

# FlowSwitch 600E

## Continuous flow monitoring for bulk materials



### Application

The indicator FlowSwitch 600E helps control the mass flow in solid material handling applications such as pneumatic transport lines, feeders or gravity chutes in a wide range of mass flow from g/h to t/h.

Flow problems with transports or the delivery of powders, dust, pellets, or granules can be detected early with this device. This helps prevent serious difficulties that can occur due to clogged piping, material loss, or other technical problems with the system.

### Scope of Use

Animal feed industry  
Building materials industry  
Production of ceramics  
Chemical industry  
Detergent industry  
Food industry  
Glass production  
Metal production

Pharmaceuticals  
Pigment production  
Power plants  
Production of rubber goods  
Recycling industry  
Synthetic materials  
Production of textiles  
Etc.

**HUMY 3000**  
Moisture  
measurement

**MF 3000**  
Mass flow  
measurement

**FS 510M**  
Microwave  
mass flow  
monitoring

**FS 600E**  
Electrostatic  
mass flow  
monitoring

**FS 700E**  
Triboelectric  
dust monitoring

**LC 510M**  
Limit level  
monitoring

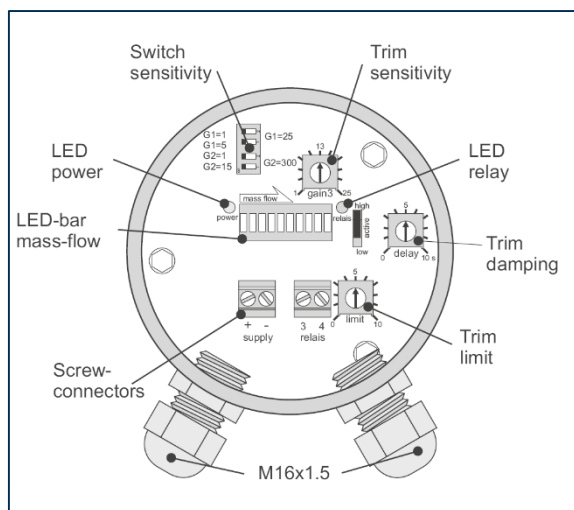
## Main Benefits

- ◆ Contactless and maintenance free
- ◆ Integral Measuring
- ◆ Condition indications with LED
- ◆ Adjustable sensitivity, signal damping, hysteresis and filter function
- ◆ Potential free contact
- ◆ Easy installation by compact form
- ◆ Process connection with flange

## Function

The multiple-use measurement principle on which FlowSwitch 600E is based is the physical effect of the electric charge of solids particles. This occurs naturally as with, for example, friction or collision with solids.

With a ring sensor, the measurements are taken integrally and without contact over the pipe cross section. The electrically charged particles produce (induce) a charge signal against the grounded conveyor duct. On the basis of statistical fluctuations in the particle flow, a current noise is produced which depends on the solids concentration but also on the solids velocity. Stationary particles such as sediments do not contribute to the results.



## Technical Data

Material	Housing	Stainl. Steel 1.4305, Ø89mm
	Process coupling	Stainl. Steel 1.4571
	Isolation	Polyamide (PA), 2mm
Protection class		IP67
Temperature	Ambient	-20°C to +70°C
	Process	Max. 90°C
Process pressure		Max. 40 bar
Electr. connection	Cable input	M16 x 1,5
Power supply	DC	17 to 31 V
Consumption		< 100 mA
Switch output	Relay	Max. 48 V AC/DC, 1 A
	Logic	active high/low reversible
Resistance to jamming	to EN 610006-2	Industry area
Adjustment	Sensitivity	1 to 180.000, relative
	Switching point	1 to 10, relative
	Damping	0 to 10 s

## Optional process connections

