GIMATIC™

A business of BARNES

MOLD MONITORING

GLOBAL PRODUCTION CONTROL

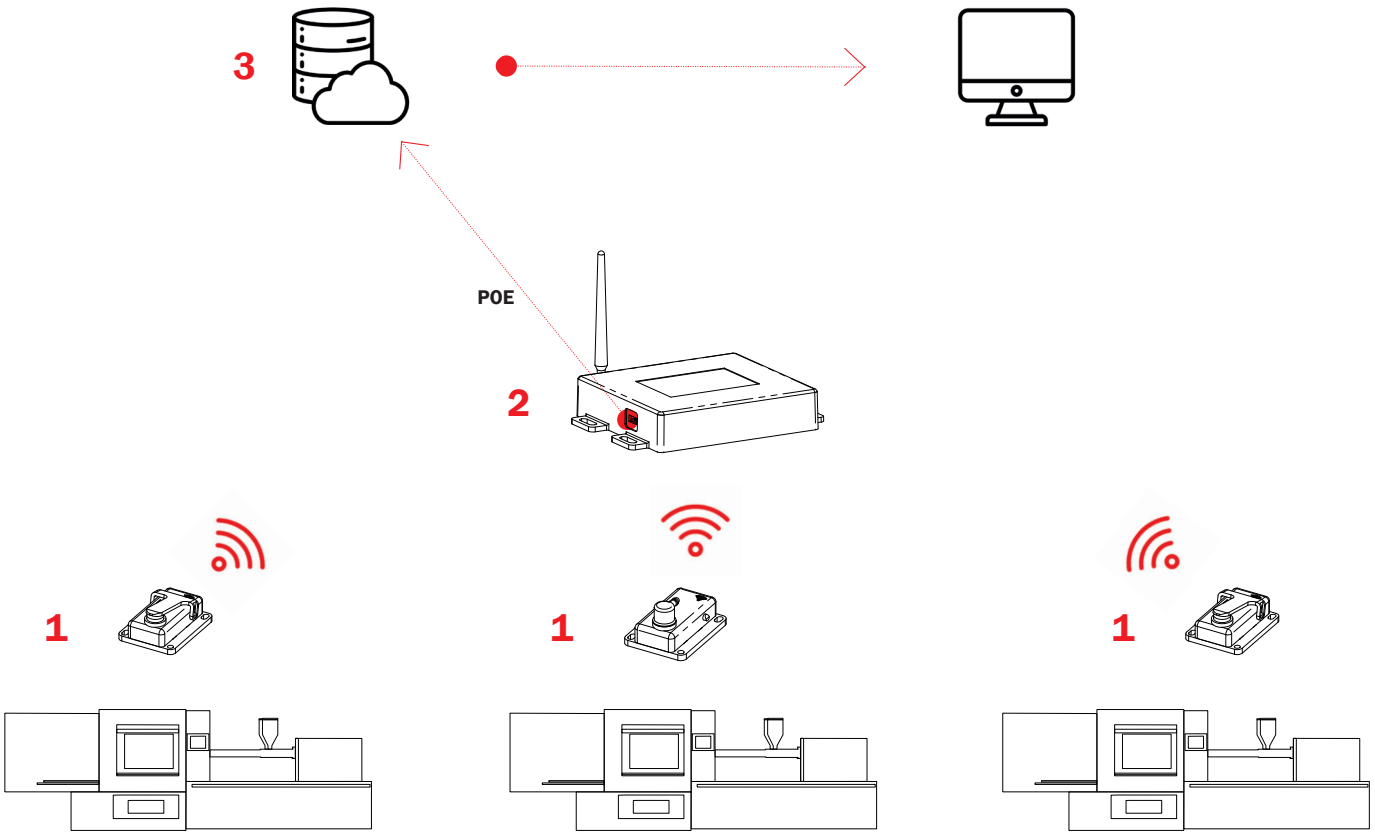
2022

Control system for your plants around the world.

MOLD MONITORING

Your production under control everywhere

Gimatic has developed an innovative Mold Monitoring system that allows the user to collect, transmit, store, visualize and analyze process data for plastic molds.
This allows the customer to control cycle frequencies, to geolocate and manage preventive maintenance of molds all over the world.



How does the MOLD MONITORING system work?

1 **MLD-S sensors** are based on Energy Harvesting technology and consequently do not need any form of active power.
The sensors transmit a data packet to the Gateway at each change of state.

2 The **Gateway** receives the data from the sensors and transfers them to the Cloud. The Gateway is connected via a POE (Power Over Ethernet) cable, useful for power supply and data transfer. The Gateway transmits the collected data to a CLOUD server for consultation by the user.

3 The **CLOUD Server** receives the data packets from the Gateway, allowing to monitor in real time the process parameters, such as the cycle time and the production efficiency of the plant.
The CLOUD platform is reserved and centralized and allows the sending of automatic notifications to the authorized personnel responsible for maintenance.

Smart Sensors Gimatic

In a generic plastic molding process it is possible to install a sensor on each mold, a gateway for one or more Molding machines and use the CLOUD system to consult the data in real time.

The Smart sensors developed by Gimatic for the Mold Monitoring system are based on an Energy Harvesting technology that allows you to not need any form of active power.

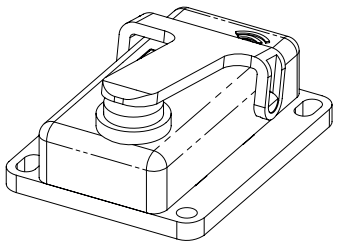
> The data sent by the sensors include a unique identification of the sensor (therefore of the mold) in the world and the number of cycles performed and from this information the CLOUD calculates the real cycle times and allows to optimize the production process.

> Signal coverage can change from 10 to 80 m, depending on the layout of the plant.

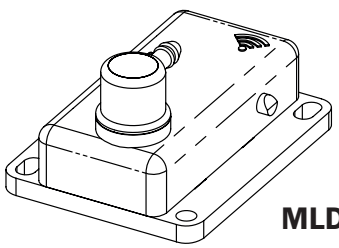
The sensors send data at each change of state, which can derive from the approach motion of a mold (mechanical version) or is generated externally (pneumatic version), placing the sensor in derivation to an existing pneumatic circuit.

Smart Sensor - mechanical version (MLD-S001)

The sensor in the mechanical version is operated by a lever.



MLD-S001



MLD-S002

Smart Sensor - pneumatic version (MLD-S002)

In the pneumatic version, the sensor is operated thanks to a pneumatic piston (built-in).

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