

e-LINKS

Building Management Integration



INTEGRATION INSTRUCTIONS FOR CONDAIR CP3 PRO

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1 Notes for the planning engineer

1.1 Overview

The **e-LINKS** option allows the integration of Condair CP3 Pro humidifiers into a **BACnet/IP** or a **LonWorks** network. The e-LINKS option features a serial-interface Gateway which converts the information from the host Modbus protocol to a specified secondary protocol.

The following protocol options are available and must be specified when ordering (ordering form see page 23):

Part Number	Protocols	Part Description
2534853	BACnet/IP	BMS CP3 Pro Master set for BACnet /IP
2534854	LonWorks	BMS CP3 Pro Master set for LonWorks
2534855		BMS CP3 Pro Slave set for successive units

The following read out and settings functions are available:

Functions	CP3 Pro
Read out of unit status (operating mode, etc.)	X
Read out of service messages	X
Read out of analog (%) and sensor (%rh) demand	X
Read out of unit type	X
Read out actual system request	X
Demand signal (%) / sensor signal (%rh)	X
Setting the power limitation	X
Setting the humidity setpoint (%rh / internal controller)	X
Setting the proportional range	X
Setting the integral time	X

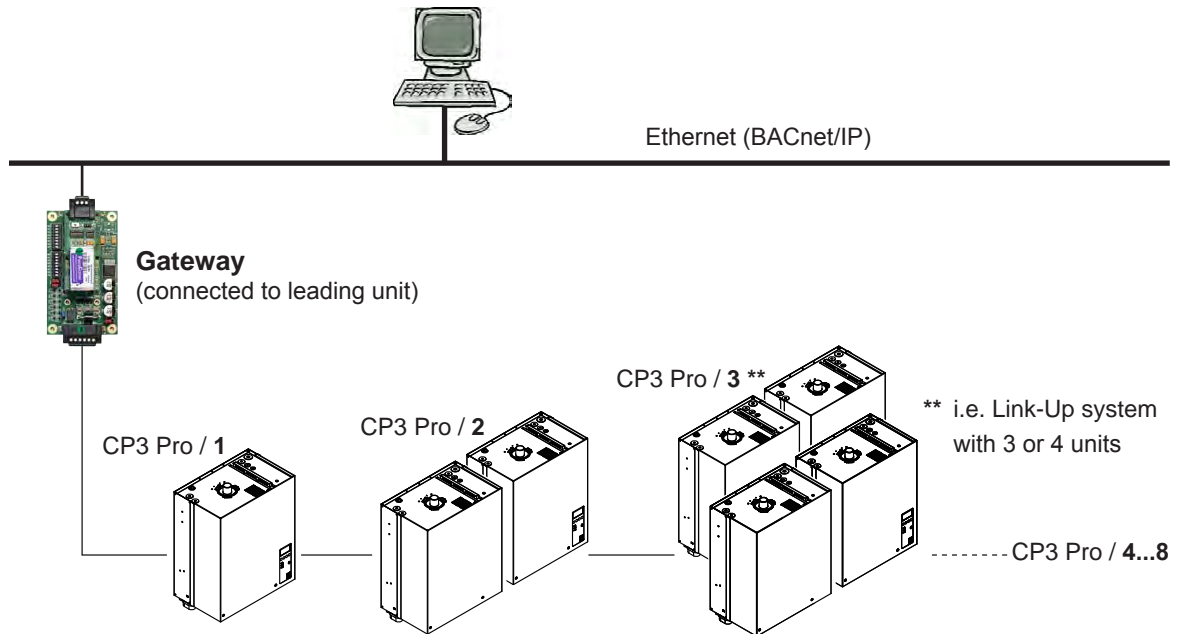
1.2 Network diagrams

It is possible to link up a maximum of 8 units via a single **ProtoCessor Gateway** to a building management system. The ProtoCessor Gateway is connected to the lead unit. All other units (up to a maximum of 8) are daisy-chained via the NetworkLink terminals.

Since each unit can be separately addressed, it is possible to monitor and control each unit individually. Different network configurations may be achieved and are mostly dependant on the type of network present at the site.

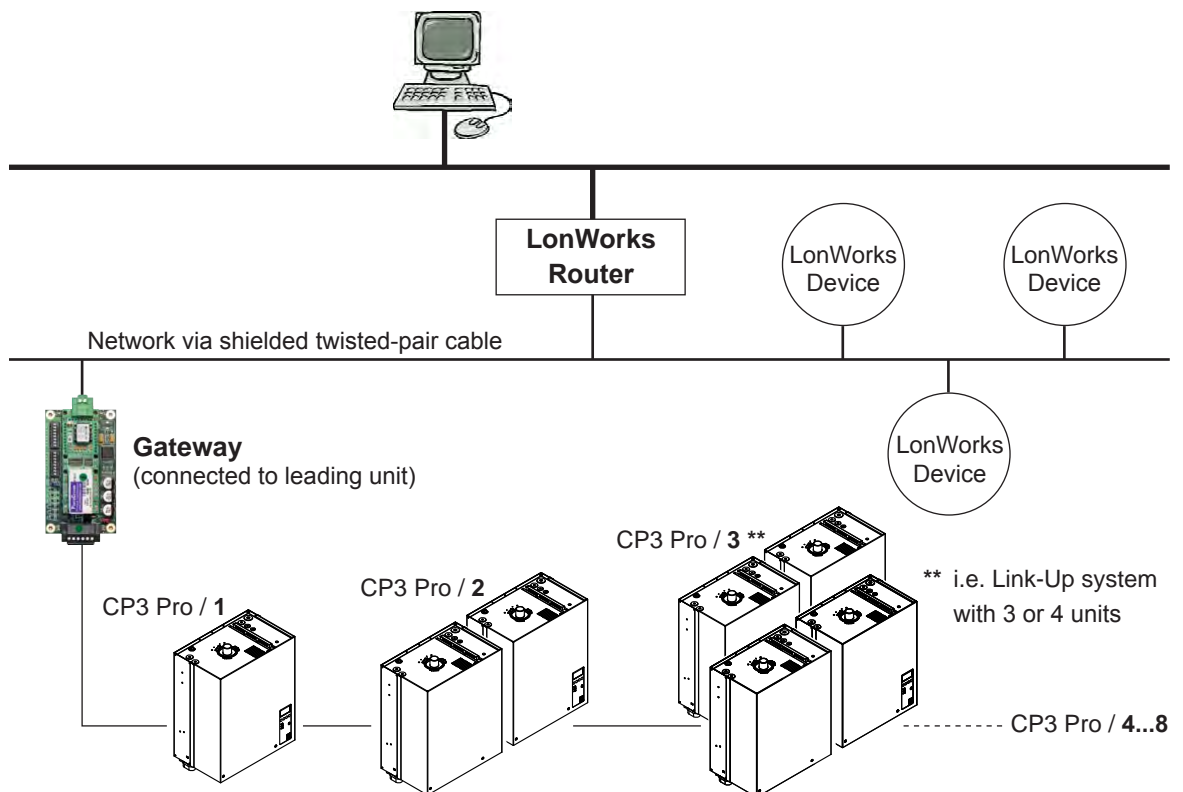
1.2.1 BACnet/IP network

The diagram below shows the connection of a series of CP3 Pro units to an Ethernet network. This is only possible for BACnet and is essentially referred to as a BACnet/IP configuration. Please see chapter 2.1 for additional details.



