Relay or solid state output

NIVOCONT

R-300/R-400 SERIES OF VIBRATION RODS

OUR PROFESSION IS YOUR LEVEL

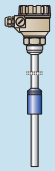
NIVOCONT R-300 AND R-400 SERIES OF VIBRATION RODS

Advantages such as robustness, self-cleaning for most mediums through vibration, pressure & corrosion resistance and great life span offered by Vibration Rods (also called Tuning Rods) make them the optimal solution for single point level switching in free flowing solids. Because of these excellent features the vibration rods from Nivelco are considered as one of the most reliable level switching devices.
The vibration rod is energised and kept in resonance by an electronic circuit. When covered by material the damping of the vibration will be detected by the electronics which, after a built-in programmable time delay, initiate the switching of the output relay.

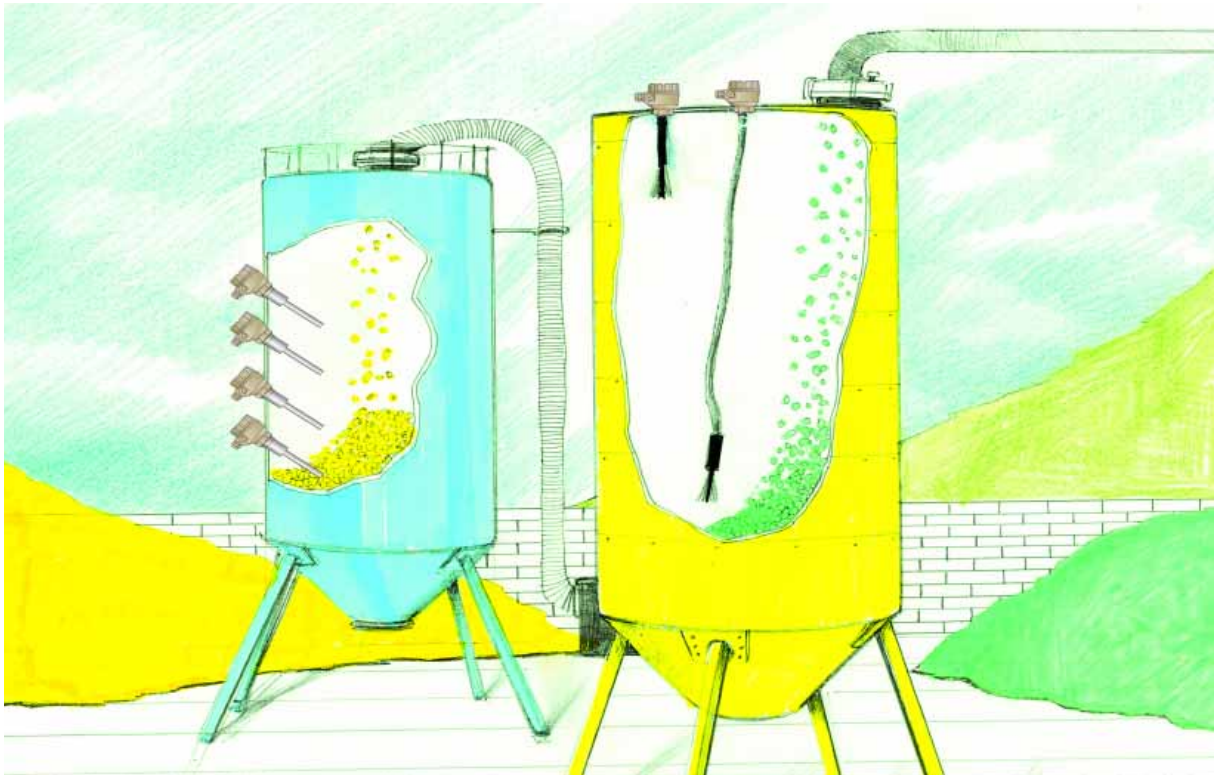
APPLICATION

The NIVOCONT is specifically designed for providing high or low level switching signals in silos or bins containing free-flowing powders and granular materials such as carbon black, sugar, grain, cement, lime, sand etc. with a material bulk density of 50 kg/m^3 or more. Manufactured in three different versions the standard unit is designed for side mounting in vessels whereas the rigid extended and the flexible cable extended versions are intended for vertical installation. Requiring only a 1 ½" BSP/NPT socket, either on the top or in the sidewall of the silo the unit is easy to install and simple to commission. The Ex version is approved for use in dust hazardous areas (Zone 20).

TECHNICAL DATA

MODEL		STANDARD	ROD EXTENDED	CABLE EXTENDED
Outline				
Probe length		235 mm	0.3 to 3 m	1 to 20 m
Parts protruding into tank		SS316Ti (1.4571)		Probe: SS316Ti Cable: PE coated
Housing material		Powder paint coated aluminium (R-300) Flame retardant plastic (R-400)		
Process connection		1 1/2" BSP or 1 1/2" NPT		
Temperature ranges	Process temp.	RK: –30°C to +110°C RH: –30°C to +160°C		–25 °C to +90°C
	Ambient temp.	–30°C to +60°C		
Max. pressure (absolute)		25 bar (2.5 MPa)		6 bar (0.6 MPa)
Minimum medium density		0.05 kg/dm^3		
Supply voltage		Voltage version I.: 16 ... 40V AC (50/60 Hz) or 19 ... 55V DC Voltage version II.: 85 ... 265V AC (50/60 Hz) or 120 ... 375V DC		
Power consumption		Voltage version I.: ≤ 2.5 VA, 1.2W Voltage version II.: ≤ 2.5 VA, 1.3W		
Output		SPDT relay 250 V AC, 8A, AC1 or solid state (SPST) DC 350 mA/50V		
Response time		2 sec or 5 sec (selectable)		
Ingress protection		IP 67 (NEMA6)		
Electrical protection		Class I.		
Explosion proof protection mark		Ex IIDIT6 IP 67 (Zone 20)*		
Certificates by		DMT		
Techical info		Data sheet RK34A		

* Pending



Technical specification may be changed without notice

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