

# Vibration Switch CVS 100 LC

## Data Sheet

### CHARACTERISTICS

- low cost vibration control
- vibration velocity
- simple version
- easy installation
- 1 adjustable level detector
- analog output 4 .. 20 mA
- optional stainless steel casing



### GENERAL

The vibration switch CVS 100 LC allows a low-priced realisation of vibration control for stand-alone machines and auxiliary aggregates (e.g. fans, pumps, centrifuges, mills, gears, etc.), on whose functions important big-installations or process-bounds are depending. Among other things it allows observation according to VDI 2056 and ISO 2372.

Utilized for this are the vibrations of important machine parts (pillowblocks, foundations, casings) covered by rugged velocity feeders in electrical signals and processed and assessed with integrated electronics.

This signal- and adjust electronics is fitted together with the velocity feeder into an aluminium casing (or optional stainless steel casing) fitted directly onto the machine to be observe.

An adjustable level detector with eligible response delay is allowing the volt free signaling via a relay.

### FUNCTIONAL DISCRIPTION

The signal of the velocity feeder is passed via a band-pass filter (10-1000 Hz) and is amplified in an amplifier up to the utilizing required level.

The measuring ranges' selection is made by a jumper. The DC-output signal available after the rectifying is calibrated in RMS. It has an effect on the adjustable level detector, whose response time is set by a jumper either to 1sec. or to 5sec. The assigned relays' change-over contact enables the signal-circuit assembly (warning/alarm).

### TECHNICAL DATA

#### Measuring direction:

vertical or horizontal  
(please take into account when ordering)

#### Amplifier:

AC-amplifier with rectifier and filter

#### Measuring range:

**Velocity:** 2, 5, 10, 20, 50 [mm/s] (effective)

**Frequency range:** 10 Hz .. 1000 Hz

**Output signal:** 4 .. +20 mA  $R_{Last} \leq 500 \Omega$

proportional velocity, calibrated in effective [mm/s]

#### Level detector:

1 piece, limit adjustable in range of 5 .. 100% of measuring range end (Fail-Safe function, relay normally energized)

**Time delay:**  
adjustable 1 sec. or 5 sec.

**Relay contact safe load (change-over contact):**  
Turn-on voltage max.: 150 VDC / 125 VAC  
Switching current max.: 1A  
Constant limited current max.: 1A  
Rupturing capacity max.: 30W / 60VA

#### Supply:

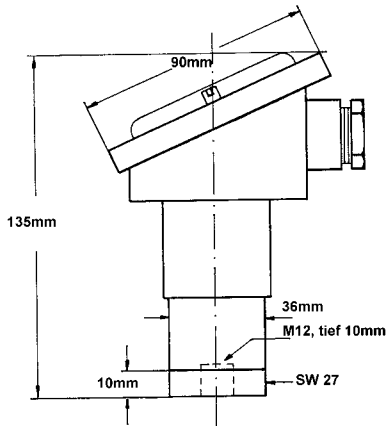
**Voltage:** 24VDC +/-20% ca. 30mA  
no galvanic separation

#### Temperature range:

-20 .. +70°C working temperature  
-30 .. +70°C storage range

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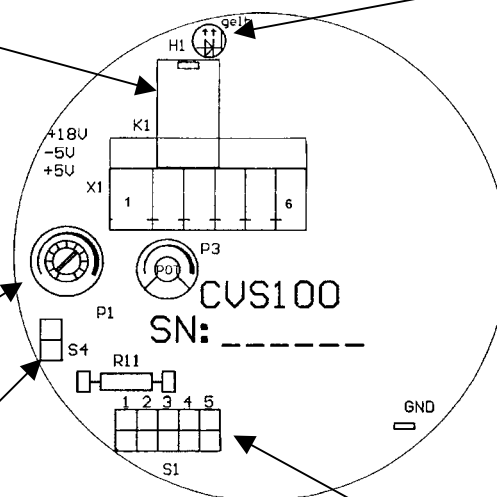
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**Casing dimensions:** 131 x 90mm (height x diameter)  
**Material:** alum Al Si 12/Cu / optional stainless steel (1.4305)  
**Mounting:** M12, 10mm deep, wrench 27, starting torque 10Nm  
**Screwed cable gland:** 1 x M20x1,5  
**Protection class:** IP 55  
**Weight:** ca. 0,62 kg (aluminium casing)  
 ca. 1,7 kg (stainless steel casing)

RELAY K1

LED H1



LEVEL-RELAY P1

RELAY TIME DELAY K1  
 S 4 ON = 1s OF = 5s

RANGE S1

1 ON 0...2mm/s RMS  
 2 ON 0...5mm/s RMS  
 3 ON 0...10mm/s RMS  
 4 ON 0...20mm/s RMS  
 5 ON 0...50mm/s RMS

1	+24 VDC
2	0 VDC
3	Rel. K1 NC
4	Rel. K1 COM
5	Rel. K1 NO
6	Analog out 4 .. 20 mA

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