

IFC-CCF40A & IFC-CCF20A

- ◀4 Channel Contact Closure input, 4 Relay output, over fiber transmission
- ▶ 2 Channel Contact Closure input, 2 Relay output, over fiber transmission
- ▲ Both 4 input (Open/Close) and 4 output (Relay) in one device
- ▲4 relay output, maximum breaking capacity AC62.5VA/ DC 60W load
- ▲ M/M 2km, S/M 30km, or BiDi 20km single fiber for transmission
- ▲ EN61000-6-2, EN61000-6-4, CE and FCC certified





The Contact Closure over Fiber extender IFC-CCF series supports 2/4 channel contact closure to connect two points through a multi-mode or single-mode optical fiber, and then use a contact closure switch to open or close the contact between the two points. It is typically used in applications such as access control system, alarm event triggering, building automation, security barriers status indications and environmental control systems, fire & alarm systems, traffic signal control equipment etc.

Features

- Supports SFP, or SC/ST multi mode fiber 2KM or single mode 30KM fiber for transmit distances
- Supports duplex fiber, or single fiber BiDi to save cabling
- Removable terminal block connector for Power input, Alarm, Open/Close input and Relay output
- Supports relay output for power or failure warning
- Hardened housing with IP40 protection
- Fanless and DIN-Rail design for harsh industrial environment

Specifications

Relay Output

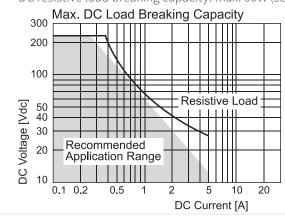
Input 4 Channel Open/Close (IFC-CCF40A) 2 Channel Open/Close (IFC-CCF20A)

Channel: 4x contact relay Output (Out 1, Out 2, Out 3, Out 4) (IFC-CCF40A)

Channel: 2x contact relay Output (Out 1, Out 2) (IFC-CCF20A)

Contact rated voltage: 250VAC/220VDC AC breaking capacity: Max AC 62.5VA

DC resistive load breaking capacity: max. 60W (see below diagram for detail)





2/4 Channel Contact Closure over Fiber Converter



| Fiber transmission | Connector type: ST/SC/SF Optional distance: SC/ST 2KM (M/M) SC/ST 30KM (S/M), 20KM (E SFP slot depend on SFP Fil | Bidi) | |
|------------------------------------|---|---------------------------------------|--|
| Removable terminal block connector | Support for Open/Close input (In1~In4), Relay output (Out1~Out4), Power Input (PWR1, PWR2), and Alarm (IFC-CCF40A) Support for Open/Close input (In1~In2), Relay output (Out1~Out2), Power Input (PWR1, PWR2), and Alarm (IFC-CCF20A) | | |
| Environmental | Operating Temperature | -40 ~ 75°C | |
| | Storage Temperature | -40 ~ 85°C | |
| | Humidity | 5 ~ 95% RH | |
| LED Indications | PWR 1, PWR 2(Green): Power on Alm(Amber): Alarm event Link(Green): Fiber link I1~I4 (Green): Input Close (IFC-CCF40A) I1~I2 (Green): Input Close (IFC-CCF20A) O1~O4: (Green): Output Relay Active Close (IFC-CCF40A) O1~O2: (Green): Output Relay Active Close (IFC-CCF20A) | | |
| Alarm Relay | Alarm exists for power, fiber link, Relay output with carry capacity 1A @ 24VDC | | |
| Power | Redundant Dual Input power (Removable Terminal Block) 12/24/48VDC | | |
| | Power Consumption | TBD | |
| | Power Reversal Protection | Supported for power input | |
| | Removable terminal block connector for power input | | |
| Mechanical | Water & Dust Proof | IP40 Protection, Fanless | |
| | Dimensions | 106 x 32.6 x 142 mm (Dx Wx H) | |
| | Mounting | DIN-Rail, or wall mounting (Optional) | |
| | Weight | TBD | |

