

TOPSMATIC-OT

Residual moisture meter for staple fibres or tops, with automatic adjustment



Description:

Inline device used to measure the amount of residual moisture in tops or staple fibres, whether natural or man-made, with automatic adjustment. Measures can be taken in 1 to 4 independent points.

Applications:

Backwashing machines/Superwash machines, tops processing, continuous washing machines for wool, loose fibre processing, cylinder dryers, dryers in general.

Functions:

- 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 drying cylinder speed or temperature adjustment based on requested and measured values of residual moisture via the following outputs:
 - Speed adjustment:
 - > 2 dry contacts (relay +/-) or optionally
 - > 1 analogue output (0 - 10V)
 - Temperature adjustment (*):
 - > 1 analogue output (0 - 4/20mA) (* modulating valve not included)
- 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 (LAN access via a VPN)

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
- 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, displaying residual moisture measurements by means of colour bars (amber/red/green) and providing automatic adjustment based on measured moisture levels.
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**
 - 1 to 4 for residual moisture as measured by the foil sensor(s)
 - 1 for the length and speed sensor
- **Outputs**
 - 1 analogue output 0 - 4/20 mA (residual moisture measurement)
 - 1 analogue output, 0 - 4/20 mA or 0 - 10V (thermoregulation or speed adjustment)
 - 2 relay output (speed adjustment)
 - 1 for an additional module with three warning lights (amber/red/green) showing the amount of residual moisture
 - 2 Ethernet ports
 - 3 USB ports (one on the front panel)

Power Supply:

Power supply: 230V 50/60Hz, current: 500mA 230V
(120V 60Hz on demand)

Reed sensors

(type and size to be defined depending on the machine or material):

