

Industrial 15 in. Flat Panel Touch Screen Monitor

NI FPT-1015

- Rugged industrial monitor for PXI and NI Compact Vision Systems
- 15 in. XGA TFT color LCD flat panel monitor
- Resistive touch screen for PXI
 - 1024 x 768 maximum resolution
 - 250 cd/m² maximum luminance
 - Abrasion-resistant tempered glass
 - Front-panel controls for display settings
- Standard VGA interface
 - Autorecognition of input signal
 - Up to 40 m extended-length VGA cable(s)
- Communication ports
 - Device side USB for touch screen control
- Works with Windows 2000/NT/XP drivers
- Stainless steel chassis with Al-Mg front panel
- NEMA4/IP65-compliant front panel
- Panel wall, or desk mount
- Extended temperature range to 50 °C
- CE and UL certifications

Accessories

- Rack-mount kit
- Wall/desk-mount kit



Overview

The National Instruments FPT-1015 is an industrial 15 in. color TFT LCD flat panel touch screen monitor. Its large display area, VGA compatibility, and interactive touch screen interface make it the ideal human-machine interface (HMI) for high-performance PXI test applications and machine vision applications based on the NI CVS-145x systems.

The FPT-1015 features high shock, vibration, and temperature ratings, and it meets global safety standards and agency certifications. To meet special application requirements, both rack-mount and extended-length VGA cables are available.

Rugged Industrial Design

The NI FPT-1015 features a rugged design with a stainless steel chassis, aluminum front panel housing, and integrated NEMA4/IP65-compliant touch screen flat panel display. Its compact industrial design conserves space – an important consideration for the typically crowded plant floor – and its reduced mounting depth is well-suited for 19 in. rack-mount cabinets. It has a 15 in. TFT LDC color display with resistive analog touch screen with tempered, antiglare glass that is also NEMA4/IP65-compliant.

HMI for PXI-Based Systems

National Instruments PXI embedded controllers, which feature high-performance Pentium M processors, are fully compatible with other PXI systems. These embedded controllers – when integrated into a PXI chassis with choice of communication, I/O, or signal conditioning modules – create a compact, rugged PC-based platform well-suited for deployment in harsh environments. With its rugged industrial design and operator-friendly touch screen interface, the FPT-1015 is an ideal HMI for both PXI and real-time compact vision systems.

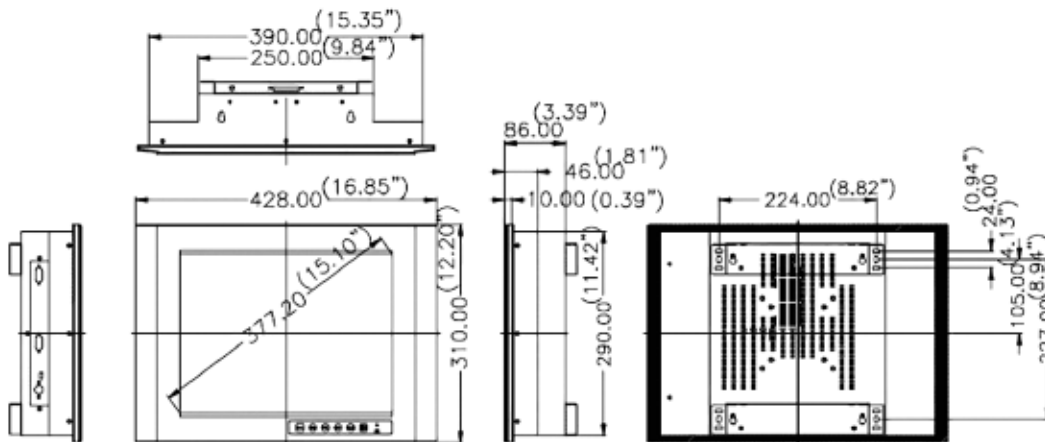


Figure 1. NI FPT-1015 Dimensions

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Typical Applications

PXI-Based Industrial Data Logging with HMI



Figure 2. FPT-1015 HMI for PXI Industrial I/O with LabVIEW Datalogging and Supervisory Control Module

In this data-logging application, a PXI system is monitoring high-speed analog inputs that require isolation. Additional application requirements include:

- Data display in real time in multiple formats
- Integration of bus-level devices (for example, DeviceNet)
- Real-time sharing of data enterprise wide

Using the FPT-1015, connected directly to the PXI controller, the operator can quickly choose between display formats.

