



**LONMARK[®]
PARTNER**

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LON-WA4/B

LON-WA4/B

COMMUNICATION INTERFACE FOR EXCHANGING VARIABLES VIA LONWORKS

Functional modules designed for the monitoring of motorised fire dampers

- Easy integration into higher level systems due to standard network variables (SNVT)
- Programming is based on LonMark functional profile 110.01, 'Fire and Smoke Damper Actuator'
- Direct communication between modules (decentralised intelligence)
- High transmission reliability and data integrity
- Network can easily be expanded (free topology)

Application



Application

- IO module with 4 digital inputs, used to capture the status of volt-free switches
- Due to additional link options and alarm signalling particularly suitable for monitoring fire dampers with electric limit switches

TECHNICAL INFORMATION

Functional description

LON-WA4/B is used to control up to four fire dampers with one limit switch or two fire dampers with two limit switches each.

The output variables of type SNVT_switch and SNVT_hvac_emerg signal the current damper blade position. They are sent after the input condition has changed, at the end of the heartbeat time (nciDiHeartbeat), and after a module reset (1s + node number [ms]).

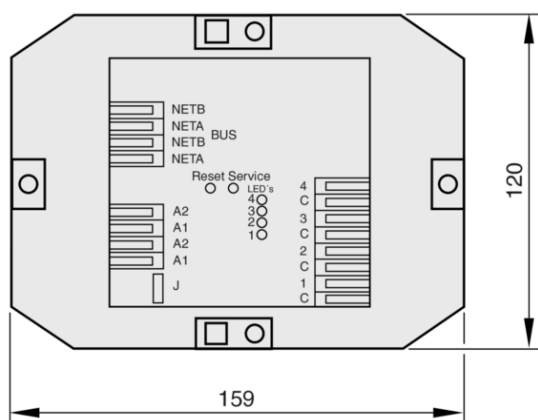
If LON-WA4/B is used, the heartbeat function should be activated (for safety reasons).

If input variable nviDoHeartbeat has been set (100.1 1), then the output variables nvoDiValue[0...3] and nvoDiAllValues are updated and sent in intervals set with configuration parameter nciDiHeartbeat. This ensures that the transmission path is being monitored.

If there is a chain of modules (and hence fire dampers), the FireChain variables can transmit a signal from the first to the last.

Variable nciInvertDiValue is used as a configuration parameter to invert the output values. The debounce time for digital inputs can be configured with the nciDiDebounce variable.

LON-WA4/B



Supply voltage	20 – 28 V AC/DC ± 10 %, 50/60 Hz
Power consumption	Approx. 45 mA/24 V DC
Inputs	4 digital inputs for volt-free switches or voltage inputs; input voltage depends on jumper setting (J), either A1 (24 V AC/DC) or A2 (GND)
Outputs	LON interface, standard network variables (SNVT)
LON interface	FT5000 free topology
Neuron	3120, 3 K EEPROM download-enabled
Protection level	IP 65
Operating temperature	–5 to 55 °C
Terminals	Spring-loaded terminals for nominal diameter; 1.5 mm ² , one wire; 1.0 mm ² ultra-fine wire; AWG 16
Cable glands	8 × M12 or M16 cable glands
Software application	xif/apb-files under www.trox.de
Dimensions (B × H × T)	159 × 120 × 41.5 mm
Material	ASA (LURAN S KR 2867 C WU)

Standard description (characteristics)

LON module with 4 digital inputs, used to capture the status of volt-free switches, provides additional link options and alarm signalling for monitoring fire dampers with electric limit switches.

- Input: 4 digital inputs, maximum load 5 mA/10 V or volt-free
- Output: SNVT_switch and SNVT_hvac_emerg; transceiver: FT5000
- Protection level: IP 65
- Supply voltage: 20 – 28 V AC/DC

LON – WA1 / B3



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1 Module

LON-WA1/B3 Module for controlling up to two actuators

LON-WA1/B2-AD Connection box for connecting the second actuator

LON-WA1/B2-AD230 Connection box with integral 24 V power supply unit for connecting the second actuator

LON-WA1/FT3 Module for the control of up to four actuators

LON-WA4/B Module for capturing up to four damper end positions