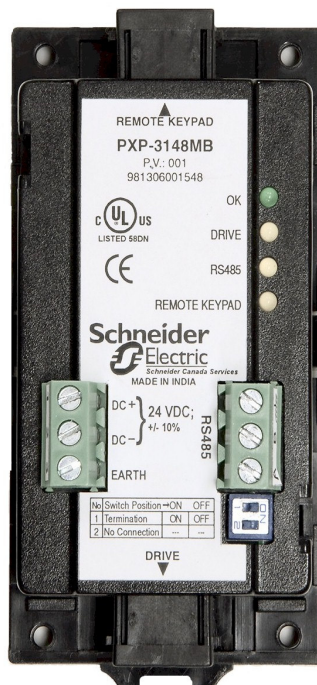


PXP-3148MB


Port Multiplexer

Instruction Manual

2007-03-26



Federal Pioneer
Merlin Gerin
Square D
Telemecanique

Schneider
 **Electric**

Preface

The data and illustrations in this document are not binding. Schneider Electric reserves the right to modify our products in line with our policy of continuous improvement. Information in this document is subject to change without notice and should not be construed as a commitment by Schneider Electric. Schneider Electric assumes no responsibility for any errors that may appear in this document.

No part of this document may be reproduced in any form or by any means, electronic or mechanical, without the express written permission of Schneider Electric. All rights reserved

Copyright © 2007 by Schneider Electric

Table of contents

1	Revision History.....	3
2	Introduction.....	4
3	Degree of Difficulty and Safety Considerations	4
4	Simplified Architecture	5
5	PXP-3148MB Mounting and Dimension	6
6	Setting up	
6.1	Wiring diagrams.....	9
6.2	Maintenance and troubleshooting	11
6.3	Diagnostics table	11
7	Firmware Upgrade	12

1 REVISION HISTORY

Automation and Control
Programmable Controllers and I/O
Communication Interface

Version Number:	001
Date:	February, 14, 2007
Replaces:	Instruction guide 02/2006
Document Reference Code:	AN_0001_02_14_2007_001

