

Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18, plastic, kits

Four-wire DC, solid-state output

Wire setting for NO/NC



XUB2APYNM12
XUB2ANXWM12



XUB2ANXNL2



XUB2ANXNM12
XUB2ANXWM12



XUB2APXNL2

Thru-beam system with adjustable sensitivity

Max./operating Function sensing distance (Sn)/ Line of sight	Output	Connection	Reference	Weight (kg)
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Transmitter + receiver IO-Link

15 m/20 m Along case axis	NO/NC (Dark ON/Light ON) configuration by IO-Link and/or by wire on the receiver	Autodetect PNP/NPN (4-pin)	M12 connector (4-pin)	XUB2APYNM12	0.060
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12 m/12 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by IO-Link and/or by wire on the receiver		M12 connector (4-pin)	XUB2APYWM12	0.060
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Transmitter + receiver

30 m/20 m Along case axis	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	NPN	Pre-cabled (L = 2 m)	XUB2ANXNL2	0.171
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	NO/NC (Dark ON/Light ON) configuration by wire on the receiver		M12 connector (4-pin)	XUB2ANXNM12	0.060
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17 m/12 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	NPN	Pre-cabled (L = 2 m)	XUB2ANXWL2	0.171
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	NO/NC (Dark ON/Light ON) configuration by wire on the receiver		M12 connector (4-pin)	XUB2ANXWM12	0.060
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30 m/20 m Along case axis	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	PNP	Pre-cabled (L = 2 m)	XUB2APXNL2	0.171
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	NO/NC (Dark ON/Light ON) configuration by wire on the receiver		M12 connector (4-pin)	XUB2APXNM12	0.060
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17 m/12 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	PNP	Pre-cabled (L = 2 m)	XUB2APXWL2	0.171
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	NO/NC (Dark ON/Light ON) configuration by wire on the receiver		M12 connector (4-pin)	XUB2APXWM12	0.060
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Accessories

IO-Link Master

See page 78.

Fixing and other accessories

See page 82.

Cabling accessories

See page 88.

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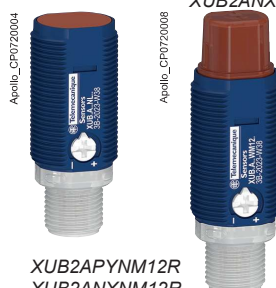


XUB2AKXNM12T

XUB2AKXWM12T



XUB2AKXNL2T

XUB2AKXWL2T
XUB2ANXNL2XUB2APYNM12R
XUB2ANXNM12R
XUB2APXNM12RXUB2APYWM12R
XUB2ANXWM12R
XUB2APXWM12RXUB2ANXNL2R
XUB2APXNL2RXUB2ANXWL2R
XUB2APXWL2R

Thru-beam system with adjustable sensitivity

Max./operating sensing distance (Sn)/Line of sight	Function	Output	Connection	Reference	Weight (kg)
Transmitter only (1)					
30 m/20 m Along case axis	—	—	Pre-cabled (L = 2 m) M12 connector (4-pin)	XUB2AKXNL2T XUB2AKXNM12T	0.095 0.040
17 m/12 m 90° to case axis	—	—	Pre-cabled (L = 2 m) M12 connector (4-pin)	XUB2AKXWL2T XUB2AKXWM12T	0.095 0.040

Receiver IO-Link only

30 m/20 m Along case axis	NO/NC (Dark ON/Light ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB2APYNM12R	0.040
17 m/12 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB2APYWM12R	0.040

Receiver only

30 m/20 m Along case axis	NO/NC (Dark ON/Light ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB2ANXNL2R	0.095
			M12 connector (4-pin)	XUB2ANXNM12R	0.040
		PNP	Pre-cabled (L = 2 m)	XUB2APXNL2R	0.095
			M12 connector (4-pin)	XUB2APXNM12R	0.040
17 m/12 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB2ANXWL2R	0.095
			M12 connector (4-pin)	XUB2ANXWM12R	0.040
		PNP	Pre-cabled (L = 2 m)	XUB2APXWL2R	0.095
			M12 connector (4-pin)	XUB2APXWM12R	0.040

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(1) All transmitters are compatible with the receivers listed below.

Photo-electric sensors

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Four-wire DC, solid-state output

Wire setting for NO/NC



Thru-beam system with adjustable sensitivity

Max./operating sensing distance (Sn)/ Line of sight	Function	Output	Connection	Reference	Weight (kg)
Transmitter + receiver IO-Link					
12 m/12 m Along case axis	NO/NC (Dark ON/Light ON) configuration by IO-Link and/or by wire on the receiver	Autodetect PNP/NPN	M12 connector (4-pin)	XUB2BPYNM12	0.060
12 m/12 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by IO-Link and/or by wire on the receiver	Autodetect PNP/NPN	M12 connector (4-pin)	XUB2BPYWM12	0.060

Transmitter + receiver

30 m/20 m Along case axis	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	NPN	Pre-cabled (L = 2 m)	XUB2BNXNL2	0.192
	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	NPN	M12 connector (4-pin)	XUB2BNXNM12	0.080
17 m/12 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	NPN	Pre-cabled (L = 2 m)	XUB2BNXWL2	0.192
	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	NPN	M12 connector (4-pin)	XUB2BNXWM12	0.080
30 m/20 m Along case axis	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	PNP	Pre-cabled (L = 2 m)	XUB2BPXNL2	0.192
	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	PNP	M12 connector (4-pin)	XUB2BPXNM12	0.080
17 m/12 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	PNP	Pre-cabled (L = 2 m)	XUB2BPXWL2	0.192
	NO/NC (Dark ON/Light ON) configuration by wire on the receiver	PNP	M12 connector (4-pin)	XUB2BPXWM12	0.080

Accessories

IO-Link Master

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Fixing and other accessories

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Cabling accessories

See page 88.

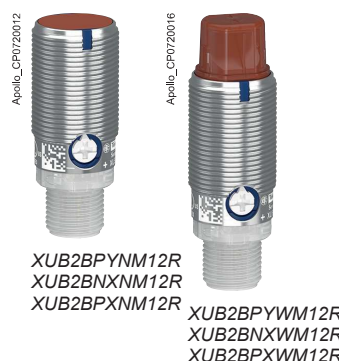
Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18, metal

Four-wire DC, solid-state output

Wire setting for NO/NC



Thru-beam system with adjustable sensitivity

Max./operating sensing distance (Sn)/Line of sight	Function	Output	Connection	Reference	Weight (kg)
Transmitter only (1)					
30 m/20 m	—	—	Pre-cabled (L = 2 m)	XUB2BKXNL2T	0.095
Along case axis			M12 connector (4-pin)	XUB2BKXNM12T	0.040
17 m/12 m	—	—	Pre-cabled (L = 2 m)	XUB2BKXWL2T	0.095
90° to case axis			M12 connector (4-pin)	XUB2BKXWM12T	0.040

Receiver IO-Link only

30 m/20 m	NO/NC (Dark ON/Light ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB2BPYNM12R	0.040
Along case axis					
17 m/12 m	NO/NC (Dark ON/Light ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB2BPYWM12R	0.040
90° to case axis					

Receiver only

30 m/20 m	NO/NC (Dark ON/Light ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB2BNXNL2R	0.095
Along case axis			M12 connector (4-pin)	XUB2BNXNM12R	0.040
		PNP	Pre-cabled (L = 2 m)	XUB2BPXNL2R	0.095
			M12 connector (4-pin)	XUB2BPXNM12R	0.040
17 m/12 m	NO/NC (Dark ON/Light ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB2BNXWL2R	0.095
90° to case axis			M12 connector (4-pin)	XUB2BNXWM12R	0.040
		PNP	Pre-cabled (L = 2 m)	XUB2BPXWL2R	0.095
			M12 connector (4-pin)	XUB2BPXWM12R	0.040

Accessories

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(1) All transmitters are compatible with the receivers listed below.

Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18, plastic

Four-wire DC, solid-state output

Wire setting for NO/NC

Apollis_CP0720004



XUB5APYNM12
XUB5ANXNM12
XUB5APXNM12

Apollis_CP0720008



XUB6APYWM12
XUB6.....

Apollis_CP0720002



XUB5ANXNL2
XUB5APXNL2

Apollis_CP0720006



XUB6.....