1.2.2 LonWorks network

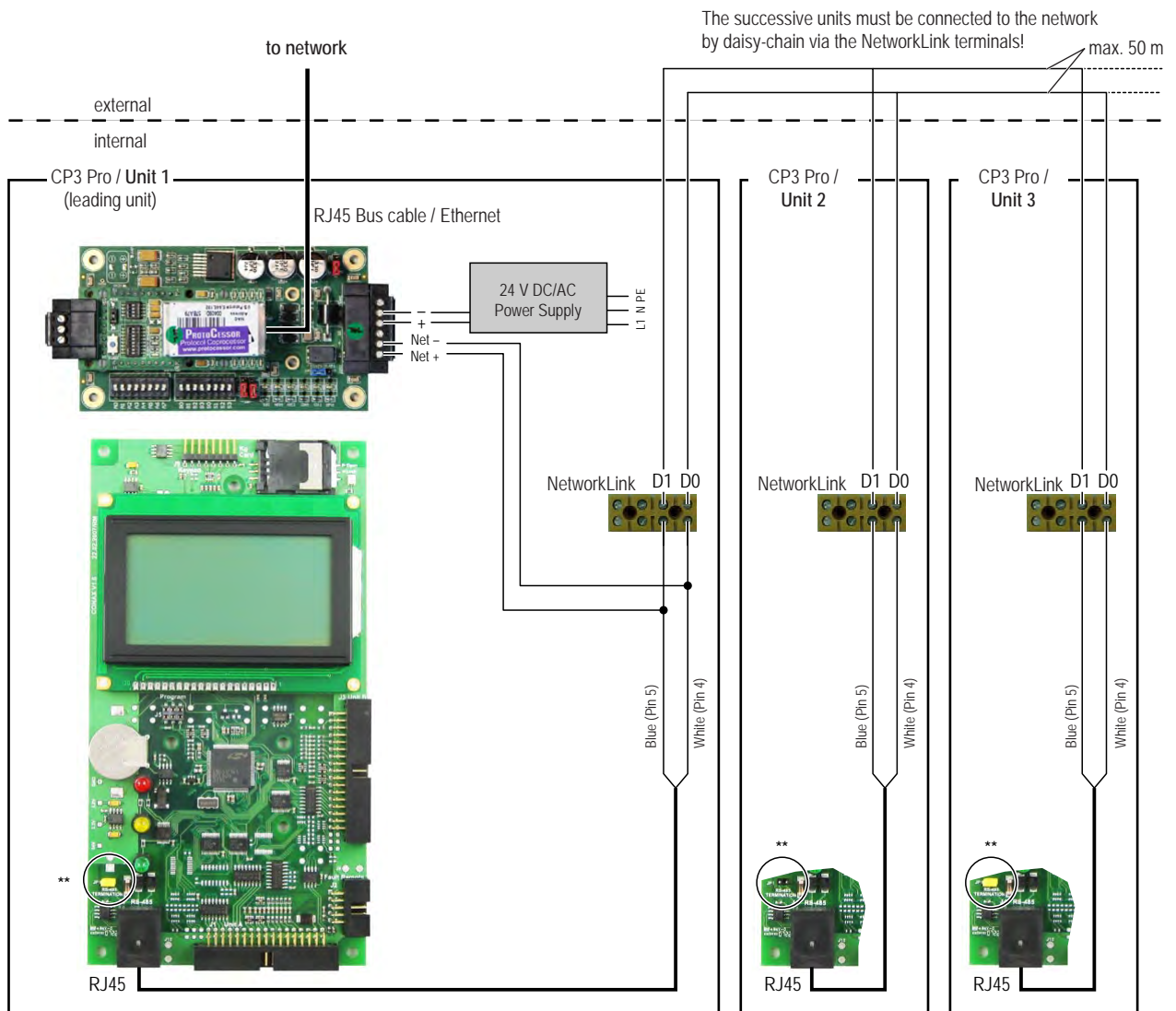
This diagram below shows the connection of a series of CP3 Pro units to a LonWorks network via a shielded, twisted-pair cable. Please see chapter 2.2 for additional details.



2 Wiring

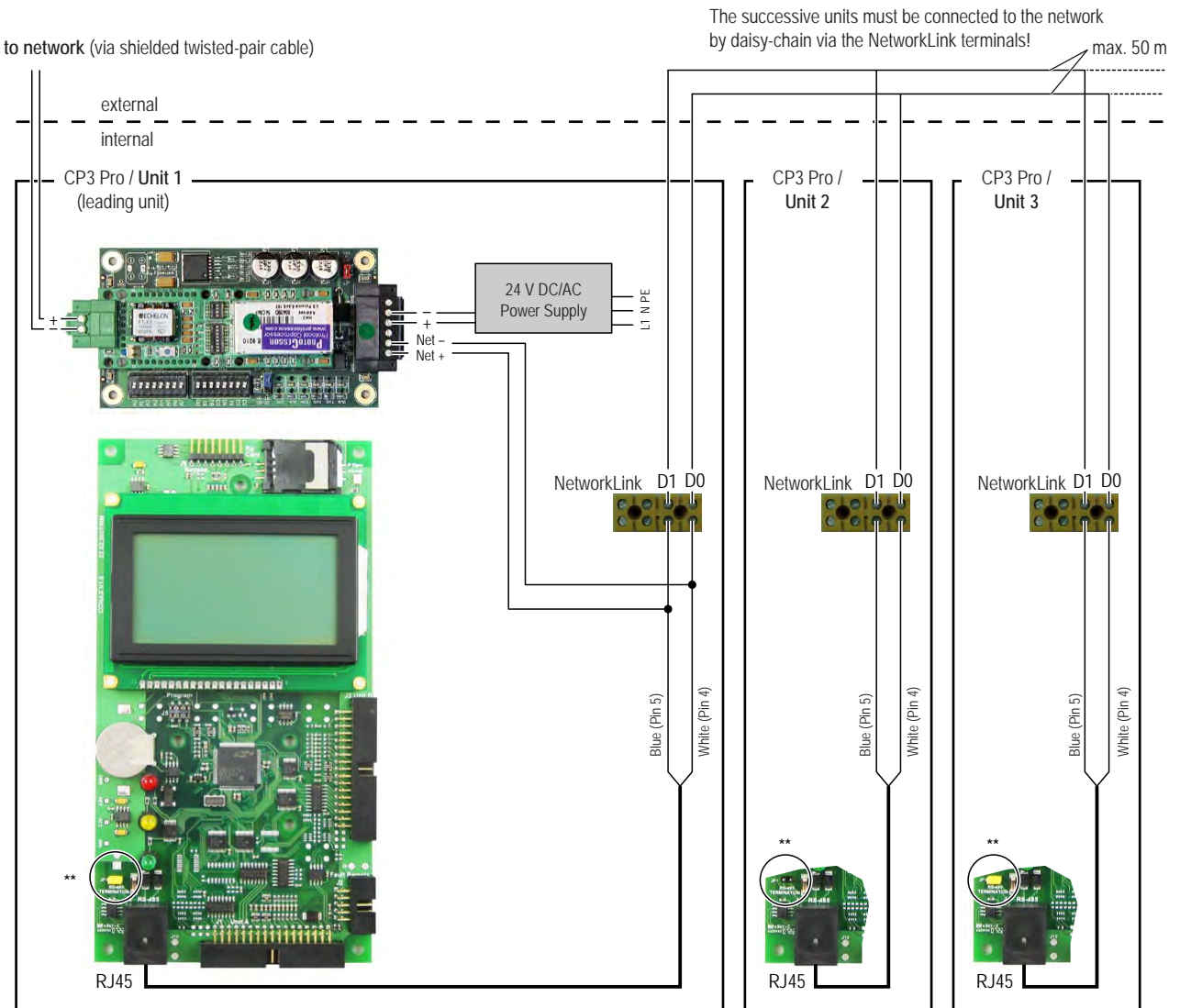
The internal wiring and the installation of the Gateway option in the leading unit as well as the internal wiring of the successive units are made at the factory. On site only the gateway must be connected to the network (BACnet/IP or LonWorks) and the successive units must be daisy-chained via the NetworkLink terminals using two-wire cables (see corresponding wiring diagrams).

