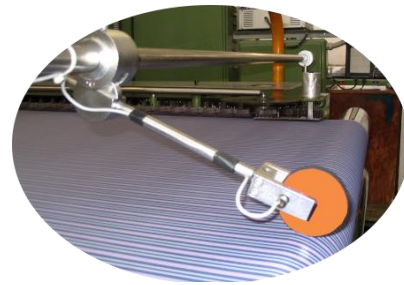




# CS-OT

## Shrinkage and elongation monitoring (residual moisture measurement as an option)



### Description:

Inline device providing continuous monitoring of fabric or yarn shrinkage/elongation (residual moisture control with automatic adjustment is also possible).

### Applications:

Sanforizing machines, sizing machines, denim production lines, stenters, textile machinery in general.

### Features:

- Shrinkage/elongation in %
- Measurements can be taken between 2 or more points (up to six)
- Fabric length and outgoing fabric speed values
- All set parameters and the relevant values are recorded; residual moisture and speed can be charted
- Data can be downloaded via a USB port or through an Ethernet connection
- Remote support

### Optional:

- Measurement of the residual moisture content in the material, fibre selection (nr. 15 pure fibres + nr. 42 mixed fibres), wide moisture measurement range (e.g. Cotton 0.8% - 23,3%; wool 4.5% - 46.5%)
- Automatic machine speed or temperature adjustment (drying cylinders) based on requested and measured values of residual moisture via the following outputs:
  - speed adjustment control: > 2 dry contacts (relay +/-) or (optionally) > 1 analogue output (0 - 10V)
  - temperature adjustment (\*): > 1 analogue output (0 - 4/20mA) (\* modulating valve not included)

### Benefits:

- Production quality is constantly monitored (no reprocessing required)
- Production optimization
- The system will store the sequence of treatments and their parameters
- Easy to use (all machine operators shall work in the same way)
- Easy to assemble
- Energy saving
- An automated processing management becomes possible
- Only requires minimal routine maintenance





## Technical specifications

### Overview:

Embedded industry-standard PC, diskless, fanless, with an embedded operating system and SSD, a 10.4" LCD touch-screen colour display (12" or 15" available as optionals) and a frontal USB port, showing the measured values for elongation/shrinkage, length, speed and residual moisture; the latter are indicated by means of colour bars (green/amber/red). Remote unit in a second metal housing.

### Dimensions:

- PC metal case size with a 10.4" touch screen (L 400 x H 400 x P 150 mm), weighing 12 kg ca.\*
  - Remote unit metal case size: L 600 x H 600 x P 250 mm, weighing 30 kg ca.\*  
(maximum distance between the units: 10 m)
- \*size and weight may vary depending on the chosen configuration

### Peripherals:

#### Inputs

- Tape measures with amplified NPN induction sensors  
with the 'residual moisture' option:
  - Roller sensor units for the measurement of residual moisture

#### Outputs

- 1 analogue output, 0 - 4/20 mA (calculated shrinkage/elongation value)
- 2 Ethernet ports
- 3 USB ports (one on the front panel)

with the 'residual moisture' option:

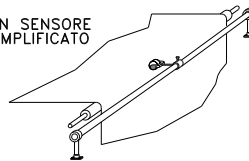
- 1 analogue output, 0 - 4/20 mA (Palmer thermoregulation or drying cylinder adjustment)
- 1 analogue output (0 - 10V) Automatic machine speed adjustment control (optional)
- 2 relay output (speed adjustment)
- 1 to connect an additional device with three warning lights (amber/red/green) showing residual moisture values

### Technical specifications:

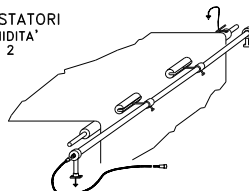
- 1 linear analogue output to connect a programmable logic controller (PLC) or a chart recorder
- Analogue output (Palmer modulating valve regulation or drying cylinder adjustment)
- Relay (or analogue) speed adjustment output
- Power supply: 230V 50/60Hz, current: 500mA @ 230V  
(120V 60Hz on demand)

A, B e C = sensori per la rilevazione della velocita' ed il calcolo del restringimento tra ingresso e uscita della macchina

ROTELLA CON SENSORE  
INDUTTIVO AMPLIFICATO

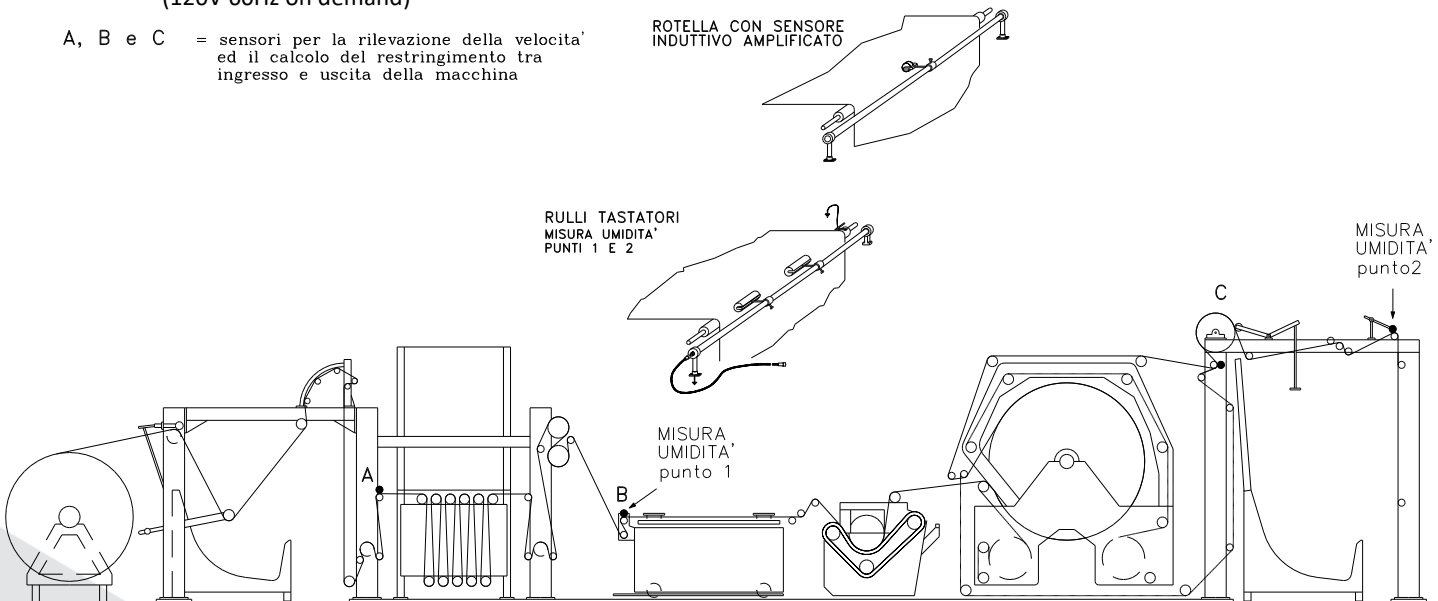


RULLI TASTATORI  
MISURA UMIDITA'  
PUNTI 1 E 2




MISURA  
UMIDITA'  
punto 1

MISURA  
UMIDITA'  
punto2



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