PARAGON CONTROLS INCORPORATED

MICRO GUARDIAN/ GUARDIAN INFINITY/ GUARDIAN DUAL CONTROLLER MICROTRANS^{EQ} & MICROTRANS^{II}

LonWorks Communication

Operation & Maintenance Manual

Engineered for accuracy, applicability, durability and simplicity

TABLE OF CONTENTS

TABLE OF CONTENTS i
1. INTRODUCTION 1
1.1. DESCRIPTION 1
1.2. MICRO GUARDIAN LONWORKS CONNECTION 1
1.3. GUARDIAN INFINITY LONWORKS CONNECTION 2
1.4. GUARDIAN INFINITY DUAL CONTROLLER LONWORKS CONNECTION 3
1.5. MICROTRANS^{EQ} LONWORKS CONNECTION & SERVICE PIN 4
1.6. MICROTRANS^{II} LONWORKS CONNECTION & SERVICE PIN 5
1.7. MICRO GUARDIAN NEURON SERVICE PIN 6
1.8. GUARDIAN INFINITY NEURON SERVICE PIN 6
1.9. DEVICE NETWORK CONNECTIONS 7
2. DEVICE NETWORK VARIABLES 7
2.1. MICRO GUARDIAN NETWORK VARIABLES 7
2.2. GUARDIAN INFINITY NETWORK VARIABLES 8
2.3. GUARDIAN INFINITY DUAL CONTROLLER NETWORK VARIABLES 10
2.4. MICROTRANS^{EQ} NETWORK VARIABLES 13
2.5. MICROTRANS^{II} NETWORK VARIABLES 14
2.6. FORMATING NETWORK VARIABLES 16
3. TROUBLESHOOTING GUIDE 17

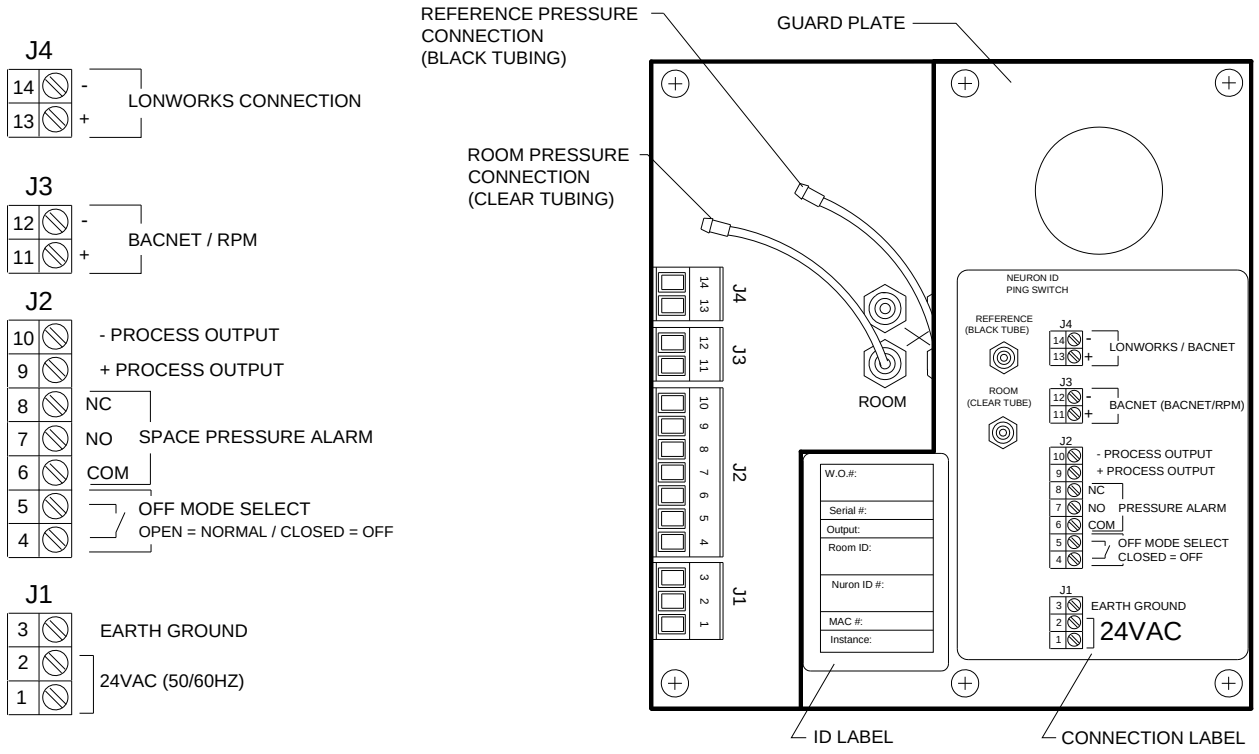
1. INTRODUCTION

1.1. DESCRIPTION

LonWorks utilizes “network variables” instead of “Tags” on all data points. The network variables consist of inputs and outputs. Input variables are readable and writeable and output variables are read only variables. Input variables have “nvi_” prefix and Output variables have “nvo_” prefix.
A list of Networks variables for each device are shown in section 2.1 and 2.2.