Diffuse system with adjustable sensitivity, IO-Link

Max./operating sensing distance (Sn)/Line of sight	Function	Output	Connection	Reference	Weight (kg)
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Long range, red LED emission

1 m/0.7 m Along case axis	NO/NC (Light ON/Dark ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB5APYNM12	0.040
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Medium range, red LED emission

0.6 m/0.42 m Along case axis	NO/NC (Light ON/Dark ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB6APYNM12	0.040
0.5 m/0.35 m 90° to case axis	NO/NC (Light ON/Dark ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB6APYWM12	0.040

Diffuse system with adjustable sensitivity

Max./operating sensing distance (Sn)/Line of sight	Function	Output	Connection	Reference	Weight (kg)
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Long range, red LED emission

1 m/0.7 m Along case axis	NO/NC (Light ON/Dark ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB5ANXNL2	0.095
			M12 connector (4-pin)	XUB5ANXNM12	0.040
		PNP	Pre-cabled (L = 2 m)	XUB5APXNL2	0.095
			M12 connector (4-pin)	XUB5APXNM12	0.040

Medium range, red LED emission

0.6 m/0.42 m Along case axis	NO/NC (Light ON/Dark ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB6ANXNL2	0.095
			M12 connector (4-pin)	XUB6ANXNM12	0.040
		PNP	Pre-cabled (L = 2 m)	XUB6APXNL2	0.095
			M12 connector (4-pin)	XUB6APXNM12	0.040
0.5 m/0.35 m 90° to case axis	NO/NC (Light ON/Dark ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB6ANXWL2	0.095
			M12 connector (4-pin)	XUB6ANXWM12	0.040
		PNP	Pre-cabled (L = 2 m)	XUB6APXWL2	0.095
			M12 connector (4-pin)	XUB6APXWM12	0.040

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Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18, metal

Four-wire DC, solid-state output

Wire setting for NO/NC

Apollo_CP0720012



XUB•BPYNM12
XUB•BNXNM12
XUB•BPXNM12

Apollo_CP0720016



XUB6BPYWM12
XUB6BNXWM12
XUB6BPXWM12

Apollo_CP0720010



XUB•BNXNL2
XUB•BPXNL2

Apollo_CP0720014



XUB6BNXWL2
XUB6BPXWL2

Diffuse system with adjustable sensitivity, IO-Link

Max./operating sensing distance (Sn)/Line of sight	Function	Output	Connection	Reference	Weight (kg)
Long range, red LED emission					
1 m/0.7 m Along case axis	NO/NC (Light ON/Dark ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB5BPYNM12	0.040
Medium range, red LED emission					
0.6 m/0.42 m Along case axis	NO/NC (Light ON/Dark ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB6BPYNM12	0.040
0.5 m/0.35 m 90° to case axis	NO/NC (Light ON/Dark ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB6BPYWM12	0.040

Diffuse system with adjustable sensitivity

Max./operating sensing distance (Sn)/Line of sight	Function	Output	Connection	Reference	Weight (kg)
Long range, red LED emission					
1 m/0.7 m	NO/NC (Light ON/Dark ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB5BNXNL2	0.095
Along case axis			M12 connector (4-pin)	XUB5BNXNM12	0.040
		PNP	Pre-cabled (L = 2 m)	XUB5BPXNL2	0.095
			M12 connector (4-pin)	XUB5BPXNM12	0.040
Medium range, red LED emission					
0.6 m/0.42 m	NO/NC (Light ON/Dark ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB6BNXNL2	0.095
Along case axis			M12 connector (4-pin)	XUB6BNXNM12	0.040
		PNP	Pre-cabled (L = 2 m)	XUB6BPXNL2	0.095
			M12 connector (4-pin)	XUB6BPXNM12	0.040
0.5 m/0.35 m	NO/NC (Light ON/Dark ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB6BNXWL2	0.095
90° to case axis			M12 connector (4-pin)	XUB6BNXWM12	0.040
		PNP	Pre-cabled (L = 2 m)	XUB6BPXWL2	0.095
			M12 connector (4-pin)	XUB6BPXWM12	0.040

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Photo-electric sensors
XUB general purpose, single mode function
Cylindrical miniature design 18, plastic
Four-wire DC, solid-state output
Wire setting for NO/NC



Apollo_CP0720004

XUB9APYNM12
XUB9ANXNM12
XUB9APXNM12



Apollo_CP0720008

XUB9APYWM12
XUB9ANXWM12
XUB9APXWM12



Apollo_CP0720002

XUB9ANXNL2
XUB9APXNL2



Apollo_CP0720006

XUB9ANXWL2
XUB9APXWL2

Polarised reflex system with adjustable sensitivity, IO-Link					
Plastic, red LED emission					
Max./operating sensing distance (Sn)/Line of sight	Function	Output	Connection	Reference	Weight (kg)
7 m/5 m Along case axis	NO/NC (Dark ON/Light ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB9APYNM12	0.040
5.5 m/4 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB9APYWM12	0.040

Polarised reflex system with adjustable sensitivity					
Plastic, red LED emission					
Max./operating sensing distance (Sn)/Line of sight	Function	Output	Connection	Reference	Weight (kg)
7 m/5 m Along case axis	NO/NC (Dark ON/Light ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB9ANXNL2	0.095
			M12 connector (4-pin)	XUB9ANXNM12	0.040
		PNP	Pre-cabled (L = 2 m)	XUB9APXNL2	0.095
			M12 connector (4-pin)	XUB9APXNM12	0.040
		NPN	Pre-cabled (L = 2 m)	XUB9ANXWL2	0.095
			M12 connector (4-pin)	XUB9ANXWM12	0.040
5.5 m/4 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB9ANXWL2	0.095
			M12 connector (4-pin)	XUB9ANXWM12	0.040
		PNP	Pre-cabled (L = 2 m)	XUB9APXWL2	0.095
			M12 connector (4-pin)	XUB9APXWM12	0.040

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Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18, metal

Four-wire DC, solid-state output

Wire setting for NO/NC



XUB9BPYNM12
XUB9BNXNM12
XUB9BPXNM12



XUB9BPYWM12
XUB9BNXWM12
XUB9BPXWM12



XUB9BNXNL2
XUB9BPXNL2



XUB9BNXWL2
XUB9BPXWL2

Polarised reflex system with adjustable sensitivity, IO-Link

Metal, red LED emission

Max./operating sensing distance (Sn)/Line of sight	Function	Output	Connection	Reference	Weight (kg)
7 m/5 m Along case axis	NO/NC (Dark ON/Light ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB9BPYNM12	0.040
5.5 m/4 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by wire or IO-Link	Autodetect PNP/NPN	M12 connector (4-pin)	XUB9BPYWM12	0.040

Polarised reflex system with adjustable sensitivity

Max./operating sensing distance (Sn)/Line of sight	Function	Output	Connection	Reference	Weight (kg)
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Metal, red LED emission

7 m/5 m Along case axis	NO/NC (Dark ON/Light ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB9BNXNL2	0.095
			M12 connector (4-pin)	XUB9BNXNM12	0.040
		PNP	Pre-cabled (L = 2 m)	XUB9BPXNL2	0.095
			M12 connector (4-pin)	XUB9BPXNM12	0.040
			Pre-cabled (L = 2 m)	XUB9BNXWL2	0.095
			M12 connector (4-pin)	XUB9BNXWM12	0.040
5.5 m/4 m 90° to case axis	NO/NC (Dark ON/Light ON) configuration by wire	NPN	Pre-cabled (L = 2 m)	XUB9BNXWL2	0.095
			M12 connector (4-pin)	XUB9BNXWM12	0.040
		PNP	Pre-cabled (L = 2 m)	XUB9BPXWL2	0.095
			M12 connector (4-pin)	XUB9BPXWM12	0.040

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Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18, plastic

