

## IFC-CCF40

4 Channel Binary Transducer, 4 binary input ,4 high power MSR Relay output , fiber transmission

NEW



- 4 binary input
- 4 MSR high power relay output, maximum breaking capacity 2000VAC load
- M/M 2km, S/M 30km, or BiDi 20km single fiber for transmit
- CE,FCC, heavy industrial environment EN61000-6-2, EN61000-6-4



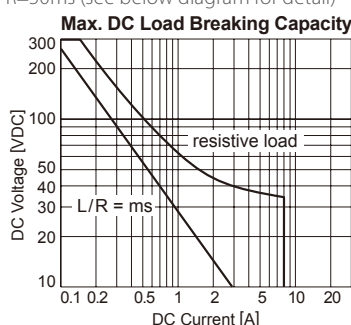
CTC Union IFC-CCF40 4-channel binary transducer registers binary information from contacts via its binary inputs and forwards it, interference-free, to the other side transducer via fiber-optic cable, then the remote site transducer will put out the indications/signals via its contacts. Vice versa. The transducer is equipped with independent and bidirectional binary inputs (4) and contact outputs (4). The four contacts can be used as trip contacts. IFC-CCF40 transducer has been designed for usage in substations, water treatment and metallurgical and material engineering application, it's an ideal solution for use in critical environment.

## Features

- 4 isolated binary input (BI-1, BI-2, BI-3, BI-4)
- Selectable binary input threshold level by DIP Switch (18V or 70V)
- Maximum 2.5ma input current for binary input channel
- 4 MSR contact relay output (K1, K2, K3, K4), maximum breaking capacity 2000VA for AC load , 50~280W for DC resistive load, or 30W for DC inductive load
- Support multi mode fiber 2KM or single mode 30KM fiber for transmit distances
- Support duplex fiber, or single fiber BiDi to save cabling
- AC or DC wide range power input (60~300VDC or 60~264VAC )
- Removable terminal block connector for Power input, Alarm, Binary input and MSR Relay output
- CE, FCC, heavy industrial grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified
- Supports relay output for power or failure warning
- Hardened housing with IP40 protection
- Fanless and DIN-Rail design for harsh industrial environment

## Specifications

|   |  |
|---|--|
| <b>Binary Input</b>                       | 4x channel Binary Input (BI-1, BI-2, BI-3, BI-4)<br>Binary input threshold level select by DIP Switch, 18V or 70V threshold<br>Maximum input current 2.5ma per channel   |
| <b>Contact Relay output</b>               | Channel: 4xMSR contact relay (K1, K2, K3, K4)<br>Contact rated voltage: 250VAC<br>Contact maximum switching voltage: 400VAC<br>Contact rated current: 8A<br>AC breaking capacity: Max 2000VA<br>DC resistive load breaking capacity: max. 50~280W (see below diagram for detail)<br>DC inductive load breaking capacity: max. 30W @L/R=50ms (see below diagram for detail) |
| <b>Fiber transmission</b>                 | Connector type: ST/SC, M/M, S/M or Bidi<br>Optional distance: 2KM (M/M)<br>30KM (S/M), 20KM (Bidi)<br>Fiber cable M/M : Dual fiber 50/125um, 62.5/125um<br>S/M: Dual fiber 9/125um, 10/125um<br>Bidi: Single fiber cable 9/125um, 10/125um   |
| <b>Removable terminal block connector</b> | Support for Binary input, MSR Relay output, Power input and Alarm  |
| <b>DIP Switch</b>                         | SW1: BI-1, BI-2 threshold<br>SW2: BI-3, BI-4 threshold<br>SW3: Debounce<br>SW4: Loopback test  |
| <b>Environmental</b>                      | Operating Temperature -40 ~ 75°C<br>Storage Temperature -40 ~ 85°C<br>Humidity 5 ~ 95% RH  |



