Fieldbus Power Conditioner

**Features**

- Output: 14.7 ... 30.7 V/1 A
- For very high segment load
- High-Power Trunk for high device count and long cable runs
- Installation only in safe areas
- For FOUNDATION Fieldbus H1
- Selectable, high-availability terminator
- Low heat dissipation
- Supply via Power Rail

**Function**

The fieldbus power conditioner is an all-in-one module for single fieldbus segments. It provides short-circuit limitation (1 A) and impedance matching only. The output voltage depends on the bulk power voltage.

The device feeds high power to the trunk for maximum cable lengths and high device count in any hazardous area. Fieldbus couplers provide explosion protection for live work at the spur.

Availability and a long service life are achieved through: only one passive impedance filter per segment with CREST for superior signal transmission, optimized design for low power dissipation and high-availability fieldbus termination. Any mounting direction allows optimized and space-saving cabinet layout.

**Connection**

```
HOST          Bulk          Power Rail
  PS   SP   FB   JB   T
          Z
          CREST
          T
          S
          Fault
          Zone 2/Div. 2
```

Subject to reasonable modifications due to technical advances.

Copyright Pepperl+Fuchs, Printed in Germany

Pepperl+Fuchs Group • Tel.: Germany +49-621-776-0 • USA +1-330-4253555 • Singapore +65-67-799091 • Internet www.pepperl-fuchs.com
### Supply
- **Connection**: Power Rail or terminals 8+, 11+; 9-, 12-
- **Rated voltage**: 16 ... 32 V DC
- **Rated current**: 1.02 A
- **Power loss**: 16 ... 32 V at 1 A: \( \leq 1.86 \text{ W} \); typ. 1.6 W

### Fieldbus interface
- **Field-side**
  - **Connection**: terminals 3+, 6+; 2-, 5-; 1S, 4S (S=screen connection)
  - **Rated voltage**: 14.7 ... 30.7 V DC
  - **Rated current**: 1 A
  - **Terminating impedance**: 100 Ω switchable off and on via rotary switch: 1 -> on; 0 -> off

### Error message output
- **Connection**: Power Rail or terminals 7, 10
- **Rated voltage**: 32 V DC
- **Rated current**: 10 mA
- **Voltage drop**: 1.2 V at 10 mA

### Directive conformity
- **Electromagnetic compatibility**
  - Directive 2004/108/EC

### Standard conformity
- **Electromagnetic compatibility**: NE 21:2006
- **Protection degree**: IEC/EN 60529
- **Fieldbus standard**: IEC 61158-2, ISA S 50.02 part 2
- **Climatic conditions**: DIN IEC 721

### Ambient conditions
- **Ambient temperature**: -20 ... 60 °C (-4 ... 140 °F)
- **Storage temperature**: -40 ... 85 °C (-40 ... 185 °F)
- **Relative humidity**: < 95 % non-condensing
- **Pollution Degree**: max. 2, according to IEC 60664

### Mechanical specifications
- **Connection type**: Terminals
- **Core cross-section**: up to 2.5 mm²
- **Housing**: 20 mm x 115 mm x 107 mm
- **Protection degree**: IP20
- **Mass**: approx. 100 g
- **Mounting**: DIN rail mounting

### International approvals
- **UL approval**: UL E106378, CUL E106378
- **Approved for**: Class I, Division 2, Groups A, B, C, D
### Note

### Dimensions

![Diagram of the device]

**Description:**
1. Protective cap, remove for power supply via Power Rail
2. Extendable lugs
3. Bus termination, switchable

<table>
<thead>
<tr>
<th>LED indicator</th>
<th>Fault signal output</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>green ON</td>
<td>OFF</td>
<td>supply voltage &gt; 14.4 V DC typ.</td>
</tr>
<tr>
<td>red OFF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>green OFF</td>
<td>ON</td>
<td>supply voltage &lt; 13.2 V DC typ.</td>
</tr>
<tr>
<td>red</td>
<td>2 Hz flashing</td>
<td>OVERLOAD, load current &gt; 1.15 A typ.</td>
</tr>
</tbody>
</table>

**Installation note**

see manual