Four-wire DC, solid-state output

Wire setting for NO/NC

Characteristics				
Sensor type		XUB2APY●M12, XUB2BPY●M12, XUB2A●X●M12, XUB2A●X●M12R, XUB2A●X●M12T, XUB2A●X●M12R, XUB2B●X●M12T, XUB2B●X●M12R, XUB5APYNM12, XUB5BPYNM12, XUB5A●X●M12, XUB5B●X●M12, XUB6APY●M12, XUB6A●X●M12, XUB6B●X●M12, XUB9APY●M12, XUB9BPY●M12, XUB9A●X●M12, XUB9B●X●M12		XUB2A●X●L2, XUB2A●X●L2, XUB2B●X●L2, XUB2B●X●L2, XUB2A●X●L2T, XUB2A●X●L2R, XUB2B●X●L2T, XUB2B●X●L2R, XUB5A●X●L2, XUB5B●X●L2, XUB6A●X●L2, XUB6B●X●L2, XUB9A●X●L2, XUB9B●X●L2
Product certifications		CE, UKCA, cULus, ECOLAB		
Connection	Connector	M12		–
	Pre-cabled	–		Length: 2 m
Sensing distance Excess gain = 1 : maximum sensing distance Excess gain = 2 : nominal sensing distance	Thru-beam system XUB2	Along case axis (axial)	m	30 (with excess gain = 1) 20 (with excess gain = 2)
		90° to case axis (radial)	m	17 (with excess gain = 1) 12 (with excess gain = 2)
	Diffuse system XUB5 (using a white paper 200 x 200 mm)	Along case axis (axial)	m	1 (with excess gain = 1) 0.7 (with excess gain = 2)
	Diffuse system XUB6 (using a white paper 200 x 200 mm)	Along case axis (axial)	m	0.6 (with excess gain = 1) 0.42 (with excess gain = 2)
		90° to case axis (radial)	m	0.5 (with excess gain = 1) 0.35 (with excess gain = 2)
	Polarised reflex system XUB9 (using a 50 x 50 mm reflector XUZC50)	Along case axis	m	7 (with excess gain = 1) 5 (with excess gain = 2)
		90° to case axis	m	5.5 (with excess gain = 1) 4 (with excess gain = 2)
Blind zone		mm	0 (white object and potentiometer max.)	
Sensing distance setting			Potentiometer 1 turn (+/- 220 degrees)	
Colour of detection light beam			Red	
Output type			PNP/NPN (or autodetect PNP/NPN with IO-Link)	
Hysteresis			2% < H < 20% at Sn	
Degree of protection	Conforming to IEC 60529		IP65, IP67	
	Conforming to DIN 40050-9		IP69K (M12 connector versions only)	
Artificial optical radiation	Conforming to IEC 62471		Class 0 (risk exempt)	
Radiated disturbances emissions	Conforming to EN 55011/CISPR 1		Class A	
Storage temperature		°C	-40...+70	
Operating temperature		°C	-30...+55	
Materials	Case	XUB●A	PBT/PC	
		XUB●B	Brass	
	Back cap		MABS	
	Potentiometer screw		PBT	
	Lens cover		PMMA	
	Cable		–	PVC
Vibration resistance	Conforming to IEC 60068-2-6		Frequency range: 10 to 55 Hz Acceleration: 7 gn	
Shock resistance	Conforming to IEC 60068-2-27		Peak acceleration: 30 gn Duration of the pulse: 11 ms	
Rated supply voltage		V	12...24 --- with protection against reverse polarity	
Voltage limits (including ripple)		V	10...30 ---	
Current consumption, no-load		mA	< 20/IO-Link: < 30	
Switching capacity		mA	100	
Voltage drop, closed state		V	≤ 2	
Maximum switching frequency		Hz	1000	
Delays	First-up	ms	< 100/IO-Link : < 300	
	Response	ms	0.5 max.	
	Recovery	ms	0.5 max	

Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18

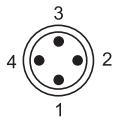
Four-wire DC, solid-state output

Wire setting for NO/NC

Wiring schemes

Thru-beam system

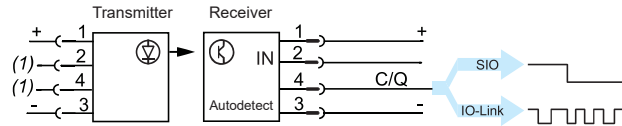
M12 connector - 4 pins, plastic and metal, IO-Link



Pin	Signal	Definition
1	+	+ 24 V
2	IN	+ = NO - = NC Open = NO
3	-	0 V
4	Q	Switching signal (SIO)
	C	IO-Link communication

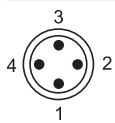
Autodetect PNP/NPN or by IO-Link

XUB2•PYNM12R, XUB2•PYWM12R, XUB2•KXNM12T, XUB2•KXWM12T



Note: IODD IO-Link files available on our website www.telemecaniquesensors.com/iolink

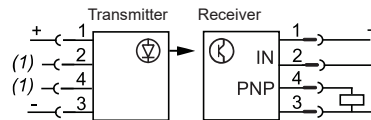
M12 connector - 4 pins, plastic and metal



Pin	Signal	Definition
1	+	+ 24 V
2	IN	+ = NO - = NC Open = NO
3	-	0 V
4	Q	Switching signal (SIO)

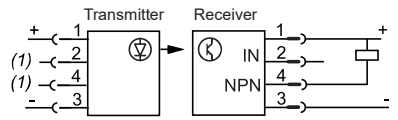
PNP

XUB2•PXNM12R, XUB2•PXWM12R,
XUB2•KXNM12T, XUB2•KXWM12T



NPN

XUB2•NXNM12R, XUB2•NXWM12R,
XUB2•KXNM12T, XUB2•KXWM12T

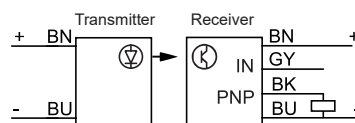


Pre-cabled - 4 wires, plastic and metal

+BN (Brown)
IN (input) GY (Grey)
OUT (output) BK (Black)
-BU (Blue)

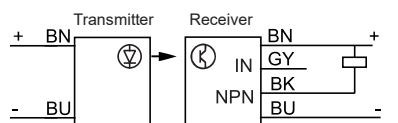
PNP

XUB2•PXNL2R, XUB2•APXWL2R,
XUB2•KXNL2T, XUB2•KXWL2T



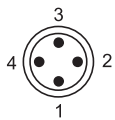
NPN

XUB2•NXNL2R, XUB2•NXWL2R,
XUB2•KXNL2T, XUB2•KXWL2T



Diffuse system

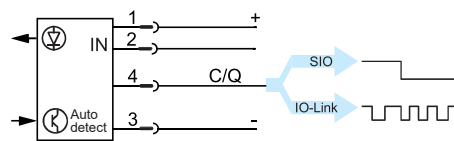
M12 connector - 4 pins, plastic and metal, IO-Link



Pin	Signal	Definition
1	+	+ 24 V
2	IN	+ = NO - = NC Open = NO
3	-	0 V
4	Q	Switching signal (SIO)
	C	IO-Link communication

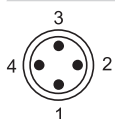
Autodetect PNP/NPN or by IO-Link

XUB5APYNM12, XUB6APYNM12, XUB6APYWM12, XUB5BPYNM12, XUB6BPYNM12,
XUB6BPYWM12



Note: IODD IO-Link files available on our website www.telemecaniquesensors.com/iolink

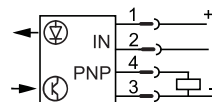
M12 connector - 4 pins, plastic and metal



Pin	Signal	Definition
1	+	+ 24 V
2	IN	+ = NO - = NC Open = NO
3	-	0 V
4	Q	Switching signal (SIO)

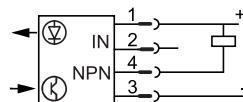
PNP

XUB5APXNM12, XUB6APXNM12,
XUB6APXWM12, XUB5BPXNM12,
XUB6BPXNM12, XUB6BPXWM12,



NPN

XUB5ANXNM12, XUB6ANXNM12,
XUB6ANXWM12, XUB5BNXNM12,
XUB6BNXNM12, XUB6BNXWM12

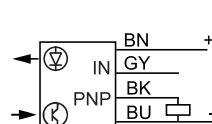


Pre-cabled - 4 wires, plastic and metal

+BN (Brown)
IN (input) GY (Grey)
OUT (output) BK (Black)
-BU (Blue)

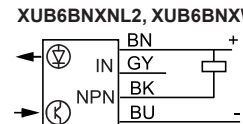
PNP

XUB5APXNL2, XUB6APXNL2, XUB6APXWL2,
XUB5BPXNL2, XUB6BPXNL2, XUB6BPXWL2



NPN

XUB5ANXNL2, XUB6ANXNL2,
XUB6ANXWL2, XUB5BNXNL2,
XUB6BNXNL2, XUB6BNXWL2



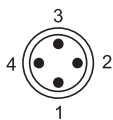
(1) Not connected.

