Electronic Controller for NPN/PNP sensor

**PRX13**

**General**

The PRX13 electronic vibrator stop circuit can be used to stop round electromagnetic vibrators or electromagnetic vibratory hoppers through mechanical, inductive, capacitive or optical (photocells) sensors with NPN or PNP outputs. The circuit also features 1 timed delays 0-12 sec. which are adjustable, for stop and start of the vibrator.

**Applications**

The PRX13 electronic vibrator stop circuit can be used in various configurations, such as:
- For controlling overflow of a vibratory chute at the output of a round vibrator.
- For controlling the loading in a round vibrator from a hopper by means of mechanical level indicators.
- For energizing readout photocells instead of the mechanical device used as level sensor.

Hence it is possible to couple our pc boards of the RC series and CV6-CV8, for commanding and automating a complete feeder system.

Thanks to the remarkable compactness and the great reliability guaranteed by galvanic and opto-isolation of the inputs, the PRX13 proves to be a valid help in all those cases where it is required to automate component loading and selection cycles with the aid of mechanical and electronic sensors.

**Options**

Circuit PRX13 with external regulation by potentiometers-code PRX13/PEX.

**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Voltage</td>
<td>230 Vca ± 5% – 50/60 Hz</td>
</tr>
<tr>
<td>Consumption</td>
<td>1,5 W max</td>
</tr>
<tr>
<td>Fuses</td>
<td>0,2A F 250V 5x20 H1500A</td>
</tr>
<tr>
<td>Inputs For Sensors</td>
<td>Optoisolated NO/NC NPN/PNP</td>
</tr>
<tr>
<td>Type Of Sensors</td>
<td>Mechan.Inductive.Capacitive Or Optical</td>
</tr>
<tr>
<td>Supply Voltage For Sensors</td>
<td>12 Vcc</td>
</tr>
<tr>
<td>Energization Delay (T1):</td>
<td>0-12 Sec.Reg</td>
</tr>
<tr>
<td>De-energization Delay (T2):</td>
<td>0-12 Sec.Reg.</td>
</tr>
<tr>
<td>Output For Vibrator Stop:</td>
<td>2 NO/NC 10A 250Vca Max</td>
</tr>
<tr>
<td>Position Of Assemblage:</td>
<td>Horizontal Or Vertical</td>
</tr>
<tr>
<td>Temperature Of Storage:</td>
<td>-10 °C / +80 °C</td>
</tr>
<tr>
<td>Temperature Of Operation:</td>
<td>-5°C / +55°C</td>
</tr>
<tr>
<td>Range Of Relative Humidity:</td>
<td>80%Till To 31 °C</td>
</tr>
<tr>
<td>Altitude</td>
<td>Till To 2000 Meters</td>
</tr>
</tbody>
</table>

**Available Versions**

<table>
<thead>
<tr>
<th>Type</th>
<th>Box Description</th>
<th>Colour</th>
<th>Dimensions</th>
<th>Code</th>
<th>Price €</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRX13</td>
<td>Circuito con regolazione tramite trimmers</td>
<td>PRX13 A2 STD</td>
<td>60 x 45 x 25</td>
<td>PV PRX13 A2 STD</td>
<td></td>
</tr>
</tbody>
</table>
NOTA: Utilizzare per l'ingresso di abilitazione, per l'inserimento del blocco vibratore e per il reset dello stesso, contatti senza tensione.

ATTENZIONE ALLA PREDISPOSIZIONE!

T1 = Delay ON   T2 = Delay OFF

1  ON
NPN Sensor - Out Q
(Presence piece =
= start cycle T1/T2)

2  ON
NPN Sensor - Out Qneg.
(Absence piece =
= start cycle T1/T2)

3  ON
PNP Sensor - Out Q
(Presence piece =
= start cycle T1/T2)

4  ON
PNP Sensor - Out Qneg.
(Absence piece =
= start cycle T1/T2)

5  ON
Mechanical level sensor
(Absence piece =
= start cycle T1/T2)

6  ON
NPN Sensor - Out Q
(Absence piece =
= start cycle T1/T2)

7  ON
PNP Sensor - Out Q
(Absence piece =
= start cycle T1/T2)

8  ON
NPN Sensor - Out Qneg.
(Presence piece =
= start cycle T1/T2)

9  ON
PNP Sensor - Out Qneg.
(Presence piece =
= start cycle T1/T2)

T1 = Delay ON   T2 = Delay OFF