

## Accessory: external linear position sensor

Type: ZHW

**NEW**



The external linear position sensor provides highly accurate absolute instantaneous position feedback of the working rod in the TOX®-Powerpackage, even after power failure. The linear position sensor can be easily mounted externally on the tie

rods of the TOX®-Powerpackage to sense the position of the press. It is also possible to combine this linear position sensor with the end position sensor option ZHU (see TOX®-Powerpackage data sheet 10.00).

Data  
sheet  
10.15

2010/12

### Advantages:

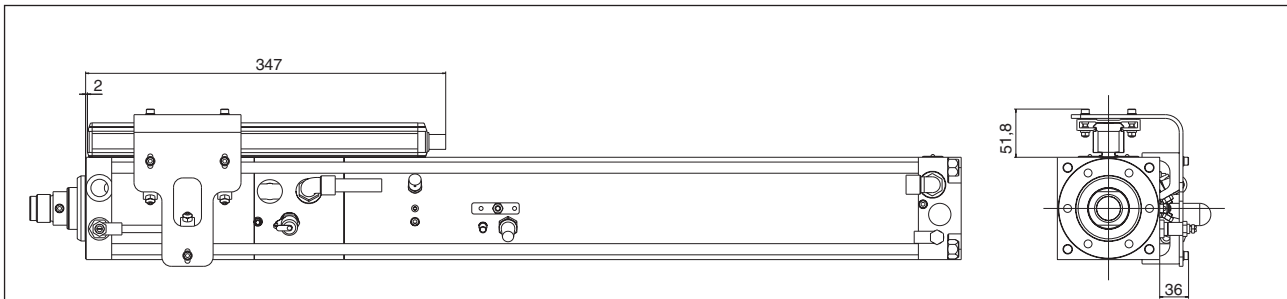
The linear position sensor provides non-contact sensing technology resulting in the following features:

- +wear free
- +resistant to contamination

### Function:

All TOX®-Powerpackage cylinders line-Q and type RZS feature a special barrel and a magnet on the working rod to sense the position of the rod.

## Technical Data



The linear position sensor is mounted on the front service side of the TOX®-Powerpackage. The sensor can be mounted on either of 3 sides for the TOX®-Powerpackage type Q-S, RZS and on 2 sides of the type Q-K.

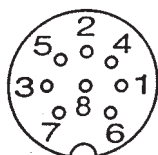
### Technical Data - linear position sensor:

Repeat accuracy:  $\leq \pm 10 \mu\text{m}$   
 Operating voltage:  $24\text{V DC} \pm 20\%$   
 Linear deviation:  $\leq \pm 0,15 \text{ mm}$   
 Output load:  $\leq 5 \text{ mA}$   
 Protection class: IP 67  
 (in connected condition)  
 Output:  
 Output voltage 0 ... 10 V

**Note:** with the option ZHW, the effective total stroke of the TOX®-Powerpackage is reduced by 20 mm. The power stroke remains the same. In order to achieve the described repeat accuracy and linear deviation it is necessary to prevent the working rod of the TOX®-Powerpackage from rotating.

**With optional USB interface:**

2 outputs over USB interface.  
Output 1 for total stroke;  
output 2 freely configurable  
(e.g. for the last 5 mm of the stroke).



View of soldered connection of the bushing body.  
Connector S 32 for shielded cable (max. 20 m) Ø 6 to 8 mm. Right angle connector included with unit.

**Optional interface:**

Simple configuration thru USB interface and PC software:  
+online display of actual position of sensor  
+graphics support for adjusting functions and signature curve  
+simple parameterising  
+freely configurable signature curve  
+2 outputs independently selected and adjusted

**System requirements for interface:**

- standard PC
- operating system Windows 2000/XP/Vista or better
- min. screen resolution 1024 x 768 pixel
- 10 MB free hard drive space
- Java Runtime Environment Version 1.4.2 or newer
- 1 USB port

**Output signal**

pin	cable	
1	YE yellow	not occupied
2	GY grey	0 V
3	PK pink	10 ... 0 V
4	PD red	La (2)
5	GN green	0 ... 10 V

(1) Reference potential for distribution voltage and EMV-GND.

(2) La = Lb = Communication line

**Distribution voltage (external)**

pin	cable	
6	BU blue	GND (1)
7	BN brown	+24 V DC
8	WH white	Lb (2)

**TOX®-Powerpackage with ZHW:**

All TOX®-Powerpackages type line-Q and RZS can be outfitted with the linear position sensor.

**Delivery condition:**

The TOX®-Powerpackage is delivered with the sensor's output voltage of 0 ... 10 V already calibrated for the total stroke.

**Scope of delivery:**

- sensor with cable
- mounting bracket

**Accessories, please order separately:**

- USB interface
- PC software

**Order No.:**

Q-S 002.030.100.12 – ZHW

