

Schneider Canada Services **Modbus PXP-3148MB Port Expander**

Retain for future use.


TABLE OF CONTENTS



Safety Precautions		2
Introduction		2
Box Contents		2
Additional Resources		2
Quick Start Checklist		2
Product Purpose		
Description		3
Installation		3
Dimensions		3
Powering the PXP3148		4
Fig. 1	24VDC Supply from Drive	4
Fig. 2	24VDC Supply from external	4
RS485 Wiring		5
	4-wire Devices	5
	2-wire Devices	5
RS485 Biasing and Terminations		5
Specifications		5
Maintenance and Troubleshooting		6
Diagnostics and Safety Precautions		6

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Safety Precautions

 **DANGER**

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Apply appropriate personal protective equipment(PPE) and follow safe electrical work practices. Follow local Electrical Codes and Standards
- Turn OFF all power before working on or inside equipment.
- Always use a properly rated voltage sensing device to confirm that power is OFF.
- Failure to follow these instruction will result in death or serious injuries.

INTRODUCTION

Box Contents

- PXP-3148MB unit
- Installation guide
- 60 cm (2ft)RJ45 patch cable

Additional Resources

- Documentation:** www.schneider-electric.ca

Quick Start Checklist

- Mount the unit.
- Determine the control power method and connect the power.
- Set the Drive Modbus address to 1 or greater
- Connect the ATS-48 or ATV-31to the labelled port of the PXP-3148MB
- Connect the keypad to the labelled port of the PXP-3148MB .
- Wire the RS485 serial port of the PXP-3148MB

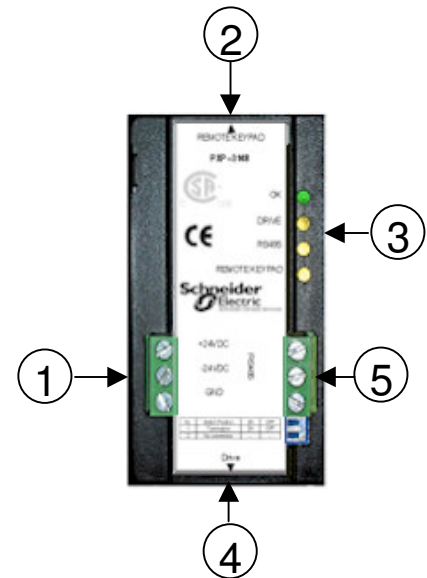
Product Purpose

- Provides ATV31 and ATS48 Drive communication port expansion to permit the us of both a remote keypad as well permitting Modbus RTU pass-through communication

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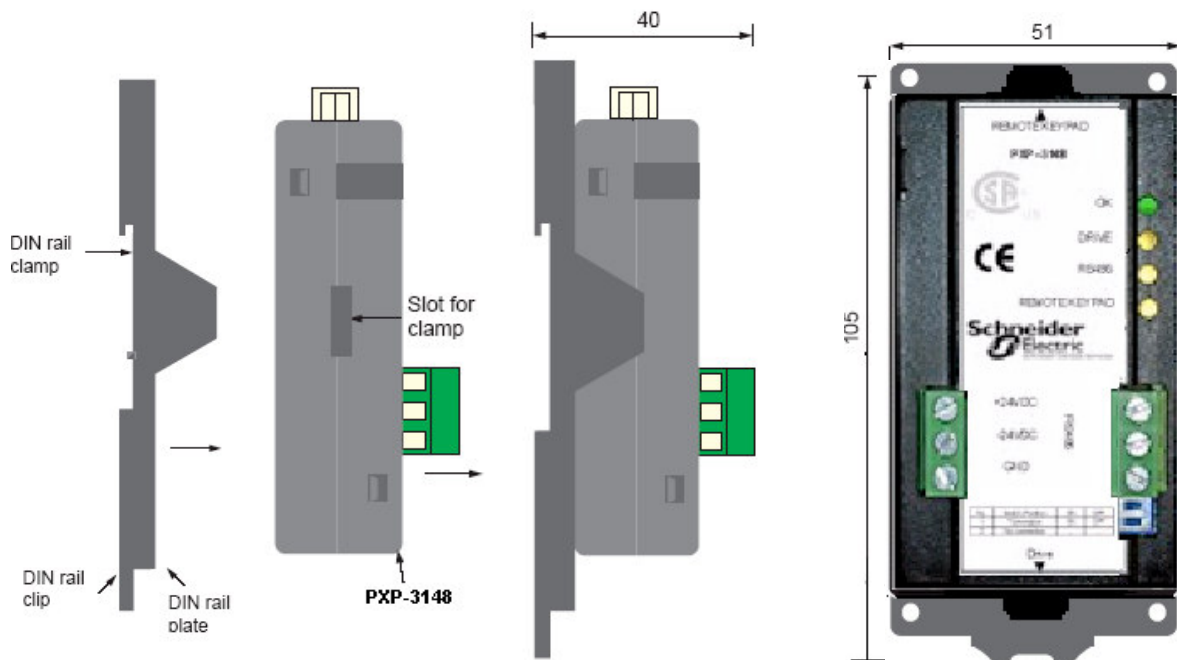
DESCRIPTION

