

# PI New Generation

Pressure sensor for  
use in the food industry.



Product presentation

## Product description

# Pressure sensor PI New Generation



**His ancestors would be proud of him. We are too.**

How do you start presenting a high-performance pressure sensor which has been developed even further? Do you start with the robust design with hygienic, cleanable IP 69K stainless-steel housing and a ceramic measurement cell which can withstand direct hits from spray balls and is resistant to aggressive media?

Or do you wish to focus on the higher resolution? Using IO-Link the new PI can show pressure deviations in approx. 20,000 steps. A feature which is also highly relevant in the process industry. Last but not least: The sensor can continually withstand up to 150°C medium temperature. It can also measure the temperature and using IO-Link cyclically output the value.

As you can see there are a great number of possibilities and benefits surrounding the improved PI. We can even offer you one more: Take a closer look at the new pressure sensor genius – on [ifm.com/gb/PI](https://ifm.com/gb/PI)



Product benefits

# Why the PI New Generation?



## Performance

32-bit resolution with approx. 20.000 steps for a detailed display of the process values.



## Integrated temperature measurement

The PI can continually withstand up to 150°C medium temperature. It can also measure the temperature and using IO-Link cyclically output the value.



## Design

The IP69K stainless steel housing fulfils the requirements made by the food industry.



## Ceramic measuring cell

The measuring cell is highly resistant and has a high long-term stability, even when pressure peaks occur.

