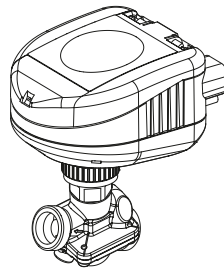
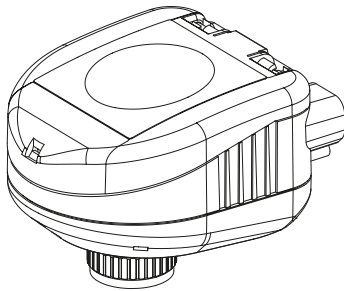


SpaceLogic SP90-24BMM Smart Actuator



SP90-24BMM +
VP228E, VP229E

Installation



WARNING

24 V

To avoid injury and damage to persons and devices, it is absolutely necessary these instructions are carefully read and observed prior to assembly and commissioning.

- Do not remove the cover before the power supply is fully switched off.
- Switch off the power line before wiring the actuator.
- Do not touch anything on the PCB.
- Connect via safety isolating transformer.
- Prior to assembly and maintenance work on the actuator, the system must be:
 - depressurized
 - cooled down
 - emptied
 - cleaned

Failure to comply may lead to equipment damage or personal injury.

Necessary assembly, start-up, and maintenance work must be performed only by qualified, trained personnel.

Wire the actuator according to the wiring diagram.

Please comply with the instructions of the system.

Disposal Instruction



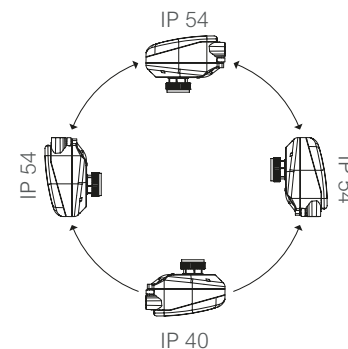
This product should be dismantled and its components sorted if possible, in various groups before recycling or disposal. Always follow the local disposal regulations.

Mounting

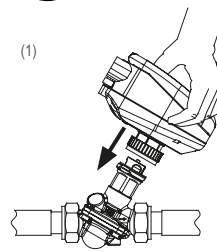
The actuator should be mounted with the valve stem in either horizontal position or pointing upwards. Check the valve's neck. The actuator should be in stem up position (1) (factory setting). Ensure that the actuator is mounted securely on the valve body.

The actuator is fixed to the valve body by means of a ribbed nut which requires no tools for mounting. The ribbed nut should be tightened by hand (2).

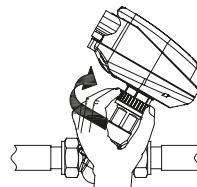
Plug appropriate cable (3).



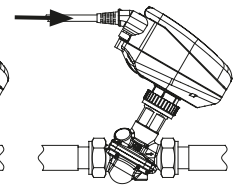
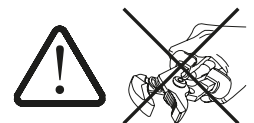
(1)



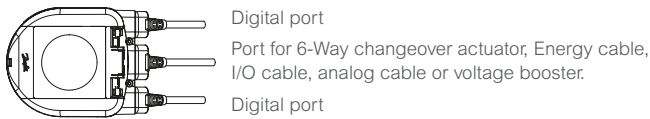
(2)



(3)



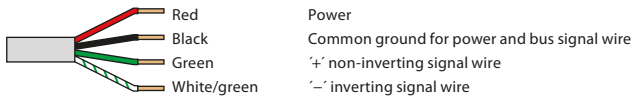
Wiring



Note: Plenum cable has "P" suffix in the part number field

Digital Cable (bus/power):

1.5 m : 911 44 01500
10 m : 911 44 10000

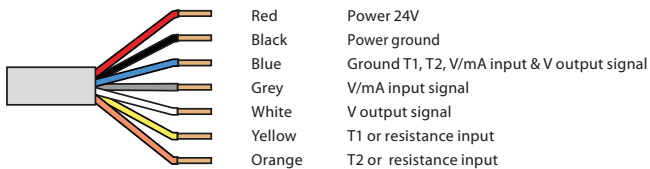


Daisy chain cable:

0.5 m : 911 45 00500
1.5 m : 911 45 01500
5.0 m : 911 45 05000
10 m : 911 45 10000



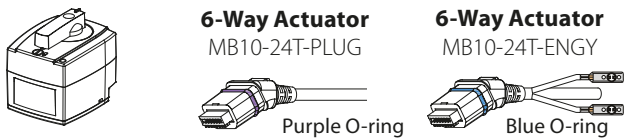
I/O Cable: 911 46 01500



Energy cable - PT1000 surface sensors, 1.5 m: 911 47 01500



Energy cable - PT1000 immersed sensors, 1.5 m: 911 48 01500



6-Way Actuator MB10-24T-FLEX (connect to SP90 using I/O cable : 911 46 01500)



Note: Use with I/O cable 911 46 01500 (Standard actuator, MB10-24T, is not suitable for connection to SP90)

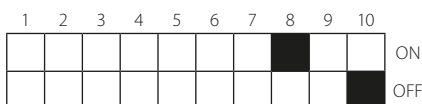
⚠ WARNING

AC 24 V

- Common ground shall be used for all devices on the same network.

Failure to comply may lead to equipment damage or personal injury.

DIP Switch Settings



DIP Switches 1 to 7 are used to assign the MAC address manually. Default setting is Auto MAC addressing for BACnet MS/TP and DIP Switches for Modbus RTU.

For termination of last unit on the field bus, turn DIP Switch 8 ON.

Dip switch 9 is not used.

Dip switch 10 is used to select between BACnet MS/TP (OFF=Default) and Modbus RTU (ON).

When the protocol is changed on DIP Switch 10, a power cycle is required.

Access to DIP switch and Manual Override

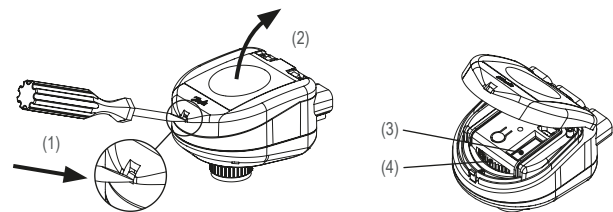
(for service purposes only)

⚠ WARNING

Risk of Equipment Damage or Personal Injury

- Do not manually operate the drive if power is connected.

Failure to comply may lead to equipment damage or personal injury.



- Unlock and open cover (1)(2)
- Adjust any switches: (3)

Manual override:

Adjust wheel(4)

SP90-24BMM
SpaceLogic Actuator - BACnet MS/TP/Modbus0-10V
24V AC/DC, 50/60 HZ, 2.7VA class 2
3/6/12/24s/mm
IP54, -10...50°C (14...122°F)
MADE IN SLOVENIA

Schneider Electric
Vásterhäninge SE-13737

E421 V20
201005
1234567

Serial number can be removed from the SP90-24BMM and added to installation drawing.

E421 V20
201005
1234567

→ Device Object Instance Number

Mandatory BACnet/Modbus configuration

Application mode:
MSV:9 / 32810
Analog control,
Digital bus communication control (default),
6-way Changeover with MB10,
Inverted 6-way changeover with MB10,
6-way changeover without alarms,
Inverted 6-way changeover without alarms.
Analog 6-way Valve Control,
Inverted Analog 6-way Valve Control.

Select Valve Type
MSV:3 / 32802
VP228E-15BQS (default)

Design Flow Rate
AV:30 / 32796 Heating
AV:31 / 32798 Cooling