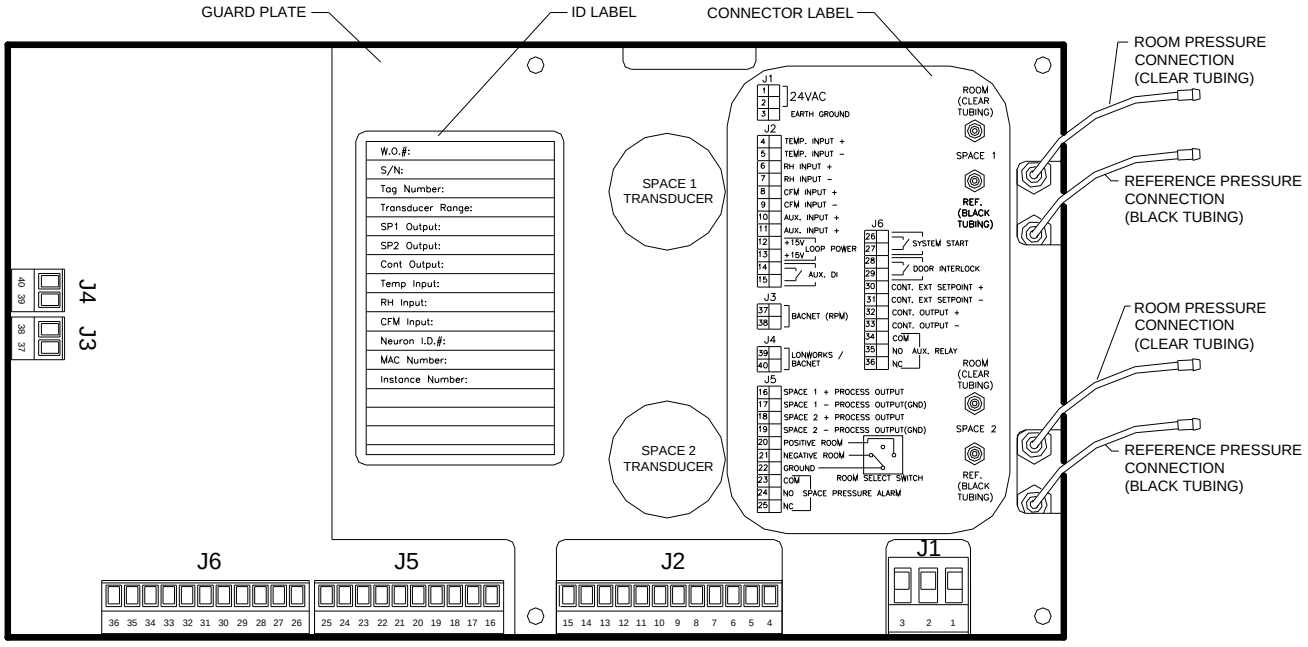
1.2. MICRO GUARDIAN LONWORKS CONNECTION

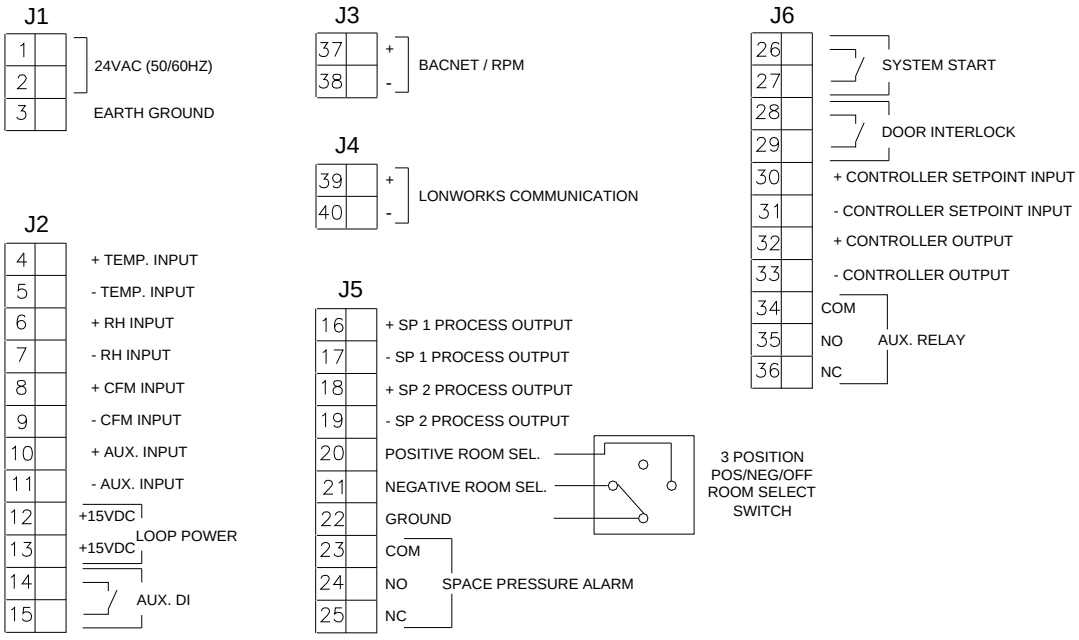
Attach the LonWorks network to the Micro Guardian connector J4 pin 13 (Data +) and pin 14 (Data -)



1.3. GUARDIAN INFINITY LONWORKS CONNECTION

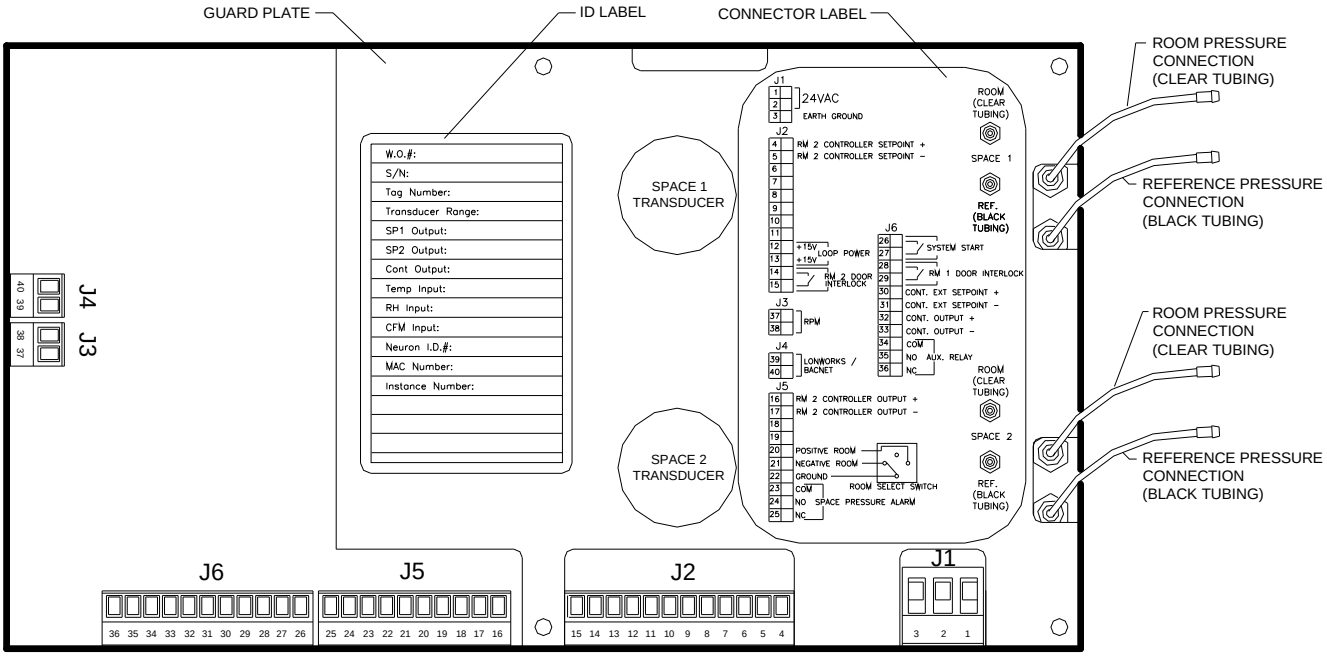
Attach the LonWorks network to Guardian Infinity connector J4 pin 39 (Data +) and pin 40 (Data -)

