SBB4I2O24T

Fire damper I/O Module



Benefits

- Ready-to-use junction box housing for fast and easy decentral installation
- Junction box with transparent lid
- One I/O-module can control and monitor two fire dampers
- Up to 60 fire dampers on one Dupline® network
- The system can be interfaced to the main controller via BACnet or Modbus

Description

The module SBB4I2O24T is an I/O module for monitoring and control of two fire dampers. The module has 4 contact inputs for position feedback and 2 relay outputs for control of fire damper actuators. It is also possible to use the inputs and output as standard digital inputs/ outputs for any type of application.
The I/O module is implemented in a robust junction box for a decentralized installation near the two fire dampers.
The I/O module is part of the Smart building product range.
Several modules can be connected to the same Dupline® 2-wire bus and thus the wiring to the controller can be significantly simplified.

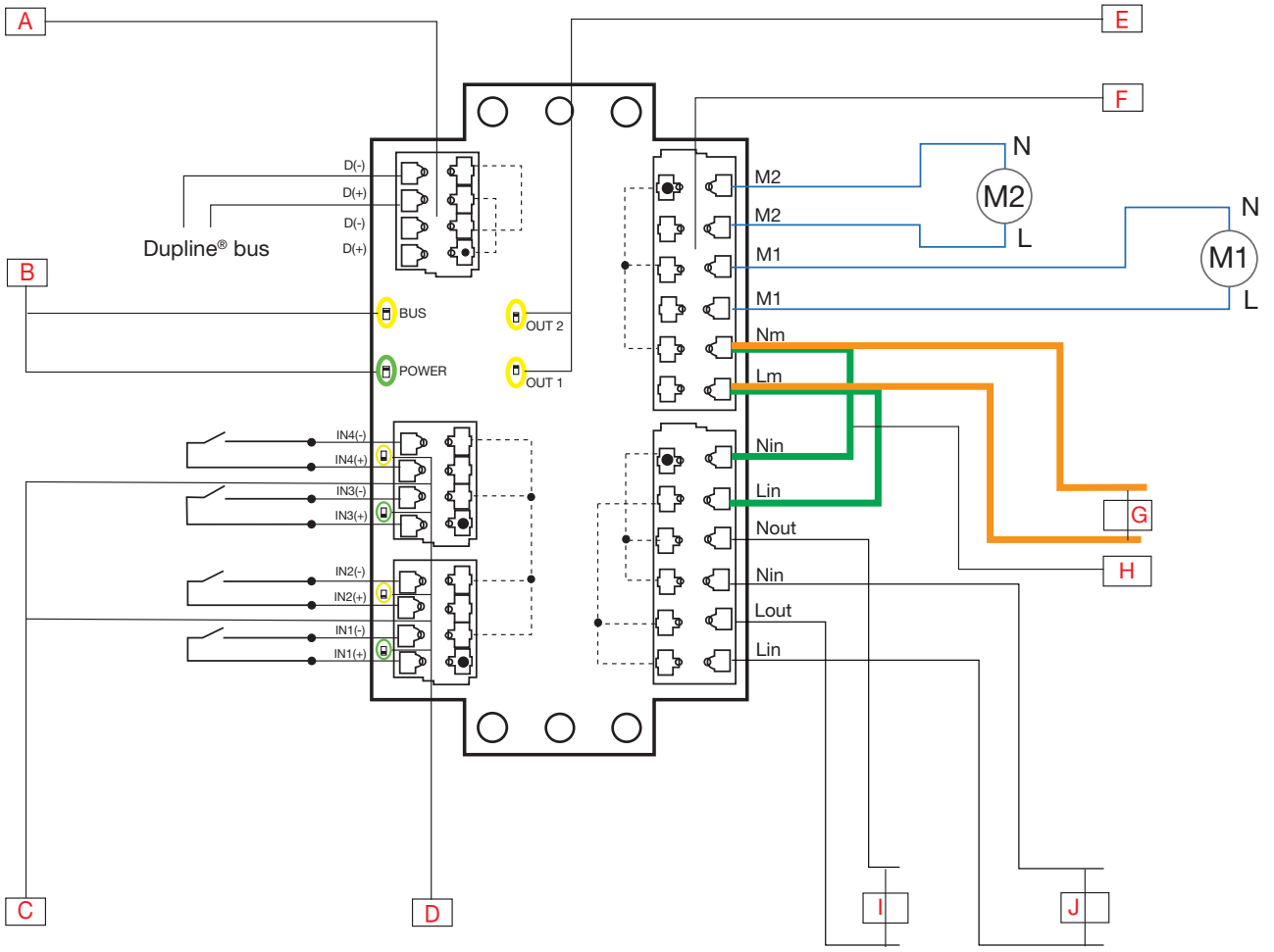
Applications

- Control and monitoring of fire dampers

Main features

- 4 x contact inputs (voltage free)
- 2 x SPST relay outputs
- Smart Dupline® protocol
- 24 VAC/DC power supply

Structure



Element	Component	Element	Component
A	Dupline terminals (D+,D-)	**F**	Output terminals
B	Power supply and Dupline bus LEDs	**G**	External power supply to the loads[1]
C	Input terminals	**H**	Green bridge[2]
D	Input LEDs	**I**	24 VAC/DC OUT
E	Output LEDs	**J**	24 VAC/DC power supply

Note:

[1] Do not use if green bridge is used.

[2] If the green bridge is used, the loads are powered by the module.

