



CV6

Vibrating rod level control

ELECTRONIC
EQUIPMENT

ACOUSTIC

WEIGHING

ANTI-TILTING

VALVES

TEMPERATURE

DETECT
A FIRE®

FLOW/
RATE

DENSITY

INTERFACE

PRESSURE

LEVEL



CV 600, CV630, CV650, CV 660

The CV6 series vibrating rod level controls are divided into four models:

- **CV 600** in compact design with reduced immersion length
- **CV 630** always in compact design and with immersion part lengths from 300mm up to 1m
- **CV 650** still in compact design but with rope probes up to 4m

Low cost, small size, no calibration, fast installation, ideal for all types of granular solids contained in small hoppers or for interface measurements. CV 600 is a tool control system that determines the minimum and maximum level in tanks, silos and hoppers. For its small size CV 600 is ideal for small hoppers that process any type of granulate such as plastic grains and food. CV 600 is ideal for materials with a volumetric weight greater than or equal to 50g/litre. The signal from the CV 600's electronic circuit excites the probe's steel rod, which vibrates at its resonance frequency of about 460Hz.

When the material covers the probe, the vibration is dampened and the electronic circuit drives the output relay. When the material uncovers the probe the vibration starts again and the relay switches its state. Only the final part of the probe is sensitive, but not the base, so any build-up of material does not affect the function of the probe.

The **CV 660** has the same features as the CV 600 but is powered at 24 Vac/dc and has different dimensions. The CV 600 offers several advantages over other level control techniques:

- has no moving parts
- maintenance-free
- is insensitive to changes in temperature, humidity or pressure
- is insensitive to variations in the material to be controlled
- is insensitive to dust or material movement
- must not be programmed
- is versatile
- vibration has a self-cleaning effect

The choice of a single rod prevents material build-up on the probe, while build-up on the tank wall does not affect operation.

Safety against faults: the electronics signal a power failure and activate the alarm.

High quality:

- uses the latest piezoelectric technology
 - is made of stainless steel
 - is designed on the basis of 40 years of field experience
- Its small size allows its use even in small tanks and where space is limited.

It has a low cost compared to the performance it offers.