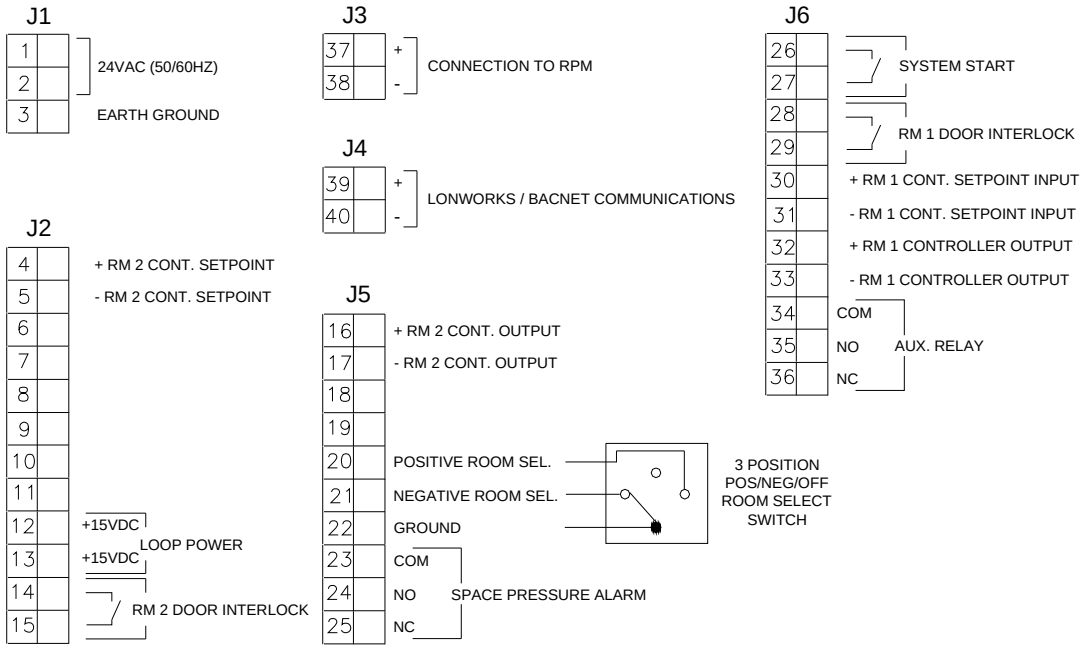




1.4. GUARDIAN INFINITY DUAL CONTROLLER LONWORKS CONNECTION

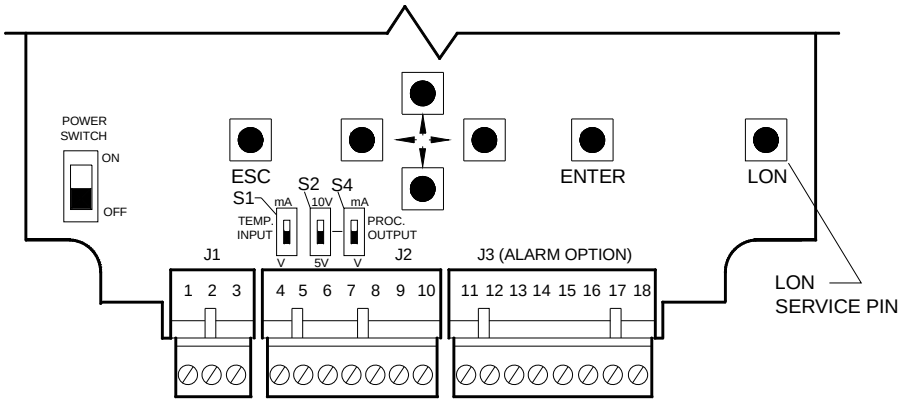
Attach the LonWorks network to Guardian Infinity Dual Controller connector J4 pin 39 (Data +) and pin 40 (Data -)

