



HYGROMATIC-HMI

Measurement of the residual moisture content in the material, with automatic adjustment



Description:

Inline device for monitoring residual moisture in fabrics, yarns, paper, etc. for both natural and man-made fibres, providing automatic adjustment. The data shown below refer to measurements taken at one point; however, up to four points can be used (on demand).

Applications:

Stenters, sizing machines, sanforizing machines, compactors, denim production lines, cylinder dryers, dryers in general

Features:

- 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%)
- Automatic machine 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 FTP connection
- Data are displayed as web pages ; these can be remotely accessed on the LAN using computers, smartphones or tablets
- 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
- An automated processing management becomes possible
- Only requires minimal routine maintenance





Technical Specifications

Overview:

7-inch touchscreen colour monitor in a metal case, showing residual moisture measurements by means of colour bars (amber/red/green) and providing automatic adjustment as the desired moisture level is attained. Remote unit in a second metal housing.

Dimensions:

- Touch screen display metal case (l 300 x h 300 x d 120 mm), weighing 6 kg ca.*
- Remote unit metal case size: l 500 x h 500 x d 200 mm, weighing 18 kg ca.*
(maximum distance between the units:10 m)
*size and weight may vary depending on the chosen configuration

Peripherals:

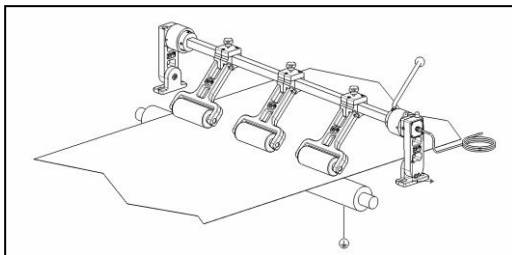
- **Inputs**
 - 1 for residual moisture detection for roller sensors (see “standard sensors”)
(different sensors might be installed to meet specific application requirements)
 - 1 for a length and speed sensor
- **Outputs**
 - 1 analogue output 0 ÷ 4/20 mA (residual moisture measurement)
 - 1 analogue output, 0 - 4/20 mA or 0 - 10V (thermoregulation or speed adjustment)
 - 2 relay output (speed adjustment)
 - 1 to connect an additional device with three warning lights (amber/red/green)
 - 1 Ethernet port
 - 1 USB port

Power supply:

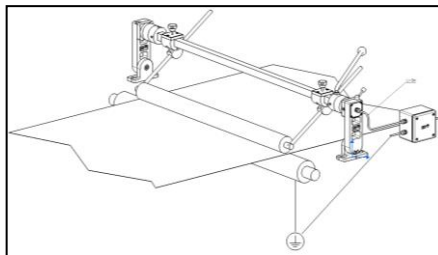
Power supply: 230V 50/60Hz, current: 100mA 230V
(120V 60Hz on demand)

Standard roller sensor units

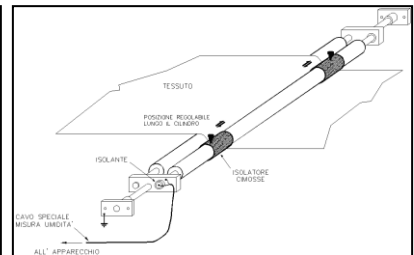
(type and size to be defined depending on the machine or material):



(Code: 3R1) Roller sensor unit for spun or woven fabrics, complete with lifting and mounting accessories.



(Code: SR) Single-Roller sensor unit, single-point fabric height, for heavy fabrics and terry, complete with lifting and mounting accessories.



(Code: DR) Double-Roller sensor unit, single-point fabric height, for knitted fabrics or specific for the outlet of belt (tensionless) dryers or stenters, complete with mounting accessories.