Description

Instruction Bulletin

2 INTRODUCTION

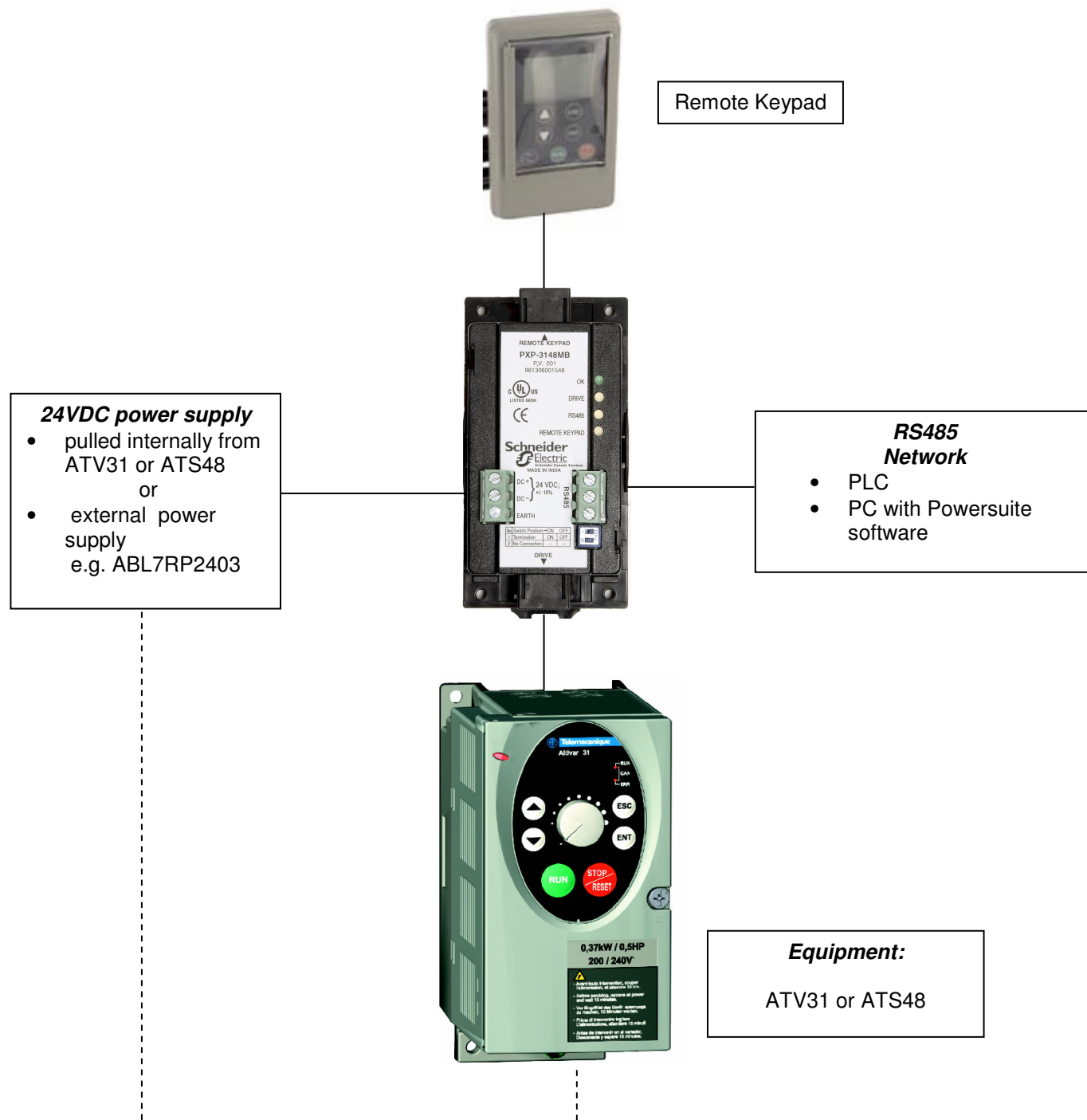
The document describes how to install, configure and operate the port multiplexer, PXP3148.

3 DEGREE OF DIFFICULTY AND SAFETY CONSIDERATIONS

This document assumes that the reader is familiar with the PLCs, drive, HMI and equipment being used. Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. This document is not intended as an instruction manual for untrained or unqualified persons. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this document. Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it.

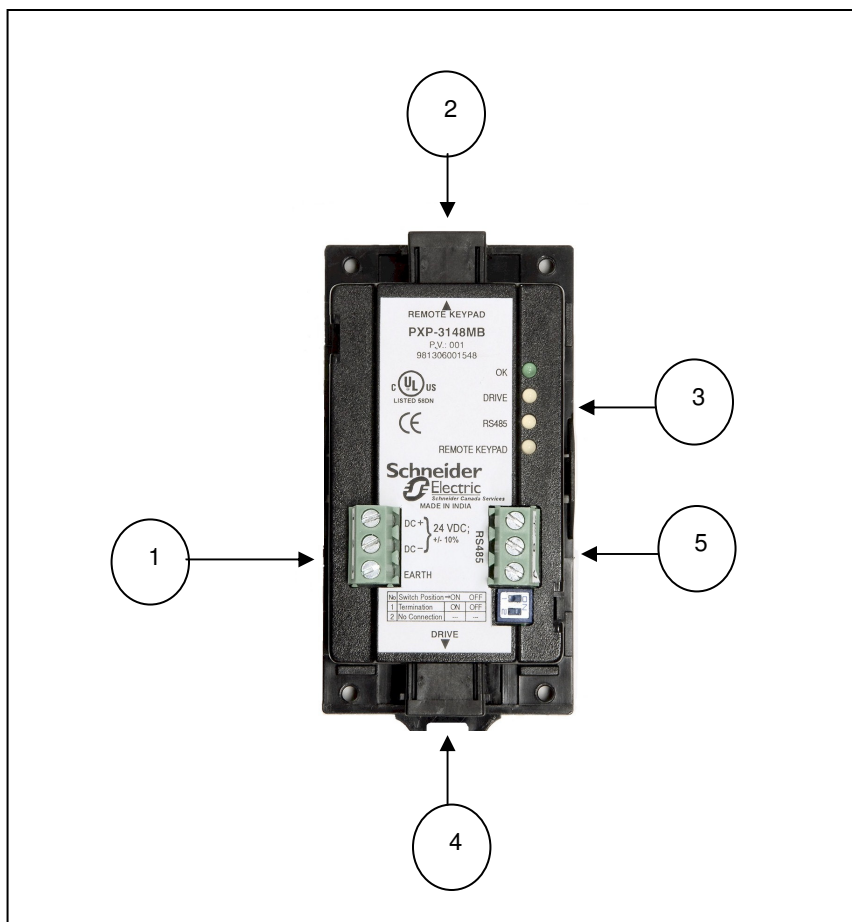
The PXP3148 is a port multiplexer with 3 serial ports: 1 controller port and 2 master ports. It has been designed to work with the ATV31 drive and the ATS48 softstart. It allows connection of a remote keypad on one master port and the other master port remains available for control/monitoring.

