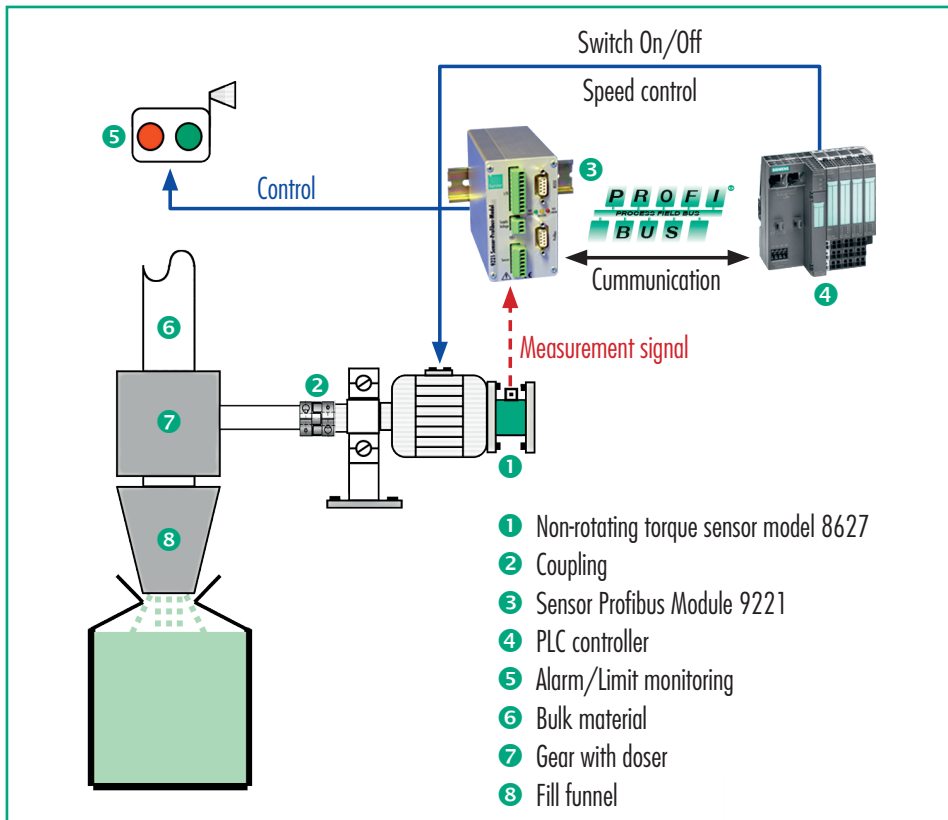


# Torque measurement on a fill facility with monitoring and controlling system



## Contact

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## Sector

- Manufacturing industry

## Product name

- Torque sensor
- Sensor Profibus Module

## Features

- High measuring rate
- Three switched outputs
- Can be used in harsh industrial environment

## Task

The torque working on a gear shall be acquired and controlled, and measurement values transferred to the recording via PROFIBUS at a paramount PLC. This procedure is necessary in order to avoid a possible mechanism damage. Among others for security reasons the device setting parameters should be transferred via PROFIBUS and stored before each shift beginning.

## Specific Requirement

In order to guarantee real time qualities, the torque monitoring should be already done before the PLC evaluation takes place.

## Solution

For the static torque recording, the torque sensor model 8627 was implemented. The apparent torque is observed by the Sensor Profibus Module 9221 with a sampling rate of 1000 measurements per second. Afterwards, these measurement values are stored by Master Profibus Participant. In order to protect the mechanism, once a limit is infringed, an alarm output is triggered. The protocol PROFIBUS DPV1 enables easily, in case of possible data loss, to transfer the centrally stored configuration data over the Profibus interface.