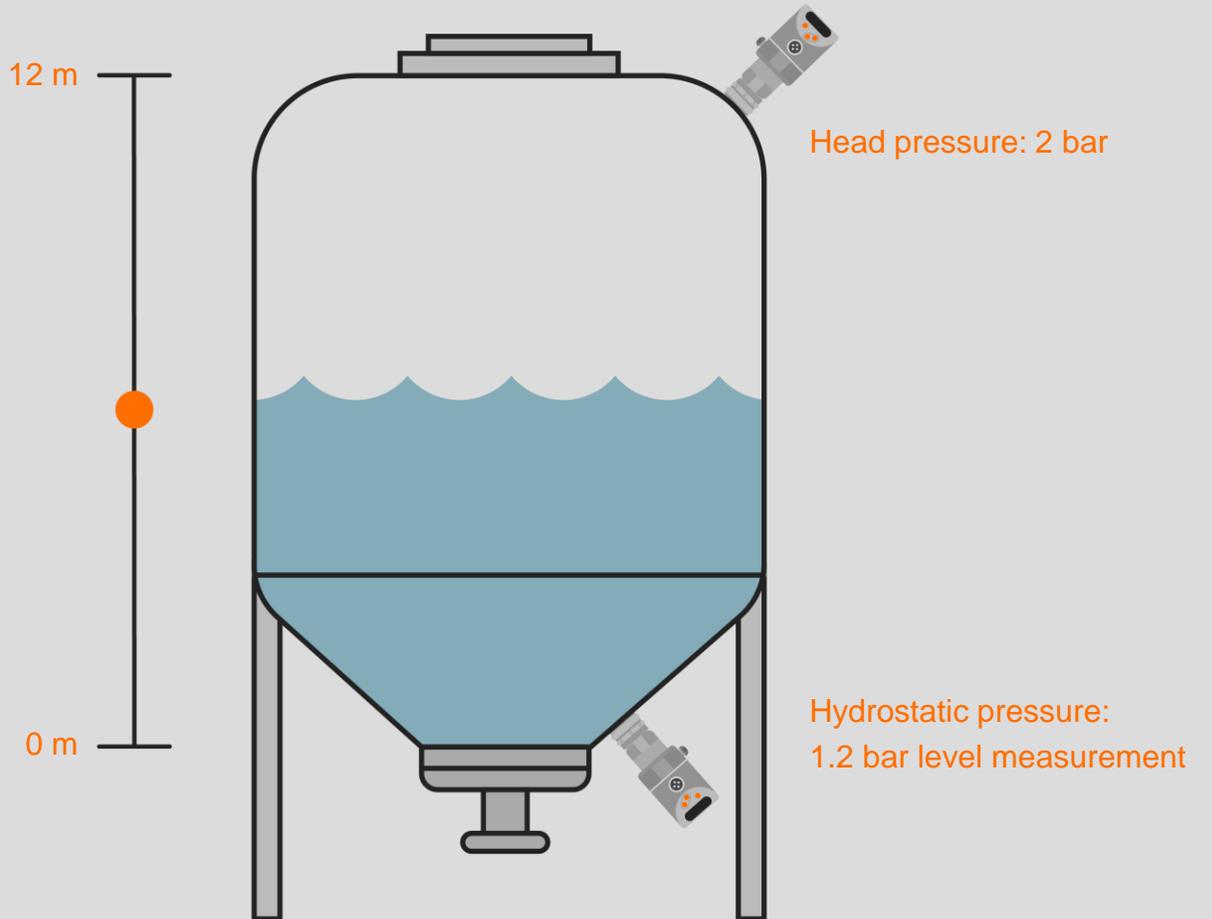


## Application overview

# Precise level monitoring of a pressurized tank

### Example using differential pressure measurement

- A level at the height of 12 meters corresponds to 1.2 bar. This can be measured using a 1.6 bar sensor
- With a head pressure of 2 bar the measurement range increases to at least 3.2 bar, thus requiring the next standard range of 4 bar
- The available resolution has to be spread over a measuring range of 4 bar. This means with a standard 16 bit resolution the increments in comparison to a 1.6 bar sensor are at least double – at the expense of accuracy.
- The new PI with 32-bit resolution and approx. 20,000 steps displays the process values in detail and also over a wide measurement range.



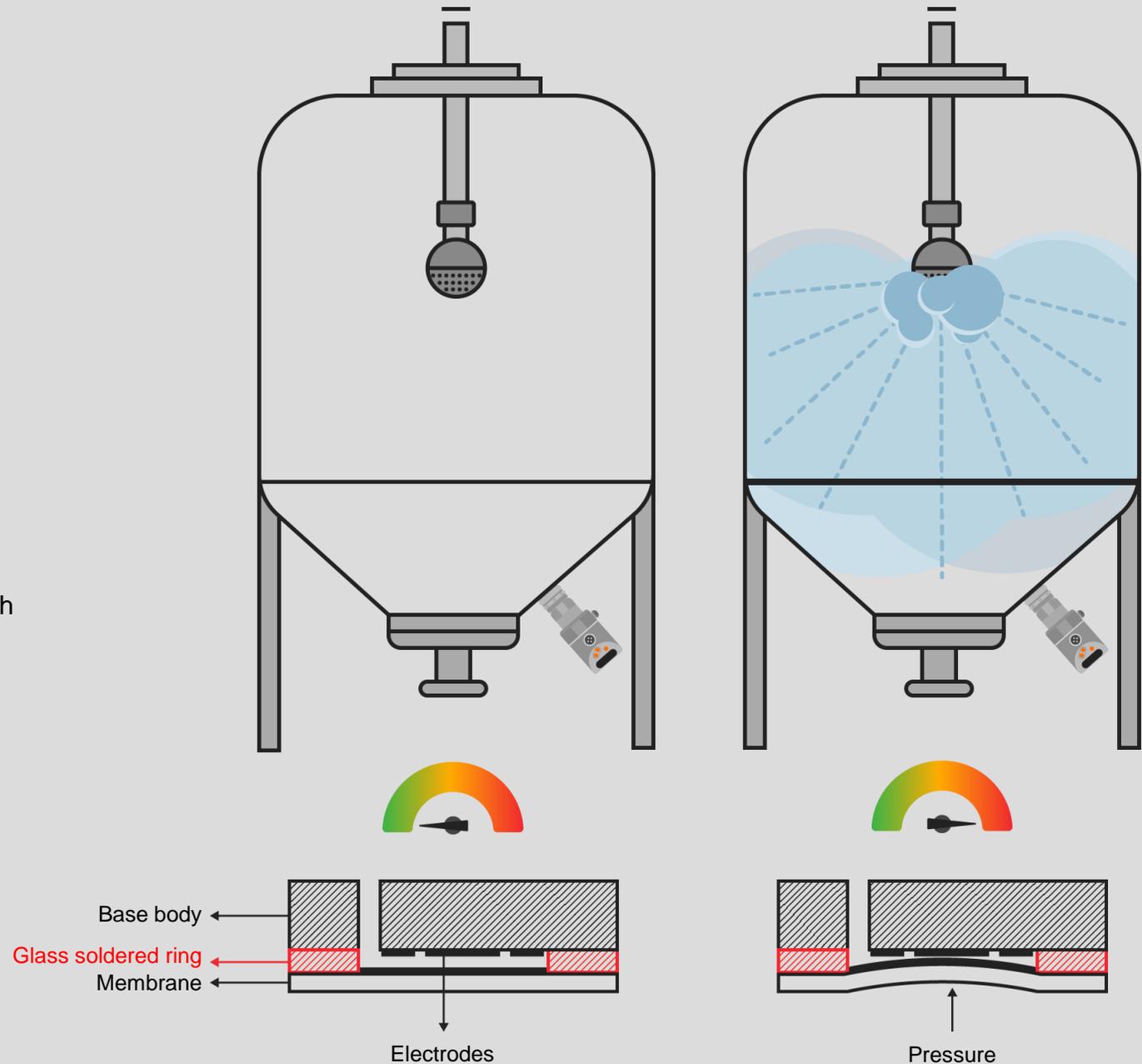
## Application overview

# Cleaning with spray balls

### Harsh conditions:

### Resistant to dynamic pressure spikes

- The base body of the measuring cell supports the membrane when overpressure occurs
- The measuring cell can thus withstand pressure peaks which often appear during clean processes



Good to know

# Further sensors for tank monitoring with IO-Link



## Temperature measurement

Monitoring critical control points (CCP with the self-monitoring temperature sensor TCC).