1. 24VDC control power connection
2. RJ45 VW3G4810 or VW3A31101 Keypad connection
3. LED's
 OK: Active link
 Drive: Data link
 RS485 link
 Keypad link
4. RJ 45 ATS48/ATV31 connection
5. RS485 connection



INSTALLATION

Dimensions



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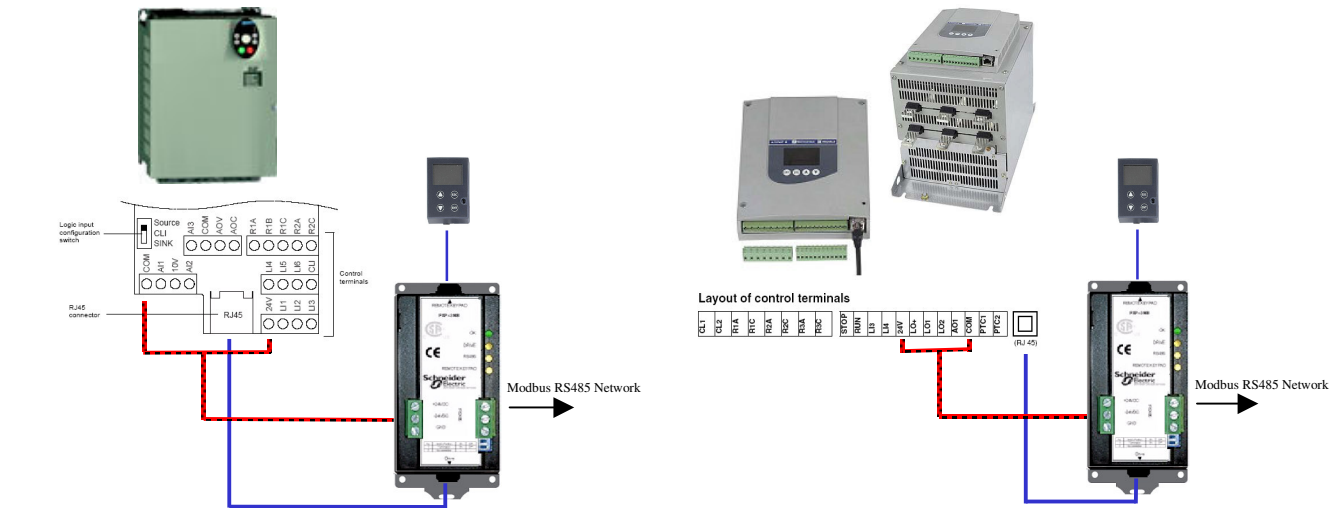


