

TX2 Manual

1 General description

The TX2 series is a potentiometric transducer for direct, precise and absolute measurement of displacements or stroke lengths in control and measurement applications.

2 Safety instructions

2.1 Intended use

The TX2 transducer is intended to be installed in a machine or system. Together with a controller (PLC) it comprises a position measuring system and may only be used for this purpose.

In case of unauthorized modifications, non-permitted usage or non-observance of the instructions for use, the warranty and liability claims will be lost.

2.2 Installation and startup

The linear transducer must be installed by qualified personnel and with consideration of all valid safety regulations.

All personal and property protection measures in case of a transducer defect or failure must be taken before startup.

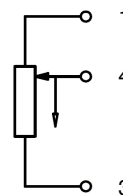
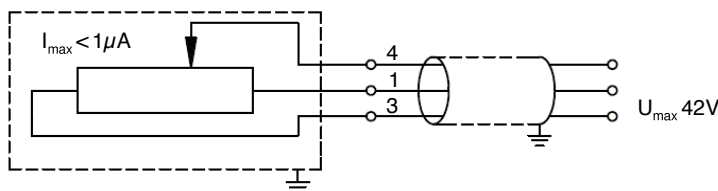
2.3 Electrical connections

The supply voltage must be applied only at the terminals provided. The shielding of the connecting cable must be connected to ground level.

Incorrect connections and overvoltage can damage the components. Please always check the connections carefully before turning on the system.

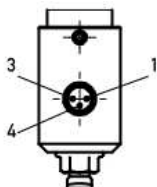
3 Installation

3.1 Wiring diagram



Voltage divider free of load!

3.2 Pin assignment



PIN	cable Code 2XX	connector w. cable EEM 33-64, EEM 33-65	falling signal	rising signal
1	brown	brown	supply	GND
4	white	black	Signal	Signal
3	green	blue	GND	supply



Customized cable may show different color coding.

Extension of the cable demands a sufficient shielding. Shown configuration for extended position of the actuating rod. Use 3-pin M8x1-mating connector with protection class IP67 or higher.

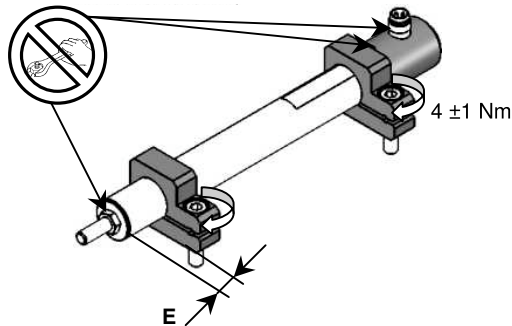
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4 Mechanical installation

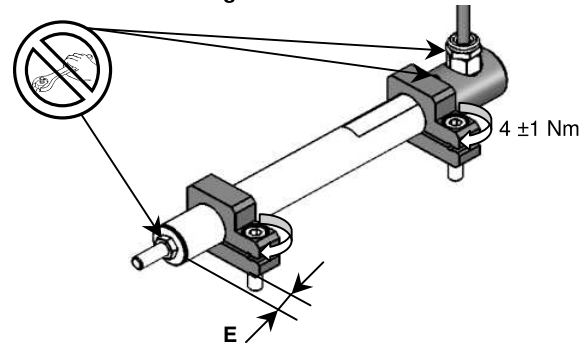
4.1 Position transducer with mounting clamp

Included in delivery: 2x mounting clamps incl. 2x head cap screws M5x20

TX2 xxxx 717 002 101
xxxx = nominal length



TX2 xxxx 717 002 202
xxxx = nominal length



TX2 xxxx 717 002 xxx	25	50	75	100	150	200	250	300	
E min. dimension E	15	20	25	35	35	35	35	35	mm



The fixed nut on the actuating rod is used as a **mechanical end stop**.

Adjustment of this nut can lead to **damage** of the transducer.

Do not lubricate the actuating rod!

Take care to avoid **natural resonance** of the sensor, this can lead to damages of the sensor mechanics.

The **protection class IP67** was determined as new condition according to DIN EN 60529 standards:
1 meter water depth, duration 0.5h.

- ▶ High **variations in temperature** can lead to condensed moisture in the transducer which could impair or destroy the function of the transducer.
- ▶ Adhesive dirt at the actuating rod can lead to damage at the sealing elements.
- ▶ No permanent immersion permissible.
- ▶ Due to the bearing- and sealing concept of the linear transducer it can be tight to operate but this has no negative influence on the function of the linear transducer.

5 Accessories (order separately)

- Straight connector 3-pin M8x1 with cable, 2m (EEM 33-64, IP 67; P/N 005617)
- Angled connector 3-pin M8x1 with cable, 2m (EEM 33-65, IP 67; P/N 005618)
- Pivot head, with internal screw thread M5 (Z-G01; P/N 056014)
- Ball coupling (Z301, M5/M5; P/N 058002)