

# LEVELSWITCH CV130



Füllstandtechnik . Level Control

## Description

- Vibration type level switch with single-rod design for the reliable detection of all kinds of bulk solids: powdered or granule, heavy or lightweight down to 10g/l
- can be used for high- or low-level alarm or for demand indication in silos and hoppers of all kind
- diamond shaped single rod design prevents false alarm caused by material resting onto the vibrating blade
- very robust because of patented reinforced membrane
- welded pipe extension with insertion lengths from 200 to 2000mm
- easy installation and set-up
- maintenance free
- ATEX-approval for dust-Ex
- designed and manufactured at PTL in Germany



## Specifications

**Enclosure:** Alu-diecast, Protection IP 66 and IP 67  
two cable entries M20x1,5

**Electronics:** **wide range power supply 22 ... 250V AC/DC with relay output:**  
two potential free change-over contacts (DPDT)  
max. AC: 8A@250V / 2000VA /  $\cos\phi = 1$ ;  
max. DC: 8A@24V-DC / 1,5A@48V-DC  
min. DC: 24V / 100mA  
power consumption:  $\leq 3$  VA

or: **power supply 24V-DC with transistor output:**  
potential free, NPN or PNP depending on wiring  
350mA @ 24V-DC, short time max. 1A, max. power 20W  
power loss max. 3V, leakage current max. 100 $\mu$ A; short circuit proof  
power consumption at blocked transistor:  $< 1$  W

**Probe:** insertion length: min. 200 up to max. 2.000mm  
material: stainless steel 1.4301 / AISI 304  
connection: 1-1/2" EN10226 (DIN 2999 equals BSPT) or 1-1/2" NPT  
reson. frequency: 286 Hz

Max. pressure inside bin: 10 bar (0,8 ... 1,1 bar at ATEX approved units!)

Ambient temperature electronics: -40°C ... + 70°C (-20°C...+60° at ATEX approved units!)

Process temperature inside bin: standard: -40°C ... + 80°C  
Special model HT: -40 ... +150°C

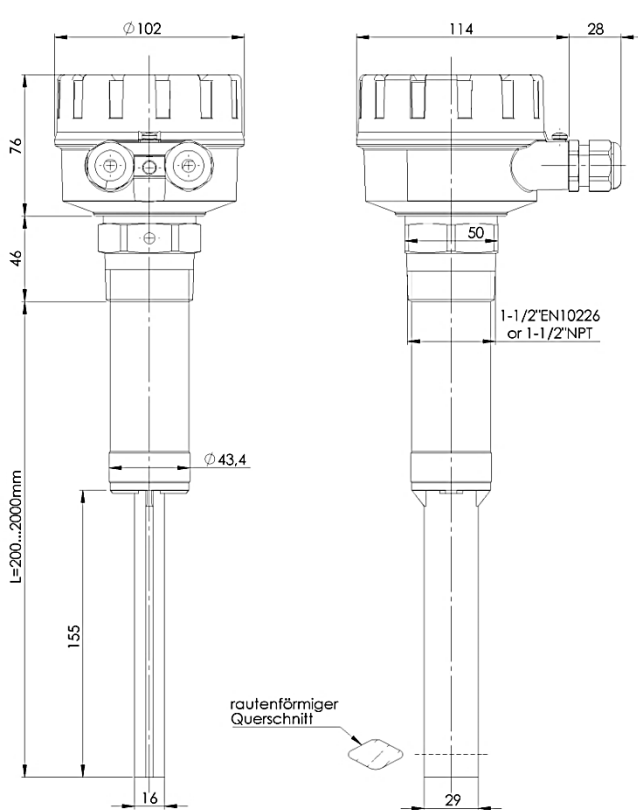
Material to be detected: non sticky bulk solids  
min. density 20 grams per litre, with special model as low as 10 g / liter  
particle size from powder to max. 40mm