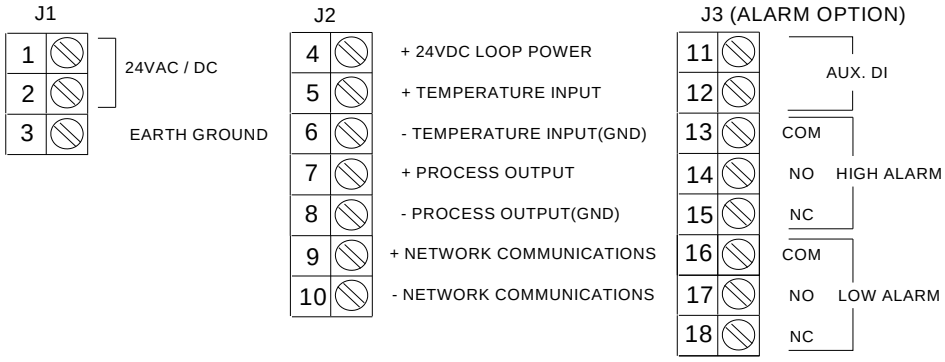




1.5. MICROTRANS^{EQ} LONWORKS CONNECTION & SERVICE PIN

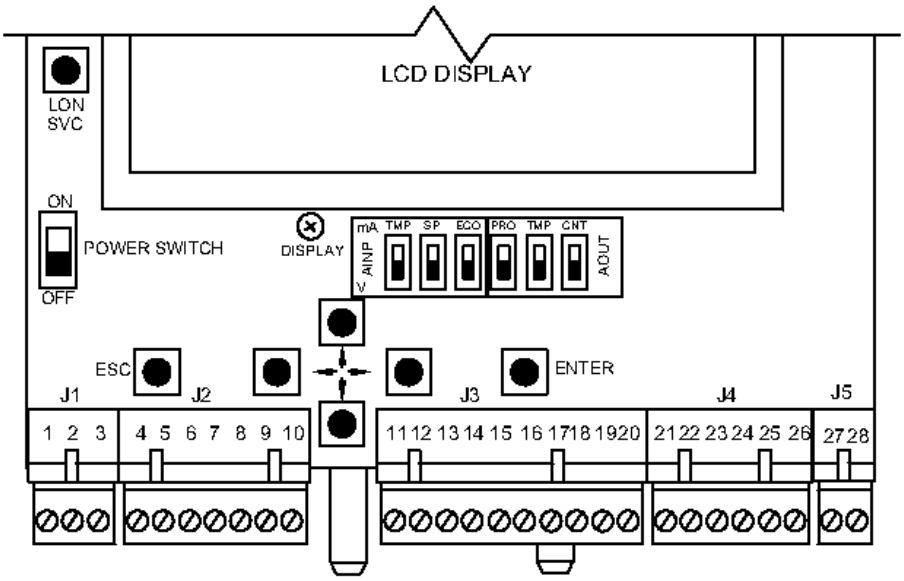
Attach the LonWorks network to MicroTrans^{EQ} connector J2 pin 9 (Data +) and pin 10 (Data -).

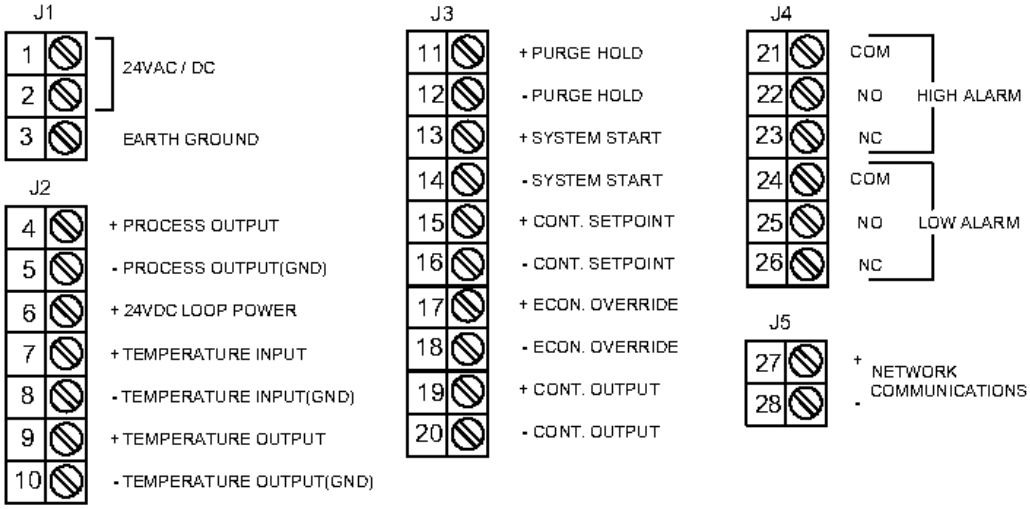




1.6. MICROTRANSII LONWORKS CONNECTION & SERVICE PIN

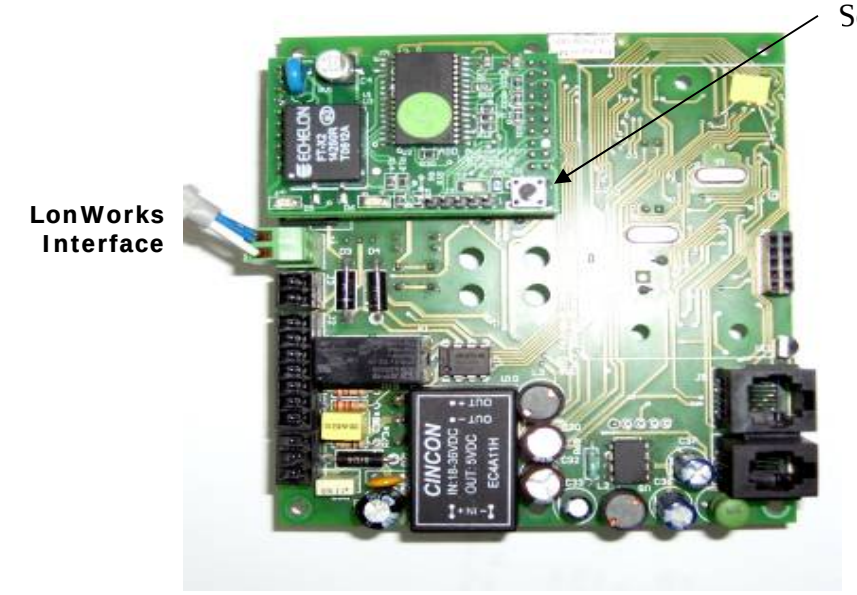
Attach the LonWorks network to MicroTrans^{II} connector J5 pin 27 (Data +) and pin 28 (Data -).