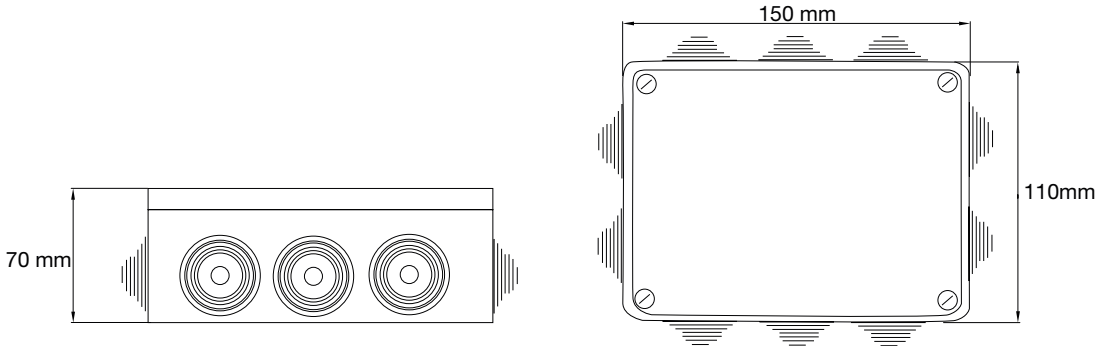
[3] The green bridge can be used ONLY if the same power supply is used for module and loads (24 VAC or 24VDC). If the loads are powered by 230 VAC, the Green bridge must not be used.

[4] Dashed lines indicate internal connection on the PCB. Max.10 Amp is allowed.

Features

General

Housing	Standard junction box with transparent lid. 10 knockout openings for M12 or M16 cable
Material	Box (PC/ABS) / Transparent lid (PC)
Dimensions (HxWxD)	150 x 110 x 70 mm
Weight	350 g
Protection grade	IP55
Pollution degree	2 (IEC 60664-1. Par. 4.6.2)



Environmental

Operating temperature	0° to 50°C (-4°F to 122°F)
Storage temperature	-50° to 85°C (-58°F to 185°F)
Humidity (not condensing)	20 to 90%

Compatibility and conformity

Electromagnetic compatibility (EMC) - immunity	EN 61000-6-2
Electromagnetic compatibility (EMC) - emissions	EN 61000-6-3
Approvals	CE

Power Supply

Power supply	24 VAC ±15%	
	24 VDC ±20%, 19.2 to 28.8 VDC	
Max current consumption	3.2 VA	
Max current on Lin-Lout / Nin-Nout Bridge	10 Amp	(Internal bridge on PCB)

Dupline®

Dupline® voltage rated	8.2 V
Min. Dupline® peak voltage	4.5 V
Dupline® Current consumption	1.1 mA

Input specifications

Number of inputs	4
Type	Voltage-free contact
Input current	< 100 µA
Max. resistance of the close contact	200 Ω
Cable length	< 3 m

Output specifications

Number of outputs	2
Type	SPST
AC	
Max. switching voltage	250 VAC
Max. current load	5 A
DC	
Max. switching voltage	30 VDC
Max. current load	3 A

Indication LEDs

Power supply	Green LED
Bus OK	Yellow LED
Input OK	Green LED: IN1, IN3 Yellow LED: IN2, IN4
Output OK	Yellow LED: OUT1, OUT2

The input LEDs indicate when the input is active (taking care of the NO/NC configuration).
The output LEDs indicate when the relay is active and closed (NC) (according to the NO/NC configuration).

Terminal block

Power supply in / out	4 x Spring terminal
Dupline® bus	4 x Spring terminal
Relay contacts	4 x Spring terminal
Contact inputs	8 x Spring terminal
Cross-section area	Terminal: 2.5 mm^2
Power for loads 1 and loads 2	4 x Spring terminal

Dielectrical strength

Power supply to Input	4 KVAC for 1 min., 6 KV impulse 1.2 / 50 µS
Power supply to Dupline®	
Dupline® to input	
Dupline® to output	
Input to output	
Power supply to output	
Inputs not insulated from each other	

Insulation

Insulation between Power supply and output.
If the installer uses the external bridge Lin – Lm / Nin – Nm, the same power supply for module and loads must be used.
However, in this case the insulation (Power supply to output) is lost.

Mode of operation

The SBB4I2O24T is a 4 inputs and 2 SPST outputs module designed for monitoring and controlling of two fire dampers. The output relays can be powered with 24 VAC or 24 VDC by the module itself or by external power supply. See relay specification.
The module is programmable by using of the UWP 3.0 configuration tool and the inputs can be individually set as NO or NC according to the specifications of the fire damper unit.
Please refer to the UWP 3.0 Tool manual for further details about configuration.

References

Further reading

Information	Document	Where to find it
UWP3.0 installation guide	System manual	www.productselection.net/MANUALS/UK/uwp3.0_system.pdf
UWP3.0 software manual	UWP3.0 tool manual	www.productselection.net/MANUALS/UK/uwp3.0_tool.pdf

Order code

SBB4I2O24T

Code	Options	Description
SB	-	Smart building
B	-	Box (Housing)
4I	-	4 inputs
2O	-	2 outputs
24	-	Power supply
T	-	Transparent lid

CARLO GAVAZZI compatible components

Purpose	Component name/code	Notes
Controller	UWP 3.0	
Bus generator	SH2MCG24 /SBP2MCG324	

COPYRIGHT ©2019
Content subject to change. Download the PDF: www.productselection.net