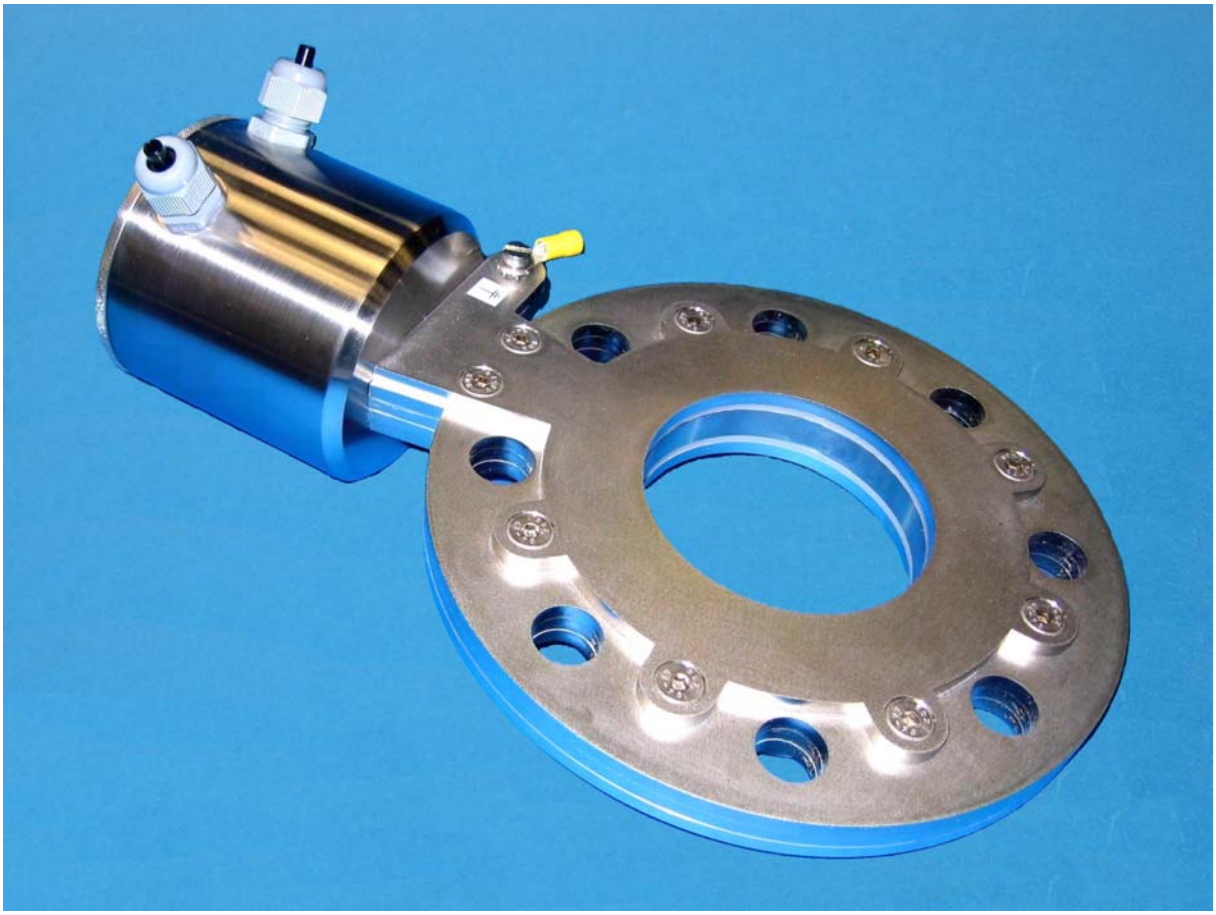
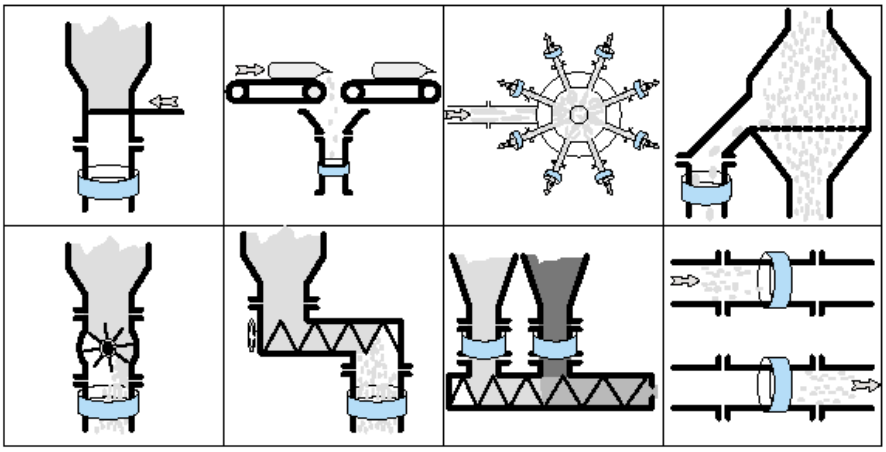
FlowSWITCH 600E