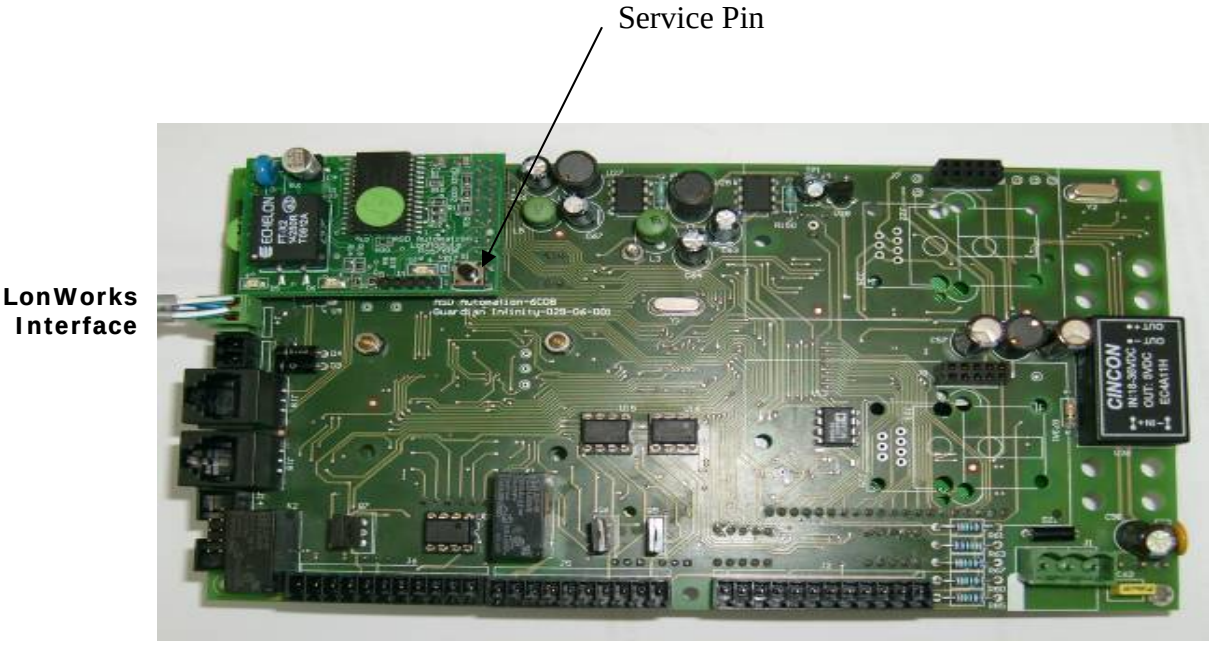
1.7. MICRO GUARDIAN NEURON SERVICE PIN

(Note: To access the service pin, removal of the Micro Guardian from the electrical box is required)



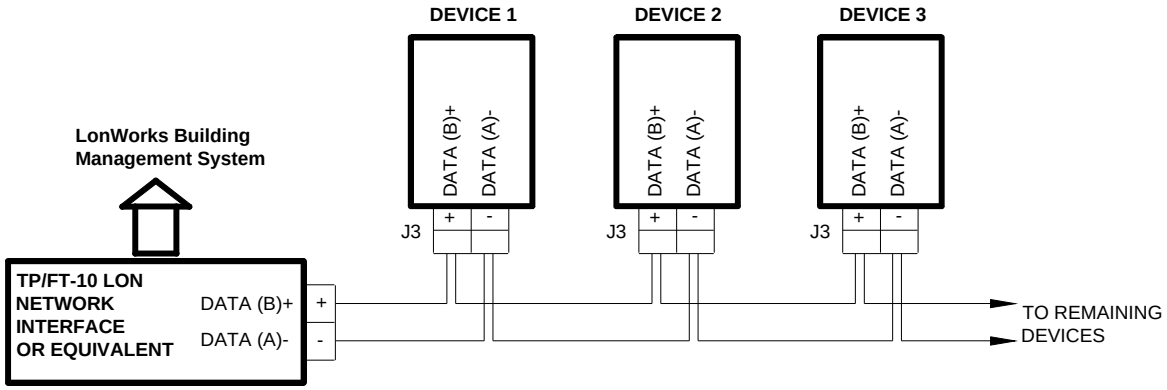
1.8. GUARDIAN INFINITY NEURON SERVICE PIN

(Note: To access the service pin, removal of the Guardian Infinity from the electrical box is required)



1.9. DEVICE NETWORK CONNECTIONS

(Note: Recommended network wire should be low capacitance, shielded 16 or 22 AWG twisted pair such as Belden Part numbers 7701NH, 8719 or equivalent).



2. DEVICE NETWORK VARIABLES

2.1. MICRO GUARDIAN NETWORK VARIABLES

The Micro room pressure monitor transmits LonWorks data in f #US format. If the values transmitted are incorrect, the user may need to convert the data from f #US format to f #SI format.

#	Description	Lonworks Name	Lonworks Network Variable	Default eng unit (SI)	US eng unit
1	Process Value	nvoPressInVal	SNVT_press_f	MGU engineering unit	Not set US eng Unit
2	Room Identifier	nviRoomID	SNVT_str_asc		
3	Operating Pos. Range	nvoOpreratRange	SNVT_press_f	MGU engineering unit	Not set US eng Unit
4	Pos. High Alarm Value	nviPosHighAlarm	SNVT_press_f	MGU engineering unit	Not set US eng Unit
5	Pos. Low Alarm Value	nviPosLowAlarm	SNVT_press_f	MGU engineering unit	Not set US eng Unit
6	Neg. High Alarm Value	nviNegHighAlarm	SNVT_press_f	MGU engineering unit	Not set US eng Unit
7	Neg. Low Alarm Value	nviNegLowAlarm	SNVT_press_f	MGU engineering unit	Not set US eng Unit
8	Audible Alarm Enable	nviAlarmEnable	SNVT_sched_val		0 = Off / 1 = On

#	Description	Lonworks Name	Lonworks Network Variable	Default eng unit (SI)	US eng unit
	(On/Off)				
9	Operation Mode (Pos./Neg./Off)	nviOpmodeValue	SNVT_sched_val		0 = Off / 1 = Pos / 2 = Neg.
10	High and Low Alarm Status	nvoAlmStValue	SNVT_sched_val		0 = OK / 1 = High / 2 = Low
11	Alarm Delay	nviAlDelayValue	SNVT_volt_ac		
12	Engineering Units	nviEngUnitValue	SNVT_sched_val		58 ="w.c. / 53 = Pa / 54 = KPa / 7 = mmw.c.
13	Field Password	nviFldPasVal	SNVT_volt_ac		
14	Process Filter	nviPrsFilterVal	SNVT_sched_val		
15	Decimal Point	nviDecPointVal	SNVT_sched_val		
16	Soft Version	oSVer	SNVT_volt_ac		

2.2. GUARDIAN INFINITY NETWORK VARIABLES

The Infinity room pressure monitor transmits LonWorks data in f #US format. If the values transmitted are incorrect, the user may need to convert the data from f #US format to f #SI format.

