



Features

- Excellent C/P ratio (cost/performance)
- High-resolution color touch screen
- RTC (Real Time Clock)
- Multiple serial communication interfaces
- Rubber Keypad (VPD-132/VPD-133)
- GUI design
- Free HMIWorks development tool
- Supports the popular C programming language and Ladder designer
- Supports the custom communication protocol (C language)
- ESD Protection: 4 kV
- Front Panel: IP65 Waterproof
- I/O Expansion Boards (XV-Boards)
- Supports Ethernet (VPD-133/VPD-133N)
- Operating temperature: -20 ~ 50°C

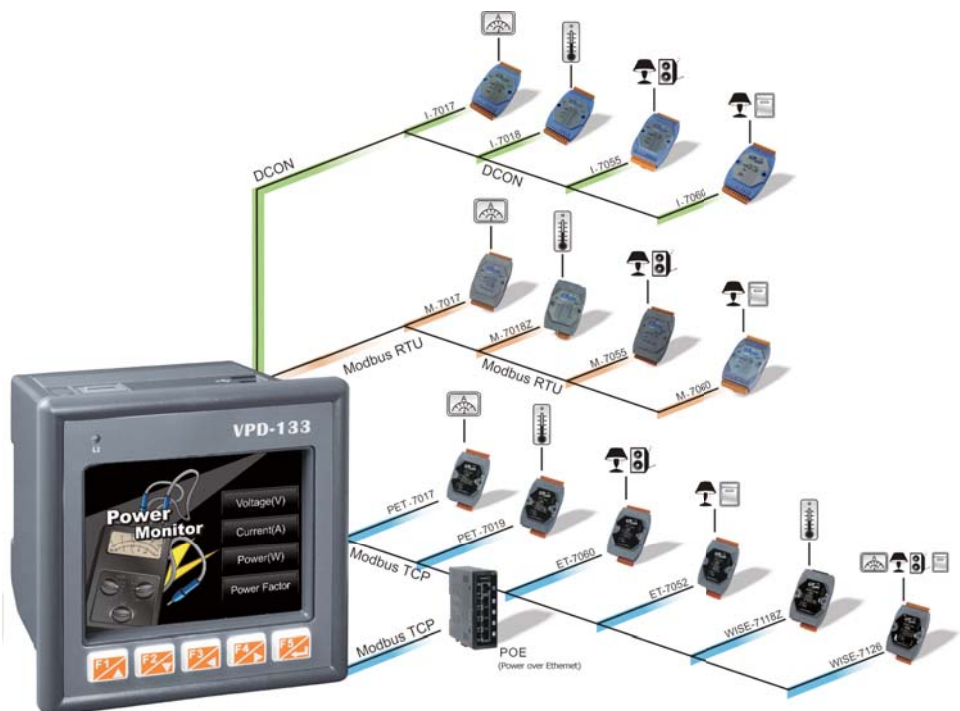
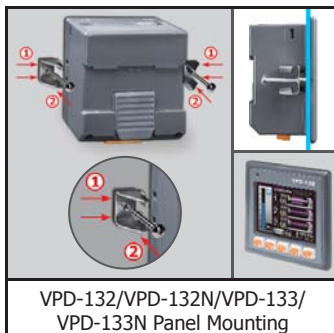


Introduction

VPD industrial touch HMI device series features, 3.5" high resolution color touch screen LCD. With touchscreen capability, it is easy to deploy into all kinds of automation systems, and make them more intuitive and efficient. Either setup new system installations or complete system retrofits, VPD series stands out for its wide variety of communication methods. Its built-in communication ports include RS-232/RS-485, and Ethernet, USB interface, enable integration into the system allowing users to control, monitor I/O at the remote sides and update firmware directly from the central computer. Besides, the built-in non-volatile storage makes VPD series more reliable for rugged environments.

HMIWorks, the free development software for VPD series, provides an easy-to-use environment, and powerful and intuitive programming with graphic capabilities to let users create appealing graphical interface screens in minutes. For PLC users, HMIWorks provides Ladder Designer and C language environment for IT users. Especially, it only takes no more than 30 minutes to learn how to create an application program when using Ladder Designer. With all the features provided, VPD series touch HMI Devices must be the most cost effective HMI Device ever been in the market.

