

FLOWguard K

Flow Monitor for Solids

FLOW/ NO FLOW or TRENDING



Function

The **FLOWguard K** helps to monitor 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 to prevent serious difficulties that can occur due to clogged piping, material loss, or other technical or process 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. Build-up on the walls will not be detected.

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

Technical Data

material	connector head	stainl. steel 1.4305 (AISI 303)
	process coupling	stainl. steel 1.4571 (AISI 316Ti)
	isolation	polyamide (PA), 2mm
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	max. 90°C (194°F)
	pressure	max. 40 bar (570 lbs)
output	FlowguardK01	relay: max. 48 V AC/DC, 1A
		high/low switchable
	FlowguardK02	transistor: galvanically isolated
		max. 31 V DC, 15 mA
		high/low switchable
	FlowguardK20	4-20 mA, galvanically isolated
		load < 50Ω supply voltage
	FlowguardK01/K02	17...31 V DC, max. 60
	FlowguardK20	17...31 V DC, max. 90 mA
adjustment	sensitivity	1...180.000
	damping	0...10 s (K01/02), 0...180 s
	(K20)switchpoint	1...10 (FLOWguardK01/K02)
	Zero set 4 mA	(FLOWguardK20)

CE

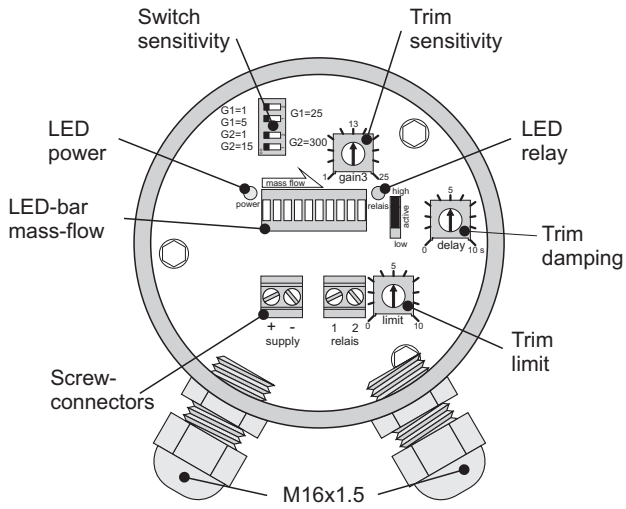


Characteristics

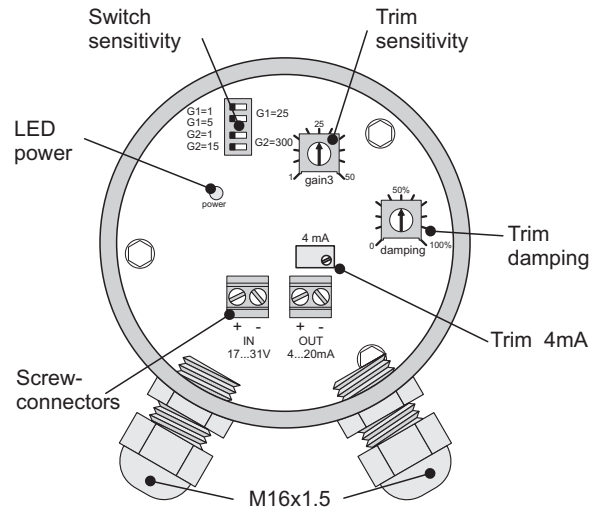
- non-contact / non-intrusive measurement
- compact construction
- simple installation between DIN- / ANSI - flanges
- measurement display with LED-bar conditions displayed by LED (relay / transistor output)
- stainless steel housing
- usable up to 40 bar (570 lbs)
- adjustable sensitivity
- adjustable switchpoint (limit switch)
- adjustable damping