Certification

| EMC | CE (EN55032, EN55035) | | |
|--|-----------------------------------|--|--|
| 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 | | |
| 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 60068-2-31 | | |
| Vibration | IEC 60068-2-6 | | |
| Shock | IEC 60068-2-27 | | |
| Green | RoHS | | |
| MTBF | TBD (MIL-HDBK-217) | | |
| Warranty | 5 years | | |
| | | | |





Application & Topology

Figure 1: Application connection diagram

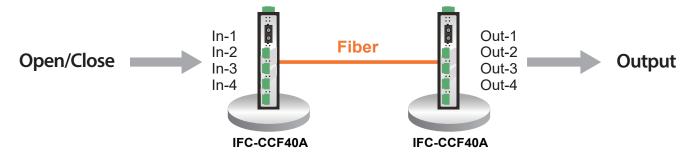
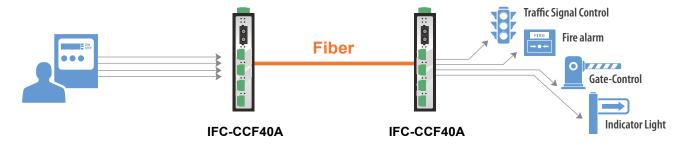
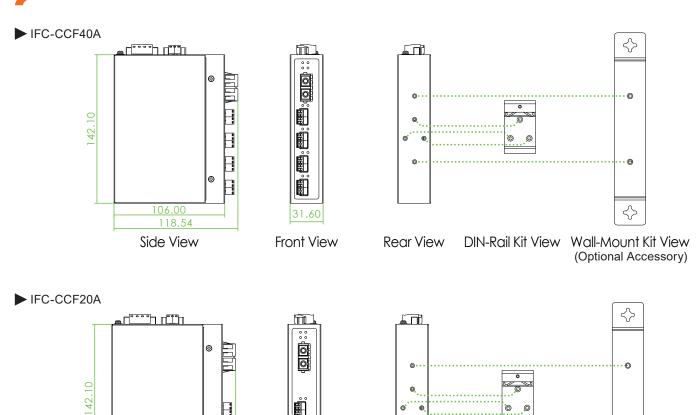


Figure 2: Application example



Application: High power Gate control Heavy industry automation factory Substation

Dimensions



31.60

Front View



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Wall-Mount Kit View (Optional Accessory)

DIN-Rail Kit View

Rear View

Side View

2/4 Channel Contact Closure over Fiber Converter



■ Related Product



IFC-BT40: 4 Channel Binary Transducer over Fiber

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Ordering Information

| Model Name | Input | Output | Fiber transmission | Power Input (Redundant) | Certification | | |
|------------------|---------------|------------------|-------------------------------|----------------------------|----------------------------|----|-----|
| | | | | | EN61000-6-2 EN61000-6-4 | CE | FCC |
| IFC-CCF40A-xxxxx | 4x Open/Close | 4x Contact Relay | 1x SC/ST/Bidi (see detail) | 12/24/48VDC | V | V | V |
| IFC-CCF40A-SFP | 4x Open/Close | 4x Contact Relay | 1x SFP | 12/24/48VDC | V | V | V |
| IFC-CCF20A-xxxxx | 2x Open/Close | 2x Contact Relay | 1x SC/ST/Bidi (see detail) | 12/24/48VDC | V | V | V |
| IFC-CCF20A-SFP | 2x Open/Close | 2x Contact Relay | 1x SFP | 12/24/48VDC | V | V | V |

| Connector Type | Connectivity Distance |
|----------------|---|
| SC, ST | 002: M/M 2km |
| | 030: S/M 30km |
| | 020A:20KM Bidi mode (TX 1310nm/RX1550nm |
| | 020B: 20KM Bidi mode B (TX 1550nm/RX1310nm) |
| Example | IFC-CCF40A-SC030 |

■ Package List

- One IFC-CCF40A device
- Terminal block
- Din Rail kit with screws

Optional Accessories

■ Wall Mount Kit

IND-WMK01 Wall Mount kit for Industrial product, 184 x 30mm

■ Industrial Power Supply

MDR-20-24 Industrial Power, Input 85 ~ 264VAC/120 ~ 370VDC, Output 24VDC, 24W, -20 ~ +70°C

