

FAMACONT PMC



The control system for linear density and yield

Measurement

Control

Automation

FAMA CONT PMC

The scanner counts picks and knitted courses



The counter

Continuous, accurate measurement of the density of pick or knitted courses is a vital factor in the ongoing quest for a first-class finish, and quality product.

A Famacont PMC-12 is a reliable, non-contact system, which continuously monitors essential parameters such as weight, stretch or shrinkage by recording pick and knitted-course count. A Famacont is thus an indispensable tool for finishers who are obliged to meet their customers' specifications, and reduce costs by minimizing rejects and quality-related losses.

How it works

A Famacont establishes pick density photoelectrically. As each pick or course passes the sensor, its image is projected onto a photocell via a precision lens. In accordance with the density of the material, the sensor can be activated by either transmitted or reflected light.

The resultant frequency is proportional to the number of picks or courses, and the signal is amplified, refined and digitized by a microprocessor. The actual count in figures is displayed on a screen, which also records, in the form of a histogram, the count over a variable period of time.

- continuously, and without physical contact
- determines the density of picks or knitted courses
- with pinpoint accuracy, thanks to digital signal processing
- with "smart" algorithmic control
- versatile

Auto-control strategy

When using two scanners, a sophisticated feed-forward, algorithmic control ensures excellent results on stenters. Consistent quality in terms of finish, and constant residual-shrinkage levels are achieved by optimising the target count for pick and course density.

Even on frequent, abrupt variations in pick density, adjustment of target to measured value begins the moment the material enters the stenter. By checking the result again automatically at the delivery end, a further fine adjustment is made to the target preset at the feed end.

Application

A Famacont is a versatile meter, and is chiefly used on stenters, mercerizers, sanforizers and compactors. The assembly supporting the sensor and light source can be installed with relative ease, and where space is at a premium. Provision is made for the addition of a second scanner assembly, so that picks can be counted and checked at both the entry and exit of a dryer. The system can also control automatically to a target set-point.

The panel accommodating the industrial PC, and TFT-touchscreen colour monitor is robust and imper- vious, and can be located at any convenient place.

Available options:

A printer package, to document data and statistics, is an available option, as is a port and interface, to facilitate transfer of data to a host Computer.

Operating the system

Once it is switched on, control buttons appear on the touchscreen monitor. The system can then be controlled direct via the screen's user-interface.

Screen displays:

① Target-readout indication of pick count in profile form (displayed numerically and diagrammatically in bar-graph form)

② Graphic display of weight differential
Informative target and readout data is displayed in figures
A separate histogram records the trend of the computed differential

③ Freely configurable histogram indicating pick count and line-speed trends.



①



②

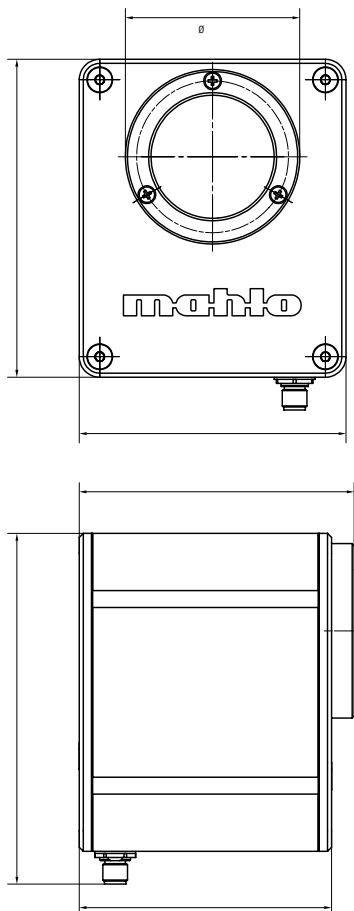


③

Technical Data

Measurement:	continous, photoelectrical (transmitted or reflex light)
Standard range:	up to 70 Picks/cm
Max. line-speed:	150 m/min dependent on count and type of fabric.
Max. permissible weft/course distortion:	+/- 40°
Proof standard:	IP54
Ambient limits:	max. 50 °C, 0-95% relative humidity (non-condensing)
Host-computer interface (option):	only together with host computer interface and basic unit: CAN-Bus, Profibus, TCP/IP, S3964R/RK512

Dimensions: scanner - (plan and side view below)



Dimensions: lamp - (plan and side view below)

