TOSHIBA

NETWORK VARIABLES SPECIFICATIONS

LONWORKS® LN INTERFACE
Model: TCB-IFLN640TLE

Input Network Variables

n: air conditioner number (0 to 63)

No.	Item	Network variable names	Network variable types	Data definition	Description
1	START/STOP instructions (Command)	nviOnOff[n]	SNVT_switch	STOP state=0 and value=0 START Other than above (state=1 or value>0)	Switches START/STOP.
2	Operation mode setting (Command)	nviHvacMode[n]	SNVT_hvac_mode	AUTO 0 HEAT 1 COOL 3 DRY 5 FAN 9 (*) If data other than 0, 1, 3, 5, and 9 is received, it is ignored without processing.	Switches operation mode (AUTO/HEAT/ COOL/DRY/FAN).
3	Temperature setting (Command)	nviSetPoint[n]	SNVT_temp_p	Temperature setting range Between 0 and 92 Unit of increment 1 (0.7 or less=0, 0.8 or more=1) (*) A value below 0 is set to 92, and a value over 92 is set to 92.	Changes set temperature.
4	Fan speed setting (Command)	nviFanSpeed[n]	SNVT_switch	AUTO state=0 (value: not used) LOW state=1 and value=<50 MID state=1 and 51=<value=<75 HIGH state=1 and 76=<value (*) Value is not used in the AUTO mode.	Switches fan speed setting (AUTO/HIGH/ MID/LOW).
5	Flap setting (Command)	nviLouver[n]	SNVT_switch	SWING state=0 (value: not used) f1 state=1 and value=<20 f2 state=1 and 21=<value=<40 f3 state=1 and 41=<value=<60 f4 state=1 and 61=<value=<80 f5 state=1 and 81=<value (*) Value is not used in the SWING mode.	Switches flap setting (SWING/f1/f2/f3/f4/f5).
6	Filter sign clear (Command)	nviFilterSign[n]	SNVT_switch	Clear state=1 or value>0 (*) If data other than above (state=0 and value=0) is received, it is ignored without processing.	Clears filter sign indication.
7	Disabling operation START/STOP by R/C (remote control) (Command)	nviOnOffLimit[n]	SNVT_switch	Operation enabled state=0 or value=0 Operation disabled Other than above (state=1 and value>0)	Disables or enables operation START/STOP using R/C.
8	Disabling operation mode switching by R/C (Command)	nviModeLimit[n]	SNVT_switch	Operation enabled state=0 or value=0 Operation disabled Other than above (state=1 and value>0)	Disables or enables operation mode switching using R/C.
9	Disabling temperature setting change by R/C (Command)	nviSetPointLimit[n]	SNVT_switch	Operation enabled state=0 or value=0 Operation disabled Other than above (state=1 and value>0)	Disables or enables temperature setting change using R/C.

Input Network Variables

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No.	Item	Network variable names	Network variable types	Data definition	Description
10	Disabling fan speed switching by R/C (Command)	nviFanLimit[n]	SNVT_switch	Operation enabled state=0 or value=0 Operation disabled Other than above (state=1 and value>0)	Disables or enables fan speed switching using R/C.
11	Disabling flap switching by R/C (Command)	nviLouverLimit[n]	SNVT_switch	Operation enabled state=0 or value=0 Operation disabled Other than above (state=1 and value>0)	Disables or enables flap switching using R/C.
12	Forcible STOP (Command)	nviAllOff	SNVT_switch	All OFF state=1 or value>0 (*) If data other than above (state=0 and value=0) is received, it is ignored without processing.	Turns OFF all air conditioners.

Output Network Variables

n: air conditioner number (0 to 63)

