

# Thickness profile measuring sensor PMS-F for measurement on the lay-flat

## Solutions ...

The PMS-F sensor has been specially designed for the measurement of the thickness profile on blown film lines. Highly sophisticated and well-proven in design it assures safe functioning thereby playing an important part in improving quality control in blown film production.

## Installation of the PMS-F sensor at the edge of lay-flat film

Due to rotation of the extruder, an oscillating haul-off or rotating die, each point of the circular film profile passes the PMS-F sensor allowing the bubble to be measured around its entire circumference and a complete profile to be registered.

## ... for blown film lines ...

The capacitive sensor PMS-F measures the film on the edge of lay-flat film without contact. With a sensor resolution of 0,1  $\mu\text{m}$  even minimal deviations of the thickness are recorded and processed for display in a gauge profile.

## ... modular and economic.

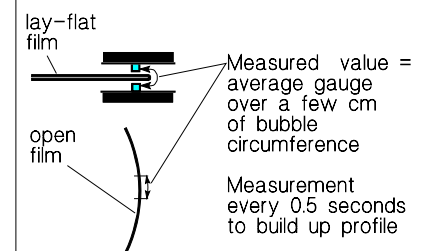
Equipped with its own process electronics, the PMS-F sensor connects to a central computer via field bus interface, e. g. profibus, for the display of measurement data and gauge profile.



## Profile measurement on the edge of lay-flat film with special features

- Film measurement without contact
- No build-up of heat on sensor
- No scratching of film
- No down-time due to contamination or wear of sensor
- Radiation-free capacitive measurement principle
- High resolution due to small measured area

## Measuring principle



## Quality

- Measurement without contact
- Certified quality
- Ensures constant film quality
- Minimises tolerance ranges
- Better fulfilment of customer's requirements
- Efficient aid for centring the die

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- Reduced waste
- Savings in raw materials
- No customer complaints
- User-friendly and low on maintenance

## Automation

- Safer production process
- Continuous recording and display of thickness profile
- High-tech sensor for modular concept of extrusion control

# Octagon Measuring Modules: Technology especially developed for extrusion control

## Operating the sensor

On models with automatic positioning device, the sensor moves to the film edge and follows it automatically.

On the more economic model with manual positioning device, the sensor is positioned at the film edge by the operator.



Sensor with automatic positioning device



Sensor with manual positioning device

## Automatic positioning of sensor

The edge of the lay-flat film glides through the measuring gap of the capacitive sensor. The automatic device is equipped with two infrared sensors ensuring that the film edge is always kept at the same distance from the capacitive sensor.

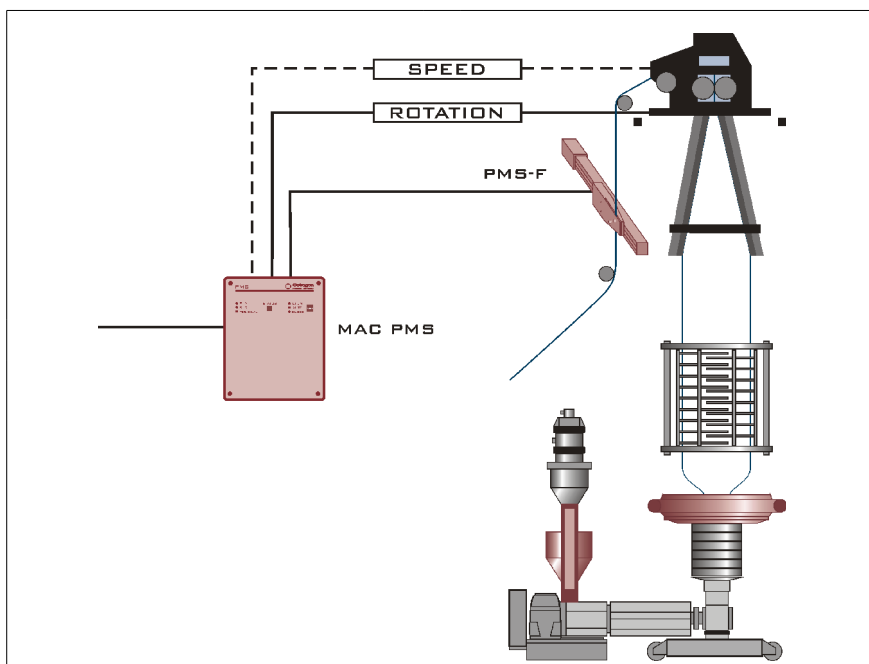


Film gliding through measuring gap



Infrared sensors for edge positioning

## Installation in an extrusion line



## Standard extent of delivery

- Measuring sensor PMS-F with automatic or manual positioning device
- Controller MAC-PMS
- O-point sensor

## Other options:

- Sensor for counting teeth
- Web speed probe

## Line specific features

- System suitable for rotating or oscillating lines

## Technical features

- Measuring range 6 - 300  $\mu\text{m}$
- Resolution 0,1  $\mu\text{m}$

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