2.1 Wiring diagram for BACnet/IP



** Termination of the bus system: to ensure the correct function the bus system must be terminated on both ends. For that purpose a jumper must be set on the connector "JP1-RS 485 Termination" on the control board of the first and the last CP3 unit in the bus system. On all intermediate CP3 units the corresponding jumper must be removed (see above diagram).

2.2 Wiring diagram for LonWorks



** Termination of the bus system: to ensure the correct function the bus system must be terminated on both ends. For that purpose a jumper must be set on the connector "JP1-RS 485 Termination" on the control board of the first and the last CP3 unit in the bus system. On all intermediate CP3 units the corresponding jumper must be removed (see above diagram).

3 Configuration

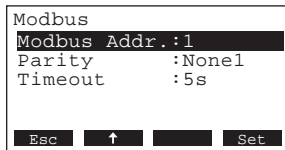
3.1 Configuring the Condair CP3 Pro control unit

The settings described below must be configured on each Condair CP3 unit (see Condair CP3 "Technical documentation" regarding the operation of the control software):

1. Modbus settings

Select the Modbus menu, Path:

Main menu > User > Password entry: 8808 > Modbus



Set the Modbus parameters as follows:

Modbus Addr.: desired Modbus address (range: 1...247)

Important: make sure the Modbus address for each unit is unique!

Parity **None1** (no parity, 1 Stop bit)

Timeout: **5s** (5 seconds)

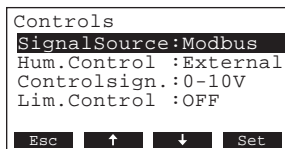
The following Modbus parameters of the Condair CP3 Pro can not be adjusted and are set to the following values:

- 9600 baud
- 1 start bit
- 8 data bits

2. Select the signal source

Select the control settings menu, Path:

Main menu > User > Password entry: 8808 > Settings > Controls



Select the parameter "SignalSource" and set it to Modbus.

3.2 Gateway configuration

The **protocol configuration is made at the factory**, prior to final testing. The baud rates are adjusted to the following values:

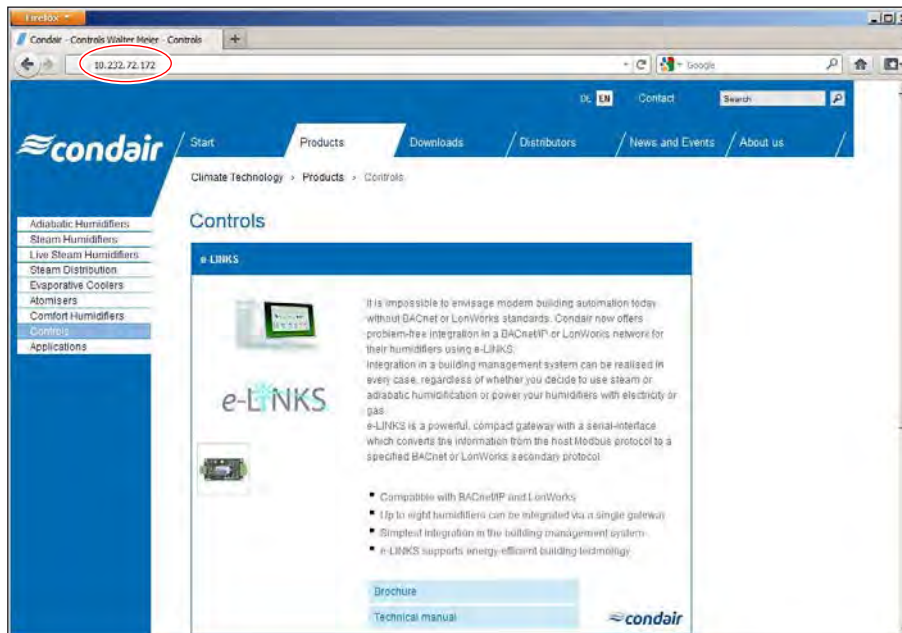
Protocol	Baud rate
BACnet/IP	10 / 100 BaseT
LonWorks	78125 bps

3.2.1 Setting the IP address and subnetmask

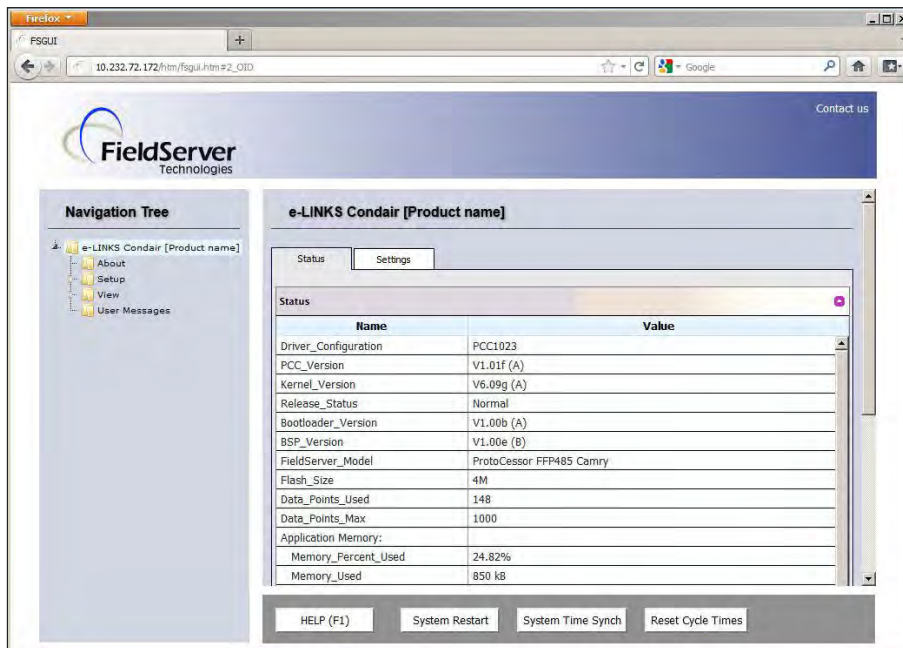
For BACnet/IP and LonWorks application, an IP address and the subnet mask must be assigned to the gateway in order to access it. The IP address and subnet mask may be assigned at the factory or can be modified at any time via the integrated FieldServer GUI (Graphic User Interface) of the ProtoCessor.

