# FRM220-CCF40 FRM220-CCF20



- **◀ 4 ch. Contact Closure Fiber Converter**
- ▶ 2 ch. Contact Closure Fiber Converter



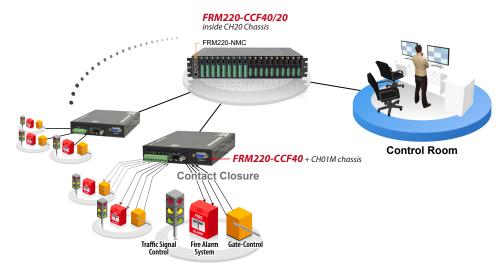
The FRM220-CCF contact closure fiber converter comes in two models, one with 2 channels (CCF20) and one with 4 channels (CCF40) and provides the transmission of contact closure over a single fiber optic link. With SFP cage on fiber ports, the FRM220-CCF gives you the fiber cabling connector SFP-LC, both multi-mode and single-mode, as well as BiDi which allows bi-directional transmission using only a single fiber core. The FRM220-CCF has contact inputs and 0.5 amp contact output relays. The relay output follows the "relay input" from the remote end. When the remote "relay input" is shorted, the local relay output is closed and vice-versa. Any one of the relay outputs can be configured to close when "carrier loss" is detected from the remote end. (Either through a CH01M console or via NMC in managed chassis.) Carrier Loss indicates that the optical fiber is disconnected or that the remote end has lost power and is not operating. This "carrier loss" relay can then be connected to an appropriate alarm circuit.

## **Features**

- Transmits a single contact closure in one or two directions
- Distances up to 120km
- 30 VDC, 0.5 amp relay N.O. (Normally Open)
- Point-to-Point transmission architecture
- Plug-and-play design ensures ease of installation requiring no electrical or optical adjustments
- Relay contact for Carrier Detect, N.C. (Normally Close)
- Indicating LEDs are provided for confirming equipment operating status
- Managed when places in FRM220 chassis with NMC

Specifications \	
Contacts	Contact Interface Response Time: 4 msec
	Input Dry Contact Closure
	Output SPST Relay, 30 VDC @ 0.5 A, Resistive loads only. 0.5 A Contact Rating - normally open
Optical	1xSFP/LC (155m)
Connectors	Optical SFP-LC, Contact, Terminal Block
LED Indicators	Contact Relay, Carrier Detect
Power	Operating Voltage Range 8 to 15 VDC
	Power Consumption 4W Max
Electrical & Mechanical	Current Protection Automatic Resettable Solid-State Current Limiters
	Circuit Board Meets IPC Standard
Dimension	$159.5 \times 20.8 \times 88$ mm (D×W×H)
Weight	200g
MTBF	>100,000 hours
Operating Temperture	0°C to +50°C
Storage Temperture	-10°C to +85°C
Relative Humidity	0% to 95% (non-condensing)

# **Application**



#### ■ Related Product



### IFC-BT40

(Industrial 4 Channel Binary Transducer, 4 binary input, 4 high power MSR Relay output)

Ordering I	nformat	ion
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Model Name	Description
FRM220-CCF40	4ch Contact closure fiber converter
FRM220-CCF20	2ch Contact closure fiber converter