Turck’s new Ethernet multiprotocol I/O modules make standard switching signals quickly and effectively bus-capable. Thanks to their multiprotocol plug-and-play functionality, the FEN20 devices with digital inputs and outputs are immediately ready for use in PROFINET, Modbus TCP or EtherNet/IP™ systems. The devices detect the protocol used by listening to the communication traffic during the startup phase.

The FEN20 devices are available in two different designs. The small 4DIP-4DXP fits in small control boxes, control panels or other existing housings and can also be retrofitted to make pushbuttons and LED indicators quickly and effectively bus-capable.

The large 16DXP variant is designed for the same type of application and provides up to 16 I/Os. As DXP variant it can be operated both as input or output. Another interesting detail is the division of the I/O signals into three independent potential groups which are isolated from each other – as used for safety shutdowns.

Both devices are equipped with an integrated web server to display for instance the diagnostics in plain text. The web page was created to offer a responsive design so that even a smartphone can be used for simple diagnostics.

**Advantages**

- Makes standard indicators such as buttons Ethernet-capable
- Supports PROFINET, EtherNet/IP™ and Modbus TCP
- Integrated Ethernet switch enables line topology
- Broadly applicable thanks to wide temperature range
- Channels universally usable as input or output
- Galvanically isolated I/O power supply groups
- Diagnostic functionality via integrated web server

**Makes controls bus-capable**
IP20 Multiprotocol I/O Modules

- Address allocation via DCP
- Conformance Class B (RT)
- Diagnosis acc. to PROFINET alarm handling
- MinCycleTime 1 ms
- Fast Start-Up (FSU)
- Media Redundancy Protocol (MRP)
- Topology recognition
- Automatic address allocation

- Address allocation acc. to EtherNet/IP™ specification
- Quick Connect (QC)
- Device Level Ring (DLR)
- Up to 6 connections

- Address allocation via Static IP, BOOTP, DHCP
- Supported function codes: FC1, FC2, FC3, FC4, FC5, FC6, FC15, FC16, FC23
- Up to 6 connections

Web server

- Station diagnosis such as short-circuit
- Direct access to the data sheet
- Station information such as type, FW version
- Network configuration such as IP address
- Station configuration such as diagnosis settings
- Channel settings such as inverting an input
- Ethernet statistics such as transmission rate

<table>
<thead>
<tr>
<th>Type code</th>
<th>FEN20-4DIP-4DXP</th>
<th>FEN20-16DXP</th>
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<tbody>
<tr>
<td>Ident no.</td>
<td>6931090</td>
<td>6931089</td>
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<tr>
<td>I/Os</td>
<td>4 universal digital channels</td>
<td>16 universal digital channels</td>
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<tr>
<td>Dimensions</td>
<td>55 x 62.5 x 30 mm</td>
<td>57.1 x 152.2 x 46.7 mm</td>
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<tr>
<td>Power supply concept</td>
<td>1 potential group</td>
<td>3 potential groups</td>
</tr>
</tbody>
</table>

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