

Flow Switch for Solids

-Microwave technique
-Relay output

System Description

The flow switch **DYNAguard M** is used for monitoring the mass flow in open and closed transport processes.

Independent of particle moving direction solid materials with velocity of at least 0.1 m/s in the detection field will be detected.

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

The DYNAguard M has to be installed with an angle of 45° up to 90° of flow direction. Moving mechanical parts e.g. rotary valves, screw conveyors, or similar should not be in the detection field, because they might be detected as flow of material. If these parts are not avoidable, they have to be shielded or a different flow switch of the DYNAguard series has to be used.

CE



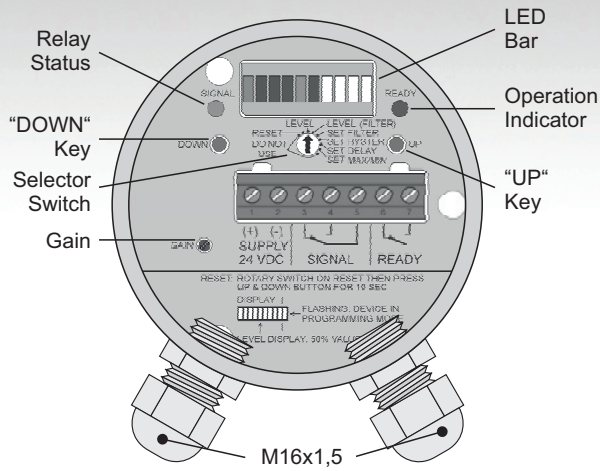
Technical Data

material	housing	stainl. steel 1.4301
	window (standard)	PTFE
	sealing (standard)	NBR
ambient cond.	temperature	-20°C...+70°C (-4°F ... 158°F)
	degree of protection	IP 65 (EN 60529)
	EMC	according to EN 61326-1
process cond.	temperature	-20...90°C (-4...194°F)
	pressure	max. 2 bar (29 lbs)
		opt. 25 bar (363 lbs)
relay	switching voltage	max. 45 VDC / 35 VAC
		min. 10 mVDC
	switching current	max. 1 A
		min. 10 µA
	switching power	30 W / 35 VA
microwave	transmitting power	10 dBm
	frequency	24,125 GHz
supply	voltage	18 ... 30 VDC
	current consumption	max. 80 mA
adjustment	sensitivity	adjusted to process
	damping	0 ... 16 s
	hysteresis	0 ... 40 %

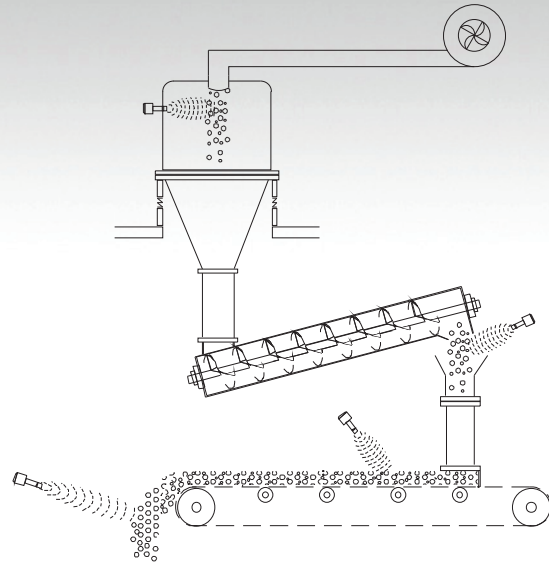
Function

The measurement procedure of the DYNAguard M is based on the physical principle of the Doppler effect. The sensor sends out a microwave field. If solids move through this field, the microwaves are reflected and received by the sensor again. The electronics unit converts this into a switching operation.

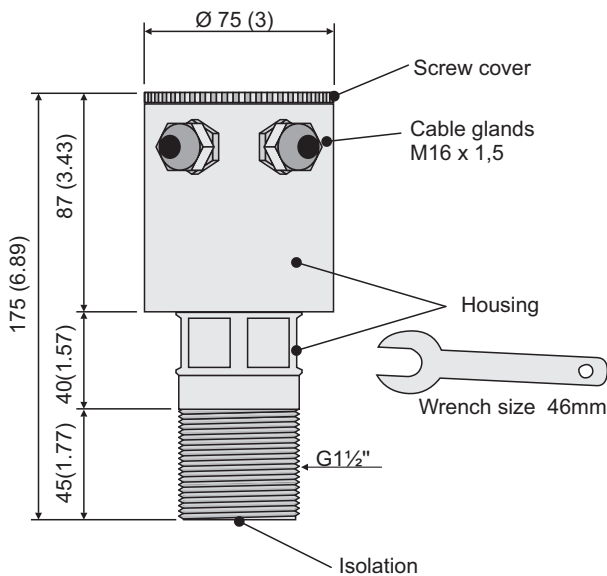
Control- / Display units



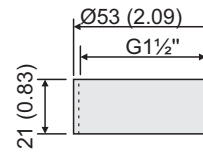
Application



Dimensions in mm (in)



Accessory: thread bush



Ordering key

DYNAguard A/B/C/D/E

- A: Output**
- M01: Relay
- B: Thread size**
- G1,5: G 1 1/2"
- C: Material housing**
- 10: 1.4301 (AISI 304)
- D: Material window**
- 20: PTFE (standard)
- 30: Peek
- 40: Ceramic
- 51: PA
- E: Material of seals**
- 00: NBR (standard)
- 10: FPM
- 20: Silicone

technical data subject to change without notice

Contact your national or area sales and service office