

DRV SLIM control module for SLIM air curtains

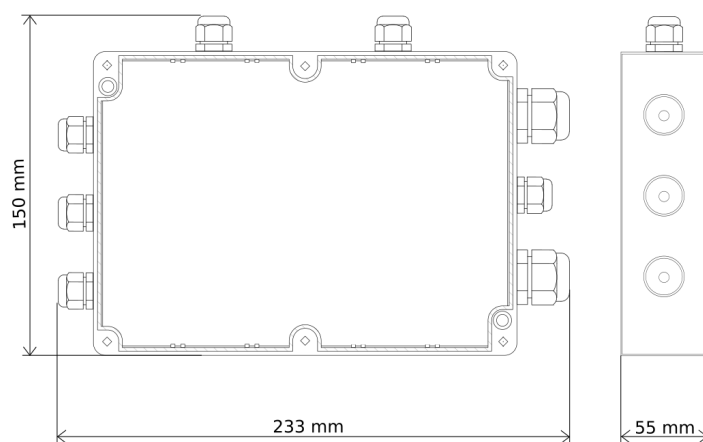
GENERAL INFORMATION

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The control unit dedicated to the curtain SLIM. DRV SLIM provides:

- Integration to the SYSTEM FLOWAIR;
- Communication with BMS;
- The work programs;
- Connection of PIR/DcE/DCm sensors ;
- Connection to the controller TS/T-box;
- Ability to connect devices MASTER-SLAVE;
- Ability to connect ext. Temp. sensor

DIMENSIONS



TECHNICAL DATA

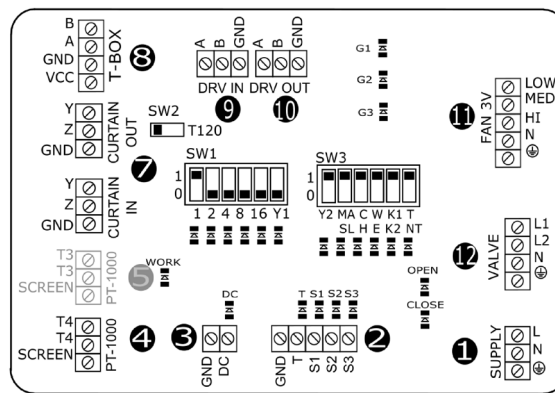
Temp. Range	0 ... +60 [°C]
IP	IP54
Installation	On wall installation
Max. wire size	2,5 mm ²
Glands	6 x PG9, 2 x PG11
Color	Light grey

INSTALATION

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- Before any installation work, you must disconnect the power supply from the DRV.
- DRV module can only be installed indoors.
- DRV module should be mount on the wall near the device
- The connection cables should be terminated with sleeves;
- The cross-section of the cables should be selected by the designer.

CONNECTION DIAGRAM

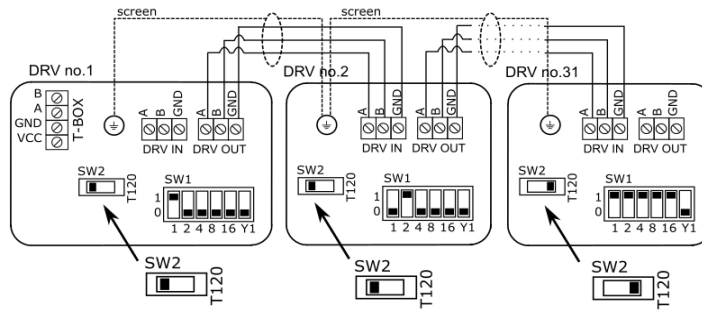


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- 1) Power supply 230 V / 50 Hz;
- 2) TS connector;
- 3) Door contact connector;
- 4) PT1000 connector
- 7) MASTER-SLAVE connector (CURTAIN IN/OUT);
- 8) T-box connector;
- 9); 10) BMS connector / SYSTEM connector;
- 11) Fan connector;
- 12) Valve connector SLIM-.-W; relay SLIM-.-E;

LED INDICATORS:

G1, G2, G3 – signalize number of fan speed operating
 S1, S2, S3 – signalize number of set fan speed
 T – signalize of valve set
 DC – signalize of door contact set
 OPEN, CLOSE – signalize valve actuator
 WORK – signalize of software working



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It is possible to connect up to 31 modules DRV and control them with one T- box controller.
NOTE: In last DRV in line, dipswitch SW2 has to be switched to the right – T120.

