

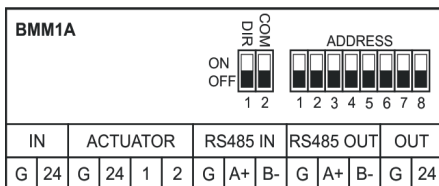
AVM...S
AVF...S
ASF...S
ASM...S

Guidelines for the electrician

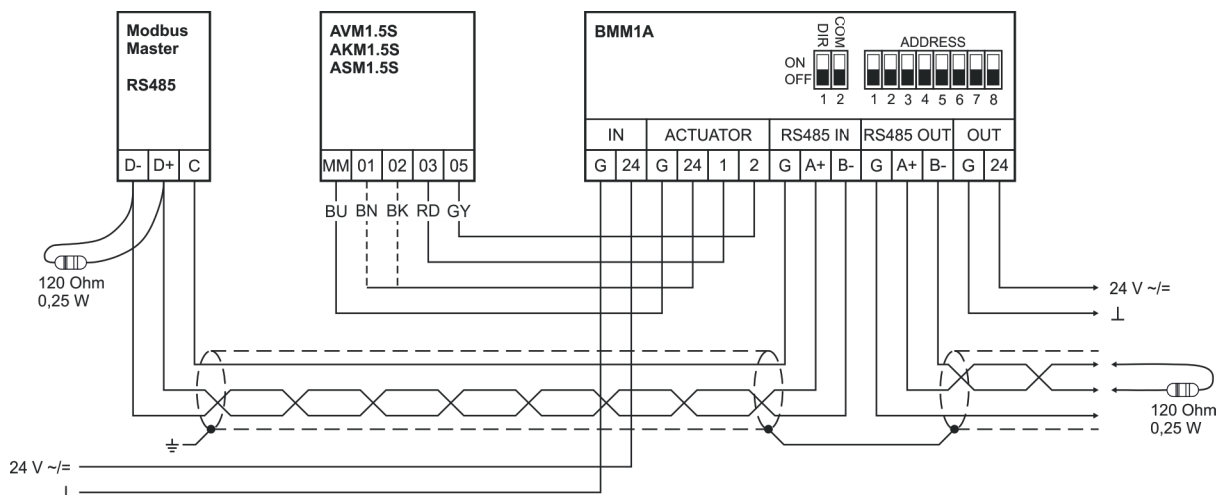
1 BMM1A



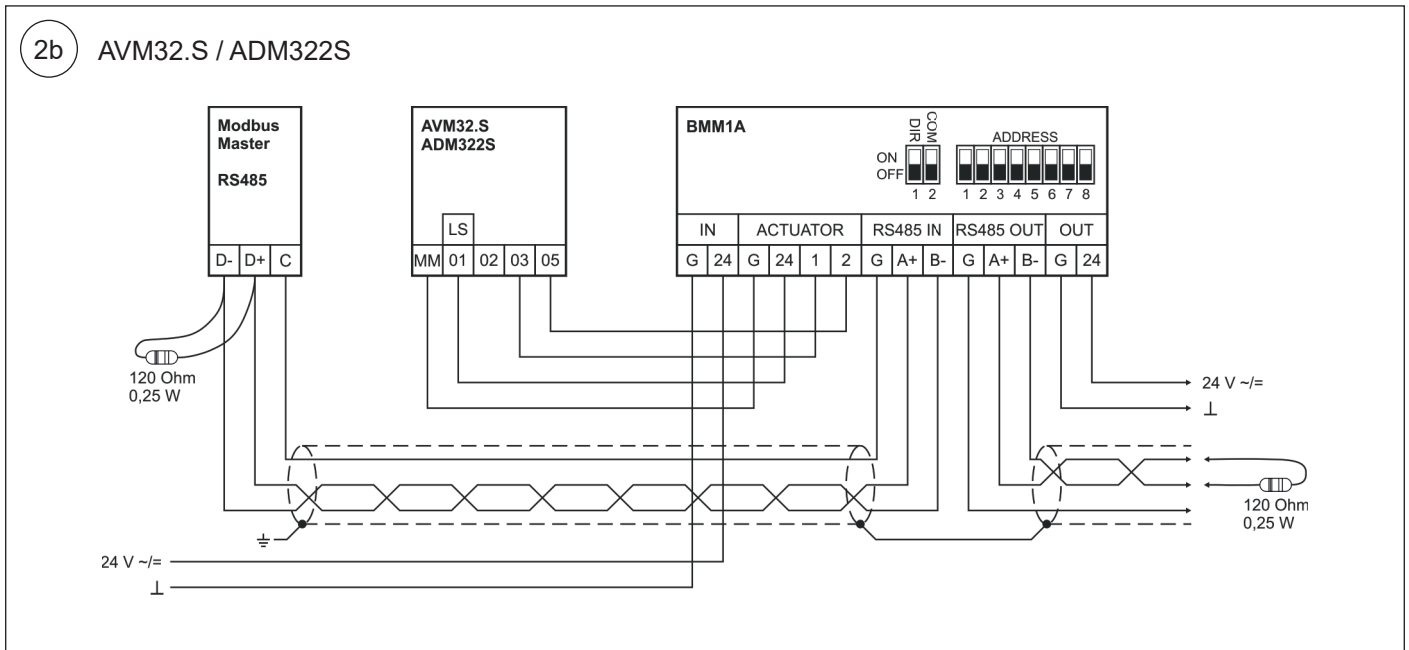
- Dimensions: 140 x 80 x 43 mm
- Power supply: 24 V AC/DC +/-10%
- Power consumption (without actuator): 3 W
- Actuator power supply: 24V AC/DC
- max. power actuator: < 50 W
- Actuator types: modulating actuator (0(2)...10 V / (0)4...20mA)
- Communication: RS485
- Communication protocol: Modbus / BACnet
- Storage temperature: -30 ... 80 °C
- Operating temperature: -20 ... 50 °C
- IP class: IP54