To configure the IP address and the subnet mask via the integrated FieldServer GUI of the ProtoCessor proceed as follows:

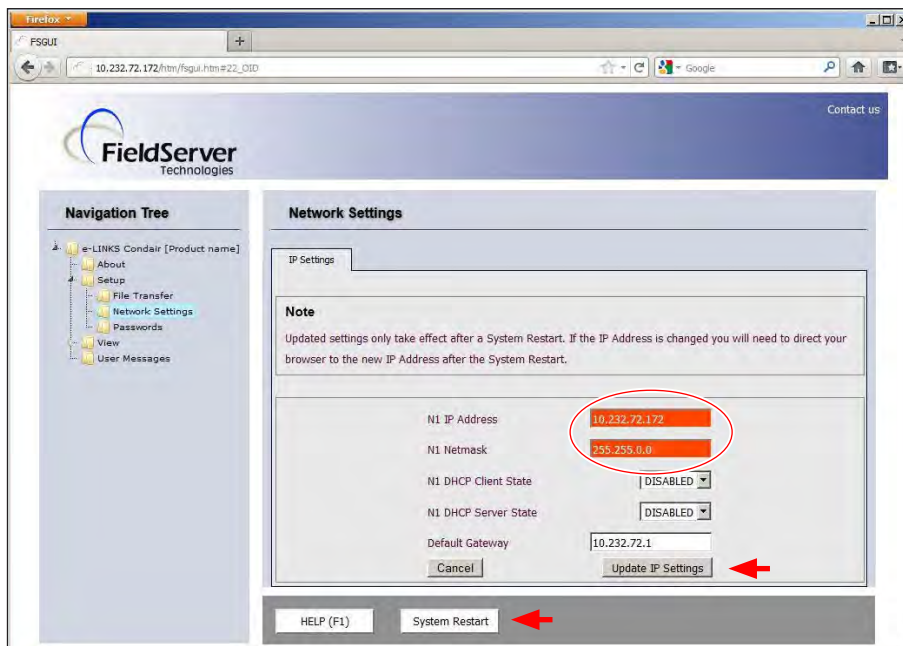
1. Connect the ProtoCessor gateway **to a PC using an Ethernet cross-over cable or directly to the network using a straight cable.**
2. The default IP address of the ProtoCessor Gateway is set to 10.232.72.172, Subnet Mask is 255.255.0.0.
Make sure your PC is in the same IP network as the ProtoCessor Gateway; otherwise assign a static IP address to your PC on the 10.232.72.0 network.
3. Power up the ProtoCessor Gateway.
4. Open your internet browser and enter the IP address of the gateway (by default ex factory 10.232.72.172), then confirm the entry with the Enter key.



5. The FieldServer GUI will be started.



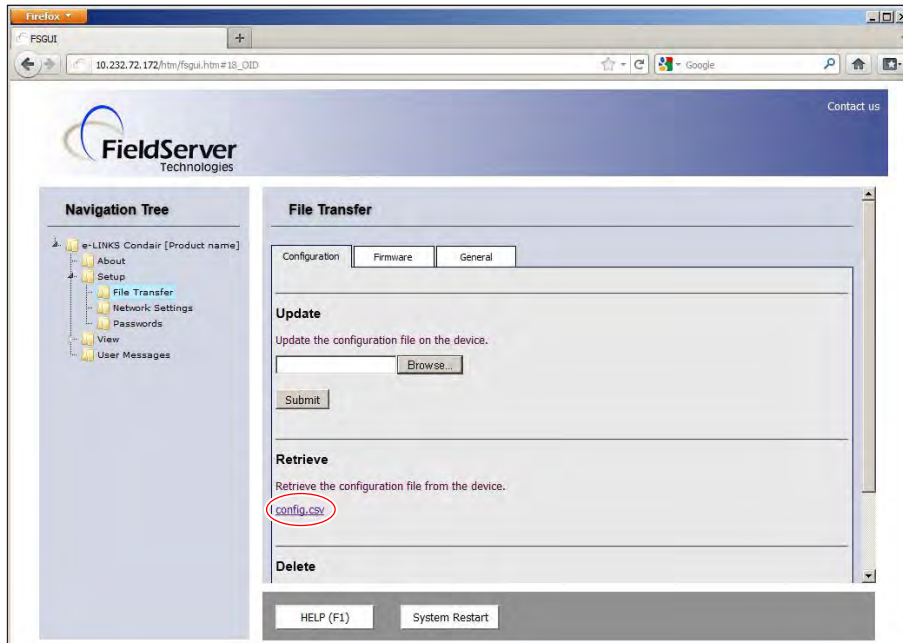
6. Select the menu point "**Setup > Network Settings**" in the "**Navigation Tree**". Enter the appropriate **IP-Address** and **subnetmask**. To activate the new settings, click first on the button **<Update IP settings>** and then on the button **<System Restart>**. After restart the gateway is configured to the new IP address and subnetmask.



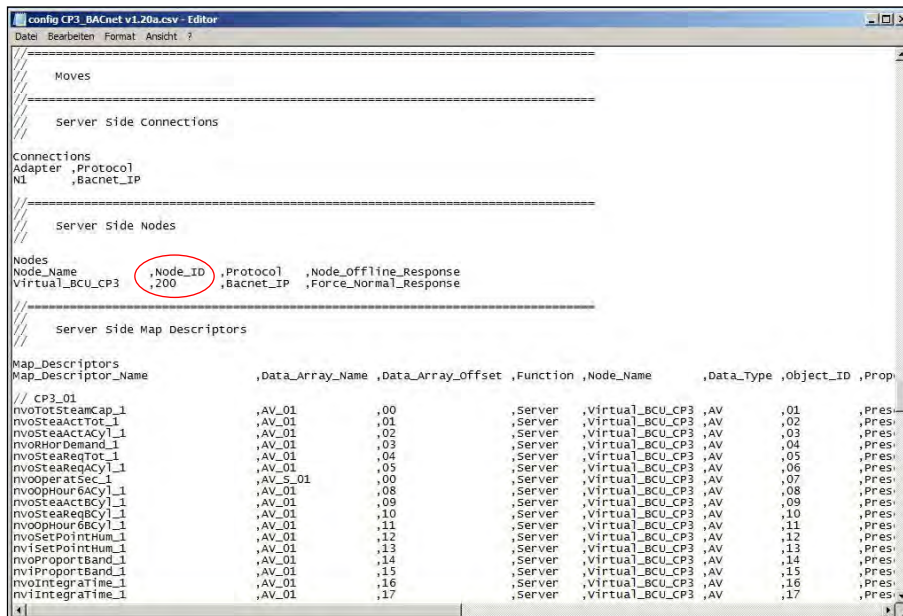
7. In order to access the ProtoCessor gateway, the IP address of your laptop must be set to the same network as the ProtoCessor.