Photo-electric sensors
XUB general purpose, single mode function
Cylindrical miniature design 18
Four-wire DC, solid-state output
Wire setting for NO/NC

Wiring schemes (continued)

Polarised reflex system

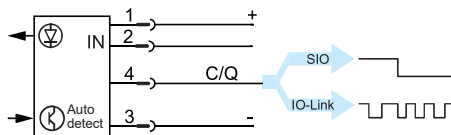
M12 connector - 4 pins, plastic and metal, IO-Link



Pin	Signal	Definition
1	+	+ 24 V
2	IN	+ = NO - = NC Open = NO
3	-	0 V
4	Q	Switching signal (SIO)
C		IO-Link communication

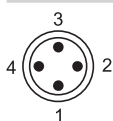
Autodetect PNP/NPN or by IO-Link

XUB9APYNM12, XUB9APYWM12, XUB9BPYNM12, XUB9BPYWM12



Note: IODD IO-Link files available on our website www.telemecaniquesensors.com/iolink

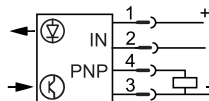
M12 connector - 4 pins, plastic and metal



Pin	Signal	Definition
1	+	+ 24 V
2	IN	+ = NO - = NC Open = NO
3	-	0 V
4	Q	Switching signal (SIO)

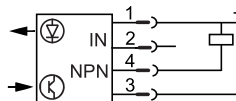
PNP

XUB9APXNM12, XUB9APXWM12,
XUB9BPXNM12, XUB9BPXWM12



NPN

XUB9ANXNM12, XUB9ANXWM12,
XUB9BNXNM12, XUB9BNXWM12

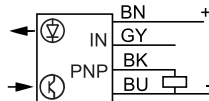


Pre-cabled - 4 wires, plastic and metal

+BN (Brown)
IN (input) GY (Grey)
OUT (output) BK (Black)
-BU (Blue)

PNP

XUB9APXNL2, XUB9BAPXWL2,
XUB9BPXNL2, XUB9BPXWL2



NPN

XUB9ANXNL2, XUB9ANXWL2,
XUB9BNXNL2, XUB9BNXWL2

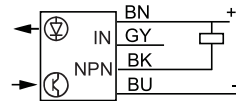


Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18

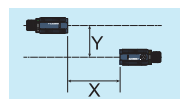
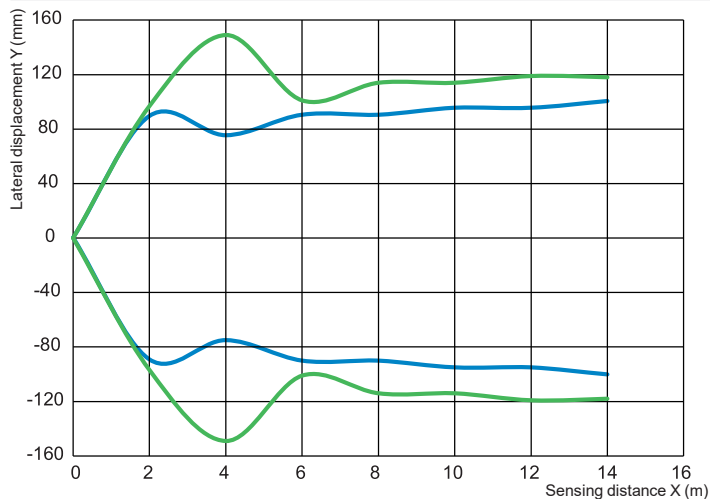
Four-wire DC, solid-state output

Wire setting for NO/NC

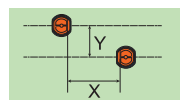
Detection curves

Thru-beam system: XUB2

Lateral displacement

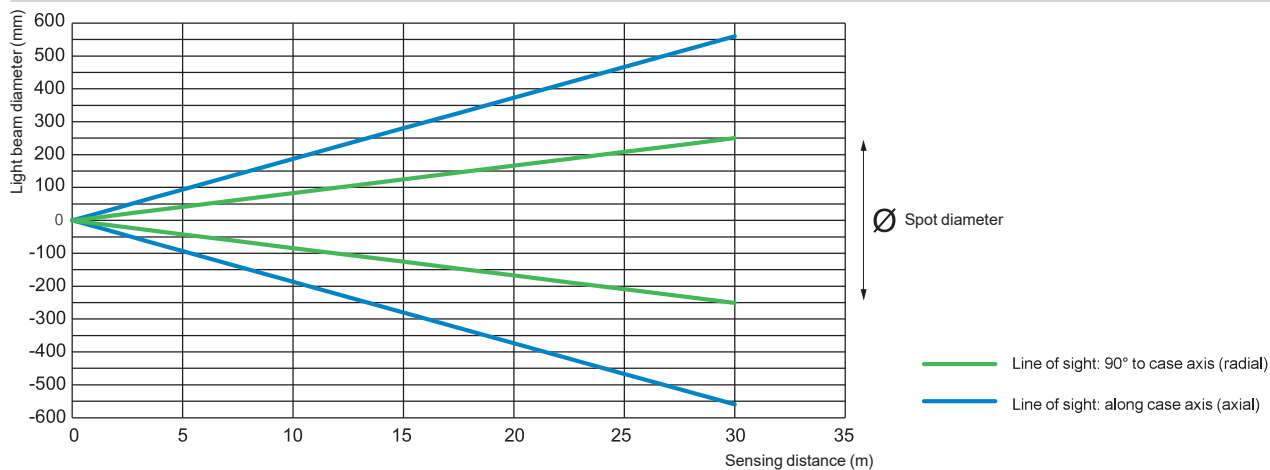


Line of sight: along case axis (axial)



Line of sight: 90° to case axis (radial)

Light beam diameter

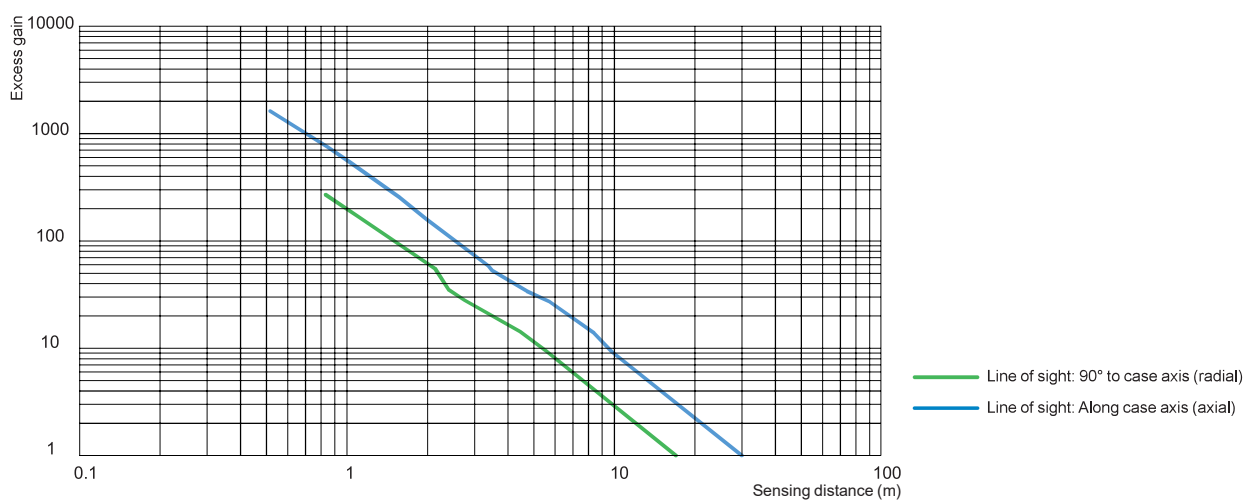


Ø Spot diameter

Line of sight: 90° to case axis (radial)

Line of sight: along case axis (axial)

Excess gain



Line of sight: 90° to case axis (radial)

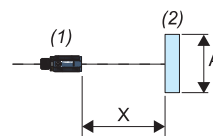
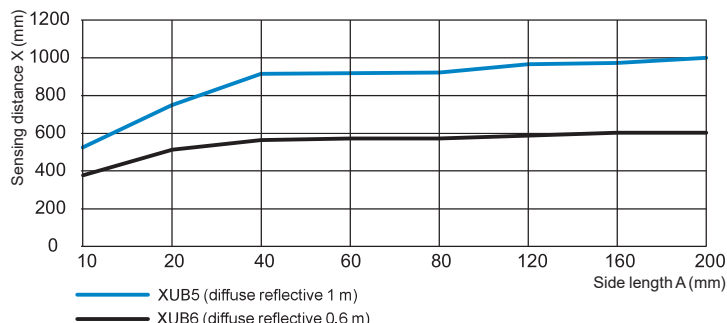
Line of sight: Along case axis (axial)

XUB general purpose, single mode function

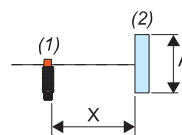
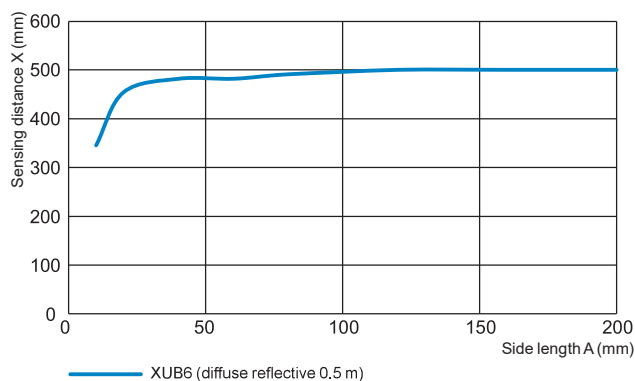
Cylindrical miniature design 18