SETTING BMS ADDRESS

DRV	1	2	3	4	5	6
1						
2						
3						
...						
31						
	1	2	3	4	5	6
	1	2	4	8	16	Y1

switch down/ przelacznik w dol/ schakelaar omlaag/
 Переключатель вниз
 switch up/ przelacznik w gore/ schakelaar omhoog/
 Переключатель вверх

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When connecting DRV modules to the T-box controller or BMS, you have to binary set addresses on each (each DRV must have individual address) DRV module by DIP-switch SW1. To address modules, check if the power supply is turned off, then set the addresses as shown in the table, then turn on the power supply.

SW3:

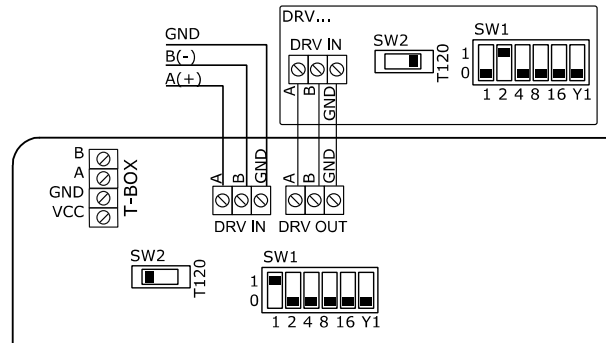
1		Service		
2		MASTER mode operating		SLAVE mode operating
3		Service		
4		SLIM-...-W/N		SLIM-...- E
5		K1 Programme*		K2 Programme**
6		Operating with thermostat		Operating w/o thermostat

*K1 programme – Signal from door switch or thermostat is main signal for the device to run

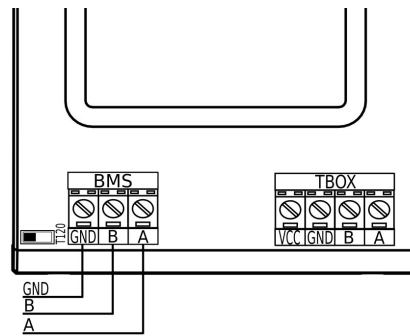
**K2 programme – Signal from door switch is main signal for the device to run and thermostat is in charge of valve/heaters

EN: DRV SLIM driver has a possibility to be connected to integrated Building Management System (BMS). In the case of working with T-box, BMS should be directly connected to the controller. In last appliance in line, dipswitch SW2 has to be switched to the right – T120.

Name	Description
Physical layer	RS485
Protocol	MODBUS-RTU
Baud rate	38400 [bps]
Parity	Even
Data bits	8
STOP bits	1



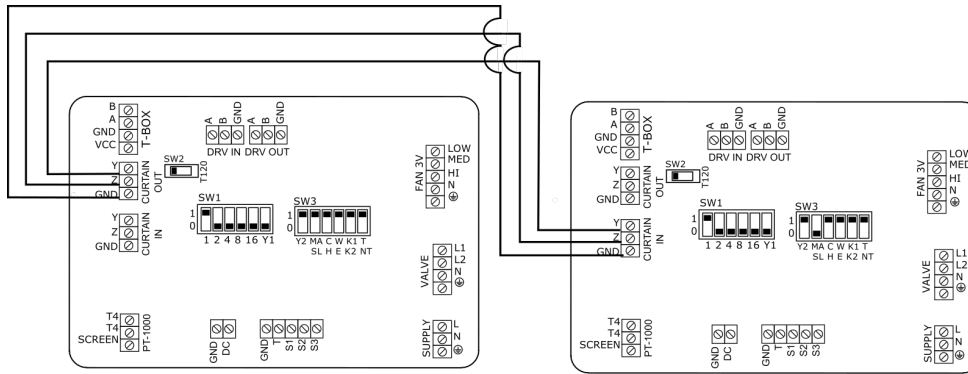
Name	Description
Physical layer	RS485
Protocol	MODBUS-RTU
Baud rate	9600-230400 [bps]
Parity	Even
Data bits	8
STOP bits	1





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DRV modules can be connected to the BMS (Building Management System).

NOTE: In last DRV in line, DIP-switch SW2 has to be switched to the right -T120. The connection must be carried out with 3 -wire (recommended LIYCY-P min.2x2x0,5 mm²) to connectors DRV IN.

