LON analogue output modules

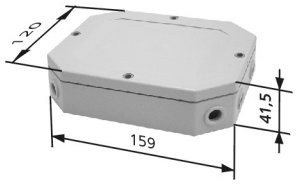
LAA 4 IP65

24 V AC/DC, 4 x 0 ... 10 V DC

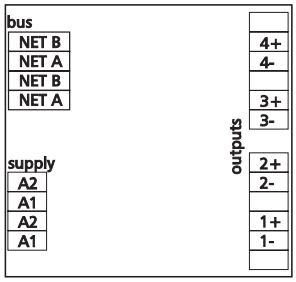
Part Number

110 403 13 02-IP

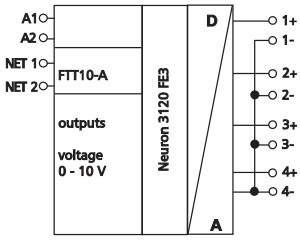
Dimensions - IP65 housing



Wiring



Wiring Diagram



Use

LON module with 4 analogue outputs. Suitable as encoder for regulating variables for i. e. electrical vent and mixing valves, valve positions etc.

Functional description

The different outputs are activated proportionally by the network variables SNVT and accordingly they provide a voltage between 0 and 10 Volt. In addition the outputs can be set to previously defined voltage values.

LON interface

transceiver	FTT10A free topology
neuron	3120, 2k 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**.

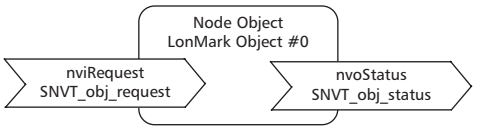
Technical data

Housing	dimensions b x h x w	159 x 41.5 x 120 mm
	weight	300 g
	mounting position	any
	mounting	directly to a smooth surface 8 cable entries for M12 and M16 fittings
	material	housing ASA+ polycarbonate terminal blocks polyamide cover polycarbonate
	type of protection (DIN 40050)	IP65
Terminal blocks	supply and bus	1.5 mm² pluggable
	analogue outputs	1.5 mm² pluggable
Supply	operating voltage range	20 ... 28 V AC/DC
	current consumption	90 mA (AC) / 32 mA (DC)
	duty cycle	100 %
	recovery time	550 ms
Output	output voltage	0 ... 10 V DC
	output current (10 V DC)	5 mA
	resolution	10 mV
	error max.	±100 mV
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)

LON analogue output modules

Description of the LonMark objects and network variables

LAA 4
LAA 4 IP65



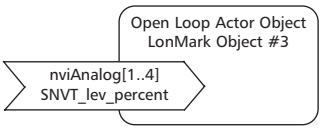
Node Object

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 setting of the analogue outputs and data exchange.

U_OUT Object

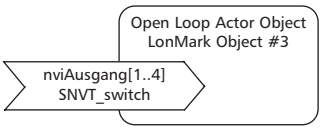


U_OUT Object

nviAnalog[1..4] (index 2..5)

SNVT type	SNVT_lev_percent
Function	The outputs issue voltages according to the input varaibles.
nviAnalog[1..4] = 0..100 %	output[1..4] = 0..10 V DC

FestwertOn Object

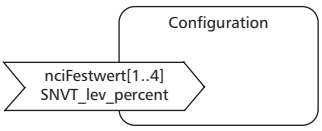


FestwertOn Object

nviAusgang[1..4] (index 10..13)

SNVT type	SNVT_switch
Function	switching of the outputs to preset voltage values
nviAusgang[1..4] = 100.0 1	output[1..4] = nciFestwert[1..4]
nviAusgang[1..4] = 0.0 0	output[1..4] = nviAnalog[1..4]

Configuration Variables



Configuration Variables

nciFestwert[1..4] (constant) (index 6..9)

SNVT type	SNVT_lev_percent
Function	The outputs issue voltages in accordance with the configuration variables if nviAusgang[1..4] was set to 100.0 1.
nciFestwert[1..4] = 0..100 %	