

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

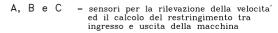
- 1 analogue output, 0 4/20 mA (calculated shrinkage/elongation value)
- 2 Ethernet ports
- 3 USB ports (one on the front panel)

with the 'residual moisture' option:

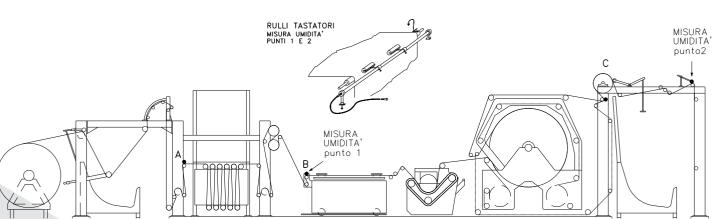
- 1 analogue output, 0 4/20 mA (Palmer thermoregulation or drying cylinder adjustment)
- 1 analogue output (0 10V) Automatic machine speed adjustment control (optional)
- 2 relay output (speed adjustment)
- 1 to connect an additional device with three warning lights (amber/red/green) showing residual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







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