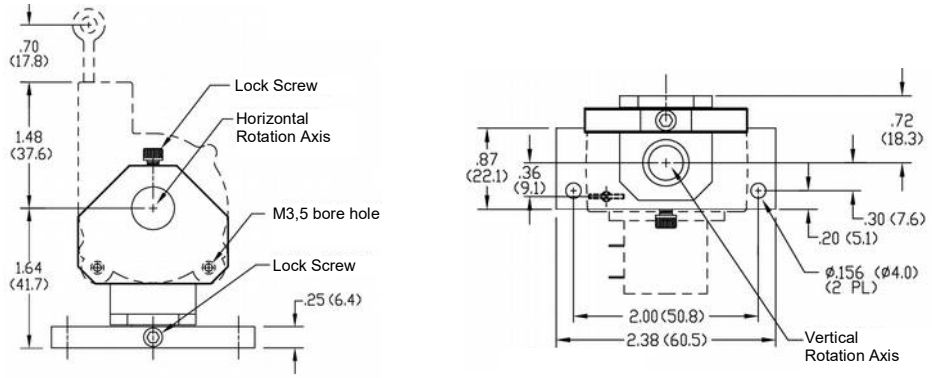
INSTALLATION GUIDE

Draw wire sensors series LX

For further information please see the data sheet at www.waycon.biz/products/draw-wire-sensors

ACCESSORIES

LX-Mount



Dimensions in brackets are millimeters

DECLARATION OF EC-CONFORMITY

WayCon Positionsmesstechnik GmbH
Mehlbeerenstrasse 4
82024 Taufkirchen / Germany

This is to certify that the products

Classification	draw wire sensor
Product series	LX

fulfill the current request of the following EC-directives:
EMC-directive 2004/108/EU (until April 19th, 2016)
2014/30/EU (from April 20th, 2016)
applied harmonized standards:
EN 61326-1: 2013

The declaration of conformity loses its validity if the product is misused or modified without proper authorisation.

Taufkirchen, 24.02.2016

Andreas Täger
CEO

FIRST STEPS

WayCon Positionsmesstechnik GmbH would like to thank you for the trust you have placed in us and our products. This manual will make you familiar with the installation and operation of our draw wire sensors. Please read this manual carefully before initial operation!

Unpacking and checking:
Carefully lift the device out of the box by grabbing the housing. Do not pull the rope. After unpacking the device, check it for any visible damage as a result of rough handling during the shipment. Check the delivery for completeness.
If necessary consult the transportation company, or contact WayCon directly for further assistance.

MOUNTING OF THE SENSOR

Mount the sensor at the designated place before extracting the rope and before attaching the rope to the measuring target.

A) The sensor can be mounted by using the two bore holes in the housing. Use two M3,5 screws and flat washers. A maximum torque of 0.56 Nm is recommended.

B) LX-Mount (two axis swivel base). With a capability of 360° rotation about the vertical axis and 245° rotation about the horizontal axis, the LX-Mount allows easy setup of the LX-PA or the LX-EP transducer. The axes may be locked in place after the transducer is oriented.

After mounting the LX sensor in its place, carefully tear the wire rope out of the sensor (do not let the wire rope snap back!) and attach it to the target. The eyelet at the end of the wire rope can be pulled onto a hook, or be fixed to the target using a screw. Do not bend the wire rope leaving the eyelet.

HANDLING THE WIRE ROPE

When installing or operating the sensor, take care not to let the rope snap back by mistake or extract the wire rope over the specified measurement range, as this might destroy the sensor.

The rope must be extracted from the sensor vertically. The maximum variation from the vertical is 2°. Avoid carefully extracting the rope at an inclination, since the durability of the instrument would shorten considerably. If it is not possible to keep the limit of 2°, a deflection pulley has to be used.

The measurement range starts after the wire rope is pulled out at least 0.4 mm.

Guide the rope preferably in corners or guarded in channels to prevent pollution or accidental touch.

Avoid guiding the rope over edges or corners. Use a deflection pulley instead.

Do not operate the sensor if the rope is buckled or damaged. A ripping of the rope may lead to injuries or a damaging of the sensor.

