Characteristics:

General Description:
The single channel DIN-Rail Frequency-Pulse Converter, Repeater and Trip Amplifiers D1060S converts and repeats a low level frequency signal from magnetic pick-up, contact, proximity, open-collector transistor or logic level sensor, located in Hazardous Area, into 4 to 20 mA current or voltage output signal to drive a Safe Area load. Repeater output can be direct, divided by 10, 100, 1000, 10000, 100000, 1000000 or programmed with alarm function. One independent Alarm Trip Amplifier is also provided. Alarm energizes, or de-energizes, an SPST optocoupled open-collector transistor for high, low or low-startup Alarm functions. The Alarm Trip point is settable over the entire input signal range. When repeater output is used as alarm output the unit provides two independent alarms.

Function:
1 channel I.S. input from frequency-pulse signals, provides 3 port isolation (input/output/supply) and current or voltage output signal. In addition it repeats the frequency input and provides one SPST transistor with adjustable Alarm (input/output/supply) and current or voltage output signal. In addition it repeats the frequency input and provides one SPST transistor with adjustable Alarm Trip Point.

Signalling LEDs:
Power supply indication (green), Frequency input (yellow), Alarms (red).

Configurability:
Software configurable for Frequency range, mA or V output signal, Alarm Trip Point, High/Low/Low-startup Alarm mode, N/C/N/NO transistor operation, Hysteresis, Delay time, by a GM Pocket Portable Configurator PPC 1090, powered by the unit or via RS-232 Serial line with PPC1092 Adapter and SWC1090 Configurator. DIP-Switch configurable for hardware setting of input sensor. To operate PPC1090 refer to instruction manual.

EMC:
Fully compliant with CE marking applicable requirements.

Front Panel and Features:

- Magnetic Pick-up, contact, proximity or logic level input sensor.
- Frequency range DC to 50 KHz input.
- Repeater output direct or divided by 10, 100, 1000, 10000, 100000 or 1000000.
- 0/4-20 mA, 0/1-5 V, 0/2-10 V Output Signal Linear or Reverse.
- Software programmability.
- High Accuracy, μP controlled converter.
- Three port isolation, Input/Output/Supply.
- EMC Compatibility to EN61000-6-2, EN61000-6-4.
- ATEX, UL & C-UL, Russia and Ukraine Certifications.
- High Reliability, SMD components.
- High Density, 1 channel Converter, Repeater and Trip Amplifier per unit.
- Simplified installation using standard DIN Rail with plug-in terminal blocks.
- 250 Vrms (Um) max. voltage applied to the instruments associated with barrier.
### Parameters Table:

<table>
<thead>
<tr>
<th>Safety Description</th>
<th>Maximum External Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group</td>
</tr>
<tr>
<td><strong>Terminals 13-16</strong></td>
<td></td>
</tr>
<tr>
<td>Uo/Voc = 10.6 V</td>
<td>II C</td>
</tr>
<tr>
<td>Io/Isc = 1.1 mA</td>
<td>II B</td>
</tr>
<tr>
<td>Po/Po = 3 mW</td>
<td>II A</td>
</tr>
<tr>
<td><strong>Terminals 14-15-16</strong></td>
<td></td>
</tr>
<tr>
<td>Uo/Voc = 10.6 V</td>
<td>II C</td>
</tr>
<tr>
<td>Io/Isc = 22 mA</td>
<td>II B</td>
</tr>
<tr>
<td>Po/Po = 58 mW</td>
<td>II A</td>
</tr>
<tr>
<td><strong>Terminals 14-15</strong></td>
<td></td>
</tr>
<tr>
<td>Uo/Voc = 11.6 V</td>
<td>II C</td>
</tr>
<tr>
<td>Io/Isc = 12 mA</td>
<td>II B</td>
</tr>
<tr>
<td>Po/Po = 34 mW</td>
<td>II A</td>
</tr>
</tbody>
</table>

### Ordering Information:

**Model:** D1060S /B

- **Power Bus enclosure**

Input ranges, output types, output range, alarm set point, alarm conditions

**Input Type:** Proximity.

**Range:** 0 to 50 KHz.

**Output Type:** 4-20 mA.

**Repeater:** 1:1.

**Set:** 50%.

**Alarm mode:** High.

**Relay:** ND.

**Hysteresis:** 1%.

**Alarm Delay:** 0 s.

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**Friendly Configuration with PC and PPC1092 Adapter**

SWC1090 Software Configurator is downloadable for free on our web site

HAZARDOUS AREA / HAZARDOUS LOCATIONS
CLASS I, DIVISION 1 and CLASS II, DIVISION 1 or
CLASS I, Zone 0

SAFE AREA / NON HAZARDOUS LOCATIONS or
CLASS I, ZONE 2, GROUP IIC

Function Diagram:

MODEL D1060S

Magnetic Pick-Up

In 1

Source I Source V

Supply 12-24 Vdc

Out 1

Repeater Output or Alarm A

Alarm A
HAZARDOUS AREA / HAZARDOUS LOCATIONS
CLASS I, DIVISION 1 and CLASS II, DIVISION 1 or
CLASS I, Zone 0

SAFE AREA / NON HAZARDOUS LOCATIONS or
CLASS I, ZONE 2, GROUP IIC

Function Diagram:

MODEL D1060S

In 1

Free Voltage Contact

Proximity

Source I Source V

Supply 12-24 Vdc

Repeater Output or Alarm A

Alarm B

Out 1