

## LON-Works voor Close Control Airconditioning units (INNOV@)

Protocol: Lon works  
 versie: FTT-10A 78 kbs (TP/FT-10).

baudrate: 4800 (aanbevolen)  
 min. 1200  
 max. 19200

Identificatie: max. 200 User, Pf-1

Instelmogelijkheid:

C0	1	Enable BMS	No		No-Yes	
Pf	1	Board identification number for supervisory network	1		0-200	
Pf	2	Board communication speed for supervisory network	19200		1200-19200	Bps
Pf	3	Serial communication protocol	Carel		Carel, Modbus, Lon, RS232, Gsm	

Levering: Lon-kaart: De LON-kaart wordt zonder programma geleverd.  
 Er wordt een application identification number getoond: 90009406000A0400

Software: NXE-file Application Image file.  
 Deze dient u in de LON kaart te programmeren.  
 XIF-file External Interface file.  
 Deze dient u in de remote interface te programmeren.  
 RPT-file Report file.  
 Ten behoeve van oudere programma's, verificatie file.  
 JREF\_LONWORKS\_01 Cross-reference list.  
 Reference list; LON-kaart, PCO1 regelaar, remote interface  
 JREF\_LONWORKS\_01\_description Cross-reference list, inclusief uitleg.  
 Reference list; LON-kaart, PCO1 regelaar, remote interface)

- Programmeren:
1. De NXE-file dient in iedere LON-kaart geladen te worden.  
 Het application identification number veranderd hierna naar: 90009406000A04B8
  2. De XIF-file dient in de remote interface geladen te worden.
  3. De geselecteerde bindings kunnen geprogrammeerd worden.

## Network variables cross-reference:

### Chilled water unit:

Type	pc0	NV	Name NV	Direction	Description CW (chilled water) unit
ANL	4	105	nvoRoomTemp	output	Room temperature
ANL	5	105	nvoOutletTemp	output	Outlet temperature
ANL	10	105	nvoSetpoint	output	Room setpoint [output]
ANL	10	105	nviSetpoint	input	Room setpoint [input]
ANL	57	44	nvoMaxFSpeed	output	Maximum main fan speed [output]
ANL	57	44	nviMaxFSpeed	input	Maximum main fan speed [input]
ANL	58	44	nvoMinFSpeed	output	Minimum main fan speed [output]
ANL	58	44	nviMinFSpeed	input	Minimum main fan speed [input]
DGT	15	95	nvoDigOut1	output	Digital output 1 (Main fan on/off)
DGT	16	95	nvoDigOut2	output	Digital output 2 (Cold/single 3 Point valve opening)
DGT	17	95	nvoDigOut3	output	Digital output 3 (Cold/single 3 Point valve closing)
DGT	18	95	nvoDigOut4	output	Digital output 4 (Warm 3 Point valve opening)
DGT	19	95	nvoDigOut5	output	Digital output 5 (Warm 3 Point valve closing)
DGT	20	95	nvoDigOut6	output	Digital output 6 (Dehumidification)
DGT	21	95	nvoDigOut7	output	Digital output 7 (Humidifier water drain)
DGT	22	95	nvoDigOut8	output	Digital output 8 (Serious alarm)
DGT	23	95	nvoDigOut9	output	Digital output 9 (not used)
DGT	24	95	nvoDigOut10	output	Digital output 10 (not used)
DGT	25	95	nvoDigOut11	output	Digital output 11 (Humidifier on/off)
DGT	26	95	nvoDigOut12	output	Digital output 12 (Humidifier water load)
DGT	27	95	nvoDigOut13	output	Digital output 13 (Not-serious alarm / drycooler setpoint)
DGT	32	95	nvoAirFlowAl	output	Air flow alarm
DGT	37	95	nvoDirtyFilAl	output	Dirty filter alarm
DGT	60	95	nvoFloodAl	output	Water flooding alarm
DGT	112	95	nvoSupOnOff	output	Supervision unit ON/OFF [output]
DGT	112	95	nviSupOnOff	input	Supervision unit ON/OFF [input]
INT	1	8	nvoAnalogOut1	output	Analog output 1 (Main fan modulating)
INT	2	8	nvoAnalogOut2	output	Analog output 2 (Cold/single valve)
INT	3	8	nvoAnalogOut3	output	Analog output 3 (not used)
INT	4	8	nvoAnalogOut4	output	Analog output 4 (Warm valve)

