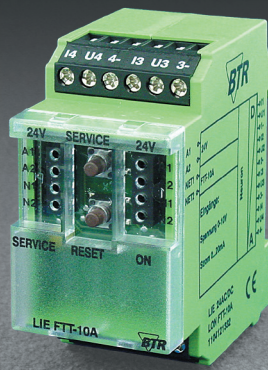


LON analogue input modules



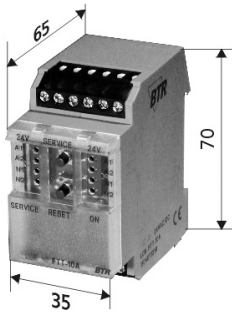
LIE 4

24 V AC/DC, 4 x 0 ... 10 V DC, 4 x 0 ... 20 mA or 4 x 4 ... 20 mA

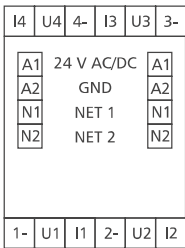
Part Number

110 412 13 32

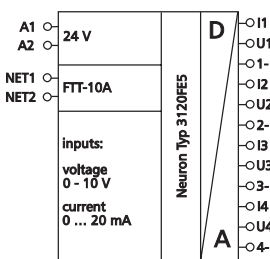
Dimensions - C12 housing



Wiring



Wiring Diagram



Use

LON module with 4 current and 4 voltage inputs. Suitable to collect current and voltage values, e.g. in the field of industry and refrigeration engineering.

Functional description

In a LON installation all 8 inputs can be scanned simultaneously by standard 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- und NXE-Files können aus dem Internet unter www.btr-electronic-systems.de heruntergeladen werden.

Technical data

Housing

dimensions w*h*l	35 x 70 x 65 mm
weight	84 g
mounting position	any
mounting	DIN rail according to EN 50022
material	housing + terminal blocks polyamide 6.6 V0 cover plate polycarbonate
type of protection (DIN 40050)	housing IP40 terminal blocks IP20

Terminal blocks

supply and bus	1.5 mm ² pluggable jumper plug (included to packing)
analogue inputs	2.5 mm ²

Supply

operating voltage range	20 ... 28 V AC/DC
current consumption	67 mA (AC) / 24 mA (DC)
duty cycle	100 %
recovery time	550 ms

Input

current input	0 ... 20 mA DC oder 4 ... 20 mA DC
resolution	0.05 mA
error	1 %
voltage input	0 ... 10 V DC
max.	11 V DC
resolution	10 mV (0.0 ... 100 %)
error	about ±100 mV
input impedance	10 kΩ

Temperature range

operation	-5 °C ... + 55 °C
storage	-20 °C ... + 70 °C

Protective circuitry

operating voltage polarity reversal protection

Display

operation green LED
function yellow LED for status (service)

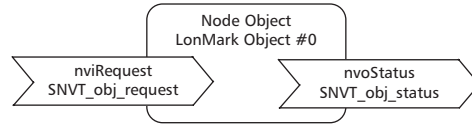
Note

The modules can be mounted in series without interspace. The max. number of modules connected in series is 15, each group needs an external power supply.

LON analogue input modules

Description of the LonMark objects and network variables

LIE 4



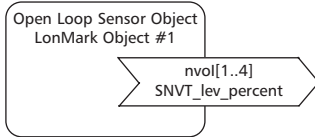
Node Object

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

These objects contain the functions status record of the analogue inputs and data exchange.

I Object (current)



I Object (current)

nvoI[1..4] (Index 2..5)

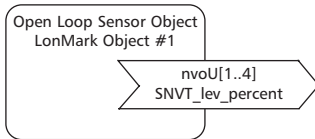
SNVT Type

SNVT_lev_percent

Function

Currents of 0 or 4 to 20 mA are measured at the inputs and issued to the LON bus.

U Object (voltage)



U Object (voltage)

nvoU[1..4] (Index 6..9)

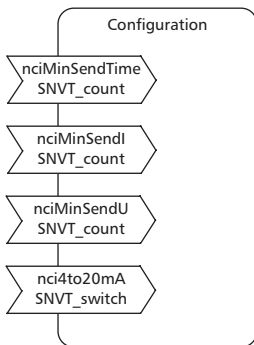
SNVT Type

SNVT_lev_percent

Function

Voltages between 0 and 10.0 Volt DC are measured at the inputs and issued to the LON bus.

Configuration variables



Configuration Variables

nciMinSendTime (Index 10)

SNVT Type

SNVT_count

Function

All output variables described above are issued even without status change at the end of a preset period of time. Thus the device reports periodically to the system.

Time setting

0 timer function off-state
1 .. 60 timer time in seconds (factory setting 0)

nciMinSendI (Index 11)

SNVT Typ

SNVT_count

Function

Guaranteed interval between two current values.

Time setting

0 timer function off-state
1 .. 60 timer time in seconds (factory setting 0)

nciMinSendU (Index 12)

SNVT Typ

SNVT_count

Function

Guaranteed interval between two voltage values.

Time setting

0 timer function off-state
1 .. 60 timer time in seconds (factory setting 0)

nci4To20mA (Index 13)

SNVT Type

SNVT_switch

Function

changes over from the range 0 to 20 mA to the range 4 to 20 mA.

Settings

0.0 0 measuring range 0 ... 20 mA
100.0 1 measuring range 4 ... 20 mA (factory setting)