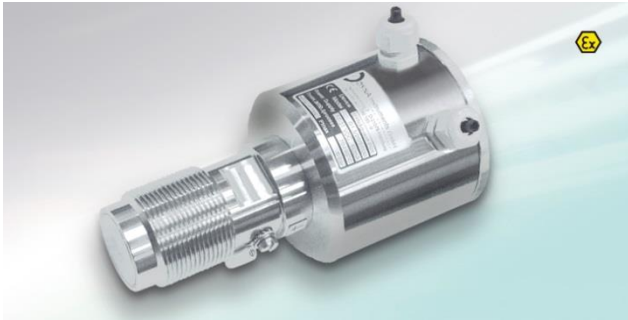


## Dyna Instruments Monitors for Powders and Granulates

Detectors if the bulk product is moving in the duct

Electrostatic detector **Dynaguard P**  
for up to 300 mm distance

Microwave detector **Dynaguard M**  
up to 1000 mm distance



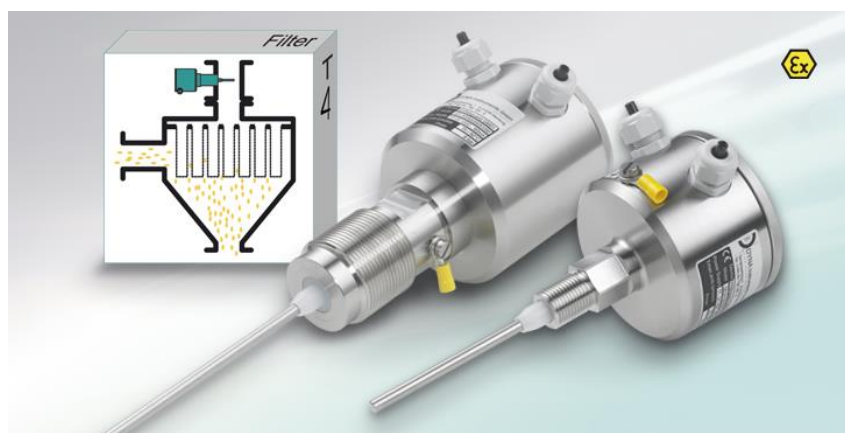
These detectors are no barrier for the bulk materials, they are in level of the duct wall and replace “fork” type of movement detectors. These are often quickly eroded by moving bulk products.

Available are also “flow through” versions (**Dynaguard K a V**) with a broad range of connections.



Electrodynamic filter performance monitors

**Dynaguard GM** design is similar to “our” elaborated PCME monitors. In this case only 4-20 mA output is available, but the instrument can be set for low and high ranges by yourself and has a very good price.



Bulk material flow speed monitoring

**Dynavel** allows to monitor a flow speed up to 100 m/s. Principle is in two capacitive ring sensors built into same diameter section as the monitored duct. Measured is the time discontinuities as passing the 30 mm distance between the electrodes.



Bulk material mass flow

**Dyna Mass**

Dyna Mass is an up to 500 t/hr capacitive sensor. Mass flow, flow speed and density can all be monitored.



**Dyna M-flow**

This is for up to 20t/hr bulk material mass flow monitoring based on microwave signal reflection



**Dyna Chute** is using electronic scales. Time of mass discontinuities passing two scales is measured in up to 20 t/hr range. This system is different from much less accurate impact scales!



**Dyna Rad** is an up to 500 t/hr gamma radiation based system built in cooperation to Berthold.