PXI-Based Factory Floor QA/QC with HMI



Figure 3. FPT-1015 with a PXI Factory Floor Test System

In this application, a PXI system conducts end-of-line functional testing. Additional application requirements include:

- Touch screen for operator input
- Keyboard/mouse for numeric input
- Large, easy-to-read display for alarm conditions
- Locate the display 20 m from the PXI chassis

With the FPT-1015 extended VGA cable, you can locate the system at the end of the production line and the FPT-1015 close to the machine operator's station.

HMI for NI CVS-1454 System



Figure 4. FPT-1015 with Compact Vision System

The National Instruments CVS-1454 compact vision system combines a high-performance processor with an onboard FPGA, digital I/O, and three IEEE 1394 (FireWire) ports in a compact industrial design. This fully integrated system features built-in functionality for communicating with external devices. It can read quadrature encoder inputs, generate strobe pulses, read/write digital I/O, and directly interface with more than 80 industrial cameras. Additionally, the CVS-145x resident VGA output can directly interface with the FPT-1015 to provide real-time displays, based on NI LabVIEW or Vision Builder for Automated Inspection, of the product under test as well as pass/fail and inspection data. Compact vision systems do not work with the FPT-1015 touch screen.

Ordering Information

NI FPT-1015.....	779560-01
Rack mount kit	779572-01
Desk mount kit	779573-01

BUY NOW!

For complete product specifications, pricing, and accessory information, call (800) 813 3693 (U.S.) or go to ni.com/pxi.

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Specifications

Display

Description	XGA TFT LCD flat panel
Size	15 in.
Front-panel (bezel)	Al-Mg, NEMA4/IP65-compliant
Touch screen	8 wire, analog resistive with antireflective tempered glass
Resolution	1024 x 768 (16.7 million colors)
Viewing angle	140 deg (H), 120 deg (V)
Luminance	250 cd/m ²
Contrast ratio	500:1
OSD controls	Brightness, contrast, horizontal/vertical position, system video information, and system reset
OS compatibility	Windows 2000/XP
Video interface	VGA
Screen control	USB
Keyboard/mouse	None
Backlight lifetime	40,000 hours
Touch screen lifetime	1 million touches @ single point

Power Requirements

External	42 W
Power supply (included)	100 to 240 VAC input 3.5 A @ 12 VDC output
Power consumption	
5 V	100 mA (USB)

Physical

Dimensions (w by h by d)	383 by 307 by 48 mm (15 by 12 by 1.9 in.)
Gross weight	3.7 kg (8.2 lb)
Mounting	Panel (standard), rack, wall, desk VESA mount supported

Environment

Operating temperature	0 to 50 °C (32 to 122 °F)
Storage temperature	-20 to 60 °C (32 to 140 °F)
Relative humidity	5 to 95% (noncondensing)
Vibration, operating	5 to 17 Hz, double-amplitude displacement 17 to 500 Hz, 1.0 g peak-to-peak

Safety and EMC/EMI Compliance

EMC/EMI	CE and FCC
Ratings	NEMA Type 4, IP65
Certifications	CCC, CE, and UL certifications

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Hardware Services

NI Factory Installation Services

NI Factory Installation Services (FIS) is the fastest and easiest way to use your PXI or PXI/SCXI combination systems right out of the box. Trained NI technicians install the software and hardware and configure the system to your specifications. NI extends the standard warranty by one year on hardware components (controllers, chassis, modules) purchased with FIS. To use FIS, simply configure your system online with ni.com/pxiadvisor.

Calibration Services

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