#	Description	Lonworks Name	Lonworks Network Variable	Default eng unit (SI)	US eng unit
1	Space 1 - Process Value	nvoPressInVal1	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
2	Space 1 - Room Identifier	nviRoomID1	SNVT_str_asc		
3	Space 2 - Process Value	nvoPressInVal2	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
4	Space 2 - Room Identifier	nviRoomID2	SNVT_str_asc		
5	Temperature Value	nviTmpVal	SNVT_amp		
6	RH Value	nviRHVal	SNVT_sched_val		
7	Flow Value	nviFlwVal	SNVT_flow_f	Infinity engineering unit	Not set US eng Unit
8	Controller Analog Output	nvoControlOut	SNVT_volt_f	Infinity engineering unit	4 to 20 mA = 0 to 100% Output
9	Space 1 - Operating Pos Range	nviOpreratRange1	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
10	Space 1 - Pos. High Alarm Value	nviPosHighAlarm1	SNVT_press_f	Infinity engineering	Not set US eng Unit

#	Description	Lonworks Name	Lonworks Network Variable	Default eng unit (SI)	US eng unit
				unit	
11	Space 1 - Pos. Low Alarm Value	nviPosLowAlarm1	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
12	Space 1 - Neg. High Alarm Value	nviNegHighAlarm1	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
13	Space 1 - Neg. Low Alarm Value	nviNegLowAlarm1	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
14	Space 2 - Operating Pos Range	nviOpreratRange2	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
15	Space 2 - Pos. High Alarm Value	nviPosHighAlarm2	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
16	Space 2 - Pos. Low Alarm Value	nviPosLowAlarm2	SNVT_press_f	Infinity engineering	Not set US eng Unit
17	Space 2 - Neg. High Alarm Value	nviNegHighAlarm2	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
18	Space 2 - Neg. Low Alarm Value	nviNegLowAlarm2	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
19	Controller Positive Setpoint Value	nviContSPpos	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
20	Controller Negative Setpoint Value	nviContSPneg	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
21	Controller Off Setpoint Value	nviContSPoff	SNVT_press_f	Infinity engineering unit	Not set US eng Unit
22	Cont. Proportional Band	nviPidProBnd	SNVT_volt_ac		
23	Cont. Integral Time	nviPidIntTime	SNVT_volt_ac		
24	Cont. Derivative Time.	nviPidDrvTime	SNVT_volt_ac		
25	ACH Value	nvoAchDspVal	SNVT_sched_val		
26	System Start Input Status	nvoSysStartVal	SNVT_sched_val		0=Off / 1=On
27	System Hold (Door Interlock) Input Status	nvoSysHoldVal	SNVT_sched_val		0=Off / 1=On
28	Audible Alarm (On/Off)	nviAlarmEnable	SNVT_sched_val		0=Off / 1=On
29	Space 1 - Operation Mode (Pos./Neg./Off)	nviOpmodeValue1	SNVT_sched_val		0=Off / 1=Pos / 2=Neg.

#	Description	Lonworks Name	Lonworks Network Variable	Default eng unit (SI)	US eng unit
30	Space 1 - High and Low Alarm Status	nvoAlmStValue1	SNVT_sched_val		0=OK / 1=High / 2=Low
31	Space 1 - Alarm Delay	nviAlDelayValue1	SNVT_volt_ac		
32	Space 2 - Operation Mode (Pos./Neg./Off)	nviOpmodeValue2	SNVT_sched_val		0=Off / 1=Pos / 2=Neg.
33	Space 2 - High and Low Alarm Status	nvoAlmStValue2	SNVT_sched_val		0=OK / 1=High / 2=Low
34	Space 2 - Alarm Delay	nviAlDelayValue2	SNVT_volt_ac		
35	Engineering Units	nviEngU	SNVT_sched_val		58="w.c. / 53=Pa / 54=KPa / 7= mmw.c.
36	Field Password	nviFPass	SNVT_volt_ac		
37	Decimal Point	nvoDP	SNVT_sched_val		
38	Lonworks Off Mode On/Off (only on ver11)	oLonOffMode	SNVT_sched_val		0=Off / 1=On
39	Shut Off Mode On/Off (only on ver11)	oShutOffMod	SNVT_sched_val		0=Off / 1=On
40	Temperature Lon Enable	iTEnb	SNVT_sched_val		0=Off / 1=On
41	Humidity Lon Enable	iHEnb	SNVT_sched_val		0=Off / 1=On
42	Flow Lon Enable	iFEnb	SNVT_sched_val		0=Off / 1=On
43	Fan Off (After ver14)	iFanOff	SNVT_sched_val		
44	Soft Version	oSVer	SNVT_volt_ac		

2.3. GUARDIAN INFINITY DUAL CONTROLLER NETWORK VARIABLES

#	Description	Lonworks Name	Lonworks Network Variable	Default eng unit (SI)	US eng unit
1	Space 1 Pressure Value	nvoPressInVal1	SNVT_press_f	DC engineering unit	Not set US eng Unit
2	Space 2 Pressure Value	nvoPressInVal2	SNVT_press_f	DC engineering unit	Not set US eng Unit
3	Space 1 Identifier	nviRoomID1	SNVT_str_asc		
4	Space 2 Identifier	nviRoomID2	SNVT_str_asc		
5	RM 1 Controller Output Value	nvoRM1ControlOut	SNVT_volt_f		4 to 20mA = 0 to 100% Output
6	RM 2 Controller Output Value	nvoRM2ControlOut	SNVT_volt_f		4 to 20mA = 0 to 100% Output
7	Space 1 Operating Range	nviOpreratRange1	SNVT_press_f	DC engineering unit	Not set US eng Unit
8	Space 1 Pos. High Alarm	nviPosHighAlarm1	SNVT_press_f	DC engineering unit	Not set US eng Unit
9	Space 1 Pos. Low Alarm	nviPosLowAlarm1	SNVT_press_f	DC engineering unit	Not set US eng Unit