FLOWguard K

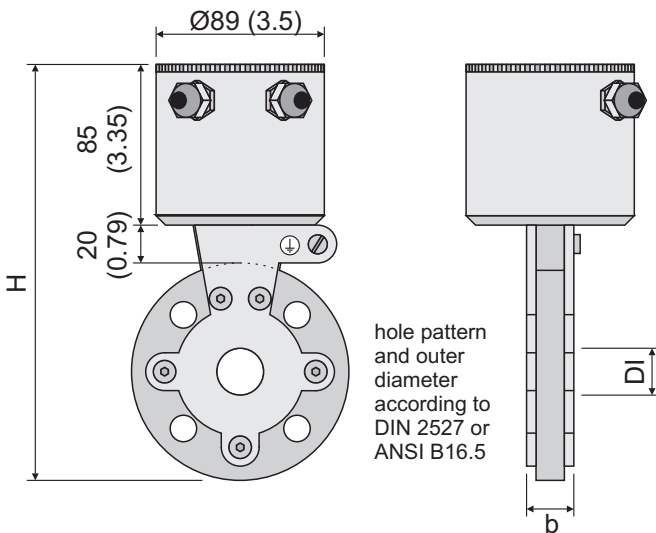
Switching output: FLOWguard K01 and K02



Analog output: FLOWguard K20



Dimensions in mm (in)



DIN-flange

nominal pressure (PN): 10, 16, 25, 40 bar

nom. size (DN)	H	b	standard diameter DI	
			row1	row2
10	195 (7.68)	20 (0.78)	10.4 (0.41)	13.6 (0.54)
15	200 (7.87)	20 (0.78)	16.0 (0.63)	17.3 (0.68)
20	210 (8.27)	20 (0.78)	20.4 (0.80)	22.3 (0.88)
25	220 (8.66)	25 (0.94)	24.8 (0.98)	28.5 (1.22)
32	245 (9.65)	25 (0.94)	32.8 (1.29)	37.2 (1.46)
40	255 (10.04)	25 (0.94)	39.3 (1.55)	43.1 (1.70)
50	270 (10.63)	25 (0.94)	51.2 (2.02)	54.5 (2.15)
65	290 (11.42)	25 (0.94)	70.3 (2.77)	-
80	305 (12.01)	25 (0.94)	82.5 (3.25)	-
100	325 (12.80)* 340 (13.39)**	30 (1.18)	100.8 (3.97)	107.1 (4.22)

*PN10/16 **PN25/40

ANSI-flange

nominal pressure (PN): 150, 300 lbs

nom. size (DN)	H		b	standard diam. DI
	150 lbs	300lbs		
1/2"	194 (7.63)	200 (7.87)	20 (0.87)	15.7 (0.622)
3/4"	204 (8.03)	222 (8.74)	20 (0.87)	20.8 (0.824)
1"	213 (8.39)	229 (9.02)	25 (0.94)	26.7 (1.049)
1 1/4"	222 (8.74)	238 (9.37)	25 (0.94)	35.1 (1.380)
1 1/2"	232 (9.13)	260 (10.24)	25 (0.94)	40.9 (1.610)
2"	257 (10.12)	270 (10.63)	25 (0.94)	52.6 (2.067)
2 1/2"	283 (11.14)	296 (11.65)	25 (0.94)	62.7 (2.469)
3"	296 (11.65)	315 (12.40)	25 (0.94)	78.0 (3.068)
3 1/2"	322 (12.68)	334 (13.15)	30 (1.18)	90.2 (3.548)
4"	335 (13.19)	359 (14.13)	30 (1.18)	102.4 (4.031)

all dimensions in mm(in)

technical data subject to change without notice

Ordering key

FLOWguard A/B/C/D/E/F/G

A: Output
K01: Relay
K02: Transistor
K03: Relay, sensitive version
K20: Analog output 4-20mA

B: Process coupling

DF: DIN-flange
AF: ANSI-flange

C: Flange nominal pressure PN

10, 16, 25, 40: DIN-flange
150lbs, 300lbs: ANSI-flange

D: Flange nominal size DN

10...100: DIN-flange
1/2"...4": ANSI-flange

E: Inner diameter DI in mm

10.4...107.1: DIN-flange
15.7...90.2: ANSI-flange

F: Options

D: Customer determined
inner diameter DI

G: Certificates

0: Ex-free area
Ex2: ATEX-Zone 2 and/or 22

Ex II 3G EEx nA II T4
II 3D IP67 T100°C



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