

Q

Q_A

N.C.

< 1 s

GN

YE

Q

Q_A

N.O.....

> 10 s

GN

YE

Q

Q_A

Slope Q_A: Positive

< 1 s

GN

YE

Q

Q_A

Slope Q_A: Negative / Inverted

< 1 s

GN

YE

Q

Q_A

Slope Q_A: Positive

Switching Auto-detect/NPN/PNP/U/I

Q_A > 13 s

Q > 13 s

Auto-Detect

Q

Q_A

Output U

Q_A

Output I

Q

Q_A

Auto-Detect

10 s

ok

10 s

ok

10 s

ok

10 s

ok

(1):

IO-link is specified for PNP

Press Q > 13 s until green and yellow LED flash at the same time.

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Telemecanique
Sensors