#	Description	Lonworks Name	Lonworks Network Variable	Default eng unit (SI)	US eng unit
10	Space 1 Neg. High Alarm	nviNegHighAlarm1	SNVT_press_f	DC engineering unit	Not set US eng Unit
11	Space 1 Neg. Low Alarm	nviNegLowAlarm1	SNVT_press_f	DC engineering unit	Not set US eng Unit
12	Space 2 Operating Range	nviOpreratRange2	SNVT_press_f	DC engineering unit	Not set US eng Unit
13	Space 2 Pos. High Alarm	nviPosHighAlarm2	SNVT_press_f	DC engineering unit	Not set US eng Unit
14	Space 2 Pos. Low Alarm	nviPosLowAlarm2	SNVT_press_f	DC engineering unit	Not set US eng Unit
15	Space 2 Neg. High Alarm	nviNegHighAlarm2	SNVT_press_f	DC engineering unit	Not set US eng Unit
16	Space 2 Neg. Low Alarm	nviNegLowAlarm2	SNVT_press_f	DC engineering unit	Not set US eng Unit
17	RM 1 Controller Setpoint Pos.	nviRM1ContSPpos	SNVT_press_f	DC engineering unit	Not set US eng Unit
18	RM 1 Controller Setpoint Neg.	nviRM1ContSPneg	SNVT_press_f	DC engineering unit	Not set US eng Unit
19	RM 1 Controller Setpoint Off	nviRM1ContSPoff	SNVT_press_f	DC engineering unit	Not set US eng Unit
20	RM 1 Cont. Proportional Value	nviRM1PidProBnd	SNVT_volt_ac		
21	RM 1 Cont. Reset Value	nviRM1PidIntTime	SNVT_volt_ac		
22	RM 1 Cont. Inverse Derivative	nviRM1PidDrvTime	SNVT_volt_ac		
23	RM 2 Controller Setpoint Pos.	nviRM2ContSPpos	SNVT_press_f	DC engineering unit	Not set US eng Unit
24	RM 2 Controller Setpoint Neg.	nviRM2ContSPneg	SNVT_press_f	DC engineering unit	Not set US eng Unit
25	RM 2 Controller Setpoint Off	nviRM2ContSPoff	SNVT_press_f	DC engineering unit	Not set US eng Unit
26	RM 2 Cont. Proportional Value	nviRM2PidProBnd	SNVT_volt_ac		
27	RM 2 Cont. Reset Value	nviRM2PidIntTime	SNVT_volt_ac		
28	RM 2 Cont. Inverse Derivative	nviRM2PidDrvTime	SNVT_volt_ac		
29	System Start Input	nvoSysStartVal	SNVT_sched_val		0=Off / 1=On
30	RM 1 System Hold Input	nvoRM1SysHoldVal	SNVT_sched_val		0=Off / 1=On
31	RM 2 System Hold Input	nvoRM2SysHoldVal	SNVT_sched_val		0=Off / 1=On
32	Audible Alarm Enable	nviAlarmEnable	SNVT_sched_val		0=Off / 1=On
33	Space 1 Operating Mode	nviOpmodeValue1	SNVT_sched_val		0=Off / 1=Pos / 2=Neg.

#	Description	Lonworks Name	Lonworks Network Variable	Default eng unit (SI)	US eng unit
34	Space 1 Alarm Status	nvoAlmStValue1	SNVT_sched_val		0=OK / 1=High / 2=Low
35	Space 1 Alarm Delay	nviAlDelayValue1	SNVT_volt_ac		
36	Space 2 Operating Mode	nviOpmodeValue2	SNVT_sched_val		0=Off / 1=Pos / 2=Neg.
37	Space 2 Alarm Status	nvoAlmStValue2	SNVT_sched_val		0=OK / 1=High / 2=Low
38	Space 2 Alarm Delay	nviAlDelayValue2	SNVT_volt_ac		
39	Engineering Units	nviEngU	SNVT_sched_val		58="w.c. / 53=Pa / 54=KPa / 7= mmw.c.
40	Field Password	nviFPass	SNVT_volt_ac		
41	Decimal Point	nvoDP	SNVT_sched_val		
42	Software Version	oSVer	SNVT_volt_ac		
43	Temporary variable	nvoValue;	SNVT_btu_kilo		

2.4. MICROTRANS^{EQ} NETWORK VARIABLES

Program ID of EQ LonWorks Module:

Program ID: 80:00:E2:0A:5A:04:04:90
Manufacture ID: E2
Category: Sensors
Device Class: Multi-Function Sensors
Usage: Industrial Commercial
Model Number: 90

Network Variables of EQ LonWorks module

#	Description	LonWorks Name	LonWorks Network Variable	Default eng unit (SI)	US eng unit
1	Pressure Process Value	nvoPressure_PV	SNVT_press_f	Pascal	Inch W.C.
2	Flow Process Value	nvoFlow_PV	SNVT_flow_f	Liter/Sec	ft□/min-CFM
3	Velocity Process Value	nvoVelocity_PV	SNVT_speed_f	Meter/Sec	feet/Minute-FPM
4	Process Value in Percentage for Flow, Velocity or Pressure	nvoPercentage_PV	SNVT_lev_percent		
5	Temperature Process Value Analog Input	nviTemp_PV	SNVT_temp	°C	°F
6	Temperature Process Value Fixed	nvoTemp_PV	SNVT_temp	°C	°F
7	High Alarm Enable	nciLoAlEnb	SCPTlowLimit1Enable	Bool	
8	Low Alarm Enable	nciHiAlEnb	SCPThighLimit1Enable	Bool	
9	Low Alarm Status	nvoLoAlarmStatus	SNVT_state_64		
10	High Alarm Status	nvoHiAlarmStatus	SNVT_state_64		
11	Pressure Operating Range	nciPressure_OP	SNVT_press_f	Pascal	Inch W.C.
12	Flow Operating Range	nciFlow_OP	SNVT_flow_f	Liter/Sec	ft□/min-CFM
13	Velocity Operating Range	nciVelocity_OP	SNVT_speed_f	Meter/Sec	feet/Minute-FPM
14	Pressure Low Alarm Limit	nciPrssure_LoAl	SNVT_press_f	Pascal	Inch W.C.
15	Flow Low Alarm Limit	nciFlow_LoAl	SNVT_flow_f	Liter/Sec	ft□/min-CFM
16	Velocity Low Alarm Limit	nciVelocity_LoAl	SNVT_speed_f	Meter/Sec	feet/Minute-FPM
17	Pressure High Alarm Limit	nciPressure_HiAl	SNVT_press_f	Pascal	Inch W.C.
18	Flow High Alarm Limit	nciFlow_HiAl	SNVT_flow_f	Liter/Sec	ft□/min-CFM
19	Velocity High Alarm Limit	nciVelocity_HiAl	SNVT_speed_f	Meter/Sec	feet/Minute-FPM

#	Description	LonWorks Name	LonWorks Network Variable	Default eng unit (SI)	US eng unit
20	Low Alarm Delay	nciLoAlDly	SCPTlowLimDly	Sec	
21	High Alarm Delay	nciHiAlDly	SCPThighLimDly	Sec	
22	Flow Calculation Method	ncoCalcMet	UCPT_CalcMet	Enumeration	
23	Network Temperature = 2	nciTempSrc	UCPT_TempSource	Enumeration	
24	Major Soft Version	ncoSorfMajVer	SCPTdevMajVer		
25	Minor Soft Version	ncoSoftMinVer	SCPTdevMinVer		

2.5. MICROTRANSII NETWORK VARIABLES

Program ID of MTII LonWorks Module:

Program ID: 80:00:E2:0A:5A:04:04:90
Manufacture ID: E2
Category: Sensors
Device Class: Multi-Function Sensors
Usage: Industrial Commercial
Model Number: 90