Flow Indicator for Solids





Application and Function

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 granulates 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.

The meter detects moving electrical charges that are produced, for example, through friction with other objects such as the pipe wall and then naturally adhere to the solids surface. 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.

A multitude of sensor mechanics of the ESR ... /m/... series makes process coupling very easy and allows cost effective solutions for almost any monitoring application - also in existing conveying systems. The advantage of this modular concept also appear in case of refit or exchange.

Main Benefits

- Contactless
- Maintenance free
- Integral Measuring
- Adjustable sensitivity
- Adjustable switch
- Adjustable damping
- Indication with LED
- Condition indication with LED
- Potential free contact
- Compact form
- Easy Installation
- Multiple process couplings

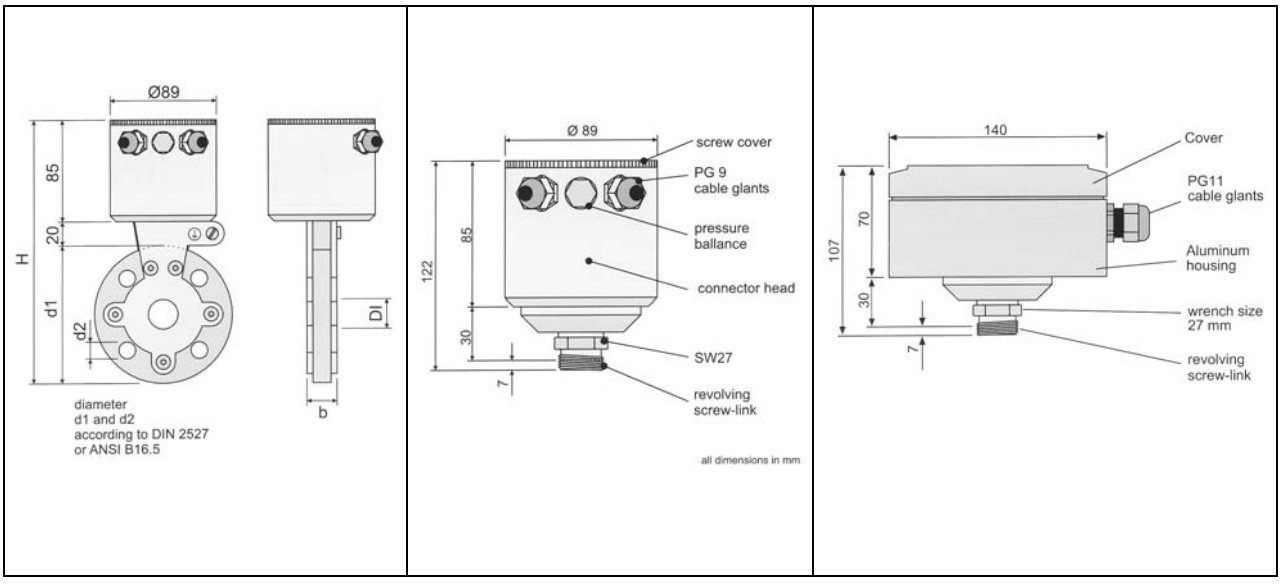
Scope of use

Materials: all dust, powders, granules, panels, threads also sticking or abrasive materials	**Range of detection:** from milligram/Batch to many t/h