Figure 1 – 24VDC supply from Drive

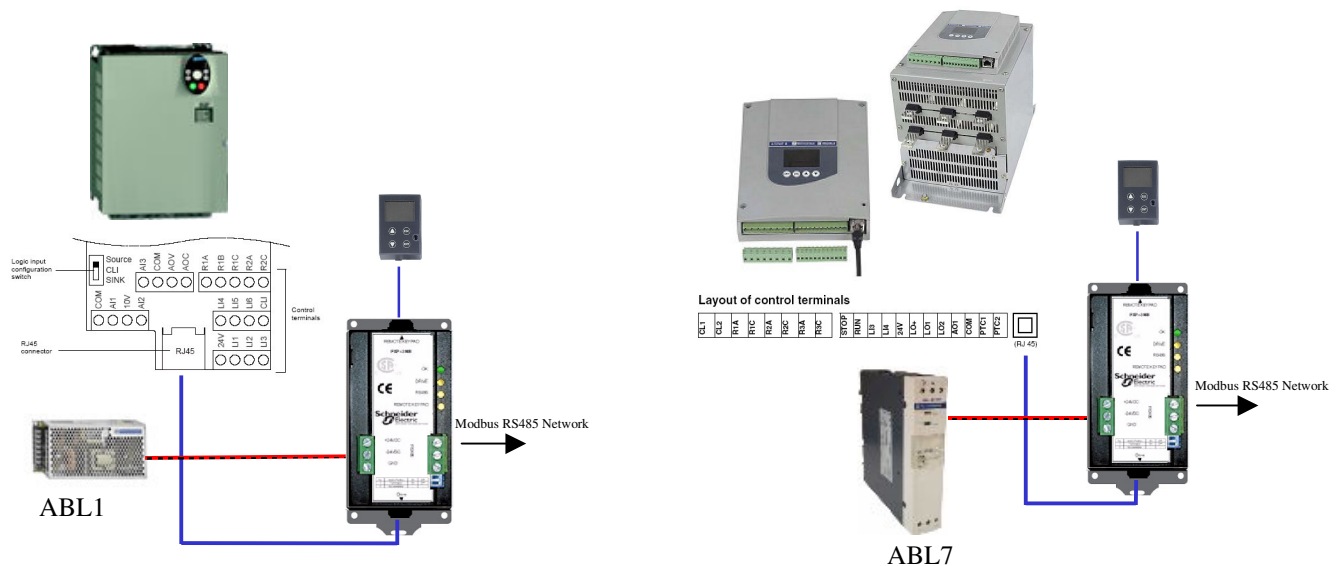


Figure 2 – External 24VDC supply

Note: To reset after loss of power, user must disconnect and reconnect the communication cable to the PXP3148MB.

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Modbus RTU RS485 Port

RS485 WIRING

**2-wire connection – RS485 port – A – TX+, B – TX-
(Schneider Electric standard: 2-wire connection)
4-wire connection – RS485 port – TX+ - RX+, TX- - RX-**

RS485 BIASING AND TERMINATION

Dip switch next to RS485 - #1 – On for Termination, Off for #2 (not used).

Specifications

Power	+24VDC +/- 10%, 100mA max.
LED's	4 LED's for status indication
Communication Ports	3 communication ports (Isolation between communication ports and power supply through DC-DC coupler) (Isolation = 1 kV) Drive Port – connects to drive Remote Keypad – connects to keypad RS485 – connects to RS485 network
Temperature	Operating : 0 ⁰ to 50 ⁰ C Storage : -20 ⁰ to 80 ⁰ C
Humidity	10% to 90% (Non condensing)
Mounting	DIN rail or back panel mounted
Dimensions	105mm(L) x 40mm(D) x 51mm(W)
Weight	125 gm approx.
Approvals	cUL, CE
Immunity to ESD	Level 3 as per IEC1000-4-2
Immunity to Transients	Level 3 as per IEC1000-4-2
Immunity to Radiated RF	Level 3 as per IEC1000-4-2
Immunity to Conducted RF	Level 3 as per IEC1000-4-2
Emissions	EN55011 CISPR A

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Maintenance and Troubleshooting

The Modbus PXP-3148MB does not require maintenance, nor does it contain any user serviceable parts. For assistance with the PXP-3148MB contact your local sales representative or Schneider Electric Canada technical support at the number listed below. Do not open the PXP-3148MB enclosure. If open product warranty is void.

Diagnostics

OK LED not lit	Source power is not applied or is not stable.	Apply power or check power sources.
	LED defective	Replace unit.
No communication	FCS applied	Reset Modbus address on the Drive/SST to 1 or higher.
		Disconnect cable to keypad and reconnect. Power cycle to Drive/SST

Safety Precautions



HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Only qualified workers should install this equipment. Such work should be performed only after reading this entire set of instructions.
- Never work alone.
- Before performing visual inspections, tests, or maintenance on this equipment, disconnect all sources of electric power. Assume that all circuits are live until they have been completely de-energized, tested, and tagged. Pay particular attention to the design of the power system. Consider all sources of power, including the possibility of backfeed.
- Qualified persons performing diagnostics or troubleshooting that require electrical conductors to be energized must comply with and follow safe electrical work practices. For example, in the USA, see NFPA 70E.
- Turn off all power supplying the equipment in which the PXP-3148MB is to be installed before installing and wiring the PXP-3148MB.
- Always use a properly rated voltage sensing device to confirm that power is off.
- Beware of potential hazards, wear personal protective equipment, and carefully inspect the work area for tools and objects that may have been left inside the equipment.
- The successful operation of this equipment depends upon proper handling, installation, and operation. Neglecting fundamental installation requirements may lead to personal injury as well as damage to electrical equipment or other property.
- The successful operation of this equipment also depends upon insuring all connections are as specified. Failure to do so may lead to personal injury as well as damage to electrical equipment or other property

Failure to follow these instructions will result in death or serious injury.



Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

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