Quick Start Manual
MPCR Series with DeviceNet Interface

Getting Started

This is a brief document designed to quickly get you started setting up your MPCR Series manifold with integrated DeviceNet communication protocol. Please note that this document is not intended to replace the MPCR Series DeviceNet Technical Manual (Pt. No. TDMPCRDNTECH-1) which includes more detailed technical information. The full technical manual can be found on the Numatics website at www.numatics.com or can be ordered by calling 810-667-3900.

1) Initial Unpacking and Inspection

1) **Examine exterior of package for signs of damage. Report any damage to shipping carrier.**

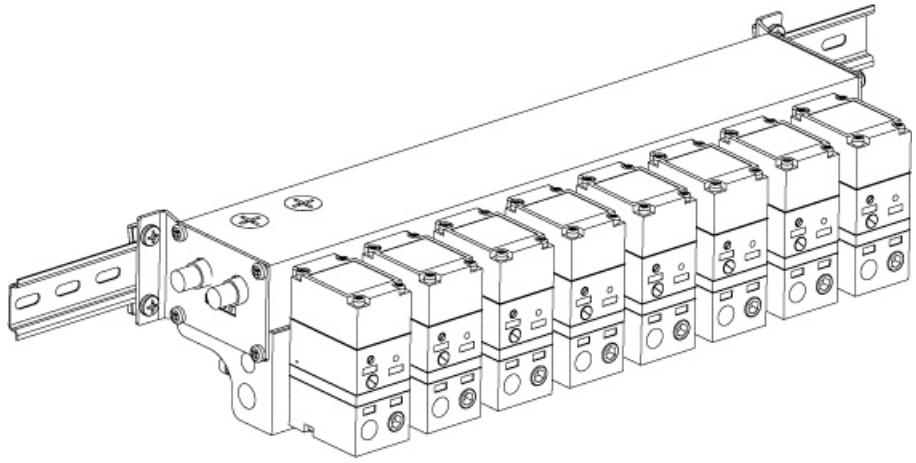
2) **Remove wrapped manifold assembly from box.**
   a) **Remove manifold assembly from packaging**
   b) **Retain documentation for installation and configuration**

3) **Examine manifold assembly for any shipping damage such as:**
   a) **Bent pins or connectors**
   b) **Report any damage to shipping carrier immediately**

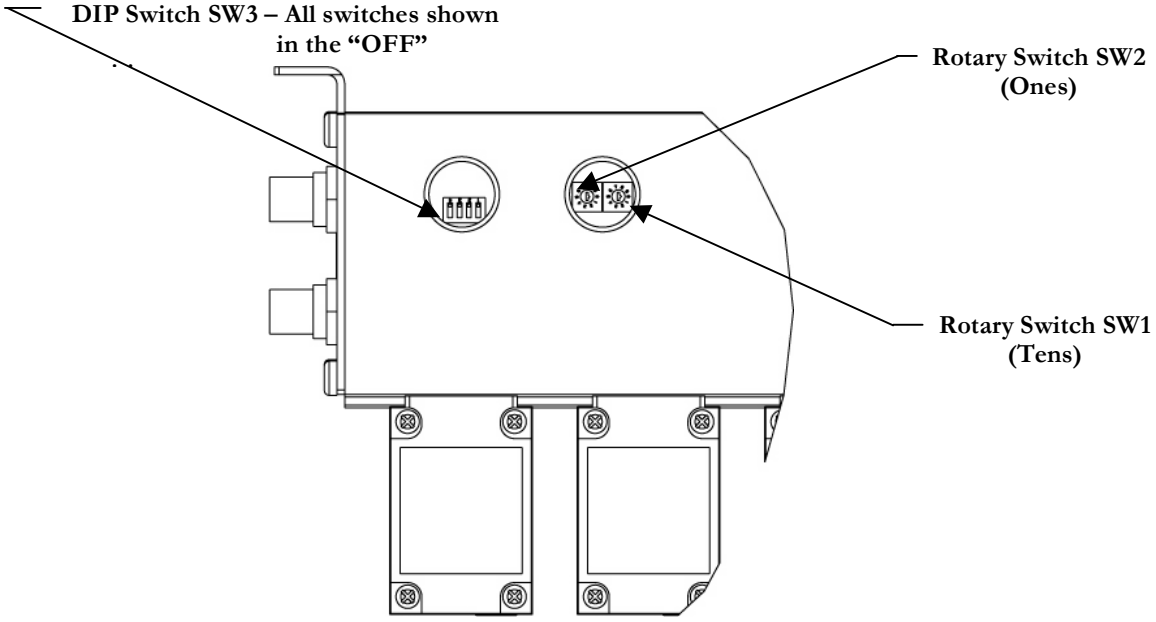
4) **Examine manifold assembly for proper ordered configuration. (Regulators, Communication Protocol, etc.)**

