**FXOPC01 OPC module**

ControlNet™ FLEX I/O™ Over Speed Protection control (OPC) function

*ControlNet™ is ControlNet International’s registered trademark.
*FLEX I/O™ is Rockwell Automation’s registered trademark.

### Outline

- **Turbine over speed protection control**
  - Inputs:
    - 4~20mA input × 3
    - 1~12000 rpm Turbine speed input × 2
    - Digital input × 1
  - Outputs:
    - Photo coupler × 4

- **Auxiliary interface**
  - Outputs:
    - 1~5VDC output × 4
    - Digital output × 8

- **FLEX I/O™ / ControlNet™ LAN compatible**

### SPECIFICATION

<table>
<thead>
<tr>
<th>ITEM</th>
<th>SPECIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analog inputs</td>
<td>4<del>20mA DC24V distributor × 1 4</del>20mA × 2</td>
</tr>
<tr>
<td>Turbine speed inputs</td>
<td>1~12000rpm × 2</td>
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<tr>
<td>Digital input</td>
<td>DC24V/5mA</td>
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<tr>
<td>Digital outputs</td>
<td>Open collector output DC30V / 100mA × 4</td>
</tr>
<tr>
<td>Auxiliary analog outputs</td>
<td>1~5VDC × 4</td>
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<tr>
<td>Auxiliary digital outputs</td>
<td>Open collector output (DC30V/100mA) × 8</td>
</tr>
<tr>
<td>Serial interface</td>
<td>EIA/RS232C(PS/2) × 1</td>
</tr>
<tr>
<td>Self-diagnostic functions</td>
<td>Application abnormal  Watchdog timer  Clock monitor  Connector omission  Power supply voltage low  Bus time-out</td>
</tr>
<tr>
<td>Indicator</td>
<td>LED × 1 2 Modes  Green (Normal)  Red (Abnormal)</td>
</tr>
<tr>
<td>Compatible terminal bases</td>
<td>1794 - TB3/TB3S  1794 - TBN/TBNF</td>
</tr>
<tr>
<td>Dielectric strength</td>
<td>AC500V Between analog I/O terminal and FG (1min.)  AC1500V Between digital I/O terminal and FG (1min.)</td>
</tr>
<tr>
<td>Environmental conditions (Operating)</td>
<td>Temperature: 0 ~ 55 ℃  Humidity: 35 ~ 95 % RH (No condensation)</td>
</tr>
<tr>
<td></td>
<td>Temperature: -10 ~ 70 ℃  Humidity: Less than 80 % RH (No condensation)</td>
</tr>
<tr>
<td>Power supply</td>
<td>DC 24V±10% / Less than 300mA  DC 5V / Less than 80mA (FLEX BUS)</td>
</tr>
<tr>
<td>Shock/Vibration</td>
<td>15G / 2G @ 10～500Hz</td>
</tr>
<tr>
<td>Dimensions</td>
<td>110mmD × 46mmH × 92mmW</td>
</tr>
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</table>

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FXOPC01 block diagram

- **250Ω**
- **3.3V**
- **5V**
- **24V TB**
- **FLEX BUS**
- **FLEX bus**
- **interface (μP)**
- **OK LED**
- **A/D**
- **MPX**
- **DC24V Power supply**
- **Pressure input**
- **Mill input**
- **Generator current input**
- **Digital input (SOD)**
- **Interlock output**
  - ×4ch.
- **Speed input**
  - ×2ch.
- **Analog output**
  - ×6ch.
- **Digital output**
  - ×8ch.

**PC**: Photo coupler
**DC/DC-DC/DC converter**
**MPX**: Multiplexer
**A/D**: Analog/Digital converter
**μP**: Micro processor
**D/A**: Digital/Analog converter

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