IFC-Serial-CAN NEW

CAN Bus to Fiber Converter

CE FC EN61000-6-2 EN61000-6-4 CAN BUS

These products are CAN BUS to fiber optic converters which secure CAN BUS data transmission via fiber optic to extend distance and isolate from EMC/noise thus reducing interference between CAN BUS devices. (See Figure 1)
The converters are available in two operating temperature ranges, a standard -10° to 60°C commercial temperature range and an extended -40° to 75°C range. With all these specifically designed features, the series is reliable and an ideal solution for keeping your industrial automation applications running smoothly and continuously even in harsh environments.

Features

- Subbports protocol CAN 2.0A , CAN 2.0B, ISO 11898-2 standard
- Extend serial transmission distance up to 2km, 30km
- Redundant dual power inputs (12/24/48VDC)
- Baudrate up to 1Mbps
- Auto baudrate, no need to set baudrate
- 2.5KVrms isolation for CAN BUS port
- CE, FCC, heavy industrial grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified
- Supports relay output for power or link failure warning
- Hardened housing with IP30 protection
- Fanless and DIN-Rail design for harsh industrial environment
- 120 ohm terminator selectable by DIP SW

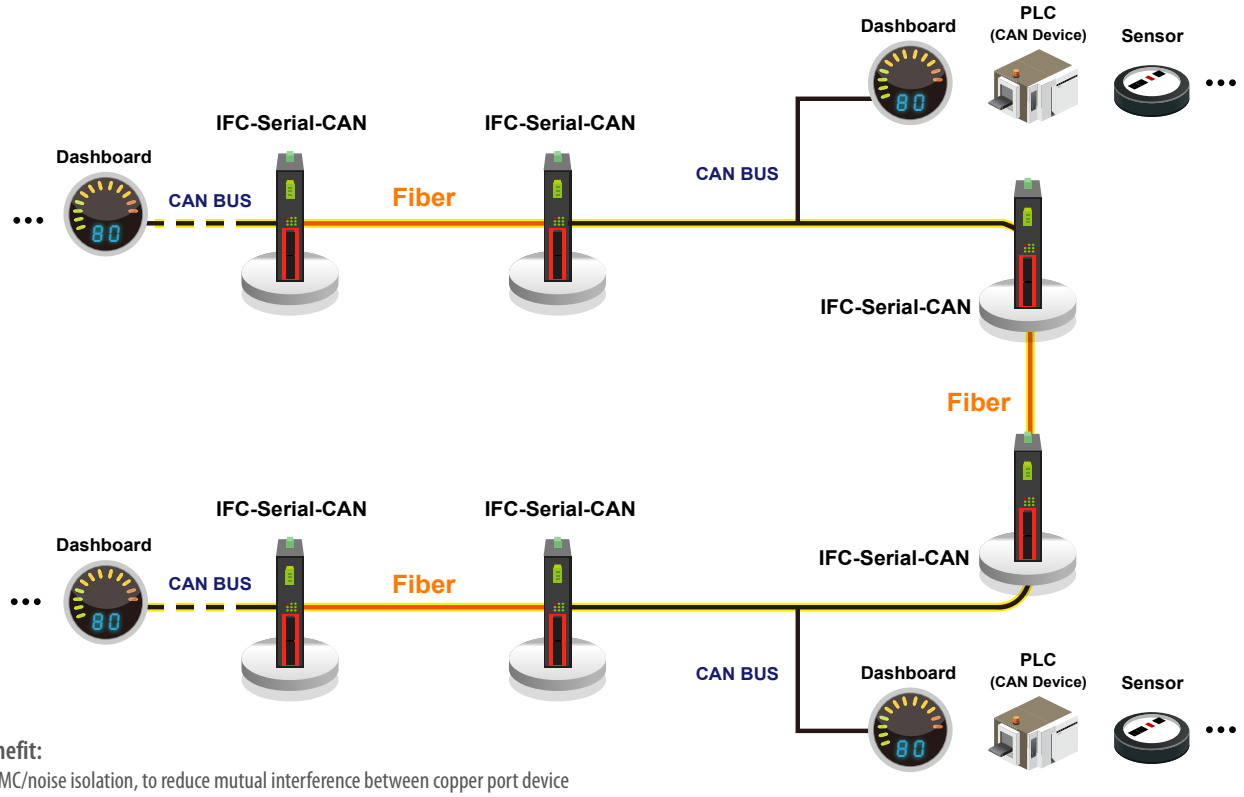
Specifications

FieldBus Protocol	CAN 2.0A, CAN 2.0B, ISO 11898-2 standard	
Problem isolation	Isolate EMC/noise to reduce mutual interference between CAN BUS device. Isolate the CAN BUS side of the failure, to avoid the impact of the other side (See Figure 2)	
System Propagation delay	125ns	
Fiber Port Interface	Connector	SC, ST
	Fiber Port	1 fiber port
	Fiber Type	MM 2km, SM 30km Bidi 20KM
	Wavelength	MM 1310nm, SM 1310nm Bidi: Mode A : TX1310nm/RX1550nm Mode B : TX1550nm/RX1310nm
	Baud rate	Upto 1Mbps Auto baud rate, depend on CAN BUS copper port
Fiber port Topology	Point to point (Figure 6)	
CAN BUS port interface	3 pin terminal block CAN_L, CAN_H, CAN_GND	
	Baudrate	50 to 1Mbps Auto baudrate, no need to set baudrate
	CAN BUS port isolation	2.5KVrms isolation for CAN BUS signals EMC/noise isolation, to reduce mutual interference between serial port device
	120 ohm terminator	Built-in 120 ohm terminator (Selected by Dip Switch)
Environmental	Operating Temperature	-10 ~ 60°C (IFC-Serial-CAN) -40 ~ 75°C (IFC-Serial-CAN-E)
	Storage Temperature	-40 ~ 85°C
	Humidity	5 ~ 95% RH
LED Indications	PWR1, PWR2, Alarm, Fiber TX, Fiber RX	
Alarm Relay	Alarm exists for power, fiber link Relay output with carry capacity 1A @ 24VDC	