3.2.2 Modifying the BACnet Node ID

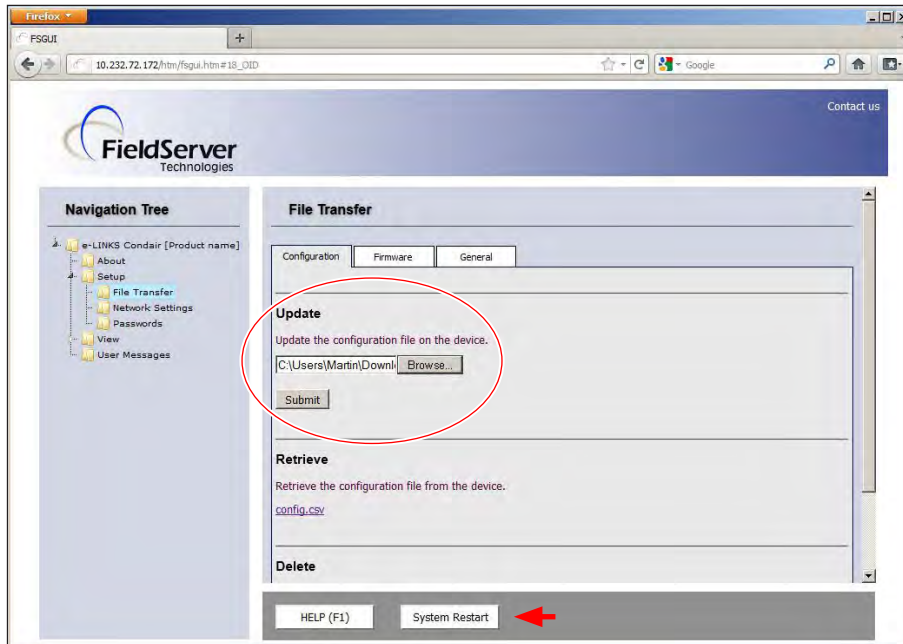
1. Enter the (new) IP address of the gateway in your internet browser and confirm the entry with the Enter key. The FieldServer GUI will be started.
2. Select the menu point “Setup > File Transfer” in the “Navigation Tree”. Then, click in the “Retrieve” section on the link “config.csv” and save the configuration file to the desired location on your laptop.



3. Open the configuration file “config.csv” with a text editor, change in the section “Server Side Nodes” of the window the Node ID to the appropriate value and save the configuration file.



4. Select the menu point "**Setup > File Transfer**" in the "**Navigation Tree**". Click in the "**Update**" section on the button **<Browse...>** and select the configuration file you have modified. Then, click on the button **<Submit>** in order to upload configuration file into the ProtoCessor.



As soon as the upload is finished a corresponding message appears in the upper part of the window. Click on the button **<System Restart>** to restart the system with the new settings. After restart the Node ID is changed to the new value.

4 Communication tables

4.1 Modbus data register table

The following table shows the modbus data registers and their corresponding gateway variables. Note: the “_x” in the gateway variable name indicates the Modbus address of the corresponding Condair CP3 Pro unit.

Name	Description	Register	Variable name on Gateway
Read total capacity	0 – 180kg/h	30009 (8)	nvoTotSteamCap_x
Read actual steam capacity	0 – 180kg/h	30010 (9)	nvoSteaActTot_x
Read actual steam capacity A-cylinder	0 – 45kg/h	30011 (10)	nvoSteaActACyl_x
Read humidity or demand	0 – 100%	30012 (11)	nvoRHorDemand_x
Read total demand	0 – 100%	30014 (13)	nvoSteaReqTot_x
Read demand A-cylinder	0 – 100%	30015 (14)	nvoSteaReqACyl_x
Read system operating seconds low	Indicates the number of seconds the humidifier has been in operating (0- 65535 sec)	30027 (26)	nvoOperatSec_x
Read system operating seconds high	Indicates the number of seconds the humidifier has been in operating (multiply by 65535 sec)	30028 (27)	
Read operating hours/6 A-cylinder	h/6 (10 min)	30100 (99)	nvoOpHour6ACyl_x
Read actual steam capacity B-cylinder	0 – 45kg/h	31011 (1010)	nvoSteaActBCyl_x
Read demand B-cylinder	0 – 100%	31015 (1014)	nvoSteaReqBCyl_x
Read operating hours/6 B-cylinder	h/6 (10 min)	31100 (1099)	nvoOpHour6BCyl_x
Read controller set point	10 – 95%rH	40005 (4)	nvoSetPointHum_x
Write controller set point			nviSetPointHum_x
Read controller proportional band	6 – 65%	40006 (5)	nvoProportBand_x
Write controller proportional band			nviProportBand_x
Read controller integral time	0 – 60 minutes	40007 (6)	nvoIntegraTime_x
Write controller integral time			nviIntegraTime_x
Read capacity limit	25 – 100%	40013 (12)	nvoCapaciLimit_x
Write capacity limit			nviCapaciLimit_x
Read actual humidity value or request	0 – 100% (by Modbus)	40054 (53)	nvoRemRHorDem_x
Write actual humidity value or request			nviRemRHorDem_x

Name	Description	Register	Variable name on Gateway
Read info code	1: CP3-Card Missing 2: CP3-Card Empty 3: CP3-Card Invalid 4: CP3-Card Incompat 5: Modul-B Missing 6: Main Missing 7: Extended Error 8: Extended Incomp. 9: Illegal HW-Settings 10: Flash R/W Fault 11: Clock R/W Fault 12: Timer Disable 20: Safety Loop Open 21: Cyl.Max&NoCurr 22: Max.Filltime 23: No Current 24: Over Current 25: Excess Current 26: Req.Off Current 27: Foam 28: Cyl. Maintenance 29: Cyl. Maintenance 32: Hum.Sens.Broken 33: Lim.Sens.Broken 34: Modbus Disable 35: Modbus Time Out 36: Standby Drain 37: Forced Drain	30557 (556)	nvoInfoCode_x
Read info priority	0 = Warning 1 = Error 65535 = No Info	30558 (557)	nvoInfoPrio_x
Read service status	0 = no service required 1 = service required	30018 (17)	nvoServStatus_x
Read fault status	0 = no fault 1 = fault	30020 (19)	nvoFaultStatus_x
Read fill valve A-cylinder	0 = off 1 = on	30029 (28)	nvoFillValACyl_x
Read drain pump A-cylinder	0 = off 1 = on	30030 (29)	nvoDrainACyl_x
Read unit status	0 = standby 1 = humidifying	30033 (32)	nvoHumStatus_x
Read safety chain status	0 = open (not ok) 1 = closed (ok)	30301 (300)	nvoExtSchACSta_x
Read fill valve B-cylinder	0 = off 1 = on	31029 (1028)	nvoFillValBCyl_x
Read drain pump B-cylinder	0 = off 1 = on	31030 (1029)	nvoDrainBCyl_x

Registers 3xxxx: read with Modbus function 04

Registers 4xxxx: read with Modbus function 03 and write with Modbus function 06

4.2 Conversion tables gateway variables

The following tables show the ProtoCessor gateway variables and their BACnet/IP and LonWorks equivalents.