4 SIMPLIFIED ARCHITECTURE



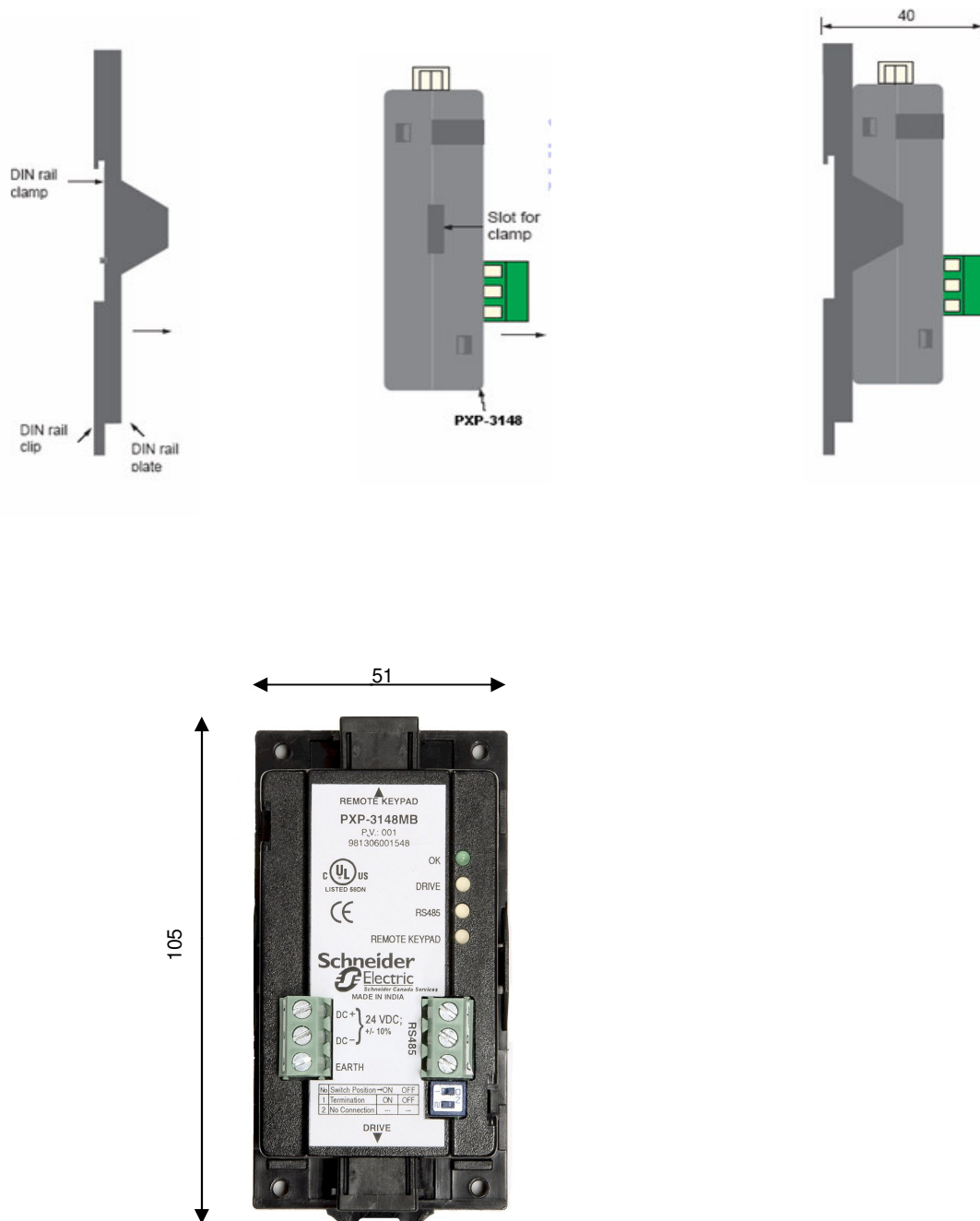
5 PXP3148 DESCRIPTION, MOUNTING

5.1 Description



1. 24VDC power connection.
2. RJ45 Master port1 for connection of remote keypad (VW3G4810 or VW3A31101)
3. Status LED
4. RJ45 controller port to connect drive / softstart
5. RS 485 master port2 for control/monitoring (PLC/ Powersuite, etc...)

