

INSTALLATION GUIDE

ACX50, ACX80, ACX120 DRAW WIRE SENSORS

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Draw wire sensors series ACX50, ACX80, ACX120

FIRST STEPS

Encoder Products Company 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!

Carefully lift the device out of the box by the housing. Do not pull the wire. After unpacking the device, check it for any visible damage as a result of rough handling during shipment. Check the package to insure that all parts have been included. If necessary, contact Encoder Products Company directly for further assistance.

MOUNTING OF THE SENSOR

- Mount the sensor at the designated place by using the fixing holes before extracting the rope and before attaching the rope to the measuring target.
- The sensor is usually installed by using the regular mounting plate. By disassembling the mounting plate, threads will become visible in the sensor housing for alternative installation. Sensors with option rope outlet S2 and S3 have a modified base plate.
- Open the rope clip after the sensor is fully mounted and carefully extract the measuring rope. Hook the rope clip on the measuring target and close the bracket of the clip. For safety reasons put a screw driver through the clip to extract the rope.

HANDLING THE WIRE ROPE

- When installing or operating the sensor, take care not to let the rope snap back by mistake or extract the 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 3°. Avoid 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 3°, a deflection pulley has to be used.
- 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.

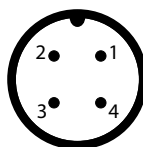
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ELECTRICAL CONNECTION ANALOG OUTPUT

Cable output cable colours	Connector output M12, male	Potentiometer output	Voltage output	Current output	Voltage output (teachable)
BN	Pin 1	+V	+V	+V	+V
WH	Pin 2	Cursor	Signal	n. c.	Signal
BU	Pin 3	GND	GND	Signal	GND
BK	Pin 4	n. c.	GND _{Signal}	n. c.	MFL ¹⁾

¹⁾ Multi-functional line

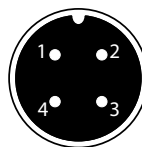


ACCESSORIES CABLE

Analog output

Cable with mating connector M12 (female), 4 poles

K4P2M-S-M12	2 m, straight connector, IP67, shielded
K4P5M-S-M12	5 m, straight connector, IP67, shielded
K4P10M-S-M12	10 m, straight connector, IP67, shielded
K4P2M-SW-M12	2 m, angular connector, IP67, shielded
K4P5M-SW-M12	5 m, angular connector, IP67, shielded
K4P10M-SW-M12	10 m, angular connector, IP67, shielded



Pin	Cable colour
1	BN
2	WH
3	BU
4	BK

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WARNING NOTICES

- Do not try to open the device. The stored energy of the spring drive may lead to injuries when being mishandled.
- Do not touch the rope when operating the sensor.
- When mounting outdoors protect the sensor and the rope from icing at temperatures below 0 °C. The usage of a deflection pulley may help defrosting the wire rope.
- When operating the sensor in a humid environment, install the sensor with the rope outlet downwards. Otherwise water will gather inside the housing, which leads to corrosion. Where applicable use option S3.

MAINTENANCE

The devices are maintenance-free. If however, the rope is soiled due to adverse environmental conditions, it can be cleaned with a cloth drenched in resin-free machine oil.