



The ComNet FDC24NL Series contact closure transceiver units provide transmission of up to twenty four independent duplex dry switch or relay contact closures using a single SFP\* optical port or any four-wire RS-422 copper circuit. The FDC24NL Series supports an integrated field expandable RS-422 data bus allowing up to 12 uniquely addressed units to be connected to the bus providing up to 288 unique duplex contact closures over a single SFP optical port or RS-422 copper circuit.

The contact closure information is sent in packets that are ordered and encoded, ensuring extremely robust transmission. Packets that are garbled, packets out of sequence, and transmission bit errors will not cause random changes of state on the contact relays. One relay can be optionally re-purposed as a summary fault alarm contact and is triggered in the event that the unit loses fiber or RS-422 bus communications. The FDC24NL series is offered with non-latching solid state relays. Each module incorporates link and individual status indicating LEDs for monitoring confirmation of contact closure input and output of each of the twenty four channels. Packaged in the exclusive ComNet ComFit housing, these units may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 or DINBKT4 adaptor plate.

## FEATURES

- › Supports multiple units with the same address providing one-to-many or many-to-one contact closure type scenarios.
- › Transmits up to twenty-four duplex independent dry switch or relay contacts over one SFP fiber port, or via a 4-wire RS-422 copper circuit.
- › Designed to meet full compliance with the environmental requirements (ambient operating temperature, mechanical shock, vibration, humidity with condensation, high-line/low-line voltage conditions and transient voltage protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- › Indicating LEDs for monitoring contact closure status and summary fault
- › Unique cascadable data bus design allows for easy system expansion of up to 12 uniquely addressed units (288 unique duplex contacts) over a single SFP port or RS-422 copper circuit.
- › Automatic resettable solid-state current limiters

- › Hot-swappable rack modules
- › Interchangeable between stand-alone or rack mount use - ComFit
- › Lifetime Warranty

## APPLICATIONS

- › Alarm Event Triggering
- › Fire Alarm & Intrusion Detection Systems
- › Lane/Gate Control
- › PIR Signal Transmission
- › Building Automation and Environmental Control Systems

\* Small Form-Factor Pluggable Module. Sold separately.

SPECIFICATIONS

Contacts

Input/Output Channels	24
Input Contacts	Normally open
Output Contact Rating	30 VDC, 1A, resistive load only, normally open, non-latching
Response Time	<100 msec
Summary Fault Alarm	User selectable for relay 24 as summary fault relay or normal operation

Power

Operating Voltage Range	8 to 15 VDC (or from Rack, sold separately)
Power Consumption	5 W Max
Current Protection	Automatic Resettable Solid-State Current Limiters

Connectors:

Contact Input/Output	RJ-45
Data Bus	RJ-45
Power	Screw Terminals
Optical	100FX SFP Slot (SFP Models Only)

Electrical & Mechanical

LED Indicators	Contact In/Out Link
	Summary Fault
Rack Slots	2
Circuit Board	Meets IPC Standard
Size (L×W×H)	6.1 × 5.3 × 2.2 in (15.5 × 13.5 × 5.6 cm)
Shipping Weight	<2 lb / 0.9 kg

Environmental

MTBF	>100,000 hours
Operating Temp	-40° C to +75° C
Storage Temp	-40° C to +85° C
Relative Humidity	0% to 95% (non-condensing) <sup>1</sup>



ORDERING INFORMATION

Part No.	Description	Maximum Distance
FDC24NL	24-Channel Duplex Contact Closure Transceiver (Non-Latching Relays), RS-422 Interface	100 m (328 ft)
FDC24NLSFP	24-Channel Duplex Contact Closure Transceiver (Non-Latching Relays), SFP Interface	SFP Dependent
Accessories	DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included, for benign 0° to 50°C applications only. Hardened power supply available, consult factory)	
Options	[1] Add 'C' for Conformally Coated Circuit Boards to extend board to condensation conditions(Extra charge, consult factory) User-selection of SFP modules (Extra charge, see SFP data sheets for product numbers and compatibility before ordering) DIN-Rail Mounting Adaptor Plate Kit - With mounting hardware (Optional, order model DINBKT1 or DINBKT4)	

In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

TYPICAL APPLICATIONS

Point-to-Point



Data Bus

