

Relay Communications Module

Product Data Sheet



Programmable Relay Output Controllers



Overview

To provide extremely flexible and versatile relay alarm communications for their large range of Distributed Temperature Sensing (DTS) systems, SensorTran supplies the National Instruments cFP-21xx range of controllers, which are compact, are programmable, and operate in real-time.

These programmable automation controllers are designed for industrial control applications and are capable of performing advanced embedded control, data logging, and network connectivity.

They combine the packaging, specifications, and reliability of a PLC with the software, flexibility, connectivity, and functionality of a personal computer (PC).

Range of Controllers

National Instruments offers a range of controllers dependent upon application requirements.

The cFP2100 model provides sufficient capability to meet most requirements. The cFP2100 controller can provide relay outputs as SPST (Single Pole Single Throw) or SPDT (single pole double throw) types.

For the cFP2100 version, SPST relays are supplied in 8-channel modules up to a maximum of 8 modules, providing up to 64 relay outputs in total.

Ideal for Rugged Industrial Use

These controllers are a reliable platform designed for rugged industrial environments with extremes of shock, vibration, and temperature.

They are certified to Class 1, Div 2, and they are suitable for operation within -40°C to $+70^{\circ}\text{C}$.

The controllers require an 11 to 30VDC power supply but an external AC power module is also available. Terminals are available on the controller for backup UPS.

DTS Communications

The controllers can communicate with DTS systems over either Ethernet or RS232. Additionally, the controllers can communicate via USB connection with the addition of an external USB/RS232 connector.

Specification (NI cFP2100 controller)

Relay Outputs	SPST type	8, 16, 24, 32, 40, 48, 56, and 64
	SPDT type	4, 8, 12, 16, 20, 24, 28, and 32
DTS Communications	DTS interface	1 x 10BaseT/100BaseTX Ethernet and 1 x RS232
	Maximum distance from DTS	100 meters over Ethernet
Operating System, Processor, and Memory	Operating System	Windows 2000/NT/XP
	Processor	188 MHz processor card
	Memory	64 MB non-volatile, 64 MB DRAM
Power Requirement	Power supply range	11 to 30 VDC
	Recommended power supply	20W
	Power consumption	6.1W + 1.1 per relay module
	Maximum power to be connected	9W
Physical Characteristics	Weight	278 g [9.8 oz]
Environmental These systems are designed for indoor use only. For outdoor use, they must be housed in a suitable sealed enclosure.	Operating temperature	-40 to +70°C
	Storage temperature	-55 to +85°C
	Relative humidity	10 to 90% non-condensing
Shock and Vibration	Operating vibration, Random (IEC 60068-2-64)	10 to 500 Hz, 5 g _{ms}
	Operating vibration, Sinusoidal (IEC 60068-2-6)	10 to 500 Hz, 5 g
	Operating shock (IEC 60068-2-27)	50 g, 3ms half sine, 18 shocks at 6 orientation 30 g, 11 ms half sine, 18 shocks at 6 orientations
Safety	IEC 61010-1, EN 61010-1; UL 61010-1; CAN/CSA-C22.2 No. 61010-1	
Electromagnetic Compatibility	Emissions	EN 55011 Class A at 10 m FCC Part 15A above 1 GHz
	Immunity	EN 61326:1997 + A2:2002 Table 1 CE, C-Tick and FCC Part 15 (Class A) compliant
CE Compliance	Low-Voltage Directive (safety)	73/23/EEC
	Electromagnetic Compatibility	
	Directive	89/336/EEC



SensorTran has made every effort to ensure information contained in this document is accurate at the time of printing, however, product specifications and features are subject to change without notice.

Contact



SENSORTRAN

Distributed Monitoring
Solutions

Corporate HQ & Manufacturing

4401 Freidrich Lane, Suite 307
Austin, TX 78744
USA

+1-512-583-3520
+1-866-333-2861 (toll free domestic)

International Sales Office

Regus House, George Curl Way
Southampton, SO 18 2RZ
England

+44 2380 30 2705

e-mail inquiries to sales@sensortran.com

www.sensortran.com