LON
door installation modules

Logline® LON

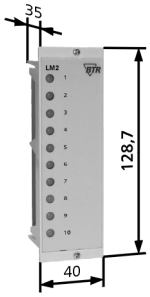
LM2

indicator module, 24 V DC

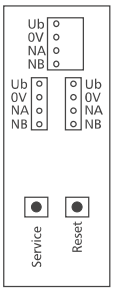
Part number

110 392 25

Dimensions - E19 housing



Wiring



Use

Indicator modul with 10 LEDs for 19" frames. Suitable as annunciator module in cabinet doors or remote control panels.

Functional description

In a LON installation the different LEDS are activated by the network variables SNVT.

LON interface

transceiver	FTT10A free topology
neuron	3120, 3k EEPROM downloadable
data format	standard network variables (SNVT)
transmission rate	78 kBit/s
max. length (see page 7)	
line topology	2700 m / 64 nodes
free topology	500 m / 64 nodes
cabling	twisted pair

Application software

XIF and NXE files are available as downloads under www.btr-electronic-systems.de.

Technical data

Housing	dimensions b x h x w	40 x 128.7 x 35 mm (3HE; 8 TE)
	weight	66 g
	mounting position	any
	mounting	in 10" or 19" frames according to IEC 297-3 (accessories page 88 P/N 110361 or 110362)
	material	housing ABS
	type of protection (DIN 40050)	IP20
Terminal blocks	supply and bus	1.5 mm² pluggable jumper plug (included to packing)
Supply	operating voltage range	24 V DC ±15 %
	current consumption	53 mA
	duty cycle	100 %
	recovery time	500 ms
Temperature range	operation	-5 °C ... +55 °C
	storage	-20 °C ... +70 °C
Protective circuitry	operating voltage	polarity reversal protection
Display		10 LEDs, adjustable to red, green, yellow

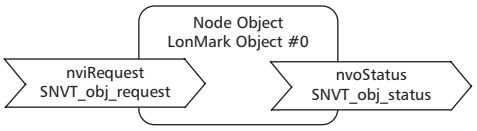
If a LED is adjusted to yellow for acknowledgment (17,0 0) the system will identify this as a maintenance signal and interprete it accordingly at the LM1 module (annunciator module for message collection). If a LED is adjusted to flash red, to acknowledge and to unlock (52,5 0) this is identified as a failure message and interpreted accordingly at the LM1 module.

BTR NETCOM

LON door installation modules

Description of the LonMark objects and network variables

LM2



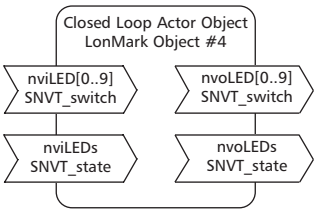
Node Object

The Node Object monitors and controls the functions of the different objects in the device. It supports the basic functions Object Status and Object Request required by LonMark.

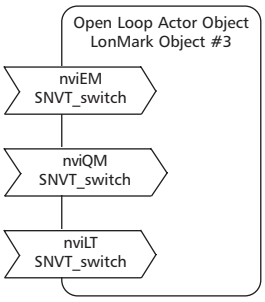
Application Objects

The objects contain the functions for status visualization.

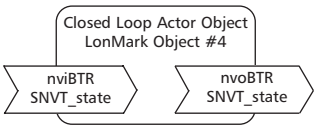
LED Object



Extern Object



BTR Object



LED Object

nviLED[0..9] (index 2 .. 11)

SNVT type	SNVT_switch
Function	switching of the LEDs
nviLED[0..9] = 0.0 0	the LEDs adopt the status defined by nciLEDaus[0..9]
nviLED[0..9] = 100.0 1	the LEDs adopt the status defined by nciLEDein[0..9]

nvoLED[0..9] (index 12 .. 21)

SNVT type	SNVT_switch
Function	feedback to nviLED[0..9], value of nviLED[0..9] is transmitted

nviLEDs (index 22)

SNVT type	SNVT_state
Function	switching of the LEDs

nvoLEDs (index 23)

SNVT type	SNVT_state
Function	feedback to nviLEDs
Assignment	nvoLEDs.bit0 = LED1 ... nvoLEDs.bit9 = LED 10

Extern Object (externe Meldungen)

nviEM (unlock signal) (index 24)

SNVT type	SNVT_switch
Function	If nviEM gets value 100.0 1, the LM2 is unlocked and nvoBTR.bit13 is set.

nviQM (acknowledgement signal) (index 25)

SNVT type	SNVT_switch
Function	If nviQM gets value 100.0 1, the LM2 is acknowledged and nvoBTR.bit14 is set.

nviLT (lamp test) (index 26)

SNVT type	SNVT_switch
Function	If nviLT gets value 100.0 1, a lamp test is carried out at the LM2 and nvoBTR.bit15 is set.

BTR Object

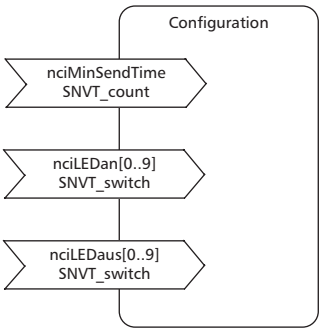
nviBTR (index 27)

SNVT type	SNVT_state
Function	System object for Logline LON door installation modules to provide simple connection to the annunciator module for signal collection LM1.
Bit0 .. Bit8	not used
Bit9	automatic operation in the system = 1; manual operation in the system = 0
Bit10	new failure signal in the system = 1; no or acknowledged failure in the system = 0
Bit11	new failure signal in the system = 1; no or unlocked failure in the system = 0
Bit12	maintenance signal in the system = 1; no or acknowledged maintenance in the system = 0
Bit13	unlocking signal of the LM1, is set to 1 by unlocking tact switch
Bit14	acknowledgement signal of LM1; is set to 1 by the acknowledgement tact switch
Bit15	request of the LM1 for lamp testing; is set to 1 by the lampt test tact switch

nvoBTR (index 28)

SNVT type	SNVT_state
Function	Feedback to nviBTR, value of nviBTR is transmitted. If a LED that is specified as maintenance signal (yellow LED requiring acknowledgement) is set by nviLED[x], nvoBTR Bit12 changes to 1. If a LED that is specified as failure signal (flashing red LED requiring acknowledgement and unlocking) is set by nviLED[x], nvoBTR Bit10 and Bit11 change to 1.

Configuration variables



Configuration Variables

nciMinSendTime (index 29)

SNVT type	SNVT_count
Function	All output variables nvo described above are issued even without a status change at the end of a preset period of time. Thus the device reports periodically to the system.
Time settings	0 timer turned off 1 .. 60 timer time in seconds (factory setting 0)

nciLEDan[0..9] (index 30 .. 39)

SNVT type	SNVT_switch
Function	Setting of status and colour of each LED by nviLED[0..9] = 100.0 1
LED settings	nciLEDan[0..9].value = a + b + c + d nciLEDan[0..9].state = 0

a - colour	b - flash	c - acknowledge	d - unlock
0,5 red	0 = no	0 = no	0 = no
1 yellow	4 = yes	16 = yes	32 = yes
1.5 green			

Examples see chart page 76.

nciLEDaus[0..9] (index 40 .. 49)

SNVT type	SNVT_switch
Function	Setting of status and colour of each LED by nviLED[0..9] = 0.0 0
LED settings	see nciLEDan[0..9] for example LED off nciLEDaus[0..9] = 0.0 0

Note:

The variables with index 29 to 38 are not annotated.