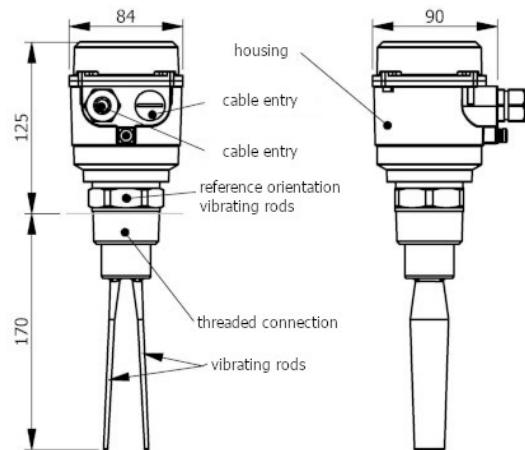


Part number: **CLM000060** Model: **VL-A170**



Dimension in mm

1. TECHNICAL CHARACTERISTICS



Electrical data

Connection terminals:	0.14 ÷ 2.5 mm ² (AWG 26 ÷ 14)
Cable entry:	Cable gland: M20x1.5 with cable sheath diameter 6÷12mm CONDUIT: NPTx½ o NPT3/4
Output activation delay:	Rods free → Rods covered: c.a. 1 sec Rods covered → Rods free c.a. 1... 2 sec
Detection functions FSH/FSL:	Settable on the circuit with selector switch
Vibration frequency: [Hz]	200 c.a.
Over voltage category:	II
Pollution degree:	2 (inside housing)

Mechanical data

Housing material:	Body: Aluminium powder coated RAL5010 Seals: NBR
Degree of protection:	IP 67 according to EN 60529
Threaded connection:	Material: AISI 316 (1.4581) Thread: R1/2 conical
Vibration rods:	AISI 316 (1.4581)
Sound level: [dBA]	50
Weight: [g]	1700

Electronics

Power supply: [V]	DC: 20 ÷ 40 ±10% AC: 20 ÷ 230 ±10% 50 ÷ 60 Hz
DC Max power dissipation: [W]	2
AC Max power dissipation: [VA]	22
Relay DPDT output:	AC: max 250V, 8A not inductive DC: max 30V, 5A not inductive
Protection class:	I
Output status signaling LED:	Present on the internal circuit

Operative conditions

Ambient temperature:	[°C]	-40 ÷ +60
Process temperature-Tc:	[°C]	-40 ÷ +150
Ventilation:		Ventilation is not required
Min. powder density:	[g/l]	Setting A : c.a. 150 - Setting B : c.a. 30
Features of bulk material:		No strong tendency to cake or deposit. Max grain size 8 mm
Max. mechanical load:	[N]	500 laterally on vibrant rods
Max. process pressure:	[Bar]	16
Vibration:		c.a. 200
Relative humidity:		0 ÷ 100%, suitable for outdoor use
Altitude:	[m]	max 2.000

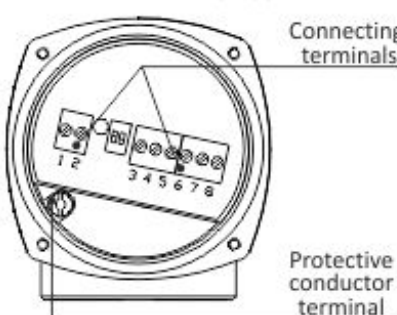
Compliance to Standards / Directives

Directives compliance:	2014/30/EU -Electromagnetic compatibility directive (EMC) 2014/35/UE -Low voltage directive (LVD)
Standards compliance:	EN61010-1 and EN61326-A1

