Compact low cost vibrating level switch with single rod technology for dry granular solids with bulk densities of minimum 50 grams per litre

Vibrating Level Switch

CV660

Purpose

The ***CV660*** is a vibration type level control instrument which is used for the detection of high-, mid- or low level in bins, silos and hoppers filled with all kinds of dry granular solids. The ***CV660*** is a low cost model of the successful CV600-series. The instrument is designed for power supply 24V-AC/DC, the output signal is either 24V (equals PNP), or a potential free low power relay output.

How it works

The signal from the electronic circuit of the ***CV660*** excites the stainless steel rod of the probe to vibrate on its resonance frequency of approx. 460Hz. When material covers the rod of the probe the vibration stops. This is sensed by the electronic circuit, the output signal gets switched. When the rod becomes uncovered due to declining level, the vibration restarts and the output signal switches back.

Advantages

- The vibration technique of the ***CV660*** offers many unique advantages over alternative level sensing technologies:
  - no problems at material changes in the silo: the function is independend from material characteristics, e.g. dielectricity
  - no readjustment required: unaffected by environmental changes e.g. temperature, pressure, humidity
  - unaffected by dust clouds and agitation
  - no maintenance required: the vibration has a self cleaning effect
  - high durability: no moving parts, no wear-out

- easy setup and wiring
  - the electrical connection is made via DIN-plug with max. 4 connectors
  - no calibration required

- low cost but high quality
  - probe and enclosure in stainless steel
  - designed and manufactured at PTL in Germany according to DIN EN ISO9001:2000 and with the background of over 20 years of experience in the field of vibrating level switches
  -
- reliable function due to unique patented single rod design
  - the ***CV660*** has only one single rod that comes in touch with the material to be detected; thus the typical bridging problem, where material builds a bridge from one rod to the other, well known at instruments with so called “tuning fork“ designs, is ruled out
  - material build-up on the container wall has no influence on the function of the ***CV660*** as only the tip of the vibrating blade is sensitive and not the base

Techtrol

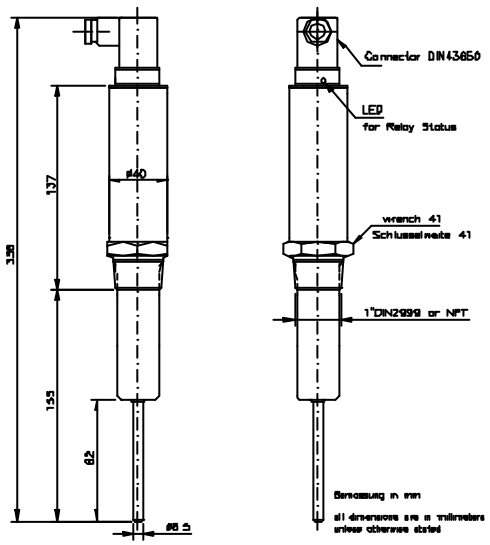
approved to
DIN EN ISO9001:2000

Physikalisch-Technisches Labor Hermann GmbH · Kellermatten 3 · D-79618 Rheinfelden-Eichsel
Tel: + 49-7623-747954 · Fax: + 49-7623-47589 · info@ptl-hermann.com · www.ptl-hermann.com

Specifications

Application:	for high or low level alarm, switch selectable for dry granular bulk solids: min. bulk density 50 grams/litre max. grain size 10mm	
Electrical Connection: (via plug DIN43650)	supply voltage: output:	24V-AC/DC ± 10% 24V (equals PNP), max. 625mA or reedrelais, one potential free contact (SPST) max. switching current: 1 A max. switching voltage: 50 V max. switching power: 15 W
	cable gland suitable for cable-∅ 4,5...∅7,0mm, max. wire size 1,5mm²	
Power Consumption:	1 VA	
Time Delay:	1 second from stop of vibration 2 to 5 seconds for start of vibration	
Probe:	stainless steel 1.4301 / AISI 304 thread 1“ conical DIN 2999 (equals BSPT) or 1“ NPT insertion length approx. 155mm resonance frequency approx. 460 Hz max. load upon the end of the blade: 80N	
Indication:	relay status: red LED at plug	
Protection:	IP65	
Max. pressure inside bin:	10 bar	
Ambient Temperature:	-20°C ... + 60°C	
Process Temperature:	-20°C ... + 70°C	
CE-conformity:	EMC-Directive 89/336/EWG, Low-Voltage-Directive 73/23/EWG	

Dimensions



PUNE TECHTROL PVT. LTD.

Works
‘S’ 18,MIDC, Bhosari, Pune 411026,India
Tel +91-20-27129298,27128055,27121052
Fax +91-20-27121663
Email : ho@punetechtrol.com
Web : www.punetechtrol.com

Service Centre
20/21. Parshwanath Indl.,
Co-op, Society,
Bhosari, Pune – 411026, India
Tel +91-20-66113565

1104