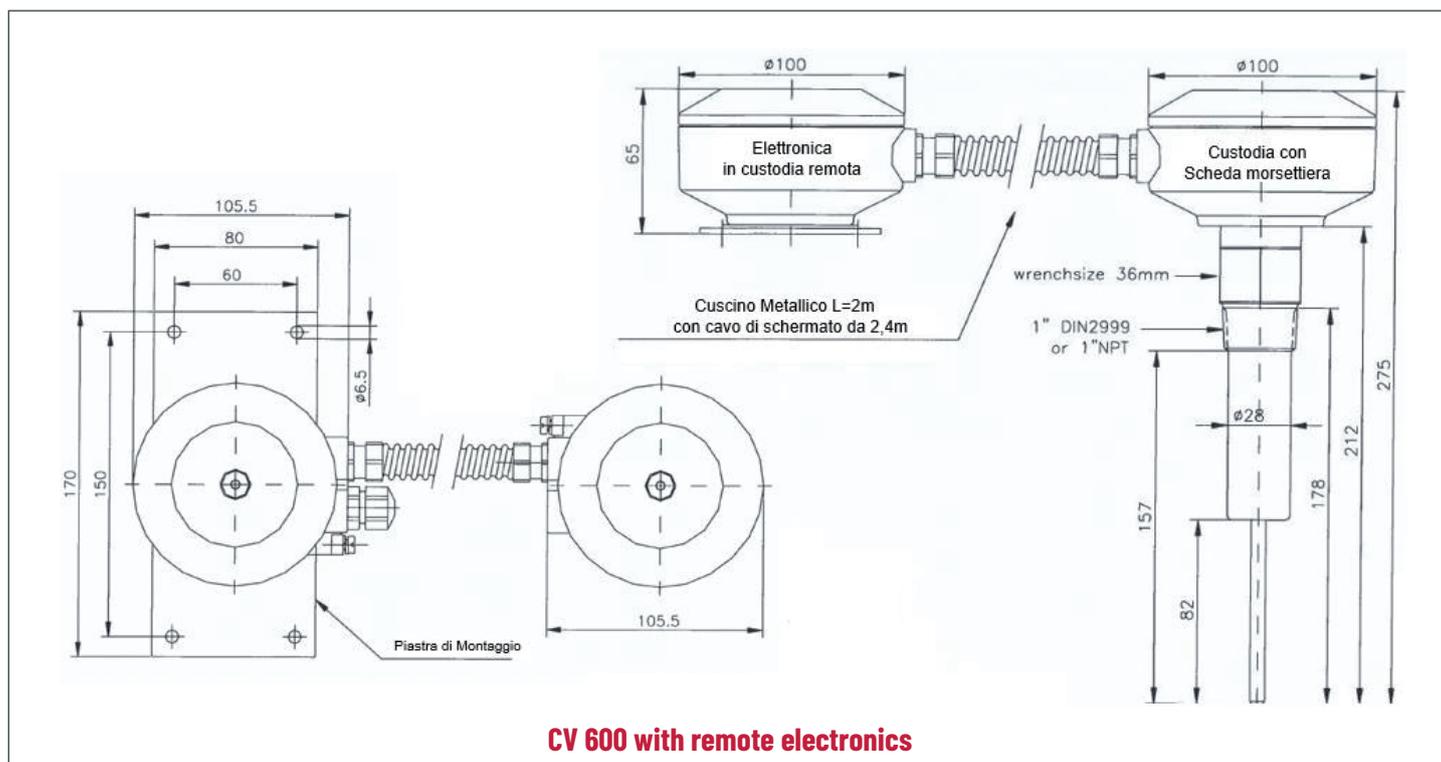
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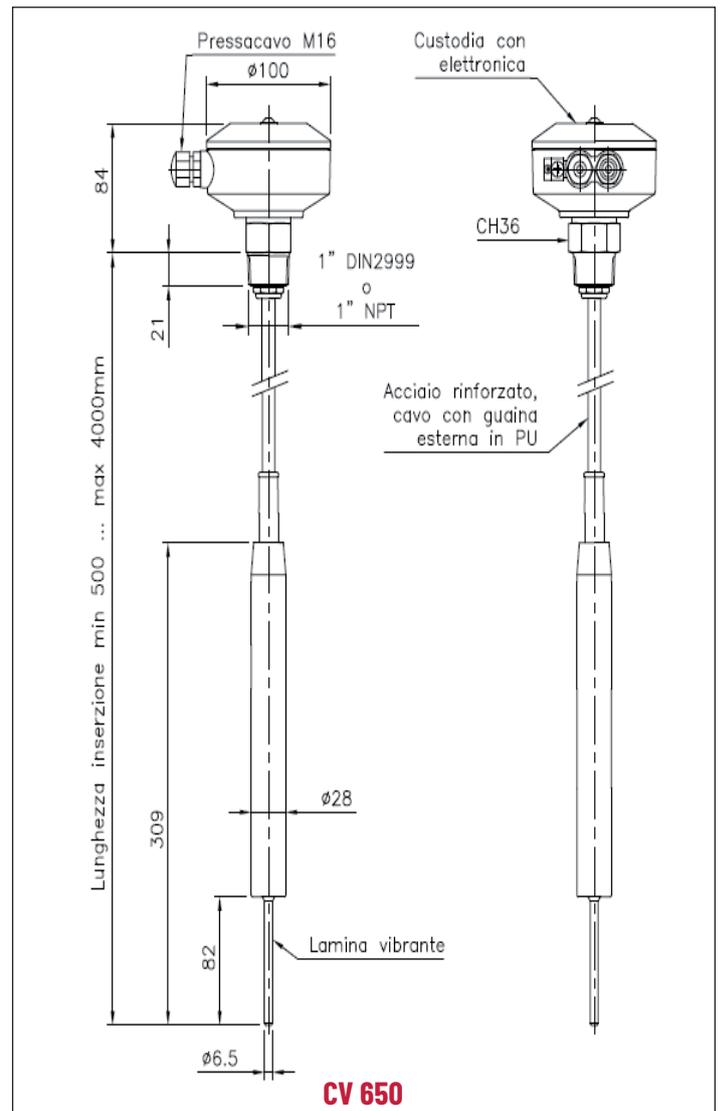
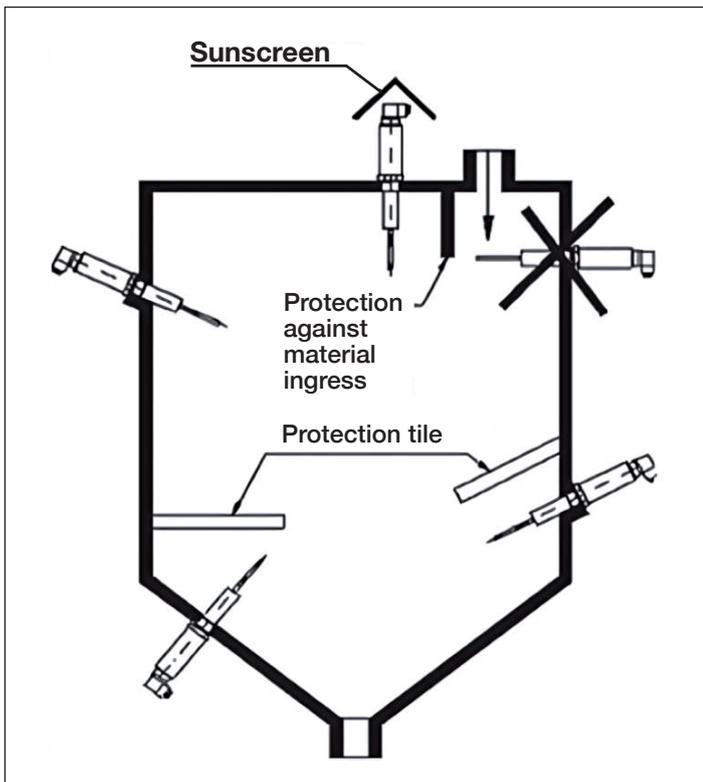
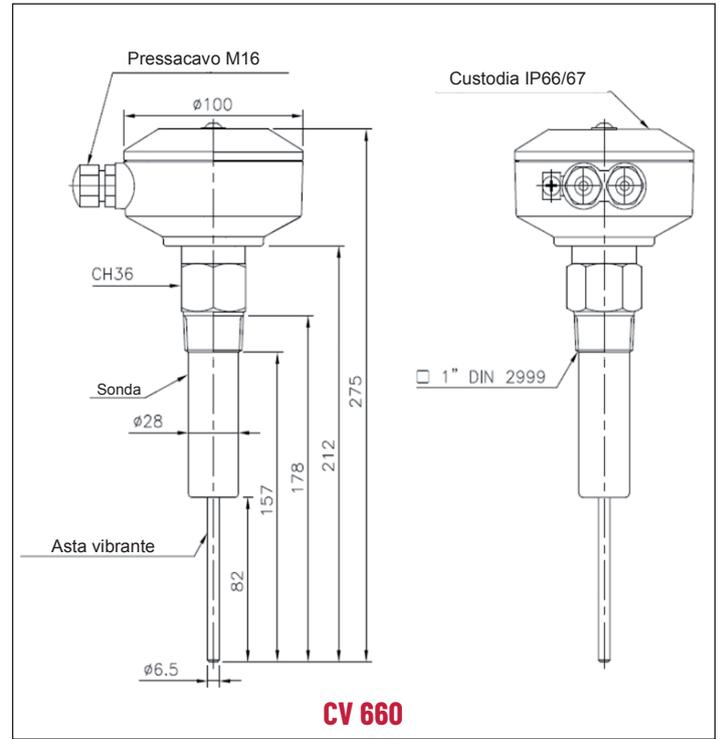
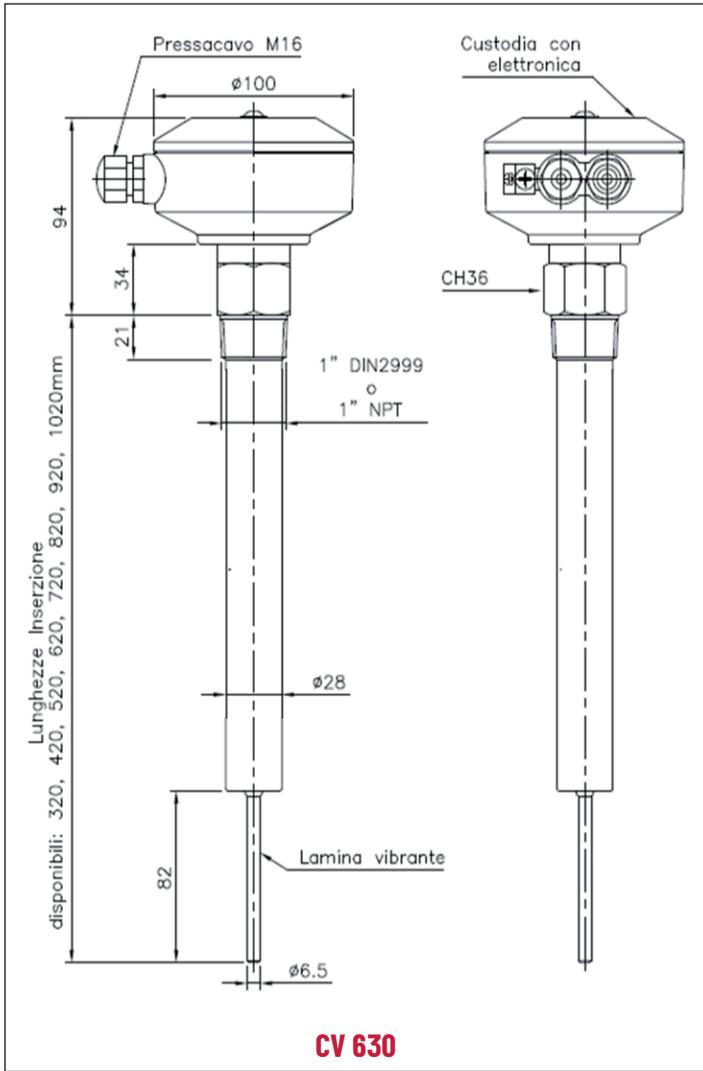
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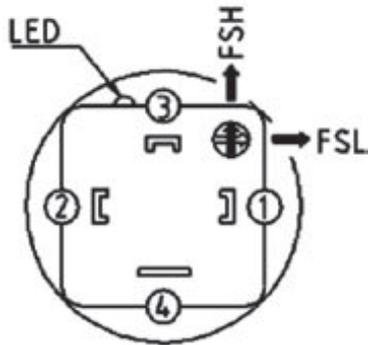
Technical specifications