Power	Power Input	Redundant Dual Power 12, 24, 48 VDC (9.6 ~ 60VDC)
	Power Consumption	<3W
	Power Reversal Protection	Supported for power input
	Over Current Protection : Signal Short Together Protected	
	Terminal Block for Power and Alarm : Terminal Block : V1+, V1-, V2+, V2-, Alarm NC, Alarm COM, Alarm NO	
Mechanical	Water & Dust Proof	IP30 Protection, Fanless
	Dimensions	106 x 38.6 x 142.1mm (D x W x H)
	Mounting	DIN-Rail, or wall mounting (Optional)
	Weight	TBD
Certification		
EMC	CE	
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 60068-2-32	
Vibration	IEC 60068-2-6	
Shock	IEC 60068-2-27	
Green	RoHS	
MTBF	TBD	

Application & Topology

Figure 1 : IFC-Serial-CAN Application for CAN BUS



Benefit:

1. EMC/noise isolation, to reduce mutual interference between copper port device
2. Extend distance by fiber
3. Isolate CAN BUS failure
4. Achieve a reliable network environment

Figure 2 : Isolate CANBUS Failure

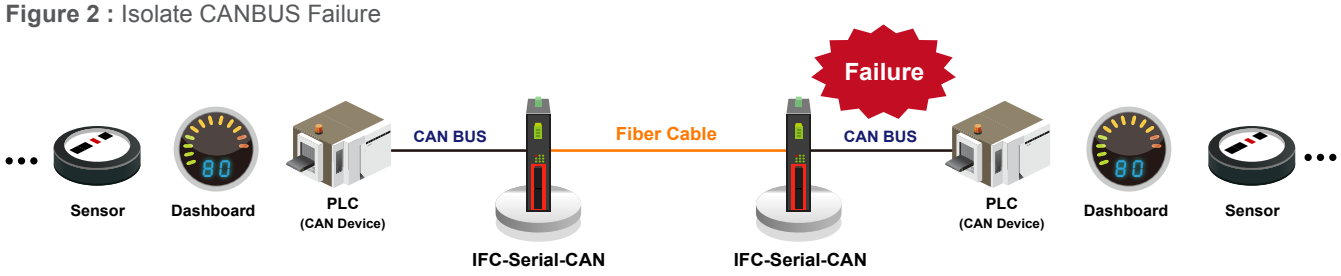
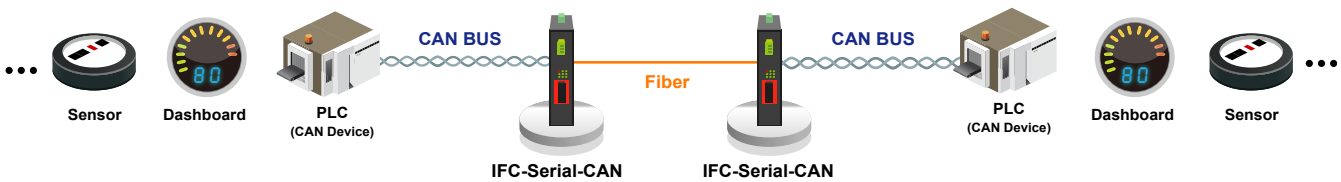


Figure 3 : Fiber Point to Point topology



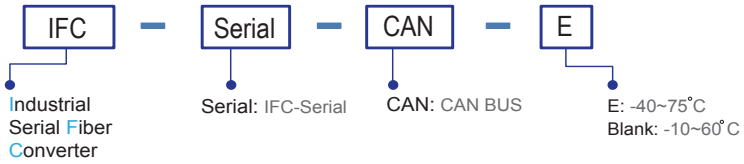
Benefit:

1. Reduce mutual interference between serial port device
2. Extend distance by fiber
3. Achieve a reliable network environment

Ordering Information

Model Name	Serial		Fiber	Power Input	Certification			Operating Temperature
	CAN BUS	Isolation 2.5KV	SC/ST	Redundant	EN61000-6-2 EN61000-6-4	CE	FCC	
IFC-Serial-CAN	1	V	1	12/24/48VDC	V	V	V	-10~60℃
IFC-Serial-CAN-E	1	V	1	12/24/48VDC	V	V	V	-40~75℃

Model Naming Rule



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

Temperature Connector Type Connectivity Distance

IFC – Serial –CAN– □ – □□□□□

Example: IFC – Serial – CAN – E– SC002

Optional Accessories

Wall Mount kit Accessories

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

Package List

- One device of the series
- Quickly installation guide
- Din Rail with screws
- Terminal block