Note: the number at the end of the gateway variables (e.g. “_1”) indicate the unit number (Modbus number) of the corresponding Condair CP3 Pro. If there is only one CP3 Pro humidifier, all variable names will end in “_1”. If two units are networked together, the second unit’s variable names will end in “_2”. For three networked units, ... “_3” and so on.

CP3 Pro / Unit 1

ProtoCessor Gateway Variable Name	BACnet		LonWorks			
	Type	Instance	SNVT	SNVT #	NV Index	Element
nvoTotSteamCap_1	AV	1	SNVT_count	8	1	1
nvoSteaActTot_1	AV	2	SNVT_count	8	2	1
nvoSteaActACyl_1	AV	3	SNVT_count	8	3	1
nvoRHorDemand_1	AV	4	SNVT_count	8	4	1
nvoSteaReqTot_1	AV	5	SNVT_count	8	5	1
nvoSteaReqACyl_1	AV	6	SNVT_count	8	6	1
nvoOperatSec_1	AV	7	SNVT_time_hour	124	7	1
nvoOpHour6ACyl_1	AV	8	SNVT_time_hour	124	8	1
nvoSteaActBCyl_1	AV	9	SNVT_count	8	9	1
nvoSteaReqBCyl_1	AV	10	SNVT_count	8	10	1
nvoOpHour6BCyl_1	AV	11	SNVT_time_hour	124	11	1
nvoSetPointHum_1	AV	12	SNVT_count	8	12	1
nviSetPointHum_1	AV	13	SNVT_count	8	13	1
nvoProportBand_1	AV	14	SNVT_count	8	14	1
nviProportBand_1	AV	15	SNVT_count	8	15	1
nvoIntegraTime_1	AV	16	SNVT_count	8	16	1
nviIntegraTime_1	AV	17	SNVT_count	8	17	1
nvoCapaciLimit_1	AV	18	SNVT_count	8	18	1
nviCapaciLimit_1	AV	19	SNVT_count	8	19	1
nvoRemRHorDem_1	AV	20	SNVT_count	8	20	1
nviRemRHorDem_1	AV	21	SNVT_count	8	21	1
nvoInfoCode_1	AV	22	SNVT_count	8	22	1
nvoInfoPrio_1	AV	23	SNVT_count	8	23	1
nvoServStatus_1	BV	1	SNVT_switch	95	51	1
nvoFaultStatus_1	BV	2	SNVT_switch	95	52	1
nvoFillValACyl_1	BV	3	SNVT_switch	95	53	1
nvoDrainACyl_1	BV	4	SNVT_switch	95	54	1
nvoHumStatus_1	BV	5	SNVT_switch	95	55	1
nvoExtSchACSta_1	BV	6	SNVT_switch	95	56	1
nvoFillValBCyl_1	BV	7	SNVT_switch	95	57	1
nvoDrainBCyl_1	BV	8	SNVT_switch	95	58	1

CP3 Pro / Unit 2

ProtoCessor Gateway Variable Name	BACnet		LonWorks			
	Type	Instance	SNVT	SNVT #	NV Index	Element
nvoTotSteamCap_2	AV	51	SNVT_count	8	101	1
nvoSteaActTot_2	AV	52	SNVT_count	8	102	1
nvoSteaActACyl_2	AV	53	SNVT_count	8	103	1
nvoRHorDemand_2	AV	54	SNVT_count	8	104	1
nvoSteaReqTot_2	AV	55	SNVT_count	8	105	1
nvoSteaReqACyl_2	AV	56	SNVT_count	8	106	1
nvoOperatSec_2	AV	57	SNVT_time_hour	124	107	1
nvoOpHour6ACyl_2	AV	58	SNVT_time_hour	124	108	1
nvoSteaActBCyl_2	AV	59	SNVT_count	8	109	1
nvoSteaReqBCyl_2	AV	60	SNVT_count	8	110	1
nvoOpHour6BCyl_2	AV	61	SNVT_time_hour	124	111	1
nvoSetPointHum_2	AV	62	SNVT_count	8	112	1
nviSetPointHum_2	AV	63	SNVT_count	8	113	1
nvoProportBand_2	AV	64	SNVT_count	8	114	1
nviProportBand_2	AV	65	SNVT_count	8	115	1
nvoIntegraTime_2	AV	66	SNVT_count	8	116	1
nviIntegraTime_2	AV	67	SNVT_count	8	117	1
nvoCapaciLimit_2	AV	68	SNVT_count	8	118	1
nviCapaciLimit_2	AV	69	SNVT_count	8	119	1
nvoRemRHorDem_2	AV	70	SNVT_count	8	120	1
nviRemRHorDem_2	AV	71	SNVT_count	8	121	1
nvoInfoCode_2	AV	72	SNVT_count	8	122	1
nvoInfoPrio_2	AV	73	SNVT_count	8	123	1
nvoServStatus_2	BV	51	SNVT_switch	95	151	1
nvoFaultStatus_2	BV	52	SNVT_switch	95	152	1
nvoFillValACyl_2	BV	53	SNVT_switch	95	153	1
nvoDrainACyl_2	BV	54	SNVT_switch	95	154	1
nvoHumStatus_2	BV	55	SNVT_switch	95	155	1
nvoExtSchACSta_2	BV	56	SNVT_switch	95	156	1
nvoFillValBCyl_2	BV	57	SNVT_switch	95	157	1
nvoDrainBCyl_2	BV	58	SNVT_switch	95	158	1

CP3 Pro / Unit 3

ProtoCessor Gateway Variable Name	BACnet		LonWorks			
	Type	Instance	SNVT	SNVT #	NV Index	Element
nvoTotSteamCap_3	AV	101	SNVT_count	8	201	1
nvoSteaActTot_3	AV	102	SNVT_count	8	202	1
nvoSteaActACyl_3	AV	103	SNVT_count	8	203	1
nvoRHorDemand_3	AV	104	SNVT_count	8	204	1
nvoSteaReqTot_3	AV	105	SNVT_count	8	205	1
nvoSteaReqACyl_3	AV	106	SNVT_count	8	206	1
nvoOperatSec_3	AV	107	SNVT_time_hour	124	207	1
nvoOpHour6ACyl_3	AV	108	SNVT_time_hour	124	208	1
nvoSteaActBCyl_3	AV	109	SNVT_count	8	209	1
nvoSteaReqBCyl_3	AV	110	SNVT_count	8	210	1
nvoOpHour6BCyl_3	AV	111	SNVT_time_hour	124	211	1
nvoSetPointHum_3	AV	112	SNVT_count	8	212	1
nviSetPointHum_3	AV	113	SNVT_count	8	213	1
nvoProportBand_3	AV	114	SNVT_count	8	214	1
nviProportBand_3	AV	115	SNVT_count	8	215	1
nvoIntegraTime_3	AV	116	SNVT_count	8	216	1
nviIntegraTime_3	AV	117	SNVT_count	8	217	1
nvoCapaciLimit_3	AV	118	SNVT_count	8	218	1
nviCapaciLimit_3	AV	119	SNVT_count	8	219	1
nvoRemRHorDem_3	AV	120	SNVT_count	8	220	1
nviRemRHorDem_3	AV	121	SNVT_count	8	221	1
nvoInfoCode_3	AV	122	SNVT_count	8	222	1
nvoInfoPrio_3	AV	123	SNVT_count	8	223	1
nvoServStatus_3	BV	101	SNVT_switch	95	251	1
nvoFaultStatus_3	BV	102	SNVT_switch	95	252	1
nvoFillValACyl_3	BV	103	SNVT_switch	95	253	1
nvoDrainACyl_3	BV	104	SNVT_switch	95	254	1
nvoHumStatus_3	BV	105	SNVT_switch	95	255	1
nvoExtSchACSta_3	BV	106	SNVT_switch	95	256	1
nvoFillValBCyl_3	BV	107	SNVT_switch	95	257	1
nvoDrainBCyl_3	BV	108	SNVT_switch	95	258	1