No.	Item	Network variable names	Network variable types	Data definition	Description
13	START/STOP (Monitor)	nvoOnOff[n]	SNVT_switch	STOP state=0 and value=0 START state=1 and value=100	Outputs START/STOP status.
14	Operation mode setting (Monitor)	nvoHvacMode[n]	SNVT_hvac_mode	AUTO 0 HEAT 1 COOL 3 DRY 5 FAN 9	Outputs operation mode status (AUTO/HEAT/ COOL/DRY/FAN).
15	Temperature setting (Monitor)	nvoSetPoint[n]	SNVT_temp_p	-273.17 to 327.66	Outputs temperature setting.
16	Fan speed setting (Monitor)	nvoFanSpeed[n]	SNVT_switch	AUTO state=0 and value=0 STOP state=1 and value=0 ULTRA LOW state=1 and value=25 LOW state=1 and value=50 MID state=1 and value=75 HIGH state=1 and value=100	Outputs fan speed status (AUTO/HIGH/ MID/LOW/ULTRA LOW /STOP).
17	Flap setting (Monitor)	nvoLouver[n]	SNVT_switch	SWING state=0 and value=0 STOP state=1 and value=0 f1 state=1 and value=20 f2 state=1 and value=40 f3 state=1 and value=60 f4 state=1 and value=80 f5 state=1 and value=100	Outputs flap status (SWING/f1/f2/f3/f4/f5).
18	Room temperature (Monitor)	nvoSpaceTemp[n]	SNVT_temp_p	-273.17 to 327.66	Outputs room temperature.

Output Network Variables

n: air conditioner number (0 to 63)

No.	Item	Network variable names	Network variable types	Data definition	Description
19	Filter sign (Monitor)	nvoFilterSign[n]	SNVT_switch	No Alarm state=0 and value=0 Alarm state=1 and value=100	Outputs filter sign status.
20	Disabling operation START/STOP by R/C (Monitor)	nvoOnOffLimit[n]	SNVT_switch	Operation enabled state=0 and value=0 Operation disabled state=1 and value=100	Outputs setting of disabling/enabling operation START/STOP by R/C.
21	Disabling operation mode switching by R/C (Monitor)	nvoModeLimit[n]	SNVT_switch	Operation enabled state=0 and value=0 Operation disabled state=1 and value=100	Outputs setting of disabling/enabling operation mode switching by R/C.
22	Disabling temperature setting change by R/C (Monitor)	nvoSetPointLimit[n]	SNVT_switch	Operation enabled state=0 and value=0 Operation disabled state=1 and value=100	Outputs setting of disabling/enabling temperature setting change by R/C.
23	Disabling fan speed switching by R/C (Monitor)	nvoFanLimit[n]	SNVT_switch	Operation enabled state=0 and value=0 Operation disabled state=1 and value=100	Outputs setting of disabling/enabling fan speed switching by R/C.
24	Disabling flap switching by R/C (Monitor)	nvoLouverLimit[n]	SNVT_switch	Operation enabled state=0 and value=0 Operation disabled state=1 and value=100	Outputs setting of disabling/enabling flap switching by R/C.
25	Error (Monitor)	nvoAlarm[n]	SNVT_switch	No error state=0 and value=0 Error state=1 and value=100	Outputs whether an error has occurred or not.
26	Error code (Monitor)	nvoCheckCode[n]	SNVT_count	Error code 0x00 to 0xFF	Outputs an error code (0x00 to 0xFF).
27	FCU request command output (Monitor)	nvoCapaRequest[n]	SNVT_switch	Thermostat OFF state=0 and value=0 Thermostat ON state=1 and value=1 to 15	Outputs request command (an S-code (1 to 15))
28	Thermostat status (Monitor)	nvoThermo[n]	SNVT_switch	Thermostat OFF state=0 and value=0 Thermostat ON state=1 and value=100	Outputs thermostat ON/OFF status
29	Indoor unit status	nvoExist[n]	SNVT_switch	No unit state=1 and value=0 No error state=1 and value=1 Communication error state=1 and value=2	Outputs indoor unit status (No error/Communication error/No unit).

Configuration Properties

No.	Item	Network variable names	Network variable types	Data definition	Description
30	Setting of minimum transmission interval	nciMinSendT	SNVT_time_sec	0.1 to 6553.4 sec	Sets minimum transmission interval in case of room temperature change. No data is transmitted until the set time passes after the last transmission.
31	Setting of maximum transmission interval	nciMaxSendT	SNVT_time_sec	0.1 to 6553.4 sec Transmits data when status changes or the set interval time passes. 0 Transmits data only when status changes.	Transmits data when the set time passes after the last transmission even without status change.

Notes for use

(1) The setting range of control items using the LN interface is broader than that of air conditioner, which enables fine setting. For this reason, the air conditioner setting does not comply with some LN interface control items.
When using the LN interface, check the air conditioner specifications and set appropriate values.
(Example) Temperature setting
The LN interface allows temperature setting ranging from 0 to +92 °C, but the temperature setting range of air conditioner is +18 to +29 °C.

(2) Air conditioner does not allow temperature setting in the FAN operation mode.