

IFC-CCF40

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



- 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



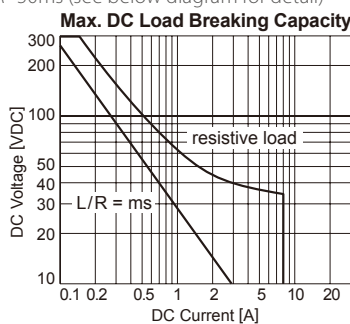
IFC-CCF40 is a 4 channel, binary transducer, which registers binary information from contacts via its binary inputs and forwards it, interference-free, to the other side transducer via fiber-optic cable. The remote site transducer will output the indications/signals via its relay contacts and vice versa. The transducer is equipped with four independent and bidirectional binary inputs and four contact outputs. The four contacts can be used as trip contacts. Available in two operating temperature ranges, a standard -10° to 60°C commercial temperature range and an extended -40° to 75°C range, the IFC-CCF40 is reliable and an ideal solution for keeping your industrial automation applications running smoothly and continuously even in harsh environments. The IFC-CCF40 transducer has been designed for usage in substations, water treatment, metallurgical and material engineering application. It is an ideal solution for use in critical environments.

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
- Supports multi mode fiber 2KM or single mode 30KM fiber for transmit distances
- Supports 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

| | |
|-----------------------------|--|
| Binary Input | 4x channel Binary Input (BI-1, BI-2, BI-3, BI-4) Binary input threshold level select by DIP Switch, 18V or 70V threshold Maximum input current 2.5ma per channel |
| Contact Relay output | Channel: 4xMSR contact relay (K1, K2, K3, K4) Contact rated voltage: 250VAC Contact maximum switching voltage: 400VAC Contact rated current: 8A AC breaking capacity: Max 2000VA DC resistive load breaking capacity: max. 50~280W (see below diagram for detail) DC inductive load breaking capacity: max. 30W @L/R=50ms (see below diagram for detail) |
| Fiber transmission | Connector type: ST/SC, M/M, S/M or Bidi Optional distance: 2KM (M/M) 30KM (S/M), 20KM (Bidi) Fiber cable M/M : Dual fiber 50/125um, 62.5/125um S/M: Dual fiber 9/125um, 10/125um Bidi: Single fiber cable 9/125um, 10/125um |



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|---|---|
| Removable terminal block connector | Support for Binary input, MSR Relay output, Power input and Alarm |
| DIP Switch | SW1: BI-1, BI-2 threshold SW2: BI-3, BI-4 threshold SW3: Debounce SW4: Loopback test |
| Environmental | Operating Temperature: -40 ~ 75°C Storage Temperature: -40 ~ 85°C Humidity: 5 ~ 95% RH |
| LED Indications | PWR (Green): Power on SYS (Green): Normal operation LNK (Green): Fiber link Test / Alarm: ON: Link down, system loss or Power Error Flash: Local loopback test OFF: Normal operation BI-1~BI-4 (Green): Active K-1~K-4 (Green): Active |
| Alarm Relay | Alarm exists for power, fiber link Relay output with carry capacity 1A @ 24VDC |
| Power | Power Input: AC or DC wide range input power 60~300VDC or 60~264VAC input range Power Consumption: 3.6W Power Reversal Protection: Supported for power input Removable terminal block connector for power input |
| Mechanical | Water & Dust Proof: IP40 Protection, Fanless Dimensions: 106 x 62.5 x 135mm (Dx Wx H) Mounting: DIN-Rail, or wall mounting (Optional) Weight: 815g |

| Certification | |
|---|-----------------------------------|
| EMC | CE (EN55032, EN55024) |
| EMI | FCC Part 15 Subpart B Class A, CE |
| Immunity for Heavy Industrial Environment | |
| | EN61000-6-2 |
| Emission for Heavy Industrial Environment | |
| | EN61000-6-4 |

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|---|---|
| EMS (Electromagnetic Susceptibility) Protection Level | EN61000-4-2 ESD Level 3 EN61000-4-3 RS Level 3 EN61000-4-4 EFT Level 3 EN61000-4-5 Surge Level 3 EN61000-4-6 CS Level 3 |
| Free Fall | IEC 60068-2-32 |
| Vibration | IEC 60068-2-6 |
| Shock | IEC 60068-2-27 |
| Green | RoHS |
| MTBF | 165,680 Hours (MIL-HDBK-217) |
| Warranty | 5 years |