Four-wire DC, solid-state output

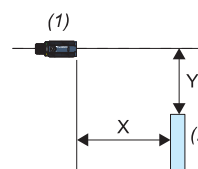
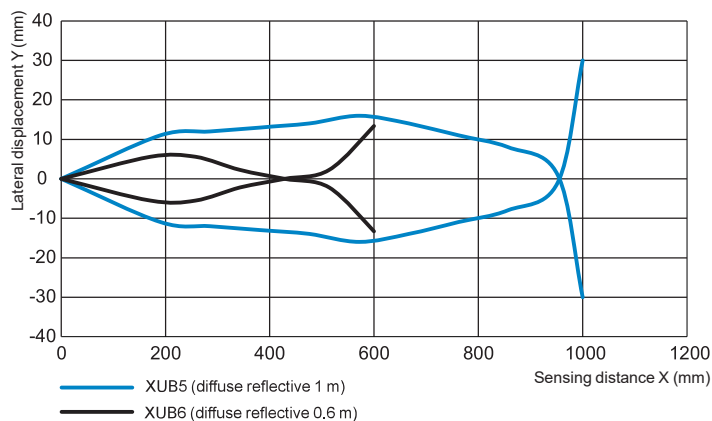
Wire setting for NO/NC

Detection curves (continued)**Diffuse system: XUB5 and XUB6****Minimum object size/sensing distance. Line of sight: along case axis (axial)**

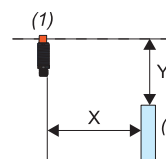
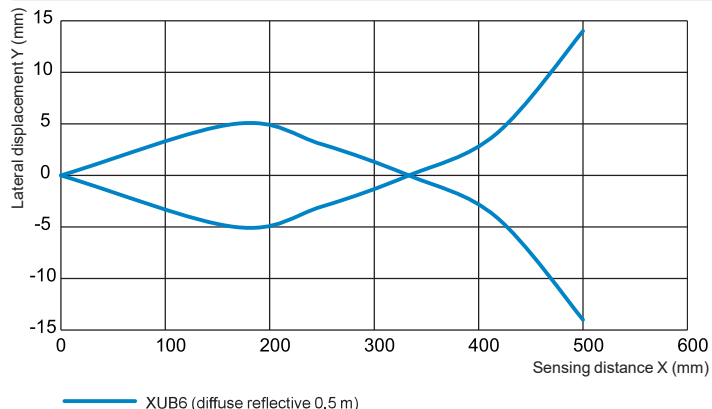
(1): Sensor
 (2): Object (white matt paper of A mm square)
 A: Side length (mm)
 X: Sensing distance (mm)

Minimum object size/sensing distance. Line of sight: 90° to case axis (radial)

(1): Sensor
 (2): Object (white matt paper of A mm square)
 A: Side length (mm)
 X: Sensing distance (mm)

Lateral displacement. Line of sight: along case axis (axial)

(1): Sensor
 (2): Object (200 mm square white paper)
 X: Sensing distance (mm)
 Y: Lateral displacement (mm)

Lateral displacement. Line of sight: 90° to case axis (radial)

(1): Sensor
 (2): Object (200 mm square white paper)
 X: Sensing distance (mm)
 Y: Lateral displacement (mm)

Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18

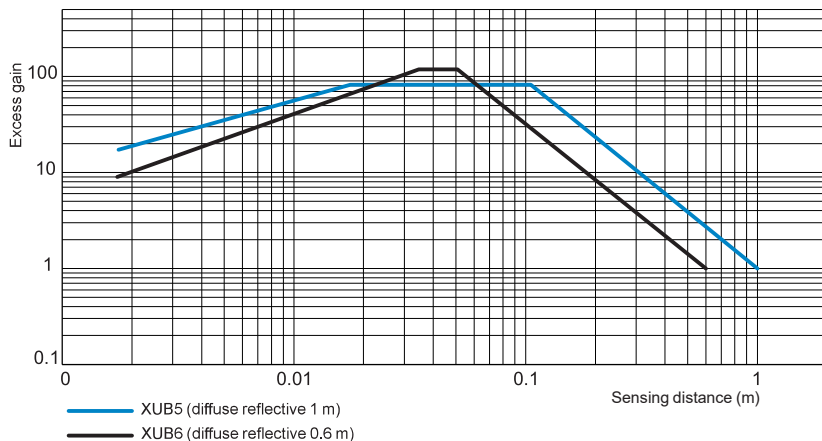
Four-wire DC, solid-state output

Wire setting for NO/NC

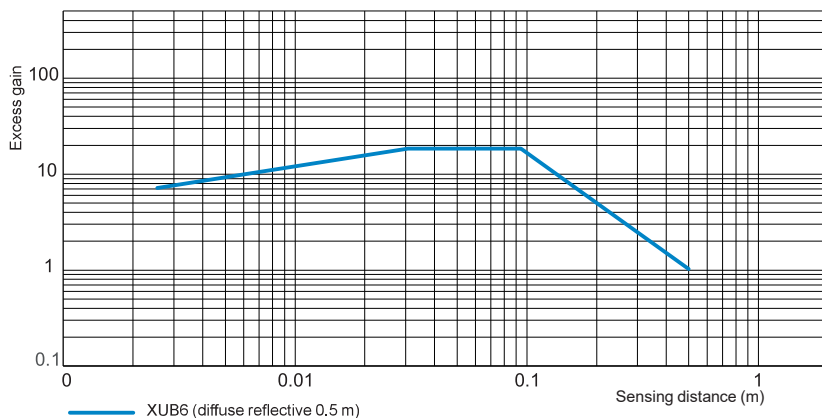
Detection curves (continued)

Diffuse system: XUB5 and XUB6 (continued)

Excess gain. Line of sight: along case axis (axial)



Excess gain. Line of sight: 90° to case axis (radial)



Polarised reflex system: XUB9

Reflector angle. Line of sight: along case axis (axial)

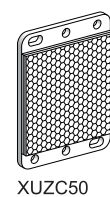
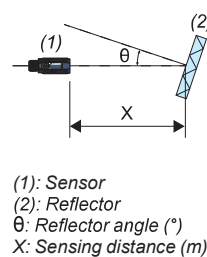
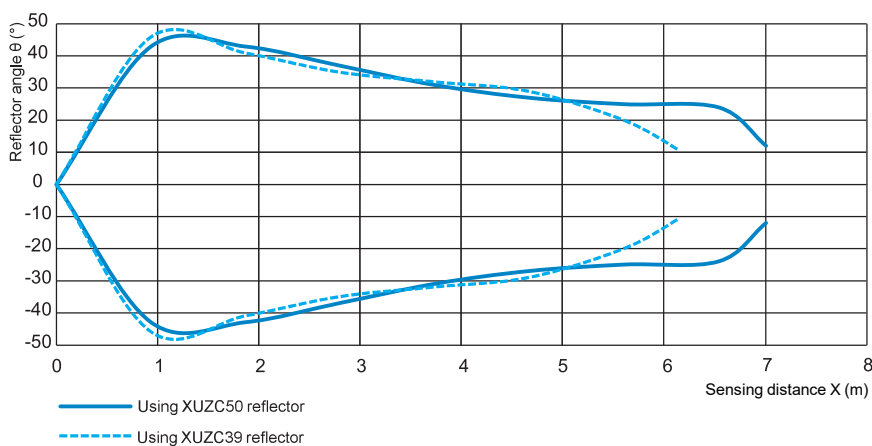


Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18

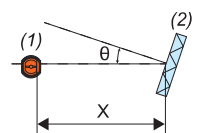
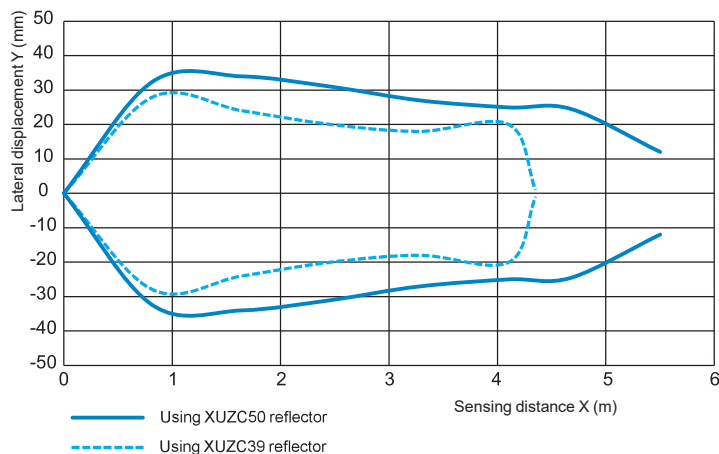
Four-wire DC, solid-state output