5.2 Mounting and Dimensions



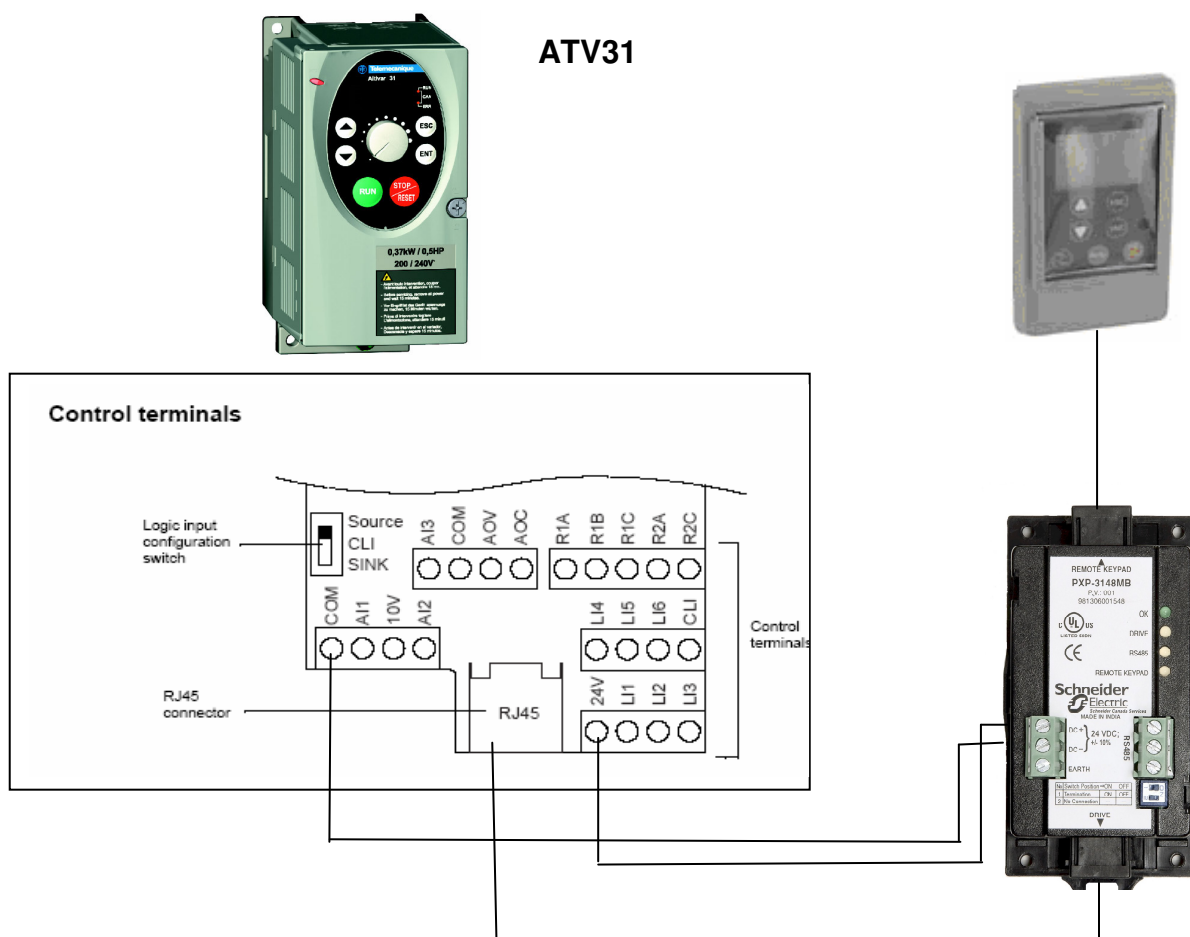
5.3 Specifications

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	
Remote keypad	
Rs485	
Temperature	:Operating 0°C to 50 °C :Storage -20 °C to 80 °C
Humidity	:10% to 90% (non condensing)
Mounting	:DIN rail or back panel mounted
Dimensions	:105mm (L) x 40mm (D) x 51 mm (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

6 SETTING UP

6.1 Wiring and Connection

1. Connect the ATV31 to the port 4 (refer to section 5.1) of the PXP3148MB module using a standard RJ45 cable.
2. Connect the remote keypad to port 2.
3. Set the dip switches on the PXP module as per following:
Switch 1: ON
Switch 2: OFF
4. Connect 24VDC power supply to terminal block 1 of the module. Refer to schematics below for pulling the 24VDC supply from the drive or softstart
5. Dip switch positions: SW1: ON SW2 :OFF
6. Power up the drive or soft start and set the communication parameters to **8N1**. Power cycle the drive or soft start so that the new communication parameters are taken into account.
7. Plug in the remote keypad.
8. Status LED OK lights up to solid green showing equipment is ready to be controlled/monitored through either keypad or RS485 port.

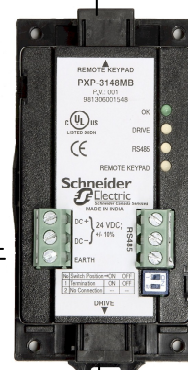


ATS48



Layout of control terminals

CL1	CL2	RTA	RTC	R2A	R2C	R3A	R3C
STOP	RUN	LI3	LI4	24V	LO+	LO1	LO2
AD1	COM	PTC1	PTC2	(RJ 45)			



6.2 Maintenance and Troubleshooting

The Modbus PXP-3148 does not require maintenance, nor does it contain any user serviceable parts. For assistance with the PXP-3138MB contact your local sales representative or Schneider Electric Canada technical support.

Do not open the PXP-3138MB enclosure. If open, product warranty is void.

6.3 Diagnostics

The table below describes the status of the module based on the OK LED found on the front of the unit:

LED Status	Comments	
ON	Power is OK	Device is ready to communicate
OFF	No power to device	No data transfer
Blink	Unit is in configuration mode	No data coming from master ports

