Industrial Unmanaged FE Switch

IFS-500C
5x 10/100Base–TX Fast Ethernet Switch (Compact)

This model is a compact sized, non-managed industrial grade Fast Ethernet switch with 5 10/100Base-TX ports that provide stable and reliable Ethernet transmission. Housed in rugged DIN rail or wall mountable enclosures, these switches are designed for harsh environments, such as industrial networking, intelligent transportation systems (ITS) and are also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications. Standard operating temperature range models (-10 to 60°C) and wide operating temperature range models (-40 to 75°C) fulfill the special needs of industrial automation applications.

Feature

- Wide range input power 12/24/48VDC (9.6–60VDC), or AC24V (18–36VAC)
- IP30 rugged metal housing and Fanless
- Compact size for easy installation
- Wide operating temperature -40 ~ 75°C (-E model)
- Provides broadcast storm protection
- Very low power consumption

Supports flow control
- CE, FCC and EN50121-4 for railway traffic certification
- Industrial grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified

Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IEEE Standard</td>
<td>IEEE 802.3 10Base-T Ethernet</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3u 100Base–TX and 100Base-FX Fast Ethernet</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3x Flow Control and Back Pressure</td>
</tr>
<tr>
<td>Switch Architecture</td>
<td>Back-plane (Switching Fabric) - 1.0 Gbps Full wire-speed</td>
</tr>
<tr>
<td>Data Processing</td>
<td>Store and Forward</td>
</tr>
<tr>
<td>Transfer Rate</td>
<td>14,880pps for Ethernet port</td>
</tr>
<tr>
<td></td>
<td>148,800pps for Fast Ethernet port</td>
</tr>
<tr>
<td>Flow Control</td>
<td>IEEE 802.3x flow control, back pressure flow control</td>
</tr>
<tr>
<td>MAC Address Table</td>
<td>1K</td>
</tr>
<tr>
<td>Packet Buffer Size</td>
<td>448Kbit</td>
</tr>
<tr>
<td>Network Connector</td>
<td>5x RJ-45</td>
</tr>
<tr>
<td></td>
<td>RJ-45 Port: Auto MDI/MDI-X function, 10/100Base-TX auto negotiation speed, Full/Half duplex</td>
</tr>
<tr>
<td>Network Cable</td>
<td>10Base-T: 2-pair UTP/STP Cat. 5 cable</td>
</tr>
<tr>
<td></td>
<td>EIA/TIA-568 100-ohm (100m)</td>
</tr>
<tr>
<td></td>
<td>10Base-TX: 2-pair UTP/STP Cat. 5 cable</td>
</tr>
<tr>
<td></td>
<td>EIA/TIA-568 100-ohm (100m)</td>
</tr>
<tr>
<td>Protocol</td>
<td>CSMA/CD</td>
</tr>
<tr>
<td>LED</td>
<td>Per unit: Power (Green)</td>
</tr>
<tr>
<td></td>
<td>RJ-45 Per port: Link/Active (Green), Speed 100 (Yellow)</td>
</tr>
<tr>
<td>Reverse Polarity Protection</td>
<td>For DC input power protection</td>
</tr>
<tr>
<td>Overload Current Protection</td>
<td>Present</td>
</tr>
<tr>
<td>Power Supply</td>
<td>DC 12/24/48V (9.6–60VDC) or AC 24V (18–36VAC) input power (Removable Terminal Block)</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>Input Voltage: Power Consumption(Watt)</td>
</tr>
<tr>
<td></td>
<td>DC 12V: 0.4W</td>
</tr>
<tr>
<td></td>
<td>DC 24V: 1.2W</td>
</tr>
<tr>
<td></td>
<td>DC 48V: 2W</td>
</tr>
<tr>
<td>Removable Terminal Block</td>
<td>Provides for input power (2 Pin)</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-10 ~ 60°C (IFS-500C)</td>
</tr>
<tr>
<td></td>
<td>-40 ~ 75°C (IFS-500C-E)</td>
</tr>
</tbody>
</table>

Operating Humidity
- 5% to 95% (Non-condensing)

Storage Temperature
- -40 ~ 85°C

Housing
- Rugged Metal, IP30 Protection and Fanless

Dimensions
- 70 x 30 x 103 mm (L x W x H)

Weight
- 220g

Installation Mounting
- DIN Rail mounting, or wall mounting (optional)

MTBF
- 1,013,759 Hours (MIL-HDBK-217)

Warranty
- 5 years

Certification
- EMC/EMS
- CE
- EMI (Electromagnetic Interference)
- FCC Part 15 Subpart B Class A, CE EN55022 Class A
- Railway Traffic
- EN50121-4
- Immunity for Heavy Industrial Environment
- EN61000-6-2
- Emission for Heavy Industrial Environment
- EN61000-6-4
- EMS
- EN61000-4-2 (ESD) Level 3, Criteria B
- EN61000-4-3 (RS) Level 3, Criteria A
- EN61000-4-4 (Surge) Level 3, Criteria B
- EN61000-4-6 (EMI) Level 3, Criteria A
- EN61000-4-8 (PMMF, Magnetic Field) Field Strength: 300A/m, Criteria A
- Shock
- IEC 60068-2-27
- Freefall
- IEC 60068-2-32
- Vibration
- IEC 60068-2-6
**Specifications & design are subject to change without prior notice. Please visit CTC Union website for more details.**

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### Application

*Figure: IFS-500C Fast Ethernet Switch Transmission*

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### Dimensions

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### Ordering Information

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Total Port</th>
<th>UTP Port</th>
<th>Certification</th>
<th>Operating Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFS-500C</td>
<td>5</td>
<td>5</td>
<td>Y</td>
<td>-10~60°C</td>
</tr>
<tr>
<td>IFS-500C-E</td>
<td>5</td>
<td>5</td>
<td>V</td>
<td>-40~75°C</td>
</tr>
</tbody>
</table>

**Model Naming Rule**

IFS 5 00 C: Industrial Fast Ethernet Switch
5: 5x UTP
00: 0x Fiber
C: Compact Size
E: -40~75°C
Blank: -10~60°C

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### Optional Accessories

**Industrial Power Supply**

- **DR-4524**: Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 48W, -10 ~ +50°C
- **MDR-40-24**: Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 40W, -20 ~ +70°C
- **IND-WMK03**: Wall Mount kit for Industrial product (Compact, 150x 30mm)

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### Package List

- IFC-500C device
- Quickly installation guide
- Din Rail with screws
- Terminal block

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