

## IFC-BT40

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



Ver.2022 Aug

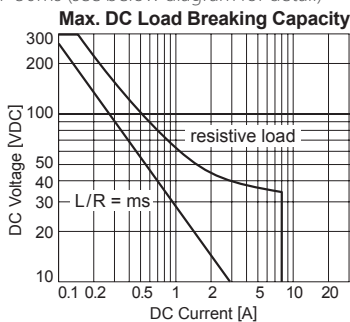
IFC-BT40 is a four channel, binary transducer, which registers binary information from contacts via its binary inputs and forwards it, interference-free, to the other side transducer via fiber-optic cable. The remote site transducer will output the indications/signals via its relay contacts and vice 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-BT40 is reliable and an ideal solution for keeping your industrial automation applications running smoothly and continuously even in harsh environments. The IFC-BT40 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

<b>Binary Input</b>	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
<b>Contact Relay output</b>	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)
<b>Fiber transmission</b>	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



<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 SW2: BI-3, BI-4 threshold SW3: Debounce SW4: Loopback test
<b>Environmental</b>	Operating Temperature: -40 ~ 75°C Storage Temperature: -40 ~ 85°C Humidity: 5 ~ 95% RH
<b>LED Indications</b>	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
<b>Alarm Relay</b>	Alarm exists for power, fiber link 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 Power Consumption: 3.6W Power Reversal Protection: Supported for power input Removable terminal block connector for power input
<b>Mechanical</b>	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

4 Channel Binary Transducer IFC-BT40

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	165,680 Hours (MIL-HDBK-217)
Warranty	5 years

## Application & Topology

Figure 1 : Application connection diagram

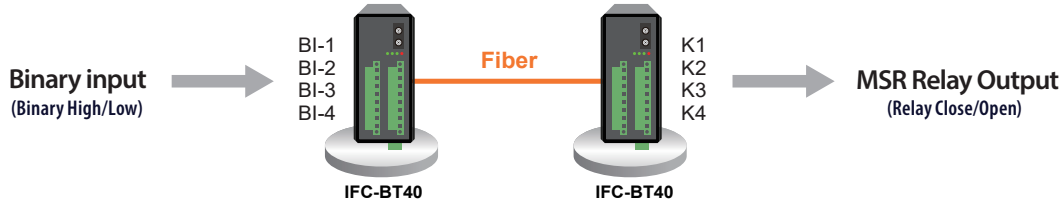
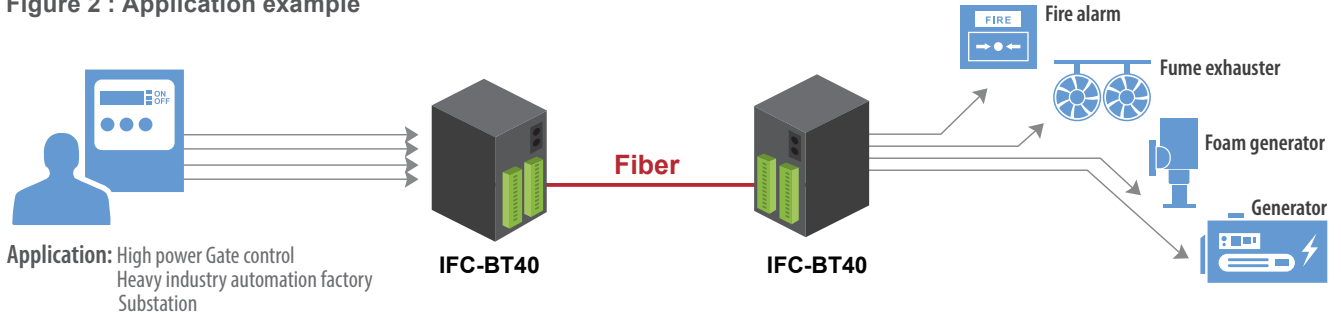
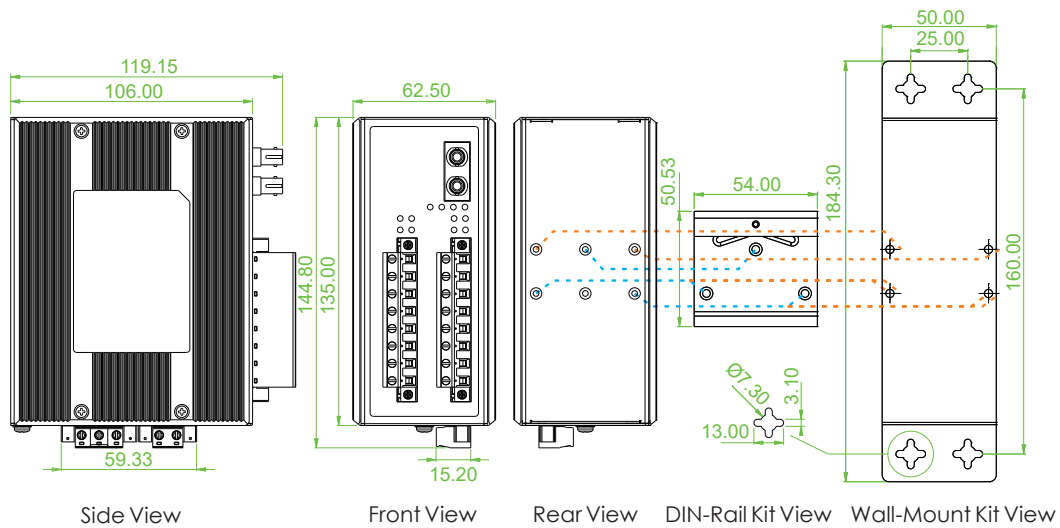


Figure 2 : Application example



## Dimensions

► IFC-BT40



9  
4 Channel Binary Transducer IFC-BT40

## ● 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-BT40	4x Channel Binary	4x MSR Contact Relay	1x SC/ST/Bidi	60~264VAC or 60~300VDC	V	V	V

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

### ■ Package List

- IFC-BT40 device
- Terminal block
- Din Rail with screws

## Optional Accessories

### ■ Wall Mount Kit

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

9

4 Channel Binary Transducer IFC-BT40