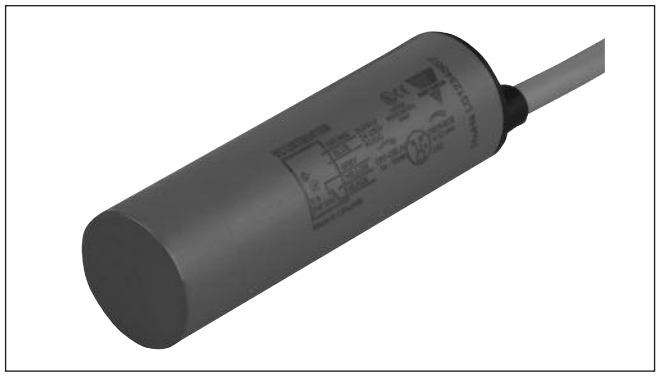
Proximity Sensors Capacitive Thermoplastic Polyester Types VC11RTM24, VC12RTM24, VC12RNM24



- **Level sensor for solid, fluid or granulated substances**
- **Adjustable sensing distance: 4-12 mm**
- **Multi voltage supply: 20.4 to 255 VAC/DC**
- **SPDT relay output**
- **Time delay on operate or release**
- **Time delay options up to 10 minutes**
- **VC11/12RTM24: With adjustable time delay**
- **VC12RNM24: Without time delay**
- **Cable versions**

Product Description

Capacitive sensor in thermoplastic polyester for mounting in PG 36 screw gland. Available with adjustable sensing distance and with/-without built-in time delay (ON or OFF delay). The relay output ensures that the load can be driven directly. Excellent for use in the agriculture area (detection of grains, fluids etc.).

Ordering Key

VC11RTM2410M

Type
Time delay options
Voltage
Time delay

Type Selection

Supply voltage	Ordering no. With ON delay	Ordering no. With OFF delay	Ordering no. Without time delay
24- 230 V AC/DC	**VC11RTM2410M**	**VC12RTM2410M**	**VC12RNM24**

Specifications

Rated operating distance (S_n)	Up to 12 mm, referece target 30 x 30 mm ST37.1 mm thick, grounded
Sensing distance	4-12 mm, adjustable Factory set at 7 mm
Sensing distance adjustment	Multiturn, 15 turns adjustment steps
Temperature drift	$0.8 \times S_r \leq S_u \leq 1.2 \times S_r$
Hysteresis (H)	3 to 20%
Rated operational volt. (U_B)	20.4 to 255 VAC/DC (ripple included)
Rated supply frequency	47 to 63 Hz
Rated operational power	0.5 to 2.5 VA
Output	2 A Relay SPDT@240 VAC
AC12	2 A
AC140	2 A
DC12	2 A
DC13	2 A
Mechanical life typically	15×10^6 operations
Electrical lifetime	1×10^5 operations @ 2A/240VAC
Minimum operational current (I_m)	10 mA@12 VDC (i.e. Minimum relay current)
Protection	Reverse polarity and transients