2. NORME DI INSTALLAZIONE

WIRING DIAGRAM

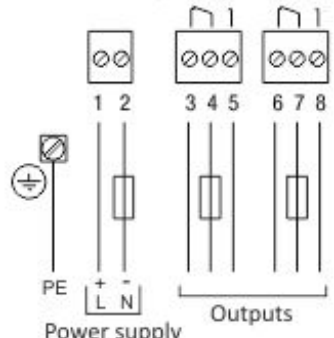
INTERNAL CIRCUIT VIEW



Connecting terminals

Protective conductor terminal

WIRING DIAGRAM



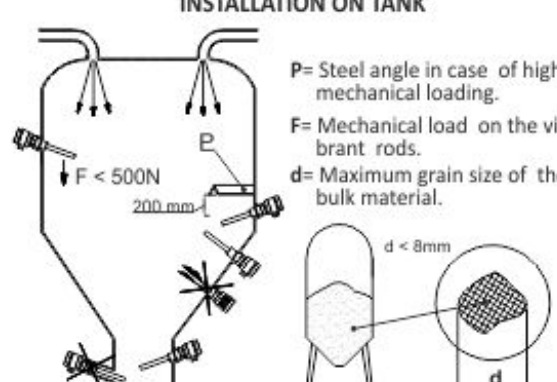
Power supply

Outputs

Warning! Protect the power supply and relay outputs with 10A fuses, instantaneous or delayed, HBC, 250V.

INSTRUCTIONS FOR CORRECT INSTALLATION

INSTALLATION ON TANK



P= Steel angle in case of high mechanical loading.

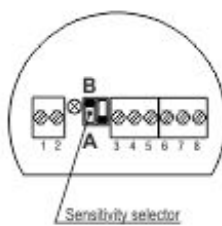
F= Mechanical load on the vibrant rods.

d= Maximum grain size of the bulk material.

d < 8mm

SENSITIVITY SETTING

The VL-A170 control is factory setted. Therefore, it usually do not have to be re-setted. If the bulk material has a strong tendency to cake or deposit, the setting selector can be set to position "A" so as to decrease the sensitivity. (Factory presetting = position "B").

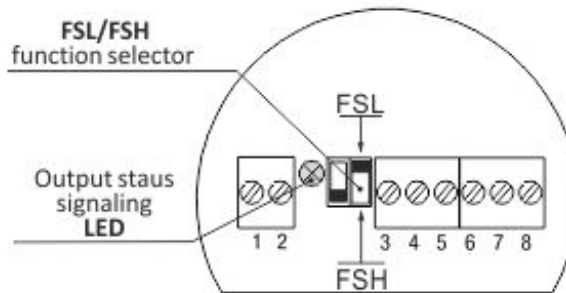


Sensitivity selector

A	B
Low sensitivity	High sensitivity
150 g/l	30 g/l

The minimum apparent densities that can be set using the sensitivity selector are as follows:

MAXIMUM OR MINIMUM LEVEL SETTING AND RELAY OUTPUTS STATUS

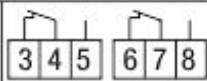
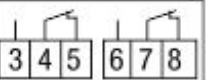


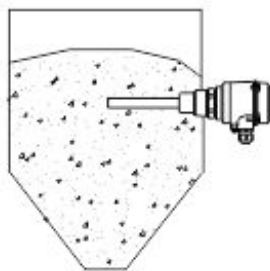


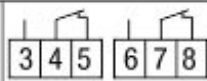
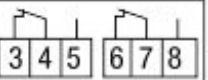


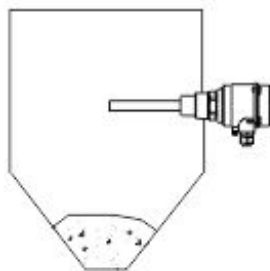
FSH MAX LEVEL SETTING (High level security)

If the VL-A170 control is used to indicate the maximum level, set the selector on FSH (Fail Safe High). With this selection, any interruption of the power supply (mains failure, cable break, etc.) is considered as a full tank signal, thus preventing out of the material from it.

FSL MIN LEVEL SETTING (Low level security)

If the VL-A170 control is used to indicate the minimum level, set the selector on FSL (Fail Safe Low). With this selection, any interruption of the power supply (mains failure, cable break, etc.) is considered as an empty tank signal, thus preventing the unloaded run of the drain.

RELAY OUTPUTS STATUS WITH FULL TANK		
Selector setting	FSH	FSL
Relay contacts		
LED		
 <div style="display: flex; justify-content: space-between; padding: 0 10px;"> Full tank Vibrating rods covered of material </div>		

RELAY OUTPUTS STATUS WITH EMPTY TANK		
Selector setting	FSH	FSL
Relay contacts		
LED		
 <div style="display: flex; justify-content: space-between; padding: 0 10px;"> Empty tank Vibrating rods free of material </div>		

OPERATIVE TEMPERATURE DIAGRAM