MASTER-SLAVE CONNECTION

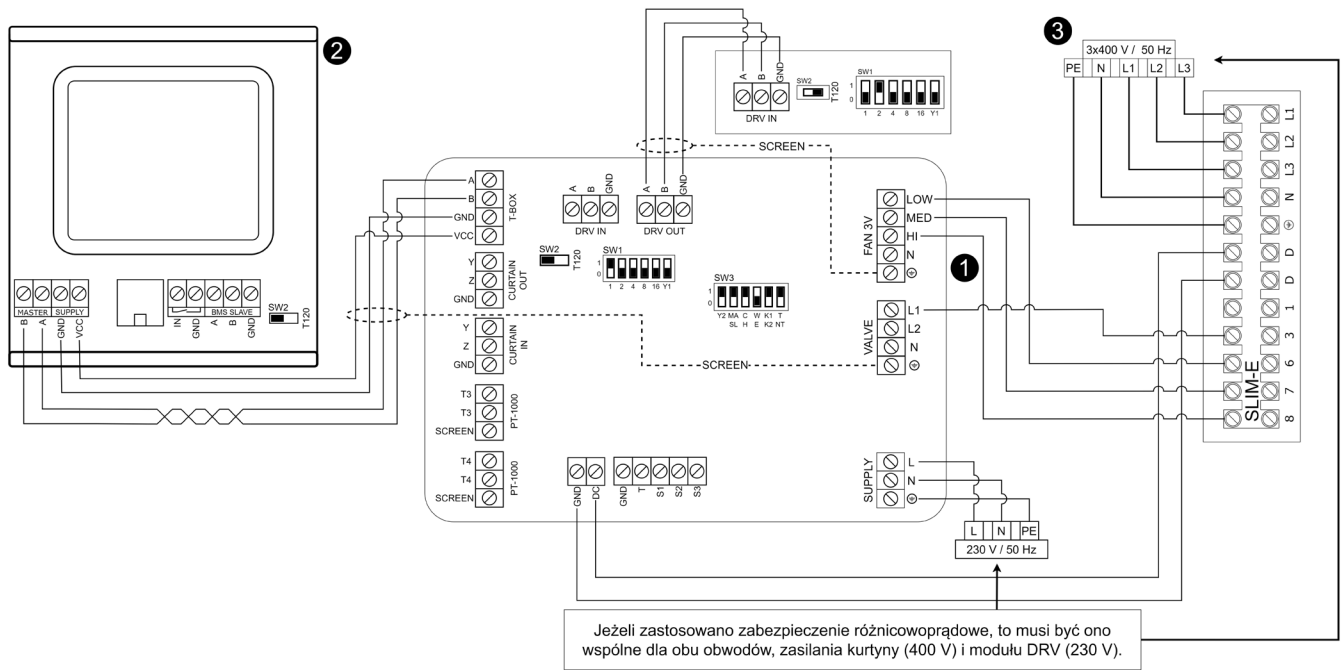


EN: Electrical air curtain chaining provides control from 1 to 5 devices using one TS or T-box and DC. Electrical air curtain chaining might be done by cable 3x0,5mm² using connectors CURTAIN IN; CURTAIN OUT. Connecting units among themselves ensure transfer of controlling signals. Whatever each curtain need to be supplied directly. Switch 2 on SW3 set In position:

-  For MASTER curtain
-  For SLAVE curtain

EN: In case to connect several devices to one T-box and independent (local) work of curtains with door switches use DRV IN/ DRV OUT connectors.

T-BOX + DRV SLIM + SLIM-E AS



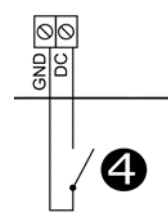
1. Connect the screens of the communication cables to the PE terminal
2. Connect the cable shields from the temperature sensors to the SCREEN terminal
3. Wires size and type should be chosen by the designer

- ❶ SLIM E-100/150/200 (min 4x1,0 mm²)
- ❷ T-BOX (LIYCY-P 2x2x0,5mm²)
- ❸ 3x400 V / 50 Hz:
 - E-100 (min. 5x2,5 mm²) (Overcurrent B16) (Zabezpieczenie B16) (overspanningsbeveiliging B16) (Предохранитель B16)
 - E-150 (min. 5x4,0 mm²) (Overcurrent B20) (Zabezpieczenie B20) (overspanningsbeveiliging B20) (Предохранитель B20)
 - E-200 (min. 5x4,0 mm²) (Overcurrent B25) (Zabezpieczenie B25) (overspanningsbeveiliging B25) (Предохранитель B25)