Industries: 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	**Processes:** aerosol technology cash conditioning blending lights (primary, secondary) fly ash removal distributing dust removal extrusion flue gas treatment granulating grinding loading packaging production separations sifting spinning sorting

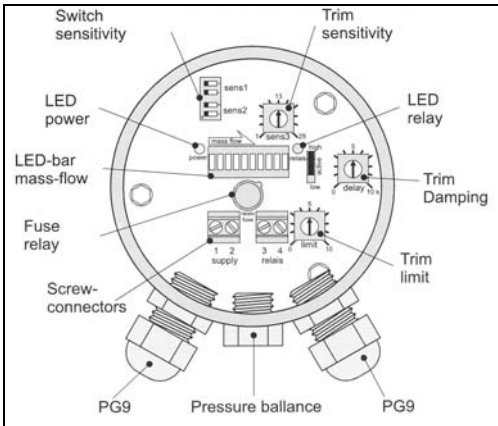
Types and dimensions

The following variants are available:

- FlowSWITCH 600E-K01: Standard-Compact device
- FlowSWITCH 600E-V01: for big pipe diameters
- FlowSWITCH 600E-S02: for very low material flow



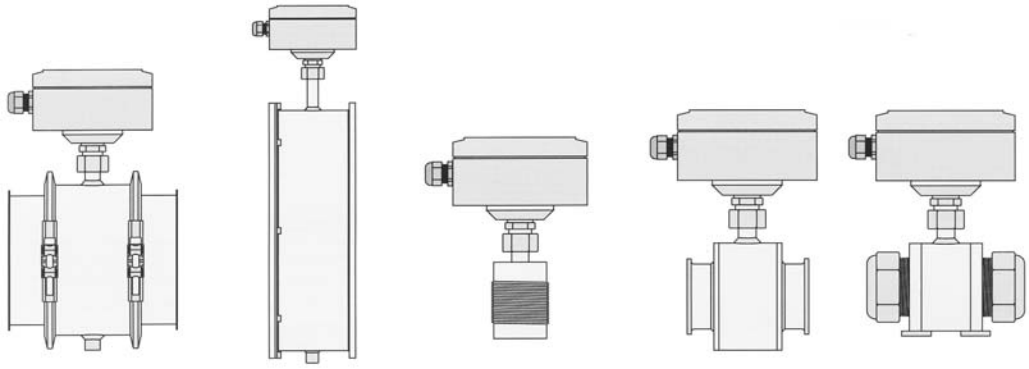
Operation



Technical Data

Material	Housing	St.St. 1.4305, Ø89mm
	Process coupling	St.St. 1.4571
	Isolation	Polyamide (PA), 2mm
Isolation		IP 67
Temperature	Enviroment	-20°C to +70°C
	Process	max. 90°C
Process pressure		max. 40 bar
Electr. connection	Cable input	PG 9, screw rail
Supply	DC	17 to 31 V
	AC	17 to 27 V
Consumption		< 100 mA
Switch output	Contact	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 10.000, relative
	Switch	1 to 10, relative
	Damping	0 to 10 s

Process couplings



ESR_BR/m... flanged pipe DIN 24151

ESR_ZF/m... mounting between DIN-/ANSI-flanges

ESR_GM/m... screw coupling

ESR_CL/m... clamp coupling

ESR_SV/m... for non metallic tubes / pipes

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