CP3 Pro / Unit 4

ProtoCessor Gateway Variable Name	BACnet		LonWorks			
	Type	Instance	SNVT	SNVT #	NV Index	Element
nvoTotSteamCap_4	AV	151	SNVT_count	8	301	1
nvoSteaActTot_4	AV	152	SNVT_count	8	302	1
nvoSteaActACyl_4	AV	153	SNVT_count	8	303	1
nvoRHorDemand_4	AV	154	SNVT_count	8	304	1
nvoSteaReqTot_4	AV	155	SNVT_count	8	305	1
nvoSteaReqACyl_4	AV	156	SNVT_count	8	306	1
nvoOperatSec_4	AV	157	SNVT_time_hour	124	307	1
nvoOpHour6ACyl_4	AV	158	SNVT_time_hour	124	308	1
nvoSteaActBCyl_4	AV	159	SNVT_count	8	309	1
nvoSteaReqBCyl_4	AV	160	SNVT_count	8	310	1
nvoOpHour6BCyl_4	AV	161	SNVT_time_hour	124	311	1
nvoSetPointHum_4	AV	162	SNVT_count	8	312	1
nviSetPointHum_4	AV	163	SNVT_count	8	313	1
nvoProportBand_4	AV	164	SNVT_count	8	314	1
nviProportBand_4	AV	165	SNVT_count	8	315	1
nvoIntegraTime_4	AV	166	SNVT_count	8	316	1
nviIntegraTime_4	AV	167	SNVT_count	8	317	1
nvoCapaciLimit_4	AV	168	SNVT_count	8	318	1
nviCapaciLimit_4	AV	169	SNVT_count	8	319	1
nvoRemRHorDem_4	AV	170	SNVT_count	8	320	1
nviRemRHorDem_4	AV	171	SNVT_count	8	321	1
nvoInfoCode_4	AV	172	SNVT_count	8	322	1
nvoInfoPrio_4	AV	173	SNVT_count	8	323	1
nvoServStatus_4	BV	151	SNVT_switch	95	351	1
nvoFaultStatus_4	BV	152	SNVT_switch	95	352	1
nvoFillValACyl_4	BV	153	SNVT_switch	95	353	1
nvoDrainACyl_4	BV	154	SNVT_switch	95	354	1
nvoHumStatus_4	BV	155	SNVT_switch	95	355	1
nvoExtSchACSta_4	BV	156	SNVT_switch	95	356	1
nvoFillValBCyl_4	BV	157	SNVT_switch	95	357	1
nvoDrainBCyl_4	BV	158	SNVT_switch	95	358	1

CP3 Pro / Unit 5

ProtoCessor Gateway Variable Name	BACnet		LonWorks			
	Type	Instance	SNVT	SNVT #	NV Index	Element
nvoTotSteamCap_5	AV	201	SNVT_count	8	401	1
nvoSteaActTot_5	AV	202	SNVT_count	8	402	1
nvoSteaActACyl_5	AV	203	SNVT_count	8	403	1
nvoRHorDemand_5	AV	204	SNVT_count	8	404	1
nvoSteaReqTot_5	AV	205	SNVT_count	8	405	1
nvoSteaReqACyl_5	AV	206	SNVT_count	8	406	1
nvoOperatSec_5	AV	207	SNVT_time_hour	124	407	1
nvoOpHour6ACyl_5	AV	208	SNVT_time_hour	124	408	1
nvoSteaActBCyl_5	AV	209	SNVT_count	8	409	1
nvoSteaReqBCyl_5	AV	210	SNVT_count	8	410	1
nvoOpHour6BCyl_5	AV	211	SNVT_time_hour	124	411	1
nvoSetPointHum_5	AV	212	SNVT_count	8	412	1
nviSetPointHum_5	AV	213	SNVT_count	8	413	1
nvoProportBand_5	AV	214	SNVT_count	8	414	1
nviProportBand_5	AV	215	SNVT_count	8	415	1
nvoIntegraTime_5	AV	216	SNVT_count	8	416	1
nviIntegraTime_5	AV	217	SNVT_count	8	417	1
nvoCapaciLimit_5	AV	218	SNVT_count	8	418	1
nviCapaciLimit_5	AV	219	SNVT_count	8	419	1
nvoRemRHorDem_5	AV	220	SNVT_count	8	420	1
nviRemRHorDem_5	AV	221	SNVT_count	8	421	1
nvoInfoCode_5	AV	222	SNVT_count	8	422	1
nvoInfoPrio_5	AV	223	SNVT_count	8	423	1
nvoServStatus_5	BV	201	SNVT_switch	95	451	1
nvoFaultStatus_5	BV	202	SNVT_switch	95	452	1
nvoFillValACyl_5	BV	203	SNVT_switch	95	453	1
nvoDrainACyl_5	BV	204	SNVT_switch	95	454	1
nvoHumStatus_5	BV	205	SNVT_switch	95	455	1
nvoExtSchACSta_5	BV	206	SNVT_switch	95	456	1
nvoFillValBCyl_5	BV	207	SNVT_switch	95	457	1
nvoDrainBCyl_5	BV	208	SNVT_switch	95	458	1