Application & Topology

Figure 1 : Application connection diagram

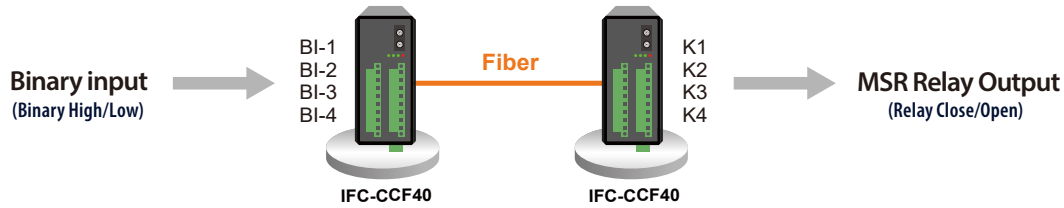
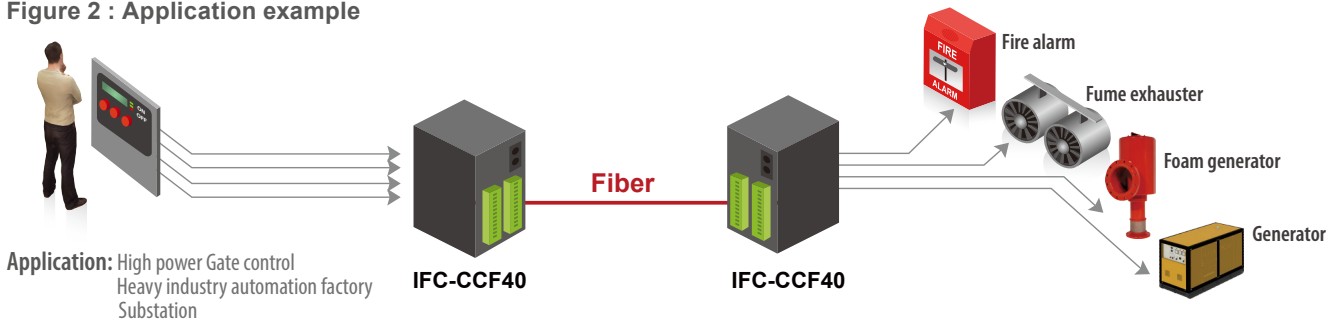
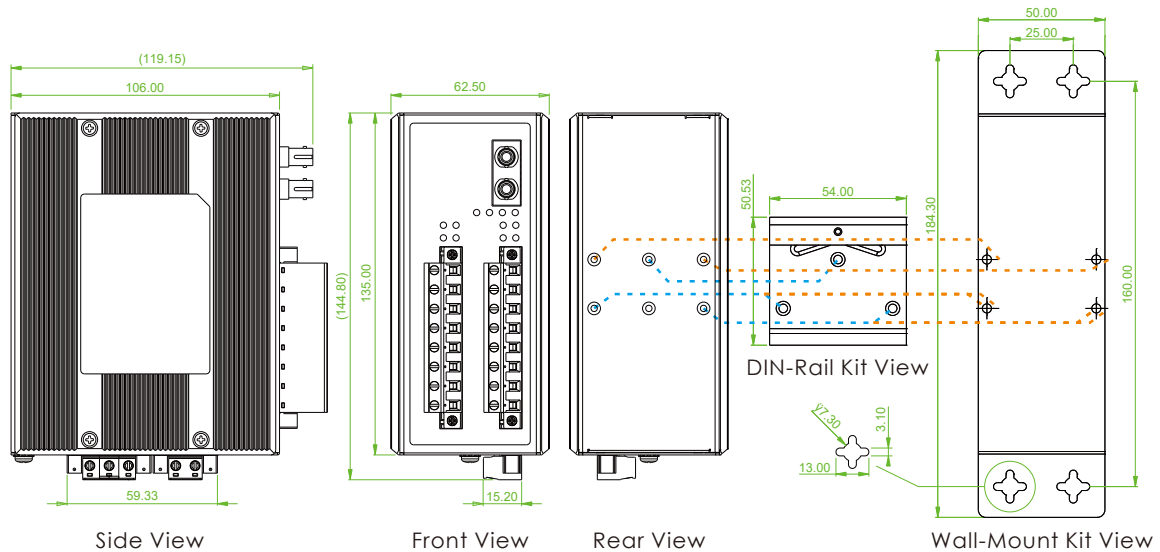


Figure 2 : Application example



Dimensions

► IFC-CCF40



1000 4 Channel Binary Transducer IFC-CCF40

● Related Product

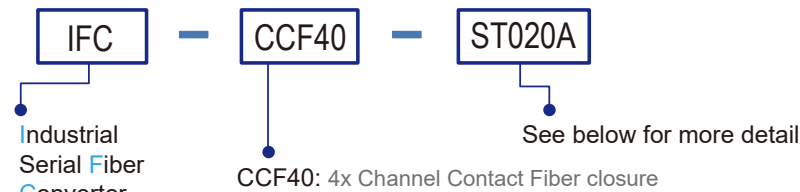


- ◀ **FRM220-CCF40:** 4ch Contact Closure Fiber Converter, In-Band Managed
- ▶ **FRM220-CCF20:** 2ch Contact Closure Fiber Converter, In-Band Managed

Ordering Information

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

Model Naming Rule



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

Example: IFC - CCF40 - -
Temperature Connector Type Connectivity Distance

■ Package List

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

Optional Accessories

■ Wall Mount kit Accessories

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