2) MPCR Basics

Below is an example of a MPCR series manifold. This fieldbus manifold uses our fieldbus electronics to control up to eight miniature electropneumatic regulators. Optional feedback provides an additional input back to the PLC indicating the output pressure of each regulator. The communication module has two connectors: a 5-pin communication connector and a 4-pin power connector. Pin outs for these are labeled on the top of the manifold, and detailed in the MPCR Series DeviceNet Technical Manual (Pt. No. TDMPCRDNTECH-1).



3) MAC ID and Baud Rate Configuration



Rotary Switch Settings (SW1 & SW2)

MAC ID (Network Address):

Switch	Description
SW1	Sets the Tens Digit (MSD)
SW2	Sets the Ones Digit (LSD)

NOTE!

- *Address is set to a default setting of 63 prior to shipment. Rotary switch settings over 63, default to 63.*
- *Node address may only be assigned once per scanner card.*
- *EDS files may be downloaded from our web site at www.numatics.com/fieldbus*

DIP Switch Settings (SW3) Continued

Baud Rate:

SW3-1	SW3-2	Kbaud
Off	Off	125
Off	On	250
On	Off	500
*On	*On	Autobaud

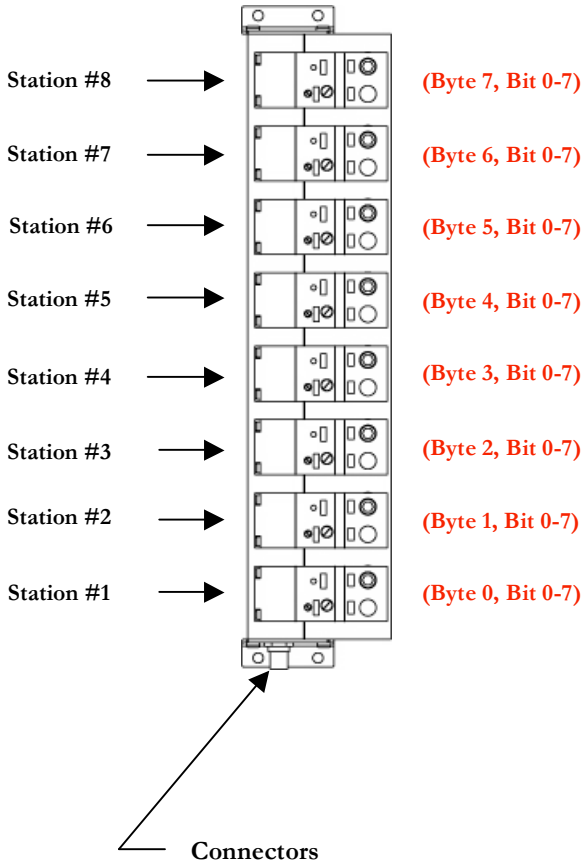
Reserved:

Switch	Description
SW3-3,4	Not Used – Reserved for future use

* Factory Default Settings

4) I/O Mapping

Example # MPCR-08DNFC



5) Communication Module

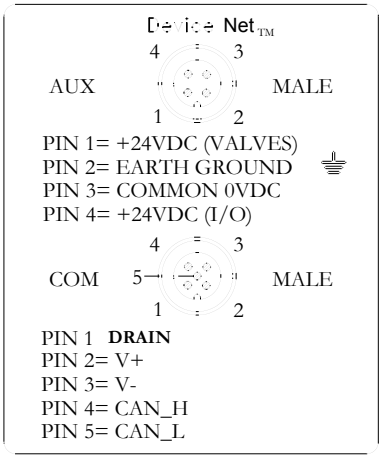
Connector Pinouts

DeviceNet Communication Connector Pin Out

Pin #	Function	Description
1	Drain	Drain or shield
2	V+	Bus Power, 11-25VDC
3	V-	Bus Power, Common
4	CAN_H	Controller Area Network High, Communication Line
5	CAN_L	Controller Area Network Low, Communication Line

Auxiliary Power Connector Pin Out

Pin #	Function	Description
1	+24VDC (Valves)	Voltage Used to Power Valves
2	Earth Ground	Protective Earth
3	0VDC Common	0VDC Common, for Valve and I/O Power
4	+24VDC (Node)	Voltage Used to Power Node Electronics



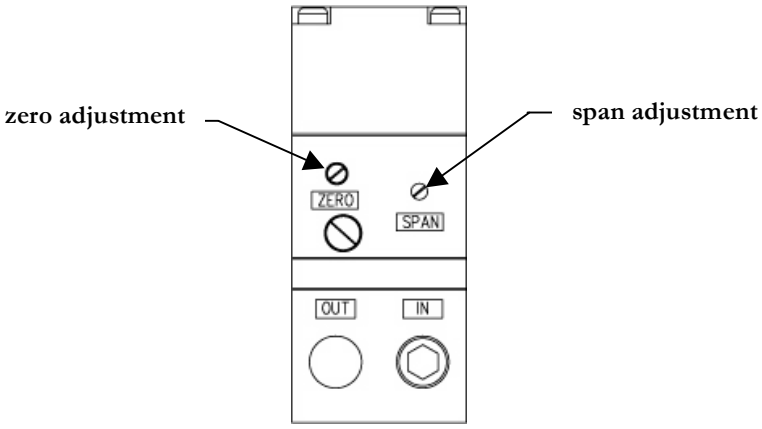
- *Maximum pin capacity on pin #3 (0VDC common) of auxiliary power connector is 4 Amps. The combined draw of Pin #1 (Valves) and pin #4 (Node) cannot exceed 4 Amps, at any given moment in time.*
- *Auxiliary power connector Pin #4 supplies power to node electronics. This pin must be powered at all times for communication node to be functional*

6) Factory Defaults Settings

Unless otherwise requested, all standard MPCR Series DeviceNet manifolds ship with the specific factory default settings listed below:

Description	Default
Node Address	63
Baud Rate	Autobaud Enabled
I/O Message Type	Polled

7) Calibrating Miniature Electropneumatic Regulators



Calibration

All units are shipped from the factory calibrated, it is suggested that the user check the calibration once the manifold is installed.

The unit is calibrated so that minimum input signal corresponds to minimum output pressure and increasing input signal results in increase output pressure, where maximum input signal results in maximum output pressure.

1. **Apply the minimum input signal from the controller.**
2. **Observe the output pressure. If necessary, adjust the zero screw until reaching the minimum output pressure setting. Turn zero screw clockwise to decrease and counter-clockwise to increase.**
3. **Apply the maximum input signal from the controller.**
4. **Observe the output pressure. If necessary, adjust the span screw until reaching maximum output pressure setting. Turn span screw clockwise to decrease and counter-clockwise to increase.**
5. **After setting the span it will be necessary to recheck the zero. Repeat steps 1-4 until both end points are at required values.**

8) Technical Support

For technical support, contact your local Numatics distributor. If further information is required, please call Numatics Inc. at (810) 667-3900 and ask for Technical Support.

Issues relating to network set-up, PLC programming, sequencing, software related functions, etc… should be handled with the appropriate product vendor.

Information on EDS files, technical manuals, local distributors, and other Numatics, Inc. products and support issues can be found on the Numatics, Inc's. WEB site at www.numatics.com