CP3 Pro / Unit 6

ProtoCessor Gateway Variable Name	BACnet		LonWorks			
	Type	Instance	SNVT	SNVT #	NV Index	Element
nvoTotSteamCap_6	AV	251	SNVT_count	8	501	1
nvoSteaActTot_6	AV	252	SNVT_count	8	502	1
nvoSteaActACyl_6	AV	253	SNVT_count	8	503	1
nvoRHorDemand_6	AV	254	SNVT_count	8	504	1
nvoSteaReqTot_6	AV	255	SNVT_count	8	505	1
nvoSteaReqACyl_6	AV	256	SNVT_count	8	506	1
nvoOperatSec_6	AV	257	SNVT_time_hour	124	507	1
nvoOpHour6ACyl_6	AV	258	SNVT_time_hour	124	508	1
nvoSteaActBCyl_6	AV	259	SNVT_count	8	509	1
nvoSteaReqBCyl_6	AV	260	SNVT_count	8	510	1
nvoOpHour6BCyl_6	AV	261	SNVT_time_hour	124	511	1
nvoSetPointHum_6	AV	262	SNVT_count	8	512	1
nviSetPointHum_6	AV	263	SNVT_count	8	513	1
nvoProportBand_6	AV	264	SNVT_count	8	514	1
nviProportBand_6	AV	265	SNVT_count	8	515	1
nvoIntegraTime_6	AV	266	SNVT_count	8	516	1
nviIntegraTime_6	AV	267	SNVT_count	8	517	1
nvoCapaciLimit_6	AV	268	SNVT_count	8	518	1
nviCapaciLimit_6	AV	269	SNVT_count	8	519	1
nvoRemRHorDem_6	AV	270	SNVT_count	8	520	1
nviRemRHorDem_6	AV	271	SNVT_count	8	521	1
nvoInfoCode_6	AV	272	SNVT_count	8	522	1
nvoInfoPrio_6	AV	273	SNVT_count	8	523	1
nvoServStatus_6	BV	251	SNVT_switch	95	551	1
nvoFaultStatus_6	BV	252	SNVT_switch	95	552	1
nvoFillValACyl_6	BV	253	SNVT_switch	95	553	1
nvoDrainACyl_6	BV	254	SNVT_switch	95	554	1
nvoHumStatus_6	BV	255	SNVT_switch	95	555	1
nvoExtSChACSta_6	BV	256	SNVT_switch	95	556	1
nvoFillValBCyl_6	BV	257	SNVT_switch	95	557	1
nvoDrainBCyl_6	BV	258	SNVT_switch	95	558	1

CP3 Pro / Unit 7

ProtoCessor Gateway Variable Name	BACnet		LonWorks			
	Type	Instance	SNVT	SNVT #	NV Index	Element
nvoTotSteamCap_7	AV	301	SNVT_count	8	601	1
nvoSteaActTot_7	AV	302	SNVT_count	8	602	1
nvoSteaActACyl_7	AV	303	SNVT_count	8	603	1
nvoRHorDemand_7	AV	304	SNVT_count	8	604	1
nvoSteaReqTot_7	AV	305	SNVT_count	8	605	1
nvoSteaReqACyl_7	AV	306	SNVT_count	8	606	1
nvoOperatSec_7	AV	307	SNVT_time_hour	124	607	1
nvoOpHour6ACyl_7	AV	308	SNVT_time_hour	124	608	1
nvoSteaActBCyl_7	AV	309	SNVT_count	8	609	1
nvoSteaReqBCyl_7	AV	310	SNVT_count	8	610	1
nvoOpHour6BCyl_7	AV	311	SNVT_time_hour	124	611	1
nvoSetPointHum_7	AV	312	SNVT_count	8	612	1
nviSetPointHum_7	AV	313	SNVT_count	8	613	1
nvoProportBand_7	AV	314	SNVT_count	8	614	1
nviProportBand_7	AV	315	SNVT_count	8	615	1
nvoIntegraTime_7	AV	316	SNVT_count	8	616	1
nviIntegraTime_7	AV	317	SNVT_count	8	617	1
nvoCapaciLimit_7	AV	318	SNVT_count	8	618	1
nviCapaciLimit_7	AV	319	SNVT_count	8	619	1
nvoRemRHorDem_7	AV	320	SNVT_count	8	620	1
nviRemRHorDem_7	AV	321	SNVT_count	8	621	1
nvoInfoCode_7	AV	323	SNVT_count	8	622	1
nvoInfoPrio_7	AV	323	SNVT_count	8	623	1
nvoServStatus_7	BV	301	SNVT_switch	95	651	1
nvoFaultStatus_7	BV	302	SNVT_switch	95	652	1
nvoFillValACyl_7	BV	303	SNVT_switch	95	653	1
nvoDrainACyl_7	BV	304	SNVT_switch	95	654	1
nvoHumStatus_7	BV	305	SNVT_switch	95	655	1
nvoExtSchACSta_7	BV	306	SNVT_switch	95	656	1
nvoFillValBCyl_7	BV	307	SNVT_switch	95	657	1
nvoDrainBCyl_7	BV	308	SNVT_switch	95	658	1

CP3 Pro / Unit 8

ProtoCessor Gateway Variable Name	BACnet		LonWorks			
	Type	Instance	SNVT	SNVT #	NV Index	Element
nvoTotSteamCap_8	AV	351	SNVT_count	8	701	1
nvoSteaActTot_8	AV	352	SNVT_count	8	702	1
nvoSteaActACyl_8	AV	353	SNVT_count	8	703	1
nvoRHorDemand_8	AV	354	SNVT_count	8	704	1
nvoSteaReqTot_8	AV	355	SNVT_count	8	705	1
nvoSteaReqACyl_8	AV	356	SNVT_count	8	706	1
nvoOperatSec_8	AV	357	SNVT_time_hour	124	707	1
nvoOpHour6ACyl_8	AV	358	SNVT_time_hour	124	708	1
nvoSteaActBCyl_8	AV	359	SNVT_count	8	709	1
nvoSteaReqBCyl_8	AV	360	SNVT_count	8	710	1
nvoOpHour6BCyl_8	AV	361	SNVT_time_hour	124	711	1
nvoSetPointHum_8	AV	362	SNVT_count	8	712	1
nviSetPointHum_8	AV	363	SNVT_count	8	713	1
nvoProportBand_8	AV	364	SNVT_count	8	714	1
nviProportBand_8	AV	365	SNVT_count	8	715	1
nvoIntegraTime_8	AV	366	SNVT_count	8	716	1
nviIntegraTime_8	AV	367	SNVT_count	8	717	1
nvoCapaciLimit_8	AV	368	SNVT_count	8	718	1
nviCapaciLimit_8	AV	369	SNVT_count	8	719	1
nvoRemRHorDem_8	AV	370	SNVT_count	8	720	1
nviRemRHorDem_8	AV	371	SNVT_count	8	721	1
nvoInfoCode_8	AV	372	SNVT_count	8	722	1
nvoInfoPrio_8	AV	373	SNVT_count	8	723	1
nvoServStatus_8	BV	351	SNVT_switch	95	751	1
nvoFaultStatus_8	BV	352	SNVT_switch	95	752	1
nvoFillValACyl_8	BV	353	SNVT_switch	95	753	1
nvoDrainACyl_8	BV	354	SNVT_switch	95	754	1
nvoHumStatus_8	BV	355	SNVT_switch	95	755	1
nvoExtSchACSta_8	BV	356	SNVT_switch	95	756	1
nvoFillValBCyl_8	BV	357	SNVT_switch	95	757	1
nvoDrainBCyl_8	BV	358	SNVT_switch	95	758	1



Attention: Date:
 Company: Fax #:
 From: Page: of
 Subject: e-LINKS Information

FOR YOUR INFORMATION RESPONSE REQUESTED

MESSAGE:

Distributor / Agent P.O. Number: Sales Order Number:

Desired e-LINKS Option:

- BACnet/IP
- LonWorks
- Modbus

Settings for BACnet/IP only:

Default Gateway Address/Name:
 BACnet Node ID (Device Instance):
 Network Number:
 Subnet Mask:
 Module IP Address:

Humidifier Ordering:

Humidifier Model/Size	Desired unit order
	Unit 1 (leading unit)
	Unit 2
	Unit 3
	Unit 4
	Unit 5
	Unit 6
	Unit 7
	Unit 8