|  |   |
|--|---|
| <b>LED Indications</b>                                       | PWR (Green): Power on<br>SYS (Green): Normal operation<br>LNK (Green): Fiber link<br>Test / Alarm: ON: Link down, system loss or Power Error<br>Flash: Local loopback test<br>OFF: Normal operation<br>BI-1~BI-4 (Green): Active<br>K-1~K-4 (Green): Active |
| <b>Alarm Relay</b>   | Alarm exists for power, fiber link<br>Relay output with carry capacity 1A @ 24VDC   |
| <b>Power</b>   | Power Input AC or DC wide range input power 60~300VDC or 60~264VAC input range<br>Power Consumption 3.6W<br>Power Reversal Protection Supported for power input<br>Removable terminal block connector for power input                                       |
| <b>Mechanical</b>  | Water & Dust Proof IP40 Protection, Fanless<br>Dimensions 106 x 62.5 x 135mm (Dx Wx H)<br>Mounting DIN-Rail, or wall mounting (Optional)<br>Weight 815g   |
| <b>Certification</b>   |   |
| <b>EMC</b>   | CE (EN55032, EN55024)   |
| <b>EMI</b>   | FCC Part 15 Subpart B Class A, CE   |
| <b>Immunity for Heavy Industrial Environment</b>             | EN61000-6-2   |
| <b>Emission for Heavy Industrial Environment</b>             | EN61000-6-4   |
| <b>EMS (Electromagnetic Susceptibility) Protection Level</b> | EN61000-4-2 ESD Level 3<br>EN61000-4-3 RS Level 3<br>EN61000-4-4 EFT Level 3<br>EN61000-4-5 Surge Level 3<br>EN61000-4-6 CS Level 3   |
| <b>Free Fall</b>   | IEC 60068-2-32  |
| <b>Vibration</b>   | IEC 60068-2-6   |
| <b>Shock</b>   | IEC 60068-2-27  |
| <b>Green</b>   | RoHS  |
| <b>MTBF</b>  | 165,680 Hours (MIL-HDBK-217)  |
| <b>Warranty</b>  | 5 years   |