Applications



Specifications

Models	VPD-132	VPD-132N	VPD-133	VPD-133N
CPU Module				
CPU	32-bit RISC CPU			
Memory Expansion	16 MB SDRAM / 8 MB Flash			
Real Time Clock (RTC)	Yes			
Buzzer	Yes			
Rotary Switch (0~9)	Yes			
Communication Interface				
COM1	RS-485 (including Self-Tuner) +RS-232 (3-pin)			
COM2	RS-485 (including Self-Tuner)			
USB 1.1 Client	Firmware updates only			
Ethernet	-		RJ-45 x 1, 10/100 Base-TX	
I/O Expansion				
I/O Expansion Bus	Yes, XV-board			
MMI (Main Machine Interface)				
LCD	3.5" TFT (Resolution 240 x 320 x 16), defective pixels <= 3			
Backlight Life	20,000 hours			
Brightness	270 cd/m2			
LED Indicator	Yes	-	Yes	-
Touch Panel	Yes			
Reset Button	Yes			
Rubber Keypad	5 keys (Programmable)	-	5 keys (Programmable)	-
Electrical				
Powered from Terminal Block	+12 ~ 48 VDC			
Powered from PoE	IEEE 802.3af, Class1 (48 V)			
Power Consumption	2W			
Mechanical				
Dimensions (W x L x H)	103 mm x103 mm x 53 mm			
Ingress Protection	Front Panel: IP65			
Installation	DIN-Rail Mounting and Panel Mounting			
Environmental				
Operating Temperature	-20 ~ +50°C			
Storage Temperature	-30 ~ +80°C			
Ambient Relative Humidity	10 ~ 90% RH, non-condensing			