WayCon Positionsmesstechnik

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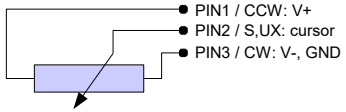
ELECTRICAL CONNECTION

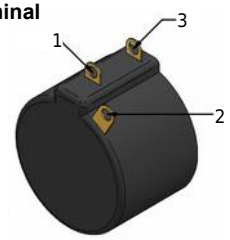
LX-PA: general information

Power supply: max. 25 V
Output signal: 0...1 kOhm
Inverted signal: reverse PIN1 and PIN3

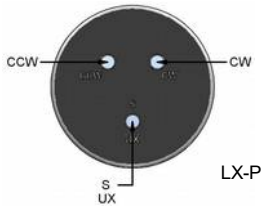


It is generally recommended that shielded, twisted pair cabling be used between transducer and electrical interface. The shield should remain open at the transducer and be tied to ground at the electrical interface.
Units with ranges 120 mm and less employ a single turn potentiometer which has no stops. On these units the wire rope will extend to a total length of approximately 200 to 250 mm. When extension beyond the specified measurement range occurs, the cursor of the potentiometer traverses a deadband after which the electrical output begins again.

LX-PA with solder terminal



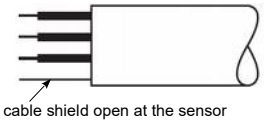
LX-PA-10 to LX-PA-50



LX-PA-2 to LX-PA-4,7

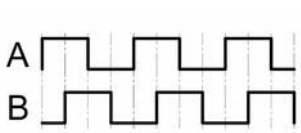
LX-PA with cable output

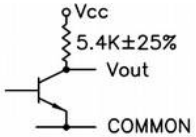
Function	Cable colour
V+	red
V-, GND	black
cursor	w hite

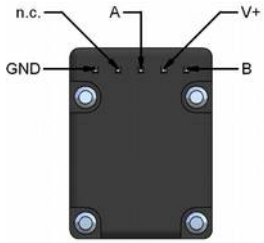


LX-EP

Power supply: 5 VDC ±0.25 VDC
Excitation current: max. 30 mA
Connection cables: see accessories in the data sheet.

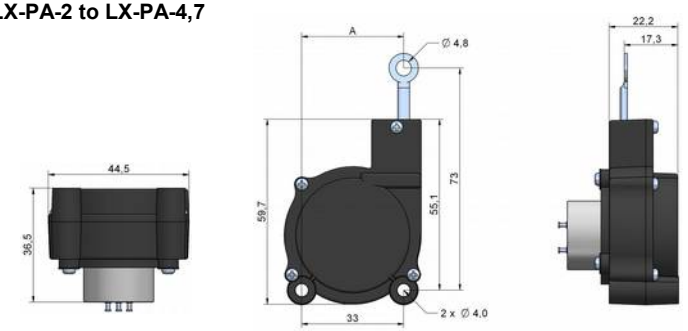






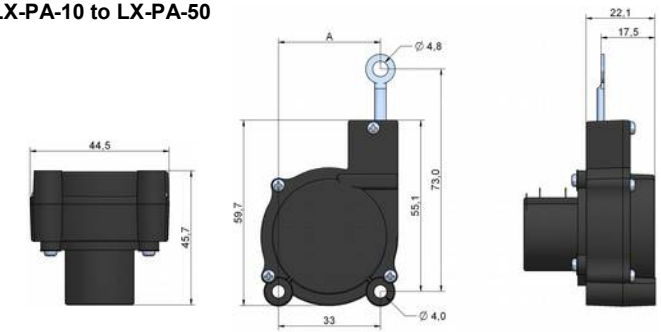
TECHNICAL DRAWING

LX-PA-2 to LX-PA-4,7



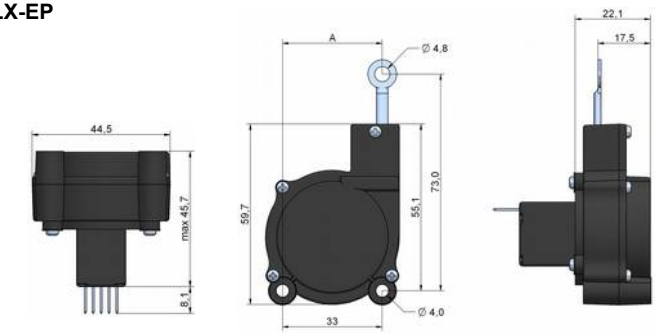
Length A	Range
25.7 mm	50 mm
29.0 mm	70 mm
33.0 mm	96 mm
37.1 mm	120 mm

LX-PA-10 to LX-PA-50



Length A	Range
25.7 mm	250 mm
29.0 mm	380, 750 mm
33.0 mm	500, 1000 mm
37.1 mm	625, 1250 mm

LX-EP



Length A	Range
25.7 mm	250 mm
29.0 mm	380, 750 mm
33.0 mm	500, 1000 mm
37.1 mm	625, 1250 mm

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