

Serial Communication Quick Setup Guide FOR INTELLIGENT PUMP CONTROLLER (IPC)

What is serial communication?

Serial communication is the process for sending bits of information from one electronic device to another. Proper definition of the type of serial communication is required to connect to an IPC with another device or network.

What is RS-485?

RS-485 is a communication standard that allows electronic devices to communicate with each other. It is a specific method for communication of information and is standard on every IPC. RS-485 can be used to transmit different protocols (languages) including BacNet, MODBUS® and MetasysN2.

What is standard on the IPC?

The IPC has an RS-485 port as standard. Over the RS-485 port, the IPC can communicate via MODBUS, BACnet or MetasysN2.

Additional protocols are supported with optional expansion cards.

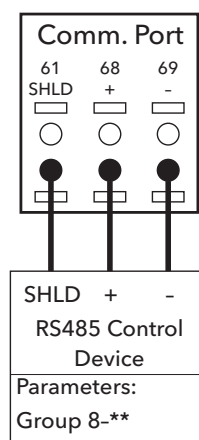
What is optional on the IPC?

(See Option cards sheet for detailed specifications.)

- MODBUS over TCP/IP
- Lonworks
- Profibus
- Profinet
- DeviceNet
- Ethernet IP
- FLN
- BACnet IP

What is required to connect to the VFD?

PROPER WIRING – 3 wire RS-485 ports are standard on the IPC and connected per the diagram below (terminals 68 and 69).



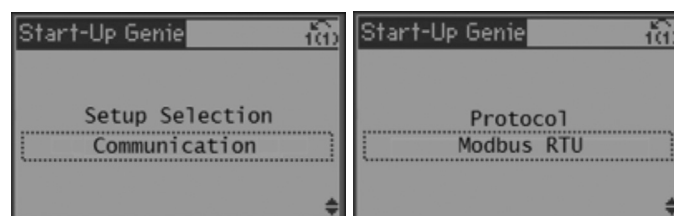
Proper Programming

The IPC needs proper programming to communicate with any network that it's connected with. The following are common parameters, typically defined by the technician connecting the drive to an existing system.

- a. Device address
- b. Baud rate
- c. Parity/stop bits
- d. Device Instance (BACnet)

Setup Steps (information is typically provided by the SCADA or BMS technician)

1. Define communication method (RS-485, TCP/IP, etc)
2. Define communication Protocol (MODBUS, BacNet, etc)
3. Define communication parameters
 - a. Device address
 - b. Baud rate
 - c. Parity/stop bits
 - d. Device Instance (BACnet)
4. Connect serial port
5. Select "Communication" menu in startup genie
6. Program the settings from above via the Genie
7. Verify communication with drive and network



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- 2) a leading global water technology company.

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