6.4 Box Content

- PXP - 3148 unit
- Installation guide
- 60 cm RJ45 patch cable
-

6.5 Additional Resources

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

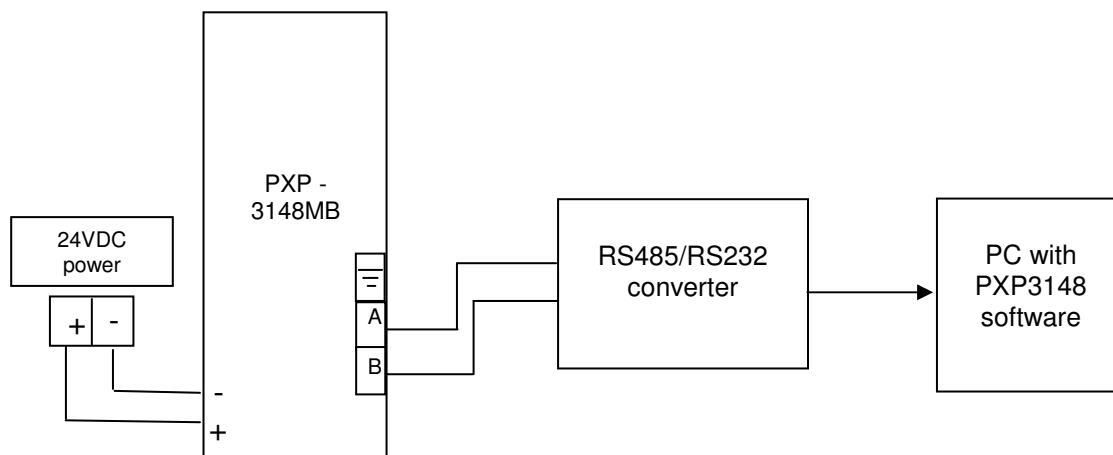
7 FIRMWARE UPGRADE

In order to update a new firmware or driver in the PXP unit, the PXP3148MSoftware is required. The minimum requirement for running this software is

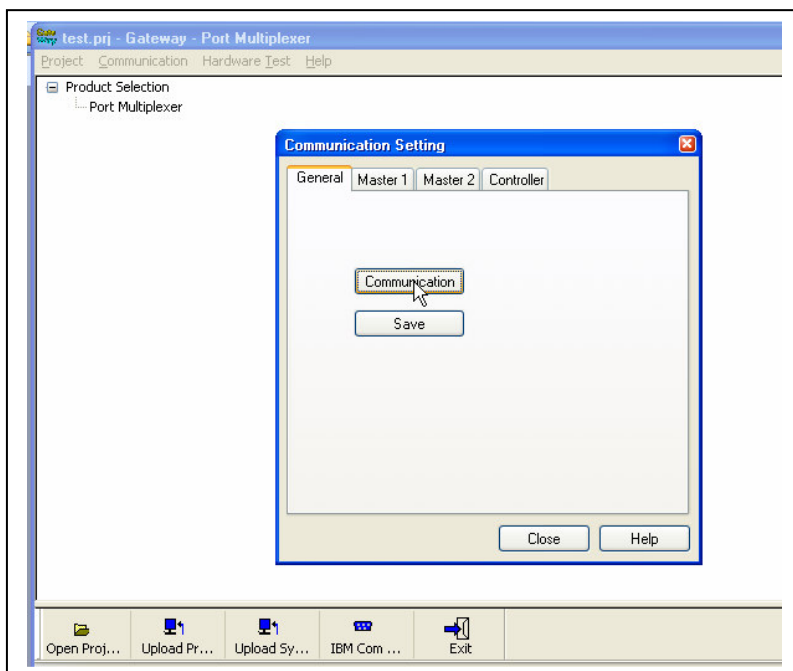
Windows version	:Microsoft Windows 9X/2000/XP
Processor	: Pentium or higher
Hard disk space	:5 MB or more
Serial mouse	:Required
RAM	:16 MB or more
Display resolution	:800x600 (VGA) or better
Display colour	:16 bit colour

PROCEDURE

1. Connect 24VDC to the unit.
2. Connect the 2 wires from the RS485 port of the module to an RS232 converter. As shown below:



3. Open the PXP3148MB software and Click on **Communication**



4. For a firmware upgrade, click on firmware checkbox. If drivers are to be updated, then check the driver's checkbox as well.

5. Power up module. The Led of the unit blinks and unit is in configuration mode. Press download button to update firmware and drivers.

