

Compact . Reliable . Economical

## Flow Indicator for Solids

- Relay output
- Transistor output
- Current output

### Function

The indicator **DYNAguard\_P** is used for monitoring the mass flow in solid material handling applications such as pneumatic transport lines, free fall pipes, chutes or hopper in a wide range of mass flow from g/h to t/h.

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 solids, solid lining will not be detected.

The detection area goes some centimeters around the sensor plate so that nearby located moving components as e.g. flaps do not have any influence.

Due to the measuring principle also moving massive compact solids as plates or rods can be monitored.

The device is not applicable for solids which build up an electrical conducting layer on the sensor through friction or deposition.

### Technical Data

material	housing	stainl. steel 1.4305 (AISI 303)
	sensor plate standard:	stainl. steel 1.4571 (AISI 316Ti)
	isolation standard:	polyamide (PA), 2mm
	sealing standard:	NBR
ambient cond.	temperature	-20°C...+70°C (-4°F...158°F)
	degree of protection	IP 67 (EN 60529)
	EMC	according to EN 61326-1
process cond.	temperature standard:	max. 90°C (194°F)
	pressure	max. 6 bar (84 lbs)
output	DYNAguard P01	relay: max. 48 V AC/DC, 1A
		high/low switchable
	DYNAguard P02	transistor: galvanically isolated
		max. 31 V DC, 15 mA
		high/low switchable
	DYNAguard P20	4-20 mA, galvanically isolated
		load < 500 Ω
supply voltage	DYNAguard P01/02	17...31 V DC, max. 60 mA
	DYNAguard P20	17...31 V DC, max. 90 mA
adjustment	sensitivity	1...180.000
	damping	0...10 s (P01/02), 0...180 s (P20)
	switchpoint	1...10 (DYNAguard P01/02)
	zero set	4 mA (DYNAguard P20)



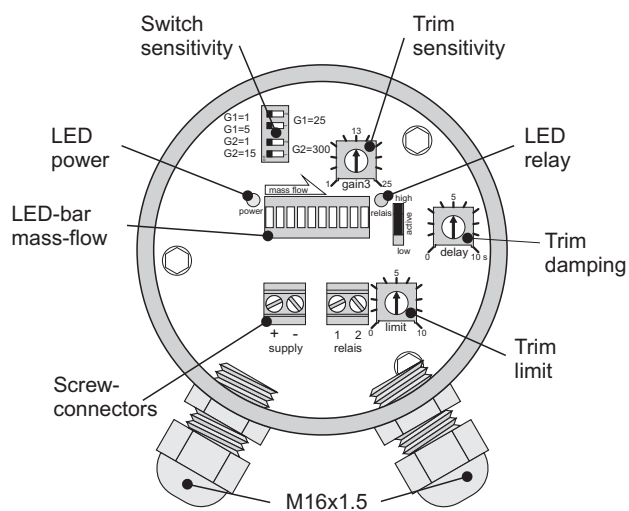
Installation

# DYNA Instruments

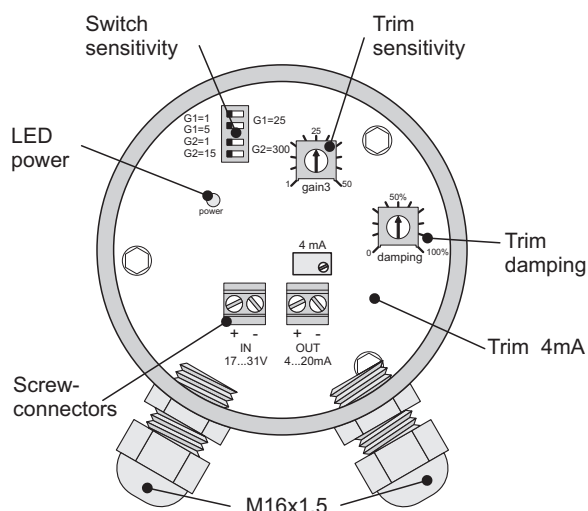
Instrumentation for Powder and Bulk Industries

DYNA Instruments GmbH  
 Tempowerkring 7, D-21079 Hamburg  
 Tel: (+49) 40 / 790 185 - 0  
 Fax: -18  
 E-mail: info@dynainstruments.com  
 Internet: www.dynainstruments.com

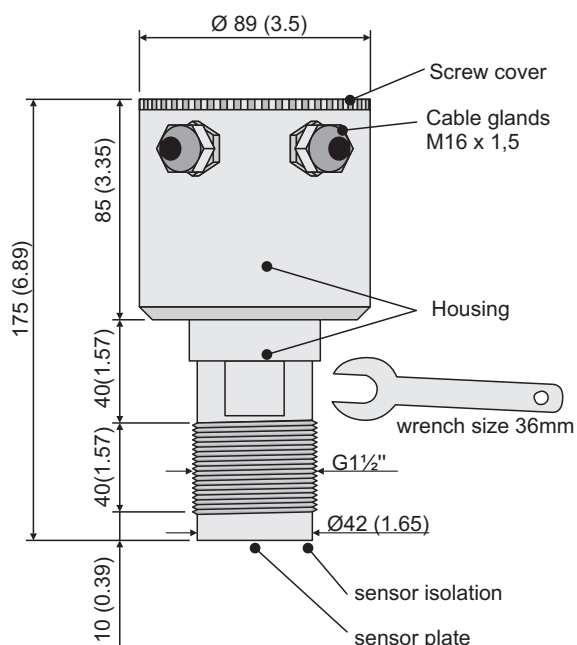
## Switching output: DYNAguard P01 and P02



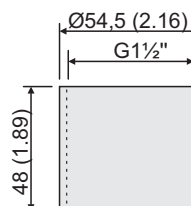
## Analog output: DYNAguard P20



## Dimensions in mm (in)



## Accessory: thread bush



## Ordering key

### DYNAguard A/B/C/D/E/F/G

#### A: Output

P01: Relay  
P02: Transistor  
P20: Analog output 4-20mA

#### B: Thread size

G1,5: G 1 ½"

#### C: Material of sensor plate

20: 1.4571 (AISI 316Ti)

#### D: Material of sensor insulation

20: PTFE

30: Peek

51: PA (standard)

#### E: Material of seals

00: NBR (standard)

10: FPM

20: silicone

#### F: Certificates

00: without

Ex2: ATEX-Zone 2 and 22

II 3G EEx nA II T4

II 3D IP67 T100°C

#### G: Accessories

00: without

01: thread bush 1.4301 (AISI 304)

02: thread bush 1.4571 (AISI 316Ti)

technical data subject to change without notice



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Contact your national or area sales and service office