HAEHNE

## Product Description

# Force Sensor XYR

### Special Features

- ❒ Simultaneously measurement in X-and Y-direction
- ❒ Flange design, mountable in any rotatable position
- ❒ Overload protection utilising mechanical stops
- ❒ Made of stainless steel

### Scope of Supply

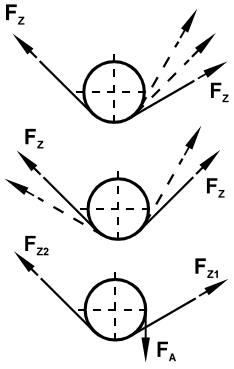
**Force sensor with right angle plug and 5 m cable (PVC)**

### Additional Accessories

- **Bearing support blocks**
- **Radial shaft seal ring**
- **Self-aligning ball bearing**


Digital Controller
Modul DCM

The Dual Axis Web Tension Sensor XYR measures simultaneously in the X-and Y-direction. Traditional radial force sensors measure generally only in one preferred direction. Measuring effects in other directions are typically unwanted because generally they result in measuring errors.
In combination with the HAEHNE Digital Controller Module DCM it is possible to solve difficult Web tension measurement applications such as the following:




Changing wrap angle geometries on the entry or exit side.
Typical applications winding stations. Thus, the XYR sensor makes it possible to dispose of additional idler rolls for providing a constant wrap angle and thereby resulting in a reduction of equipment size and thereby a smaller footprint for machinery and equipment.

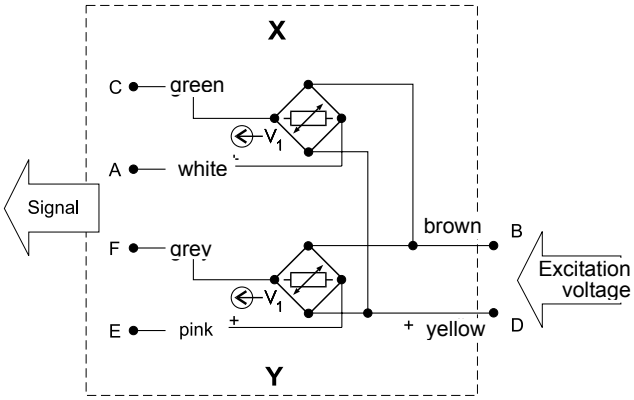
Changing entry and exit wrap angles
however, with constant enlacement angle

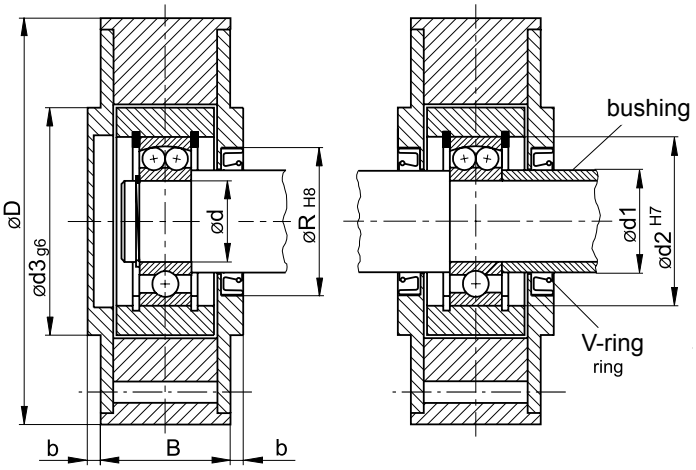
Web tension measurement at driven rolls

Normally the exact measurement of the web tension force is possible only if the measurement roll is not driven thereby providing in both web portions (entry and exit web) the same force. The XYR sensor does away with such limitations. In case of a constant wrap geometry the forces in both web portions (entry and exit web), for instance, created by drive or brake forces can have different values.

*HAEHNE* Elektronische Messgeräte GmbH · Heinrich-Hertz-Str. 29 · D-40699 Erkrath Germany · Telefon 0211/92591-0 · Fax 0211/92591-20
http://www.haehne.de Email: info@haehne.de

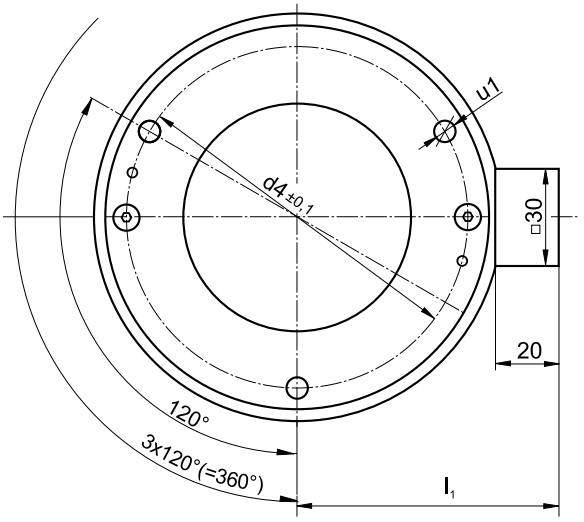
| Technical Data | Values (%) based on nominal force |
|---|---|
| Nominal force (measuring range) | 250. 500; 1000; 2000 N |
| Max. operating force | 150 % |
| Absolute max. force | 500 % |
| Nominal rating | 1,5 mV / V |
| Combined error | 1 % |
| Nominal ambient temperature | +10 ... +60° C |
| Operational temperature range | - 10 ... +70° C |
| Nominal resistance of the strain gauge bridge | 700 Ω |
| Bridge supply voltage | 10 VDC |
| Enclosure protection | IP 50 |



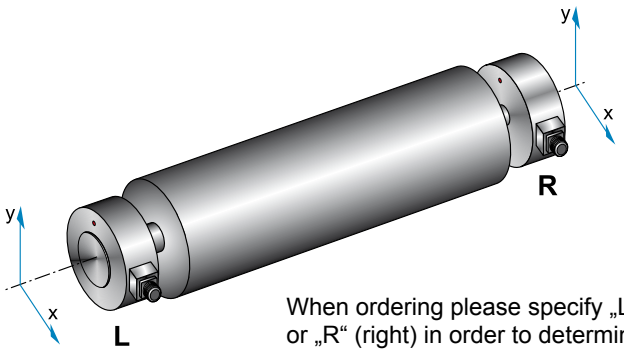




**Design A**
Open cover disk on one side

**Design B**
Open cover disk on both sides




| Size | d | d1 | d2 | d3 | d4 | D | b | B | u1 | R | l1 | recomm. bearing |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15 | 20 | 35 | 70 | 105 | 125 | 4 | 40 | 6,6 | 26 | 81 | 1202 |
| | 17 | 22 | 40 | | | | | | | 28 | | 1203 |




When ordering please specify „L“ (left) or „R“ (right) in order to determine unequivocally the measurement direction.

**Ordering Data**

**XYR1-15R-A500**

- Nominal force in N
- Design
- Measurement Direction
- Shaft-ø
- Size
- Type



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