Wire setting for NO/NC

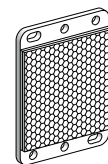
Detection curves (continued)

Polarised reflex system: XUB9 (continued)

Reflector angle. Line of sight: 90° to case axis (radial)



(1): Sensor
(2): Reflector
 θ : Reflector angle (°)
X: Sensing distance (m)

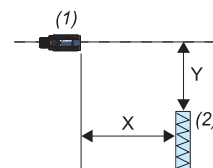
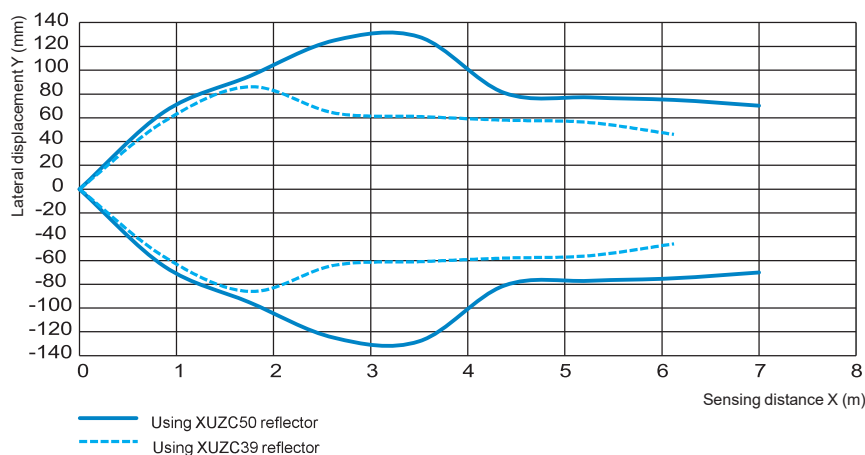


XUZC50

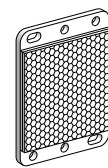


XUZC39

Lateral displacement. Line of sight: along case axis (axial)



(1): Sensor
(2): Reflector
Y: Lateral displacement (mm)
X: Sensing distance (m)

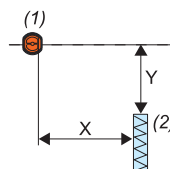
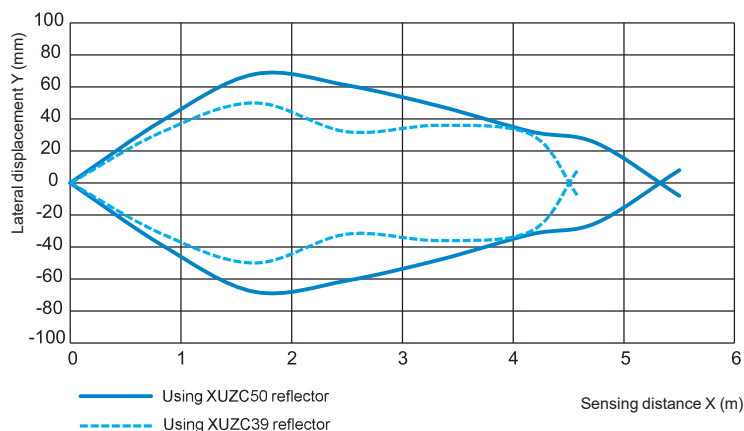


XUZC50

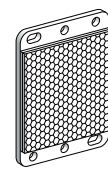


XUZC39

Lateral displacement. Line of sight: along case axis (axial)



(1): Sensor
(2): Reflector
Y: Lateral displacement (mm)
X: Sensing distance (m)



XUZC50



XUZC39

Photo-electric sensors
XUB general purpose, single mode function
Cylindrical miniature design 18, plastic
Four-wire DC, solid-state output
Wire setting for NO/NC

Detection curves (continued)

Polarised reflex system: XUB9 (continued)

Excess gain

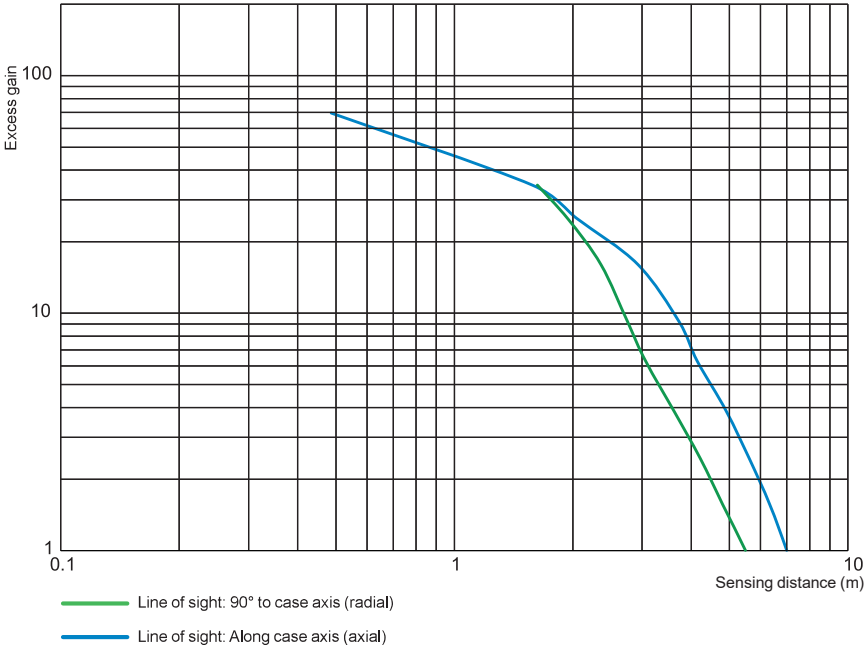


Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18, plastic

Four-wire DC, solid-state output

Wire setting for NO/NC

Thru-beam system, plastic, M12 connector version

Line of sight: along case axis (axial)

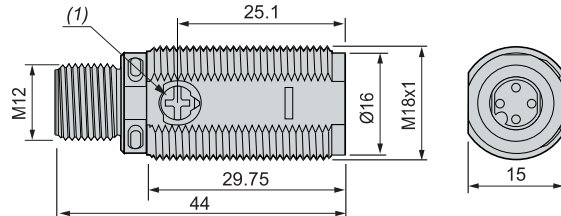
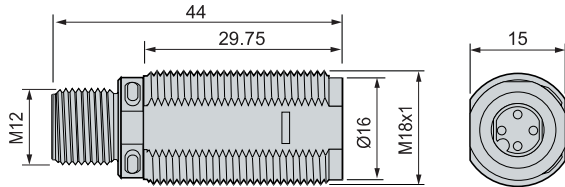
Kits Transmitter + Receiver: XUB2ANXNM12, XUB2APXNM12, XUB2APYNM12

Transmitter

XUB2AKXNM12T

Receiver

XUB2APYNM12R, XUB2ANXNM12R, XUB2APXNM12R



Line of sight: 90° to case axis (radial)

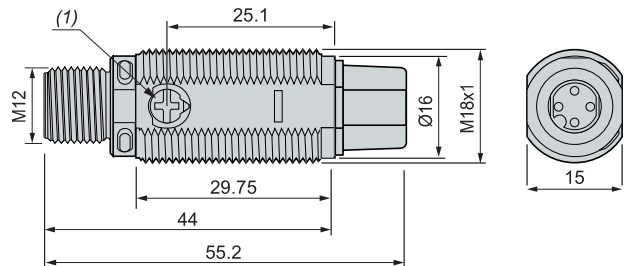
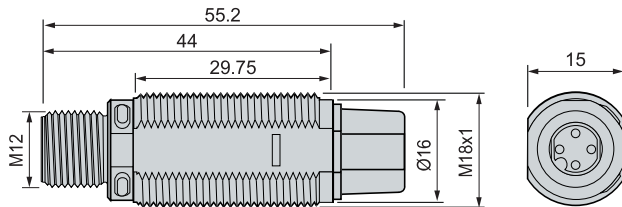
Kit Transmitter + Receiver: XUB2ANXWM12

Transmitter

XUB2AKXWM12T

Receiver

XUB2APYWM12R, XUB2ANXWM12R, XUB2APXWM12R



Thru-beam system, plastic, pre-cabled version

Line of sight: along case axis (axial)

