



# 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

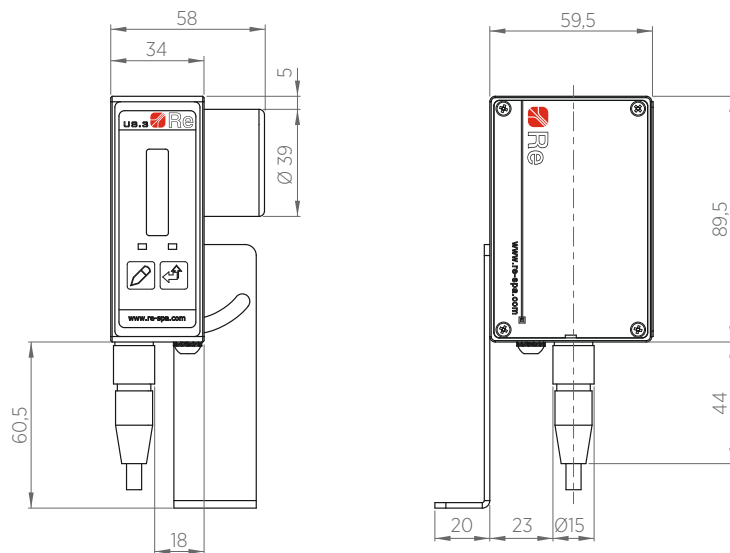
US.3 is an ultrasonic sensor specifically designed to control the web tension in open-loop systems, but it is widely used to support also closed-loop tension control.

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.

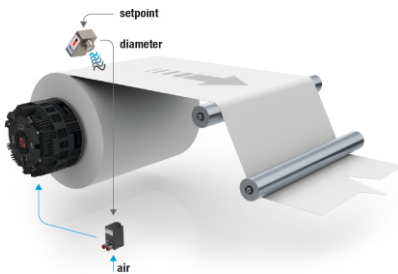
The sensor is equipped with an easy structured interface with a led bar and two keys, in order to simplify the calibration and make its operation user friendly.

Moreover US.3 can be programmed and calibrated by pc.

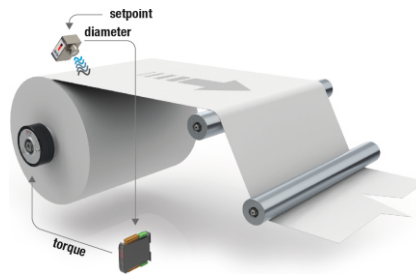
## TECHNICAL DRAWING



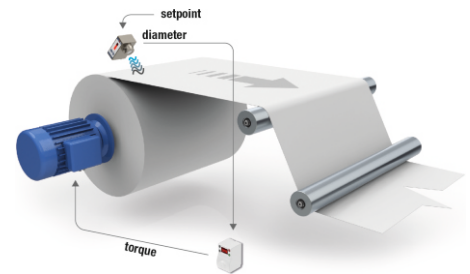
## APPLICATIONS



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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