



# Manual Supplement

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**Model Number:** 8635-M-N2

**Product/System Title:** Room Pressure Monitor with N2  
Communications Protocol

**Contents of this manual supplement include:**

- 1) Variable map
- 2) Description of variables
- 3) Wiring Diagram

N2 communications are installed on the Model 8635-M-N2 room pressure monitors. This document provides the technical information needed for the host DDC system to communicate with 8635-M units. This document assumes the programmer is familiar with the N2 protocol. Further technical assistance is available from TSI if your question is related to TSI interfacing to a DDC system. If you need further information regarding N2 programming in general, please contact Johnson Controls.

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## Variable Map

NPT	NPA	UNITS <sup>1</sup>	DESCRIPTION
AI	1	ft/min, m/s, in. H <sub>2</sub> O, Pa, mm H <sub>2</sub> O	Room Pressure Value
AI	2	CFM, l/s	Flow Rate
AI	3	#	ACPH
BI	1		Low Room Pressure Alarm 0=Normal 1=Low Alarm
BI	2		High Room Pressure Alarm 0=Normal 1=High Alarm
BI	3		Min. Flow Alarm 0=Normal 1=Low Flow Alarm
BI	4		Room Mode 0=Normal 1=Remote
BI	5		Data Error 0=Normal 1=Data Error
AO	1	ft/min, m/s, in. H <sub>2</sub> O, Pa, mm H <sub>2</sub> O	Low Alarm Setpoint
AO	2	ft/min, m/s, in. H <sub>2</sub> O, Pa, mm H <sub>2</sub> O	High Alarm Setpoint
AO	3	ft/min, m/s, in. H <sub>2</sub> O, Pa, mm H <sub>2</sub> O	Remote Low Alarm Setpoint
AO	4	ft/min, m/s, in. H <sub>2</sub> O, Pa, mm H <sub>2</sub> O	Remote High Alarm Setpoint
AO	5	CFM, l/s	Min. Flow Alarm Setpoint
AO	6	#	Units 0=Feet per minute 1=Meters per second 2=Inches of H <sub>2</sub> O 3=Pascals 4=millimeters of H <sub>2</sub> O

<sup>1</sup> Units will correspond with choice in UNITS variable (AO #9). Flow rates will either be CFM or l/s, based on whether UNITS variable is set for an english or metric unit type.



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## Description of Variables

### **NPT - Network Point Type**

Variables are defined as analog inputs, binary inputs, and analog outputs. Analog inputs are current control parameters and items that the controller is measuring. Binary inputs represent controller states. Analog outputs are the programmable setpoints for the isolation room pressure controller and monitor. These setpoints can be changed through the keypad or by overriding the current setpoint.

### **NPA - Network Point Address**

Address of the desired point.

### **Change of Status (COS) - Room Pressure Analog Input**

The 8635-M has the ability to change alarm setpoints locally. For example the low alarm setpoint could go from  $-0.002 \text{ "H}_2\text{O}$  to  $+0.001 \text{ "H}_2\text{O}$ . If the COS alarm setpoints are not changed to accommodate you could get low alarm or low warning messages when the unit is working correctly. If these alarm points are set outside of the negative and positive setpoint values, incorrect alarm messages can be prevented.

### **Override Analog Input Command**

Analog Input values can be set using the override command. These values will be reset to the correct items when the Override is released. There is not a time-out on the override command.

### **Override Binary Input Command**

Overriding a 1 to Room Mode binary inputs enables Remote mode. To release the controller from the remote state, override a 0 to the Room Mode input. Releasing the override will return the controller to the Normal state.

The alarm and data error variables can be overridden, but this will not affect the controller. Overriding the low alarm variable will result in a change of status, but will not put the controller into low alarm mode. The local alarm modes can only be controlled locally. Only override these variables for diagnostic purposes, and release them for normal operation.

### **Binary Input Data Error**

Data Error binary inputs are used to indicate if something has gone wrong with the controller. Data Error indicates when some of the data stored on the device has been corrupted. The calibration and setpoint values should be checked on the controller.

### **Override Analog Output Command**

The analog output variables can be overridden to change their values. The overridden value will be checked for validity. If invalid, the override command will be ignored, and the value will not change. The override flag will not be set when the value is ignored. The override command will be cleared when the variable is reset in the menus. The variable will not reset with the release command.