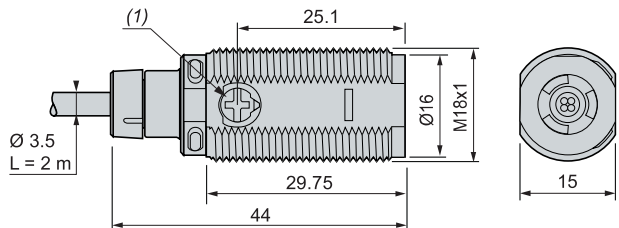
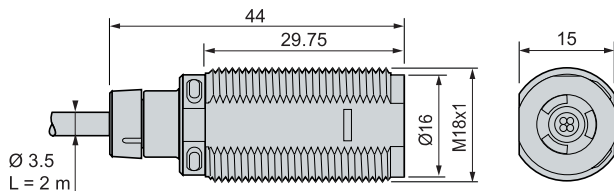
Kit Transmitter + Receiver: XUB2ANXNL2, XUB2APXNL2

Transmitter

XUB2AKXNL2T

Receiver

XUB2ANXNL2R, XUB2APXNL2R



Pre-cabled version, line of sight 90° to case axis

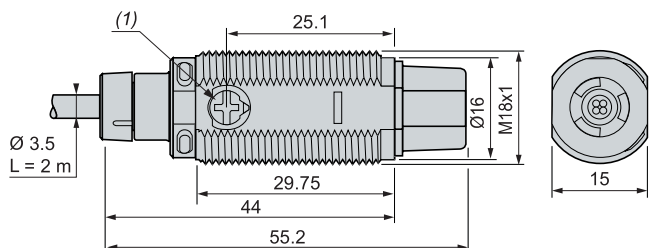
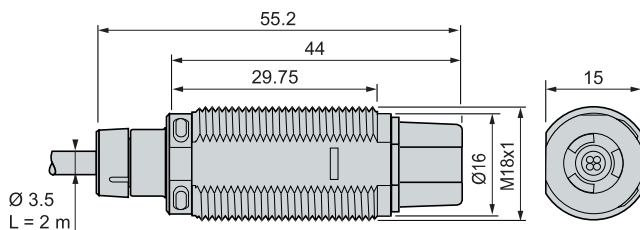
Kits Transmitter + Receiver: XUB2APXWM12, XUB2APYWM12, XUB2ANXWL2, XUB2APXWL2

Transmitter

XUB2AKXWL2T

Receiver

XUB2ANXWL2R, XUB2APXWL2R



(1) Potentiomètre de réglage (sensibilité)

Thru-beam system, metal, M12 connector version

Line of sight: along case axis (axial)

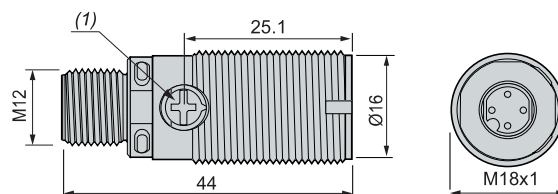
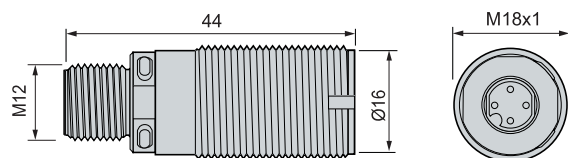
Kits Transmitter + Receiver: XUB2BPXNM12, XUB2BNXNM12, XUB2BPYNM12

Transmitter

XUB2BKXNM12T

Receiver

XUB2BPYNM12R, XUB2BNXNM12R, XUB2BPXNM12R



Line of sight: 90° to case axis (radial)

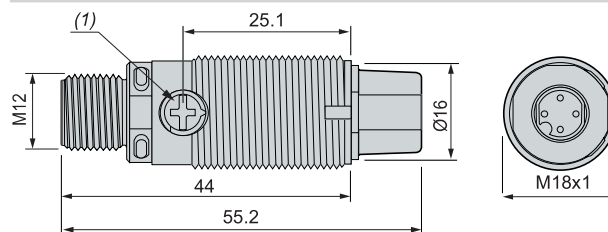
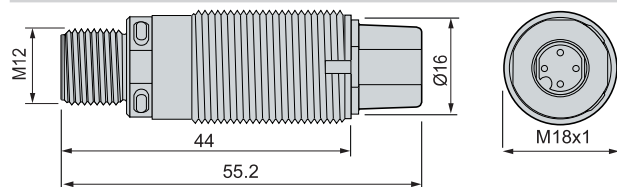
Kits Transmitter + Receiver: XUB2BNXWM12, XUB2BPYWM12, XUB2BPXWM12

Transmitter

XUB2BKXWM12T

Receiver

XUB2BPYWM12R, XUB2BNXWM12R, XUB2BPXWM12R



Thru-beam system, metal, pre-cabled version

Line of sight: along case axis (axial)

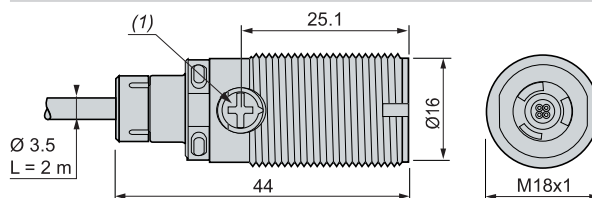
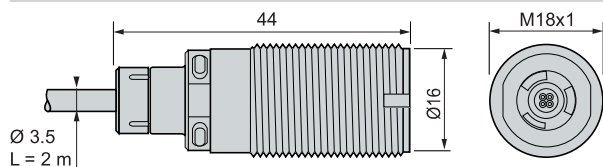
Kits Transmitter + Receiver: XUB2BNXNL2, XUB2BPXNL2

Transmitter

XUB2BKXNL2T

Receiver

XUB2BNXNL2R, XUB2BPXNL2R



Pre-cabled version, line of sight 90° to case axis

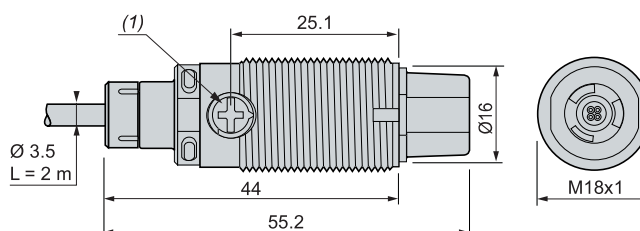
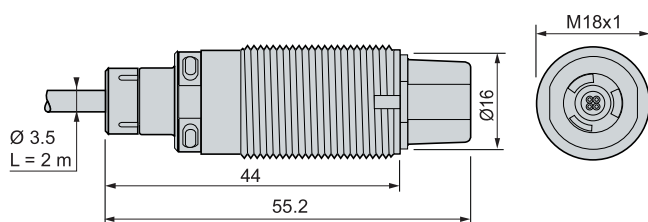
Kits Transmitter + Receiver: XUB2BNXWL2, XUB2BPXWL2

Transmitter

XUB2BKXWL2T

Receiver

XUB2BNXWL2R, XUB2BPXWL2R



(1) Potentiomètre de réglage (sensibilité)

Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18

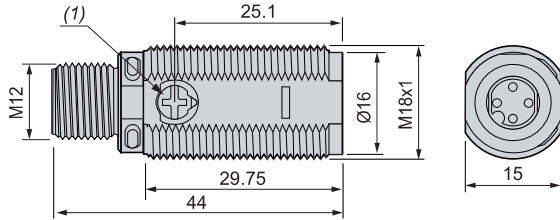
Four-wire DC, solid-state output

Wire setting for NO/NC

Diffuse system, plastic, M12 connector version

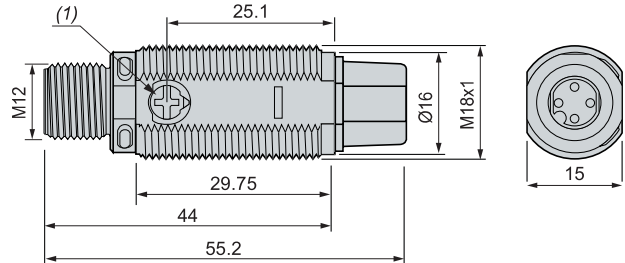
Line of sight: along case axis (axial)

XUB5ANXNM12, XUB6ANXNM12, XUB5APXNM12, XUB6APXNM12, XUB5APYNM12 and XUB6APYNM12



Line of sight: 90° to case axis (radial)

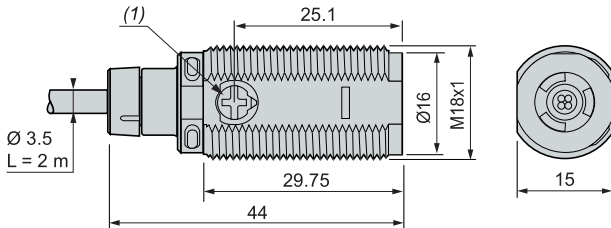
XUB6ANXWM12, XUB6APXWM12 and XUB6APYWM12



