



US.3

DIAMETRAL SENSOR



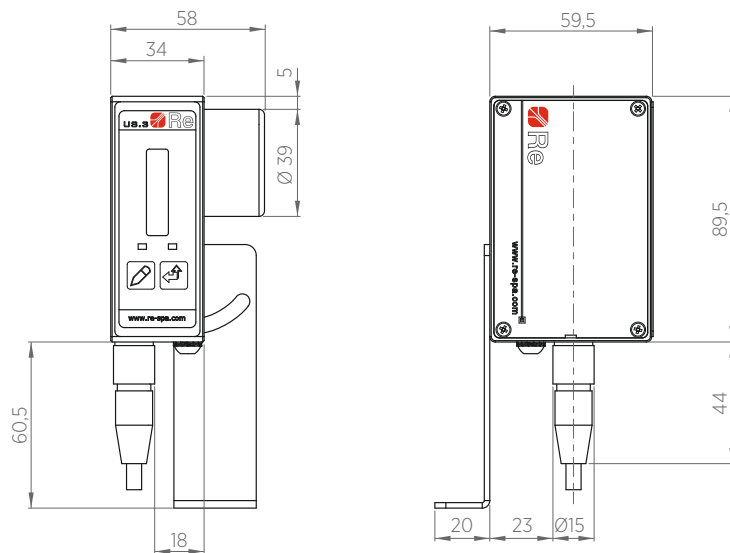
- ✓ Control both closed-loop and open-loop systems
- ✓ Regulation in torque
- ✓ Used with pneumatic or electromagnetic brake/clutch
- ✓ Reliability
- ✓ Compact design
- ✓ Ease of use and calibration

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.

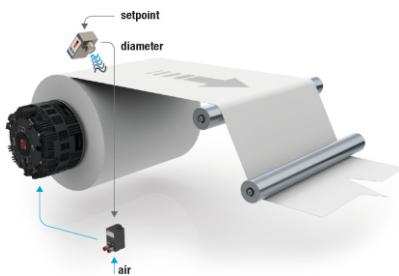
The sensor, emitting an ultrasonic pulse toward the reel, captures the signal reflected and calculates roll diameter. US.3 gives an analogue signal proportional to diameter/distance, which directly controls the brake or clutch, and so regulates the web tension depending on the remote setpoint.

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.

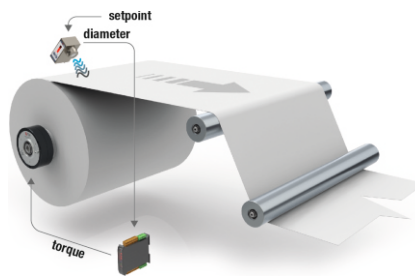
TECHNICAL DRAWING



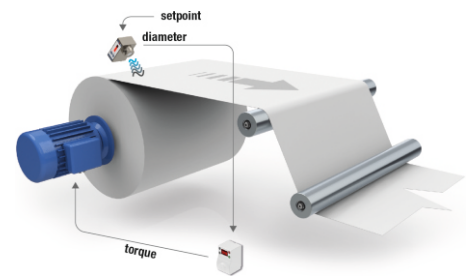
APPLICATIONS



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
Power	2 W max
Working frequency	125 kHz
Measurable distance	Min. 150 mm a 25° Max 1800 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 miniaturized connector	5 o 10 m

*Data are subject to technical change without notice



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