Appearance

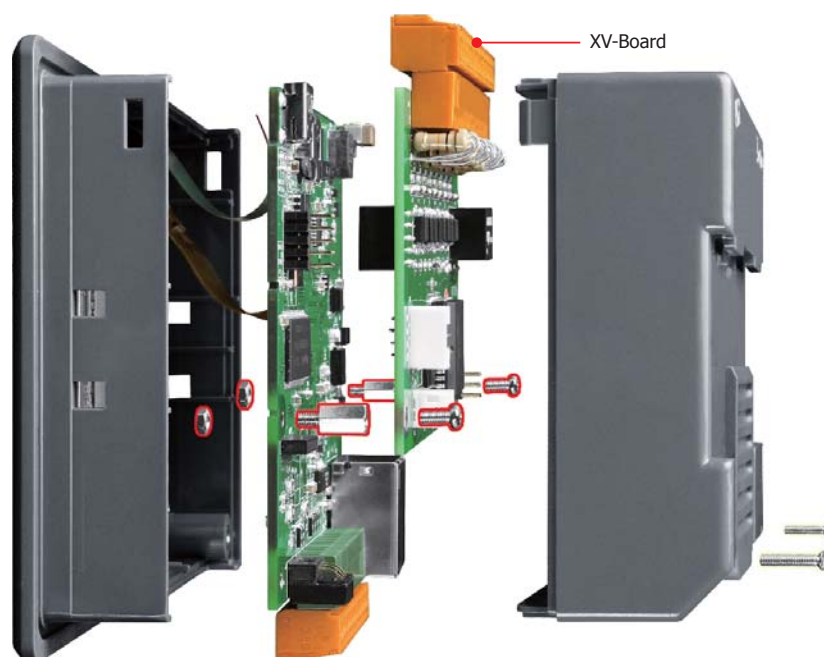
VPD-132/VPD-133 Front View









VPD-132N/VPD-133N Front View







XV-Board Assembly Drawing



Relay output Board		
Model		XV116
Image		
Relay Output		
Channel		6
Type		Form A (SPST N.O.)
Operating Voltage Range		250 VAC or 30 Vdc
Max. Load Current		Relay 0 ~ 1: 2 A Relay 2 ~ 5: 4 A
Operating Time		Relay 0 ~ 1: 4 ms Max. Relay 2 ~ 5: 5 ms Max.
Release Time		Relay 0 ~ 1: 6 ms Max. Relay 2 ~ 5: 1 ms Max.
Mechanical Life		Relay 0 ~ 1: 100 x 10^6 cycles Relay 2 ~ 5: 30 x 10^6 cycles
On-Resistance		-
Off-State Leakage Current		-
Intra-module Isolation, Field to Logic		3750 Vdc
Digital Input		
Channel		5
Contact		Wet
Sink/Source (NPN/PNP)		Sink/Source
Wet Contact	On Voltage Level	+10 Vdc ~ 50 Vdc
	Off Voltage Level	+4 Vdc Max.
Input Impedance		10 KΩ
Overvoltage Protection		60 Vdc
Intra-module Isolation, Field to Logic		3750 Vdc
Power Requirements		
Consumption		1W

DIO Board					
Model	XV107	XV107A	XV110	XV111	XV111A
Image					
Digital Input					
Channel		8	8	16	-
Contact		Wet	Wet	Dry+Wet	
Sink/Source (NPN/PNP)		Source	Sink	Sink/Source	
Wet Contact	On Voltage Level	+10 Vdc ~ +50 Vdc			
	Off Voltage Level	+4 Vdc Max.			
Dry Contact	On Voltage Level	-		Close to GND	
	Off Voltage Level	-		Open	
Counters	Max. Count	65535 (16-bit)			
	Max. Input Frequency	100 Hz			
	Min. Pulse Width	5 ms			
Input Impedance		10 KΩ			
Overvoltage Protection		70 Vdc			
Intra-module Isolation, Field to Logic		3750 Vdc			
Digital Output					
Channel	8		-	16	
Type	Open Collector	Open Emitter		Open Collector	Open Emitter
Sink/Source (NPN/PNP)	Sink	Source		Sink	Source
Load Voltage	+3.5 VDC ~ 50 VDC	+10 VDC ~ 40 VDC		+3.5 VDC ~ 50 VDC	+10 VDC ~ 40 VDC
Max. Load Current	700 mA/channel			600 mA/channel	
Overload Protection	1.4 A			1.4 A	
Intra-module Isolation, Field to Logic	3750 Vdc			3750 Vdc	
Power Requirements					
Consumption	0.2 W		0.6 W	0.3 W	

Multifunction Board				
Model	XV304	XV308	XV310	XV305
Image				
Analog Input				
Channel	6	8	4	8
Wiring	Single-Ended			Differential
Sensor Type	+/- 1 V, +/- 2.5 V, +/- 5 V, +/- 10 V, 0 ~ 20 mA, 4 ~ 20 mA, +/-20 mA (Jumper selectable)			Thermistor Precon ST-A3, Fenwell U, YSI L100, YSI L300, YSI L1000, YSI B2252, SI B3000, YSI B5000, SI B6000, YSI B10000, YSI H10000, YSI H30000, User-defined
Resolution	Normal Mode	14-bit		16-bit
	Fast Mode	12-bit		
Sampling Rate	Normal Mode	10 Hz		8 Hz
	Fast Mode	200 Hz		
Input Impedance	10 MΩ			-
Overvoltage Protection	120 Vdc			
Overcurrent Protection	1000 mA			
Isolation	2500 Vdc			
Analog Output				
Channel	1	-	2	-
Range	0 ~ 10 VDC, 0 ~ 20 mA, 4 ~ 20 mA, (Jumper selectable)		0 ~ 10 VDC, 0 ~ 20 mA, 4 ~ 20 mA, (Jumper selectable)	
Resolution	12-bit		12-bit	
Output Capacity	20 mA		10 mA	
Isolation	2500 VDC		2500 VDC	
Digital Input				
Channel	4			-
Contact	Dry			
Sink/Source (NPN/PNP)	Source			
Wet Contact	On Voltage Level	Close to GND		
	Off Voltage Level	Open		
Overload Protection	30 VDC			
Digital Output				
Channel	4	4	4	8
Type	Open Collector			
Sink/Source (NPN/PNP)	Sink			
Load Voltage	+10 VDC ~ +50 VDC			
Max. Load Current	700 mA/Channel			
Overload Protection	1.4 A			
Power Requirements				
Consumption	1 W			