## Application & Topology

Figure 1 : Application connection diagram

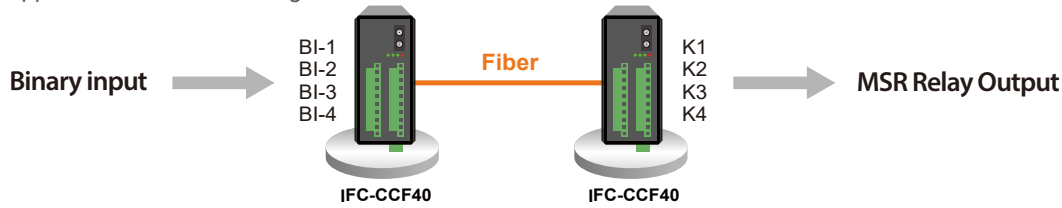
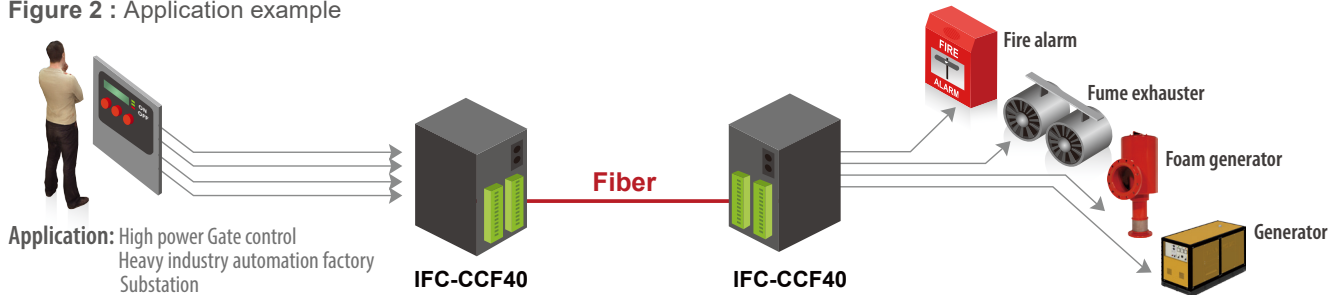
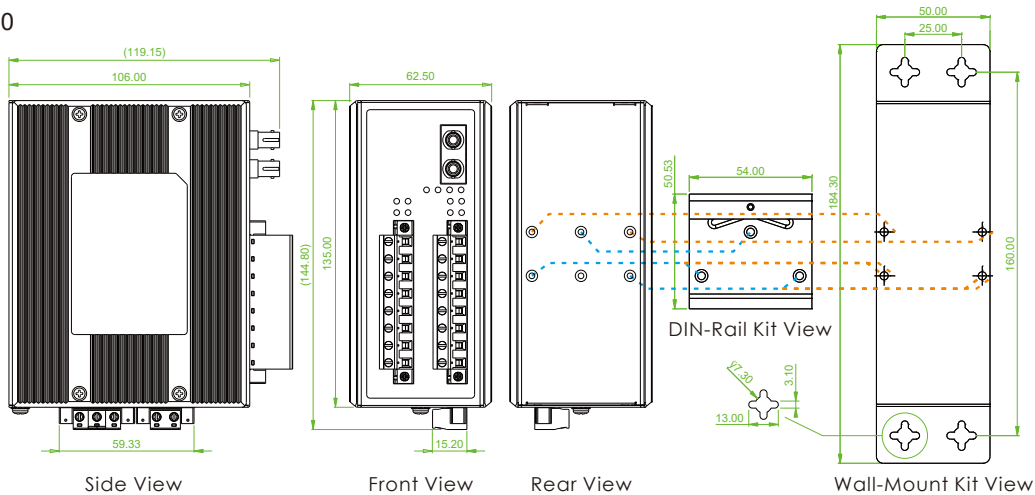


Figure 2 : Application example



## Dimensions

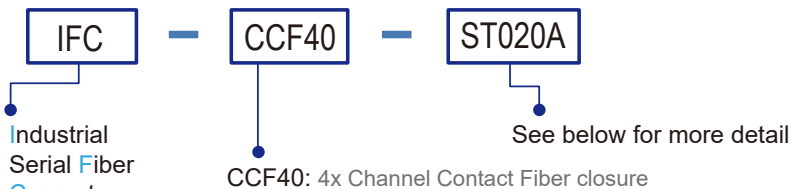
### IFC-CCF40



## Ordering Information

| Model Name | Input             | Output               | Fiber transmission | Power Input               | Certification              |    |     |
|------------|-------------------|----------------------|--------------------|---------------------------|----------------------------|----|-----|
|            |                   |                      |                    |                           | EN61000-6-2<br>EN61000-6-4 | CE | FCC |
| IFC-CCF40  | 4x Channel Binary | 4x MSR Contact Relay | 1x SC/ST/Bidi      | 60~264VAC or<br>60~300VDC | V                          | V  | V   |

### Model Naming Rule



| Connector Type | Connectivity Distance  |
|----------------|--|
| SC, ST         | <b>Dual fiber</b><br>002: M/M 2km    030: S/M 30km<br><b>Single fiber</b><br>020A: 20KM Bidi mode A<br>020B: 20KM Bidi mode B<br>Mode A: TX 1310nm/RX1550nm Mode B: TX 1550nm/RX1310nm |

Temperature Connector Type Connectivity Distance

IFC – CCF40 – □ – □ □ □ □ □

Example: IFC – CCF40 – ST020A

### Package List

- IFC-CCF40 device
- Terminal block
- Din Rail with screws

## Optional Accessories

### Wall Mount kit Accessories

|           |   |
|-----------|---|
| IND-WMK02 | Wall Mount kit for Industrial product, 184 x 50mm |
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