



US.3

DIAMETRAL SENSOR



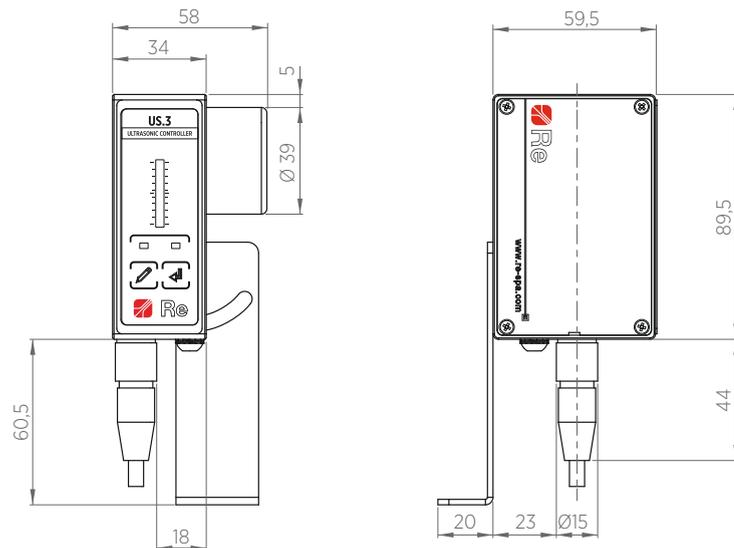
- ✓ Control both closed-loop and open-loop systems
- ✓ Regulation in torque
- ✓ Used with pneumatic or electromagnetic brake/clutch
- ✓ Reliability
- ✓ Compact design
- ✓ Ease of use and calibration

US.3 is an ultrasonic sensor specifically designed to control the web tension in open-loop systems, but it is widely used to support also closed-loop tension control.

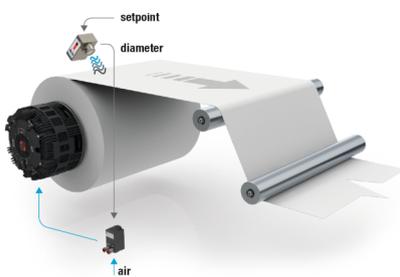
The sensor, emitting an ultrasonic pulse toward the reel, captures the signal reflected and calculates roll diameter. US.3 gives an analogue signal proportional to diameter/distance, which directly controls the brake or clutch, and so regulates the web tension depending on the remote setpoint.

The sensor is equipped with an easy structured interface with a led bar and two keys, in order to simplify the calibration and make its operation user friendly. Moreover US.3 can be programmed and calibrated by pc.

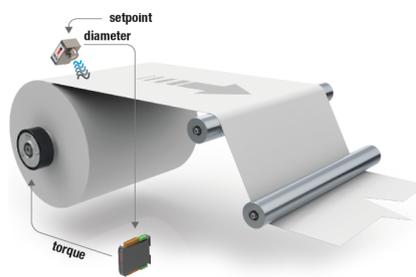
TECHNICAL DRAWING



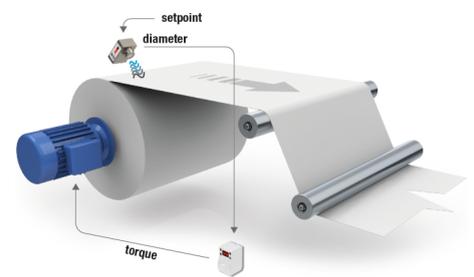
APPLICATIONS



Regulation in torque with pneumatic brake



Regulation in torque with electromagnetic brake



Regulation in torque for motorized unwinders/rewinders

TECHNICAL DATA

| | |
|--|----------------------------------|
| Power supply | 24 Vdc |
| Absorption | 80 mA |
| Working frequency | 125 kHz |
| Measurable distance | Min. 150 mm a 25° Max 1800 mm |
| Resolution | 0,50 mm |
| Analog input 0÷10 Vdc | 1 remote setpoint |
| Analog output 0÷10 Vdc / 4÷20 mA | 1 open-loop torque control |
| Analog output 0÷10 Vdc | 1 diameter proportional |
| Digital output (NPN) with program. threshold | 2 for alarms |
| Serial gate for connection to PC | RS485 |
| Opening angle to the axis | +/- 10° |
| Weight | 280 g |
| Working temperature | 0÷50°C |
| IP protection class | IP 54 |
| Dimensions | 58 x 90 x 60 mm |
| 10 poles cable with connector | 5 o 10 m |

*Data are subject to technical change without notice



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