## Network variables cross-reference:

### Direct Expansie unit:

Type	pco	NV	Name NV	Direction	Description DX (direct expansion) unit
ANL	4	105	nvoRoomTemp	output	Room temperature
ANL	5	105	nvoOutletTemp	output	Outlet temperature
ANL	10	105	nvoSetpoint	output	Room setpoint [output]
ANL	10	105	nviSetpoint	input	Room setpoint [input]
ANL	57	44	nvoMaxFSpeed	output	Maximum main fan speed [output]
ANL	57	44	nviMaxFSpeed	input	Maximum main fan speed [input]
ANL	58	44	nvoMinFSpeed	output	Minimum main fan speed [output]
ANL	58	44	nviMinFSpeed	input	Minimum main fan speed [input]
DGT	15	95	nvoDigOut1	output	Digital output 1 (Main fan on/off)
DGT	16	95	nvoDigOut2	output	Digital output 2 (Compressor 1)
DGT	17	95	nvoDigOut3	output	Digital output 3 (Compressor 2)
DGT	18	95	nvoDigOut4	output	Digital output 4 (Heater 1 / Warm 3P valve opening)
DGT	19	95	nvoDigOut5	output	Digital output 5 (Heater 2 / Warm 3P valve closing)
DGT	20	95	nvoDigOut6	output	Digital output 6 (Dehumidification)
DGT	21	95	nvoDigOut7	output	Digital output 7 (Humidifier water drain)
DGT	22	95	nvoDigOut8	output	Digital output 8 (Serious alarm)
DGT	23	95	nvoDigOut9	output	Digital output 9 (Second compressor of circuit 1)
DGT	24	95	nvoDigOut10	output	Digital output 10 (Second compressor of circuit 2)
DGT	25	95	nvoDigOut11	output	Digital output 11 (Humidifier on/off)
DGT	26	95	nvoDigOut12	output	Digital output 12 (Humidifier water load)
DGT	27	95	nvoDigOut13	output	Digital output 13 (Not-serious alarm / drycooler setpoint)
DGT	32	95	nvoAirFlowAl	output	Air flow alarm
DGT	37	95	nvoDirtyFilAl	output	Dirty filter alarm
DGT	60	95	nvoFloodAl	output	Water flooding alarm
DGT	112	95	nvoSupOnOff	output	Supervision unit ON/OFF [output]
DGT	112	95	nviSupOnOff	input	Supervision unit ON/OFF [input]
INT	1	8	nvoAnalogOut1	output	Analog output 1 (Main fan modulating)
INT	2	8	nvoAnalogOut2	output	Analog output 2 (Warm valve)
INT	3	8	nvoAnalogOut3	output	Analog output 3 (Condensing fan 1 / Drycooler fan)
INT	4	8	nvoAnalogOut4	output	Analog output 4 (Condensing fan 2)

## Network Variable Naming Conventions:

The programmatic name of a network variable (in the "Name NV" column) may be prefixed with its storage class, as defined below. For compactness, underscores are typically not used and all characters are typically lowercase, except the first character of a word.

The following conventions are used, but not required:

network variable input:	nviXXXXXXXXXXXX
network variable output:	nvoXXXXXXXXXXXX
configuration network variable input:	nciXXXXXXXXXXXX

Due to the limitation of 16 characters for names of the network variables and configuration properties, there is a convention for abbreviations. The following list represents some typical abbreviations, but it is not meant to be all-inclusive:

Actual	Act	Minimum	Min
Calendar	Cal	Parts-per-million	Ppm
Clear	Clr	Object	Obj
Continuous	Cont	Output	Out
Delay	Dly	Position	Pos
Device	Dev	Range	Rnge
Discrete	Disc	Request	Req
Electric	Elec	Rate	Rt
Feedback	Fb	Resistance	Res
Floating-point	f	Source	Src
Frequency	Freq	Standby	Stby
Hardware	Hw	String	Str
Increment	Inc	Table	Tbl
Inhibit	Inh	Time	T
Input	In	Translation	Trans
Level	Lev	Volume	Vol
Maximum	Max	Watt-hour	Whr
Micrometer	Micr		