Diffuse system, plastic, pre-cabled version

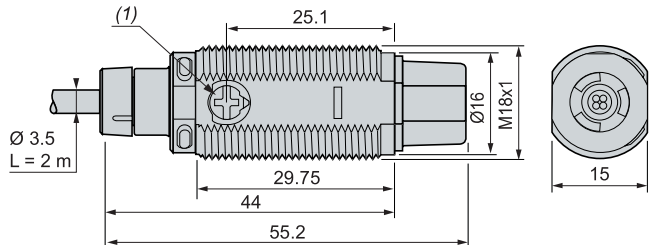
Line of sight: along case axis (axial)

XUB5ANXNL2, XUB6ANXNL2, XUB5APXNL2 and XUB6APXNL2



Line of sight: 90° to case axis (radial)

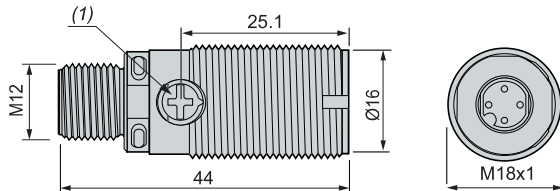
XUB6ANXWL2 and XUB6APXWL2



Diffuse system, metal, M12 connector version

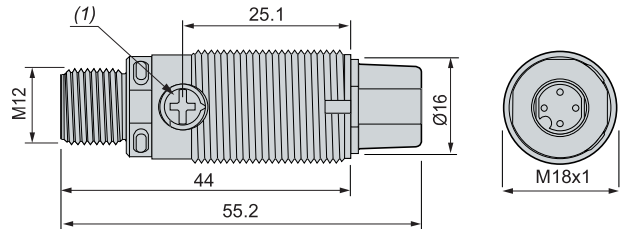
Line of sight: along case axis (axial)

XUB5BNXNM12, XUB6BNXNM12, XUB5BPXNM12, XUB6BPXNM12, XUB5BPYNM12 and XUB6BPYNM12



Line of sight: 90° to case axis (radial)

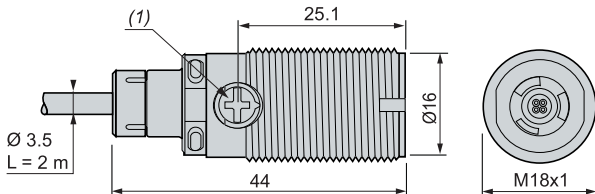
XUB6BNXWM12, XUB6BPXWM12 and XUB6BPYWM12



Diffuse system, metal, pre-cabled version

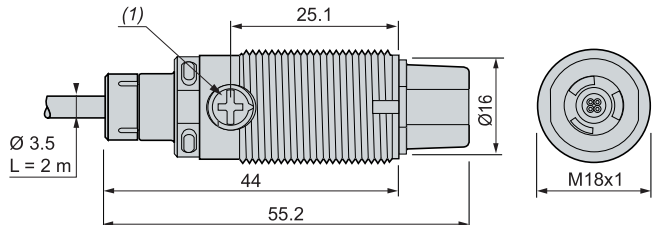
Line of sight: along case axis (axial)

XUB5BNXNL2, XUB6BNXNL2, XUB5BPXNL2 and XUB6BPXNL2



Line of sight: 90° to case axis (radial)

XUB6BNXWL2 and XUB6BPXWL2



(1) Adjustment potentiometer (sensitivity).

Photo-electric sensors

XUB general purpose, single mode function

Cylindrical miniature design 18

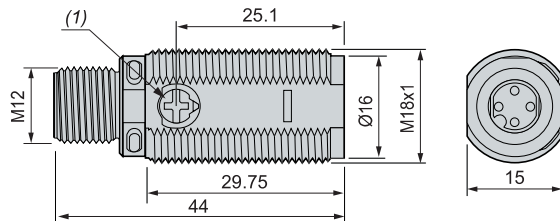
Four-wire DC, solid-state output

Wire setting for NO/NC

Polarised reflex system, plastic, M12 connector version

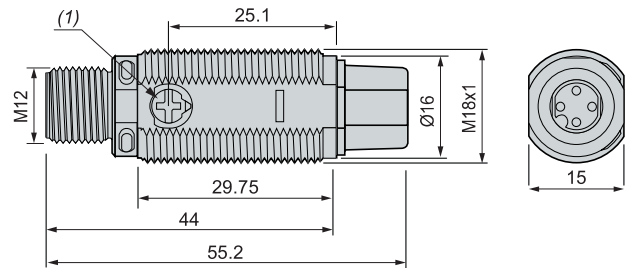
Line of sight: along case axis (axial)

XUB9ANXNM12, XUB9APXNM12 and XUB9APYNM12



Line of sight: 90° to case axis (radial)

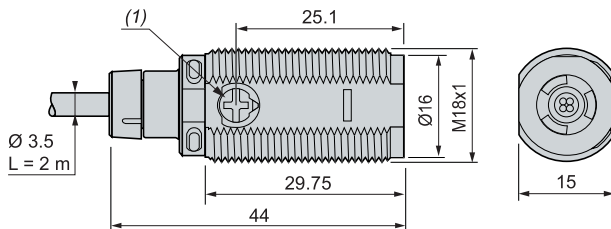
XUB9ANXWM12, XUB9APXWM12 and XUB9APYWM12



Polarised reflex system, plastic, pre-cabled version

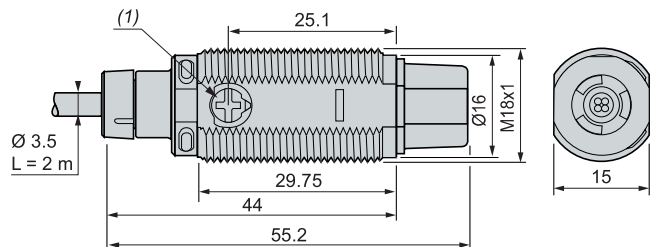
Line of sight: along case axis (axial)

XUB9ANXNL2 and XUB9APXNL2



Line of sight: 90° to case axis (radial)

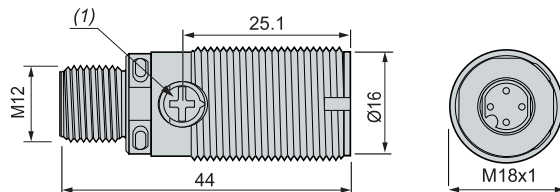
XUB9ANXWL2 and XUB9APXWL2



Polarised reflex system, metal, M12 connector version

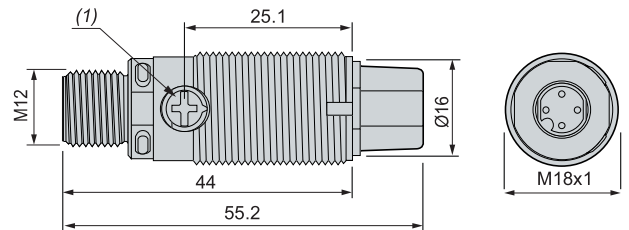
Line of sight: along case axis (axial)

XUB9BNXNM12, XUB9BPXNM12 and XUB9BPYNM12



Line of sight: 90° to case axis (radial)

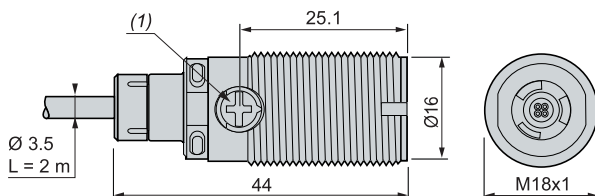
XUB9BNXWM12, XUB9BPXWM12 and XUB9BPYWM12



Polarised reflex system, metal, pre-cabled version

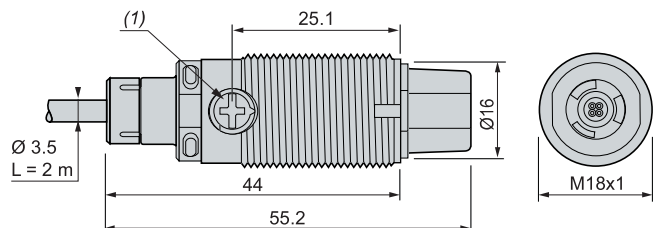
Line of sight: along case axis (axial)

XUB9BNXNL2 and XUB9BPXNL2



Line of sight: 90° to case axis (radial)

XUB9BNXWL2 and XUB9BPXWL2



(1) Adjustment potentiometer (sensitivity).