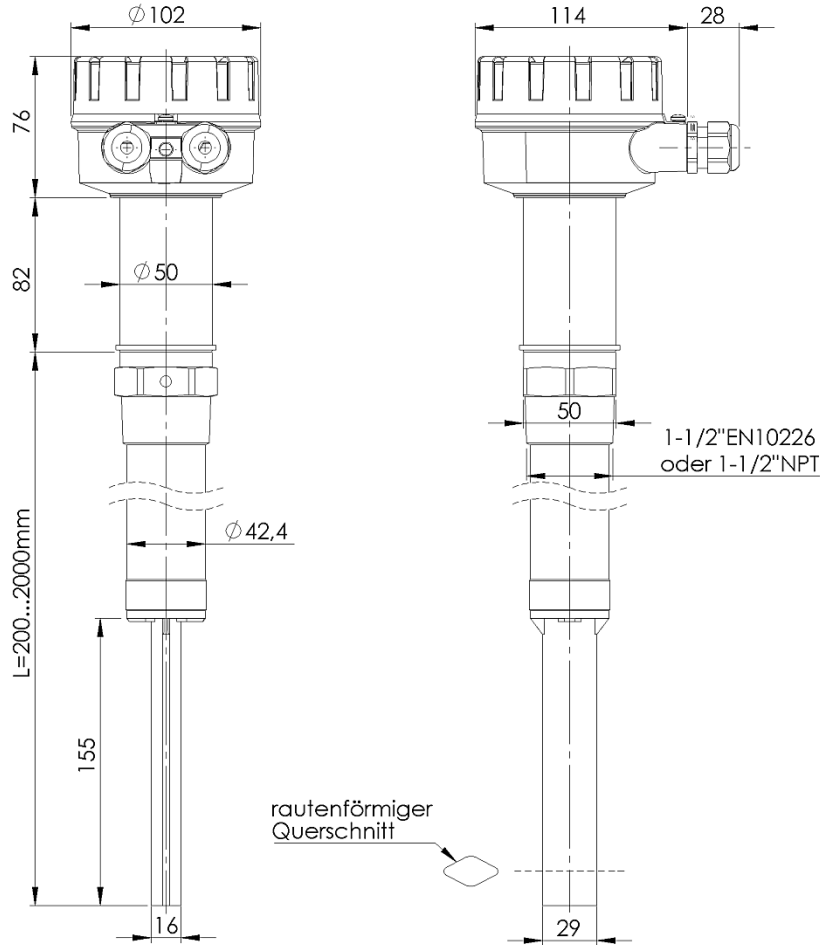
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standard version

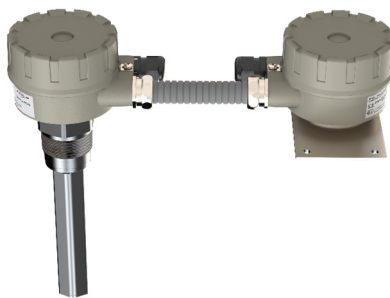


Special model HT with temperature insulating tube

## Special Models

### ➤ Remote Electronics Installation

This version offers a split architecture of probe and electronics.



- Application:
- if the ambient temperature near the container wall exceeds 60°C
  - if heavy vibrations are present at the container.
- Hose length: standard 2 meter, other lengths on request

### ➤ High Temperature Model

Application: for process temperatures above 80°C to max. 150°C. To protect the electronics from too high temperatures, a temperature insulating tube gets mounted in between the process connection and the enclosure. Instead it is as well possible to install the electronics at a place with lower ambient temperature by using the remote electronics installation.

## Options

- Enclosure powder coated
- Externally visible LED for indicating output status (not available in combination with ex approval)
- Process connection "Tri-Clamp" according to DIN32626
- Special model "Extreme Sensitivity": senses material down to 10g/l

## Approvals

- CE-Conformity according to the following directives
  - EU-EMC-directive 2014/30/EU
  - EU-LVD-directive 2014/35/EU
- ATEX approval according to ATEX-directive 2014/34/EU for dust-explosive atmospheres: ATEX II 1/2D T95°C for zones 20/21/22