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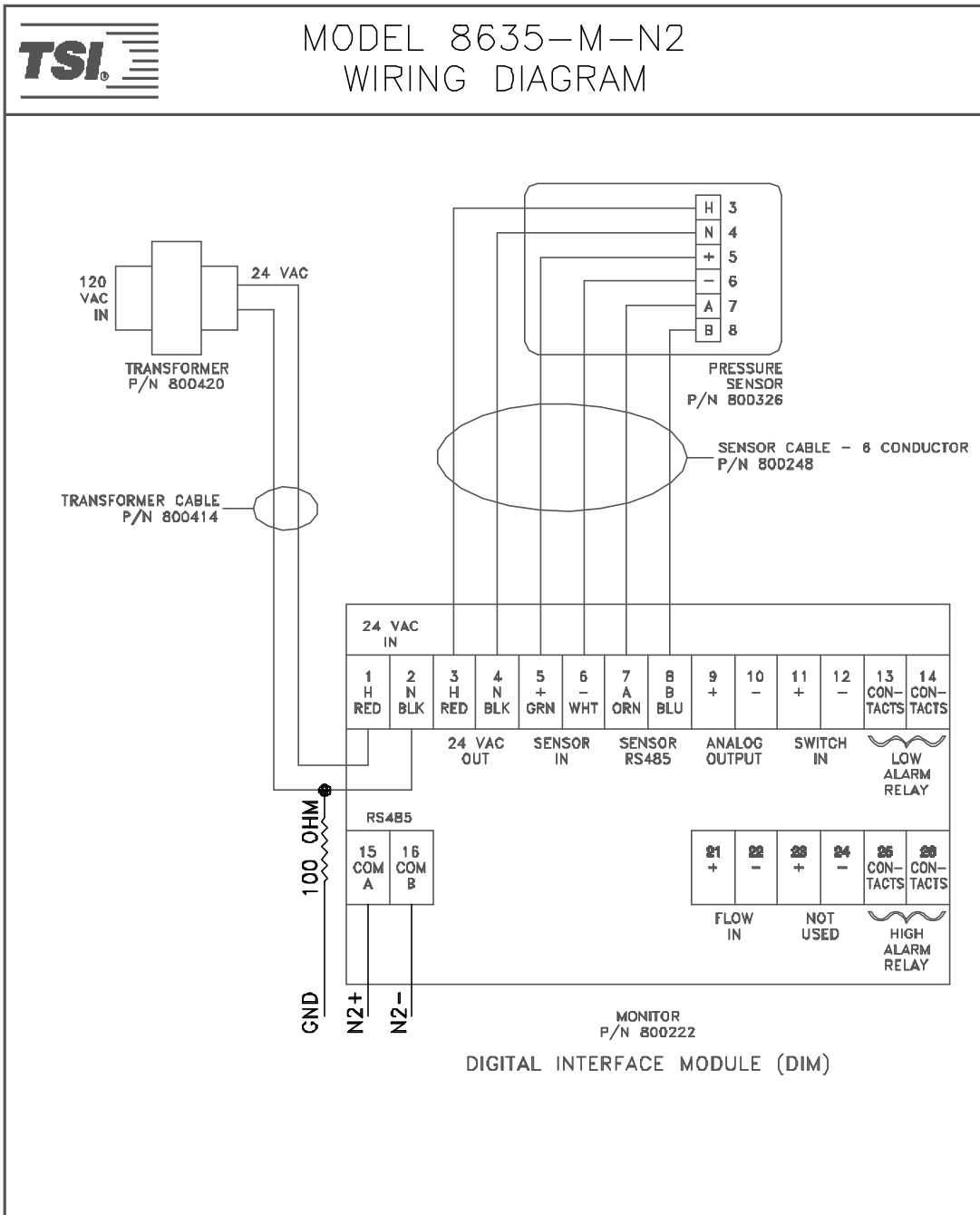




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## Wiring Diagram



**TSI**  
 TSI INCORPORATED  
 EMCO DIVISION  
 MAIL TO: PO BOX 64394 ST. PAUL, MN 55164  
 SHIP TO: 500 CARDIGAN ROAD SHOREVIEW, MN 55126  
 TELEPHONE: 651-490-2888 FAX: 651-490-2874

ENGINEER:	
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