	CV 600 - CV 630 - CV 650	CV660
Enclosure	aluminium die-casting painting with epoxy resin on request M16 cable gland for cables $\varnothing 4.5 \div 10\text{mm}$; 2 cable glands on request	stainless steel 1.4301/AISI 304 cable gland for cables $\varnothing 4.5 \div 7\text{mm}$ max. cable cross-section 1.5mm^2
Antifreeze	IP66/67	IP65
Max. ambient temperature	$-20 \div 60^\circ\text{C}$	$-20 \div 60^\circ\text{C}$
Vibrating rod	in 1.4301/ AISI 304 steel	stainless steel 1.4301/AISI 304
Connection	1" Gas conical UNI 339-66 (DIN 2999) or 1"NPT	
Resonance frequency	460Hz	460Hz
Max. load on rod end	80N	80N
Weight	1Kg	0.75Kg
Minimum volumetric weight	50g/l	50g/l
Temperature: electronic HT probe	$-20 \div 60^\circ\text{C}$ $-20 \div 80^\circ\text{C}$ $-20 \div 150^\circ\text{C}$ model for high temperature	$-20 \div 60^\circ\text{C}$ $-20 \div 70^\circ\text{C}$ no
Maximum operating pressure	10 bar	10 bar
Power supply voltage	$20 \div 250\text{Vca/cc}$	$24\text{Vcc} \pm 10\% < 20\text{W}$
Max consumption	3VA	
Relay characteristics	1 SPDT 250Vac, 5A max 1250VA, $\cos \phi = 1$; max 150W for Vdc	Transient output; NPN/PNP
Delay time at rod re-covering	1 second	1 second
Uncovering the rod	$2 \div 5$ seconds	$2 \div 5$ seconds
Indications	relays: Red LED; power supply: Yellow LED	Red LED on connector
Certifications	CE, ATEX for zone 20/21/22	CE