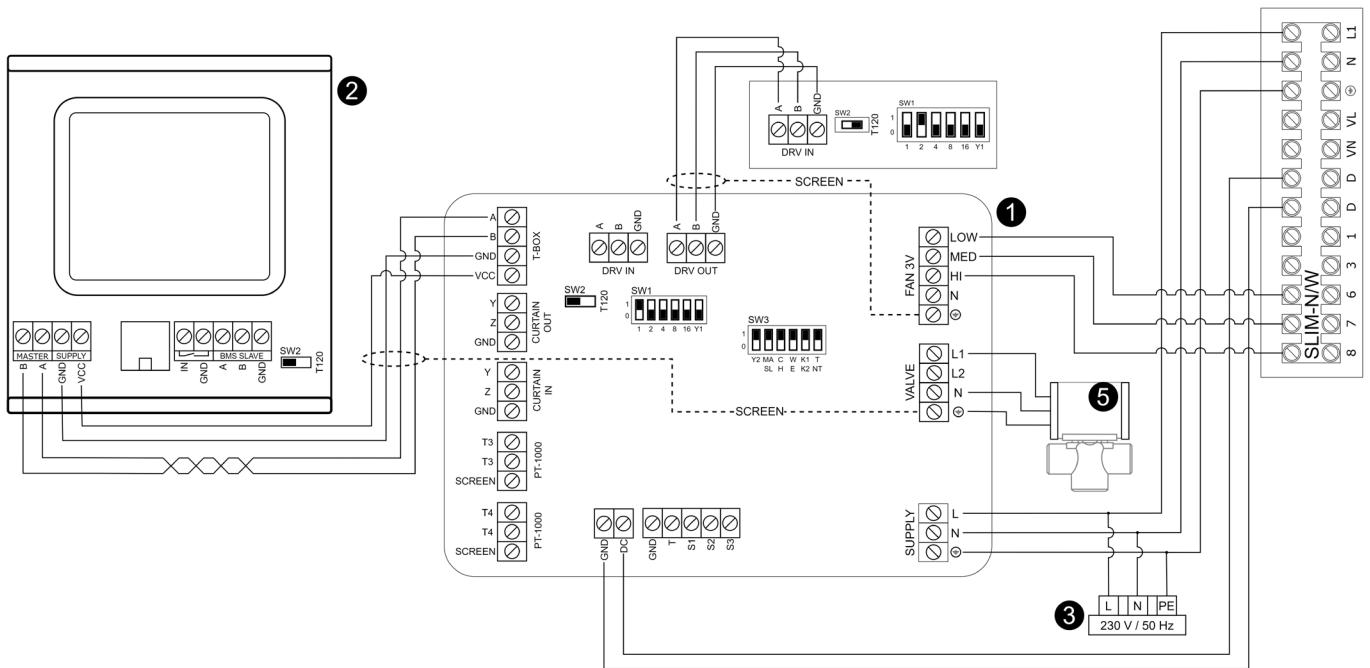
As standard, the curtain is prepared to work with a PIR sensor. It is possible to connect a door sensor:

- ❹ Door contact DCe/DCm (door closed – contacts opened; door opened – contacts closed) (min. 2x0,5 mm²),



ATTENTION/ UWAGA/ LET OP/ ВНИМАНИЕ:

EN: In order to connect the DRV SLIM to the curtain, disconnect and insulate/protect the wires from the connectors: 1; 3; 6; 8. Switch 4 on SW3 to the position "E" and then restart the system switching it off for 5 seconds. Each time the device is switched off the heaters are being cooled for next 30 seconds. In last DRV in line, dipswitch SW2 has to be switched to the right – T120.



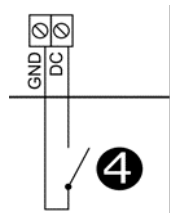
1. Connect the screens of the communication cables to the PE terminal
2. Connect the cable shields from the temperature sensors to the SCREEN terminal |
3. Wires size and type should be chosen by the designer

- ❶ SLIM N/W-100/150/200 (min 3x1,0 mm²)
- ❷ T-BOX (LIYCY-P 2x2x0,5mm²)
- ❸ 230V/50Hz:
 - SLIM W-100 (min.3x1,5 mm²; Protection B10)
 - SLIM W-150 (min.3x1,5 mm²; Protection B16)
 - SLIM W-200 (min.3x2,5 mm²; Protection B20)



As standard, the curtain is prepared to work with a PIR sensor. It is possible to connect a door sensor:

- ❹ Door contact DCe/DCm (door closed – contacts opened; door opened – contacts closed) (min. 2x0,5 mm²),
- ❺ Valve with actuator SRQ2d-1/2" (3x0,75mm²) or SRQ3d-1/2" (3x0,75mm²);



ATTENTION

EN: In order to connect the DRV SLIM to the curtain, disconnect and insulate/protect the wires from the connectors: 1; 3; 6; 8. In last DRV SLIM in line, dipswitch SW2 has to be switched – T120.