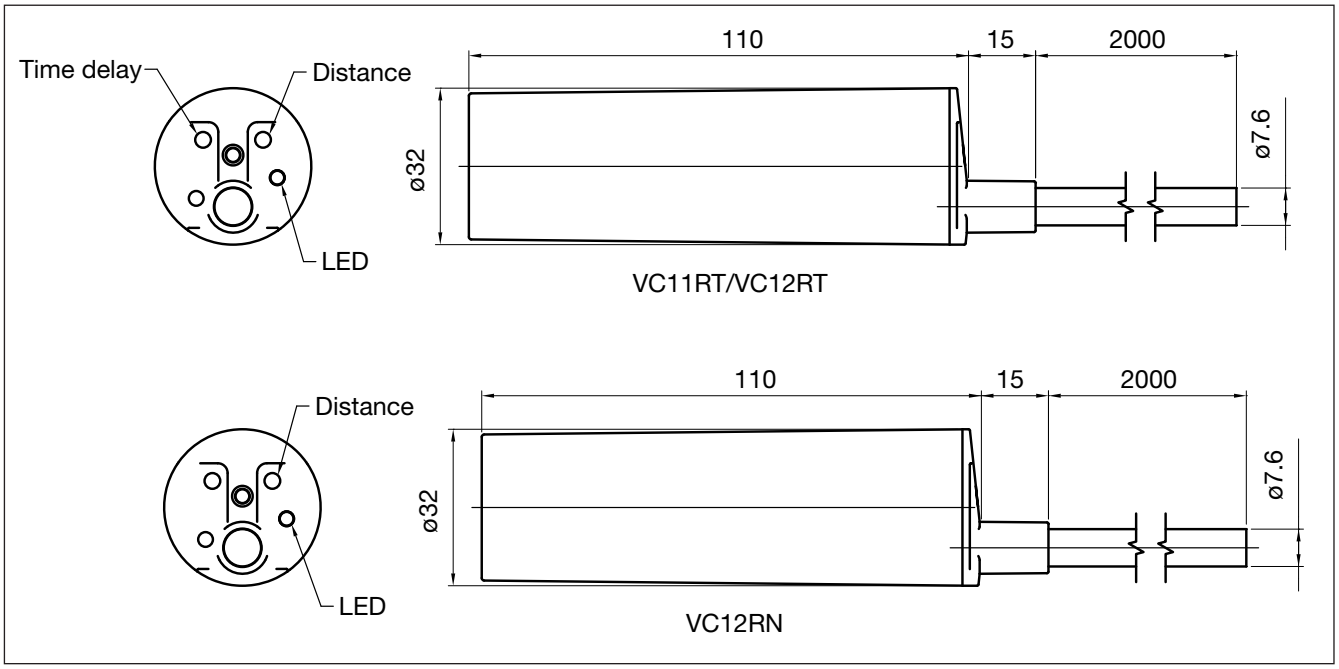
Operating frequency (f)	≤ 1 Hz
Response time	
OFF-ON (t_{ON})	≤ 500 ms
ON-OFF (t_{OFF})	≤ 500 ms
Power ON delay (t_v)	≤ 200 ms
Output function	SPDT relay
Output switching function	N.O. and N.C.
Indication	
Output ON	Red LED
Time Delay	LED flashing depend on time delay
Output Time delay	Factory settings 0 sec.
Delay on operate, adjustment VC11TRM2410M	1 sec. - 10 min.
Delay on release, adjustment VC12RTM2410M	1 sec. - 10 min.
No time delay VC12RNM24	no delay
Time delay adjustment	Multiturn, 15 turns
Environment	
Installation category	III (IEC 60664/60664A; 60947-1)
Pollution degree	3 (IEC 60664/60664A; 60947-1)
Degree of protection	IP 67, NEMA (1, 2, 5) (IEC 60529; 60947-1)

Specifications (cont.)

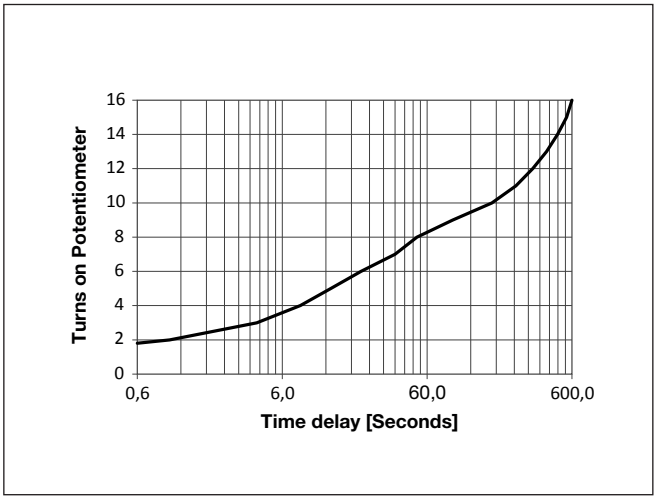
Ambient temperature	
Operating temperature	-20° to +70°C (-4° to +158°F)
Storage temperature	-40° to +85°C (-40° to +185°F)
Vibration	10 to 150 Hz, 1.0 mm/15 G (IEC 60068-2-6)
Shock	30 g / 11ms, 3 pos, 3 neg per axis (IEC 60068-2-6, 60068-2-32)
Rated insulation voltage	≥ 250 VAC (rms)

Housing material	
Body	PBT Valox 855, red
Backpart	Arnitel EL630
Trimmer	LCP Vectra A 130
Connection	
Cable	PVC, gray, 2 m 5 x 0.75 mm², Ø = 7.6 mm
Weight	≤ 320 g
Approvals	**c**ULus (UL508+CSA)
CE-marking	Yes

Dimensions



Trimmer VS Delaytime



Trimmer VS Distance

Specifications are subject to change without notice (15.10.2012)