

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
- ▲ EN61000-6-2, EN61000-6-4, CE and FCC certified



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

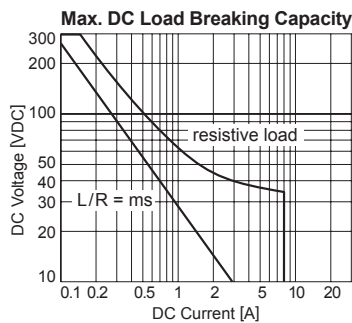
- 4 isolated binary input (BI-1, BI-2, BI-3, BI-4)
- Selectable binary input threshold level by DIP Switch (18V or 70V)
- Maximum 2.5ma input current for binary input channel
- 4 MSR contact relay output (K1, K2, K3, K4), maximum breaking capacity 2000VA for AC load , 50~280W for DC resistive load, or 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

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
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4 channel Binary Transducer

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)	
MSR Relay responds time: 10/5ms max. (Operate/Release)	



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
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, 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

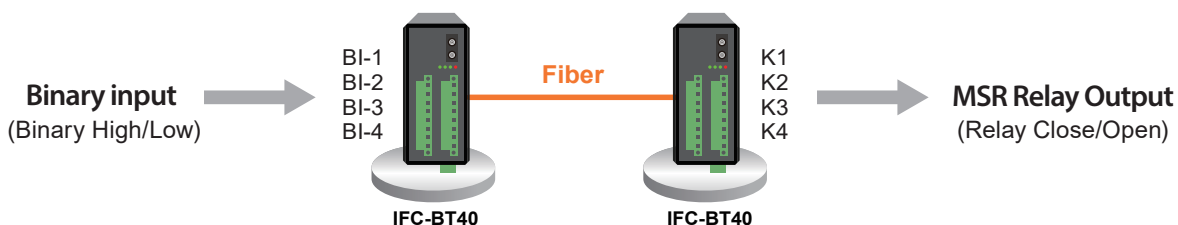
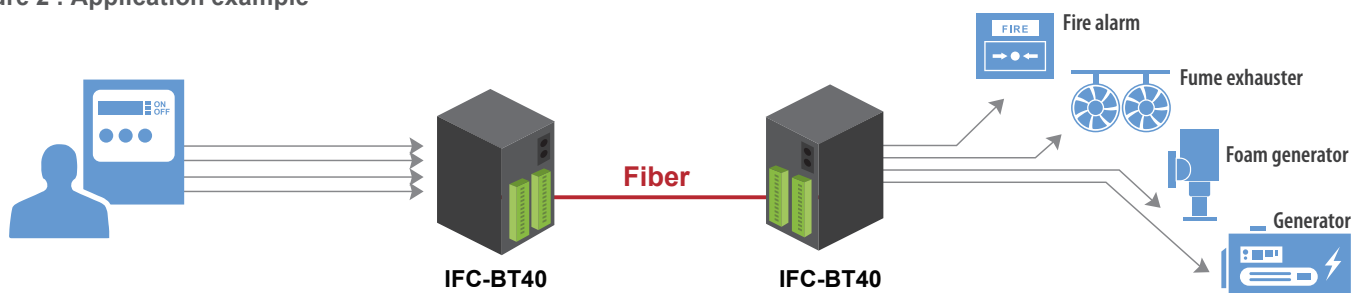
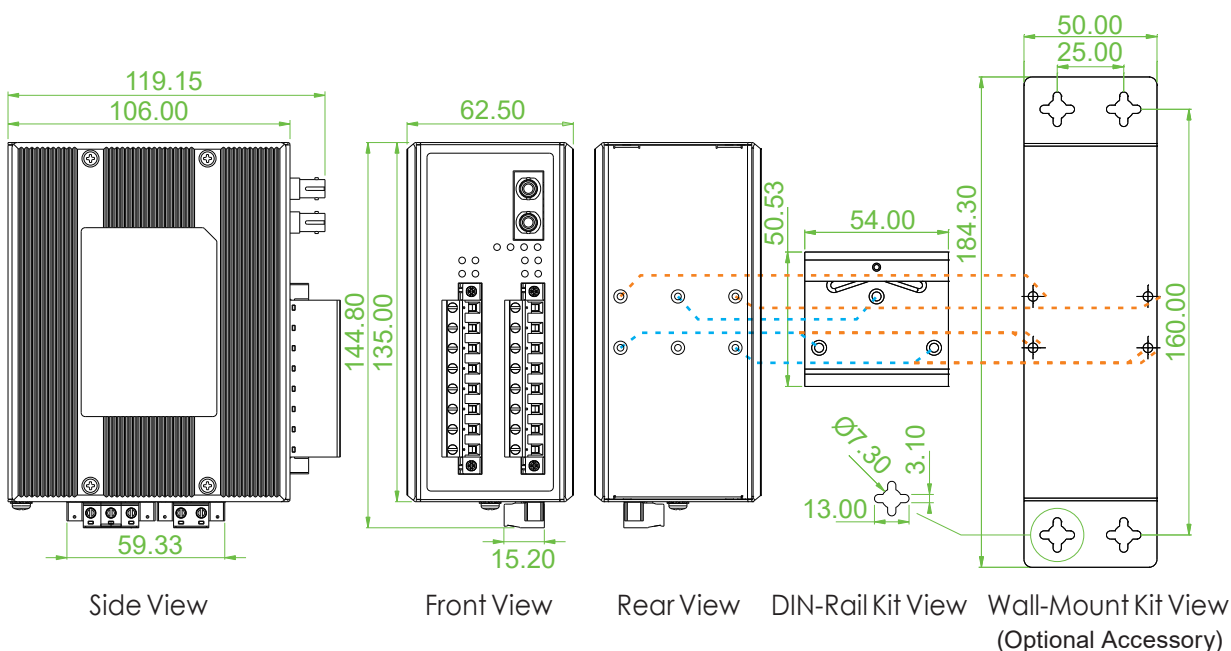


Figure 2 : Application example



Application: High power Gate control Heavy industry automation factory Substation

Dimensions



■ 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	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		

Optional Accessories

■ Wall Mount Kit

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