Network Variables of MTII LonWorks module

#	Descriptiom	Lonworks Name	Lonworks Network Variable<base>	Default eng unit (SI)	US eng unit
1	Pressure Process Value	nvoPressure_PV	SNVT_press_f	pascal	inch W.C.
2	Flow Process Value	nvoFlow_PV	SNVT_flow_f	Liter/Sec	ft^3/min-CFM
3	Velocity Process Value	nvoVelocity_PV	SNVT_speed_f	Meter/Sec	feet/Minute-FPM
4	Percentage Process Value for Flow, Velocity or Pressure	nvoPer_PV	SNVT_lev_percent		
5	Temperature Process Value	nviTemp_PV	SNVT_temp	Kelvin / °C	°F
6	Temperature Process Value	nvoTemp_PV	SNVT_temp	Kelvin / °C	°F
7	Low Alarm Enable	nciLoAlEnb	UNVT		
8	High Alarm Enable	nciHiAlEnb	UNVT		
9	Alarm Status for Low Alarm	nvoLoAlmSt	SNVT_state_64		
10	Alarm Status for High Alarm	nvoHiAlmSt	SNVT_state_64		
11	Pressure Operating Range	nciPres_OP	SNVT_press_f	pascal	inch W.C.
12	Flow Operating Range	nciFlow_OP	SNVT_flow_f	Liter/Sec	ft^3/min-CFM
13	Velocity Operating Range	nciVelocity_OP	SNVT_speed_f	Meter/Sec	feet/Minute-FPM

#	Descriptiom	Lonworks Name	Lonworks Network Variable<base>	Default eng unit (SI)	US eng unit
14	Pressure Low Alarm Limit	nciPres_LoAl	SNVT_press_f	pascal	inch W.C.
15	Flow Low Alarm Limit	nciFlow_LoAl	SNVT_flow_f	Liter/Sec	ft^3/min-CFM
16	Velocity Low Alarm Limit	nciVelocity_LoAl	SNVT_speed_f	Meter/Sec	feet/Minute-FPM
17	Pressure High Alarm Limit	nciPres_HiAl	SNVT_press_f	pascal	inch W.C.
18	Flow High Alarm Limit	nciFlow_HiAl	SNVT_flow_f	Liter/Sec	ft^3/min-CFM
19	Velocity High Alarm Limit	nciVelocity_HiAl	SNVT_speed_f	Meter/Sec	feet/Minute-FPM
20	Low Alarm Delay	nciLoAlDly	SNVT_time_sec	Seconds	
21	High Alarm Delay	nciHiAlDly	SNVT_time_sec	Seconds	
22	Pressure Controller Setpoint	nciPres_Setp	SNVT_press_f	pascal	inch W.C.
23	Flow Controller Setpoint	nciFlow_Setp	SNVT_flow_f	Liter/Sec	ft^3/min-CFM
24	Velocity Controller Setpoint	nciVelocity_Setp	SNVT_speed_f	Meter/Sec	feet/Minute-FPM
25	Cont. Proportional Value	nciPidProbBand	SNVT_lev_percent	%	
26	Cont. Reset Value	nciPidIntTime	SNVT_time_sec	Seconds	
27	Cont. Inverse Derivative	nciPidDerTime	SNVT_time_sec	Seconds	
28	Controller Output for Pressure	nvoPidVal	SNVT_lev_percent	%	
29	Economizer Input Value	nciEconIn	SNVT_lev_percent	%	
30	Controller Direction	nciContDir	UNVT	Refer to IO&M	
31	Flow Calculation Method	nciCalcMet	UNVT	Refer to IO&M	
32	Network Temperature = 2	nciTempSrc	UNVT	Refer to IO&M	
33	Soft Version	ncoSorfMajVer	UNVT		
34	Soft Version	ncoSoftMinVer	UNVT		

Network Variable Types

Information is taken from types.lonmark.org.
Network Variable: SNVT_press_f
Formats:
SNVT_press_f#SI: text("%f")
SNVT_press_f#SI_kPa: text("%f", *0.001+0(0:973))
SNVT_press_f#US: text("%f", *0.0040217+0(0:954))
SNVT_press_f#US_psi: text("%f", *1.4504e-4+0(0:875))
User defined formats
SNVT_press_f#SI_mmWC: text("%f", *0.101967+0(5:4)); ! mm. of H2O

Network Variable: SNVT_flow_f
Formats:
SNVT_flow_f#SI: text("%f")
SNVT_flow_f#US: text("%f", *2.1189+0(0:966))
SNVT_flow_f#US_liq: text("%f", *0.26418+0(0:837))
User defined formats
SNVT_flow_f#SI_cfh: text("%f", *127.1328+0(5:1)); ! cu ft/hr
SNVT_flow_f#SI_cms: text("%f", *0.001+0(5:2)); ! cu m/sec
SNVT_flow_f#SI_cmh: text("%f", *3.6+0(5:3)); ! cu m/hr

****** User defined formats are added in **STANDARD.fmt** file.

Configuration Property: UCPT_CalcMet
While EQ is in Flow or Velocity mode variable shows the Flow/Velocity calculation method.
Enumeration:
Actual = 0;
Standard = 1.

Configuration Property: UCPT_TempSource
Temperature source configuration property shows the temperature sensor status.
Enumeration:
Variable Temp_Input = 0;
Fixed Temp_= 1;
Network Temp_Input = 2.

2.6. FORMATTING NETWORK VARIABLES

Both the Micro and the Infinity pressure monitors transmit LonWorks data in f #US format. If the values transmitted are incorrect, the user may need to convert the data from f #US format to f #SI format.

3. TROUBLESHOOTING GUIDE

TROUBLESHOOTING TABLE	
SYMPTOM	**SOLUTION**
1. Building Management System not communicating with any of the devices	1. Verify data +&- connections on LonWorks interface module are wired correctly.
	2. Verify data +&- connections on all devices are wired correctly.
	3. Contact Factory Service Department.
2. Building Management System communicating with some devices but not others.	1. Verify data +&- wires are connected correctly on those devices not communicating.
	2. Contact Factory Service Department.
3. Lon reading incorrect values due to incorrect data format	1. Select the incorrect value and change the units from f#US to f#SI

PARAGON CONTROLS INCORPORATED

Paragon Controls Incorporated
P.O. Box 99, Forestville, CA 95436
http://www.paragoncontrols.com
Phone 707 / 579-1424
Revision Level 003