## Valve monitoring

The valve sensor MVQ continually monitors the valve position enabling early recognition of wear and tear or blockages.



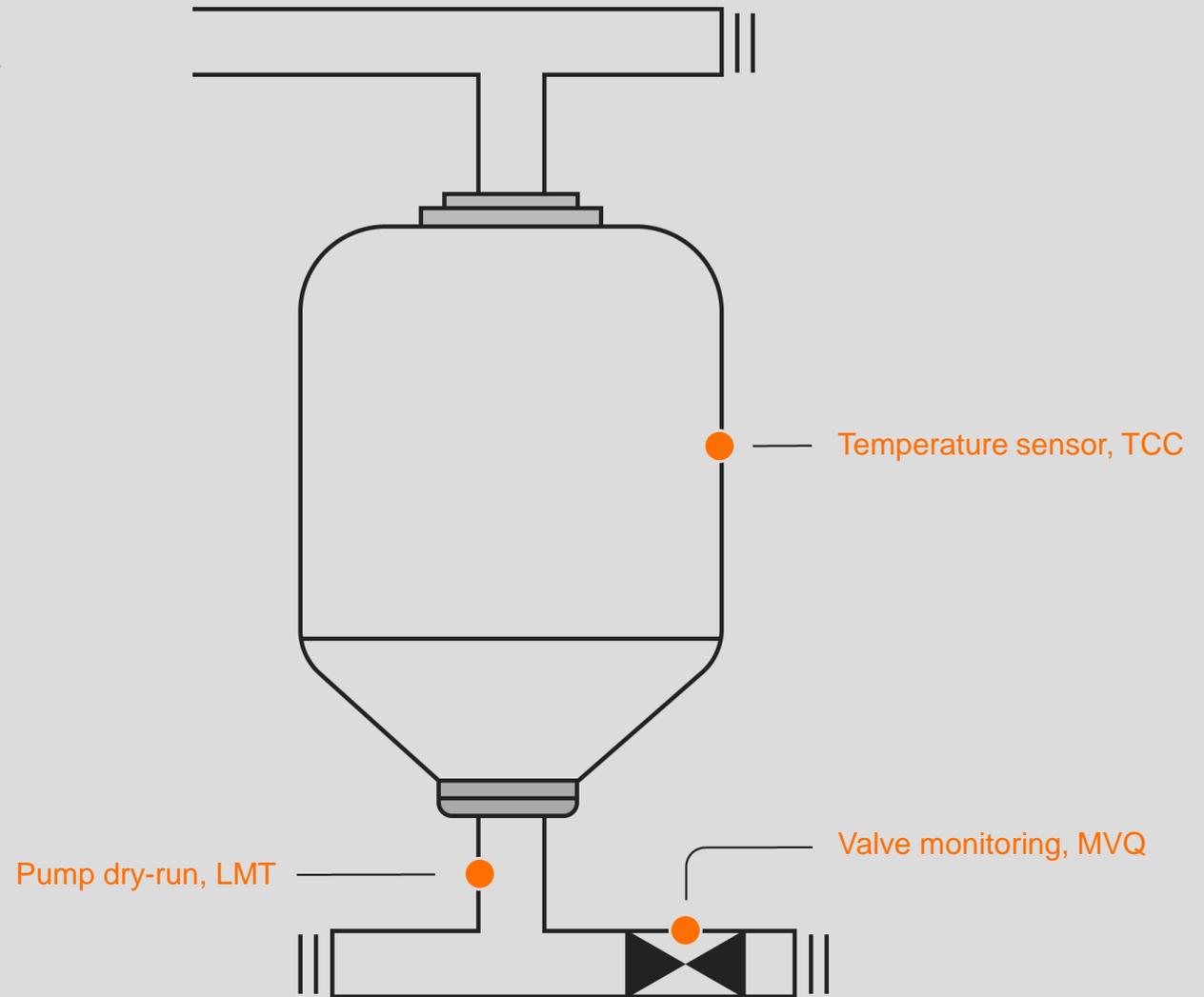
## Dry-run protection on pumps

If there is insufficient medium in the system, the point level sensor LMT turns the pump off.



## Process sensors from ifm

Fulfill the requirements for maintenance, quality, calibration and for the operator.



# PI New Generation

[ifm.com](http://ifm.com)