Connection diagram



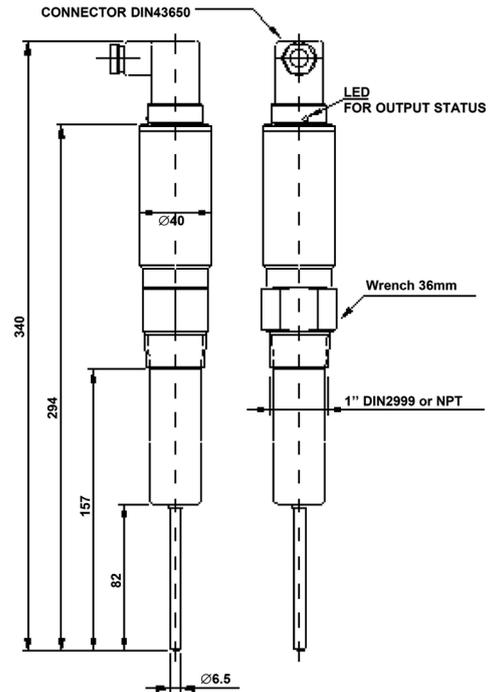
Model with 24V output

- 1 = not connected
- 2 = 24V output
- 3 = 24Vdc or ac power supply (+/- 10%)
- 4 = Earth

The relay output can be used as 24V output by simply connecting Pin 3 to Pin 1.

The 24V output will be present on Pin 2.

CV 6600

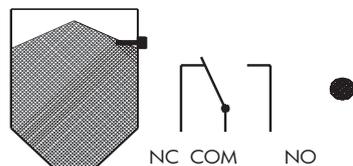


CV 6600
without case

Min safety (FL)



Max safety (FH)



CV 6600
In execution without housing and with spy lamp