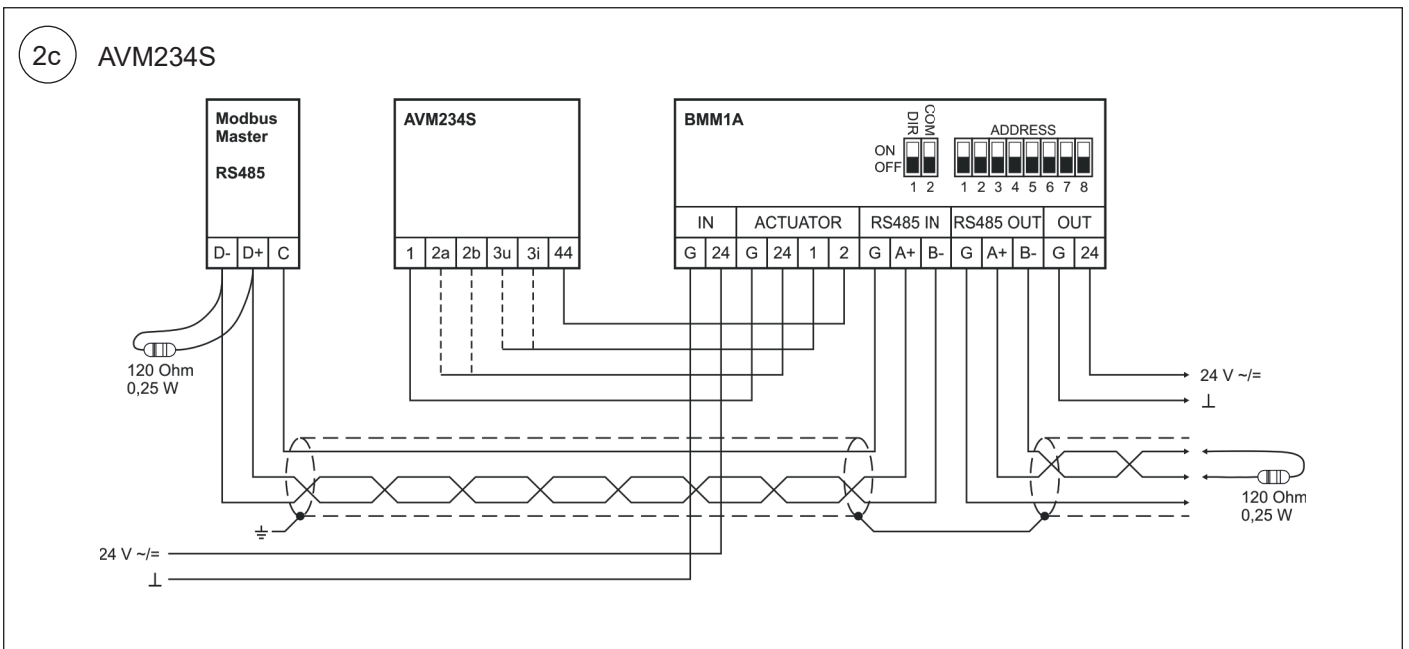
2a AVM1.5S / AKM1.5S / ASM1.5S



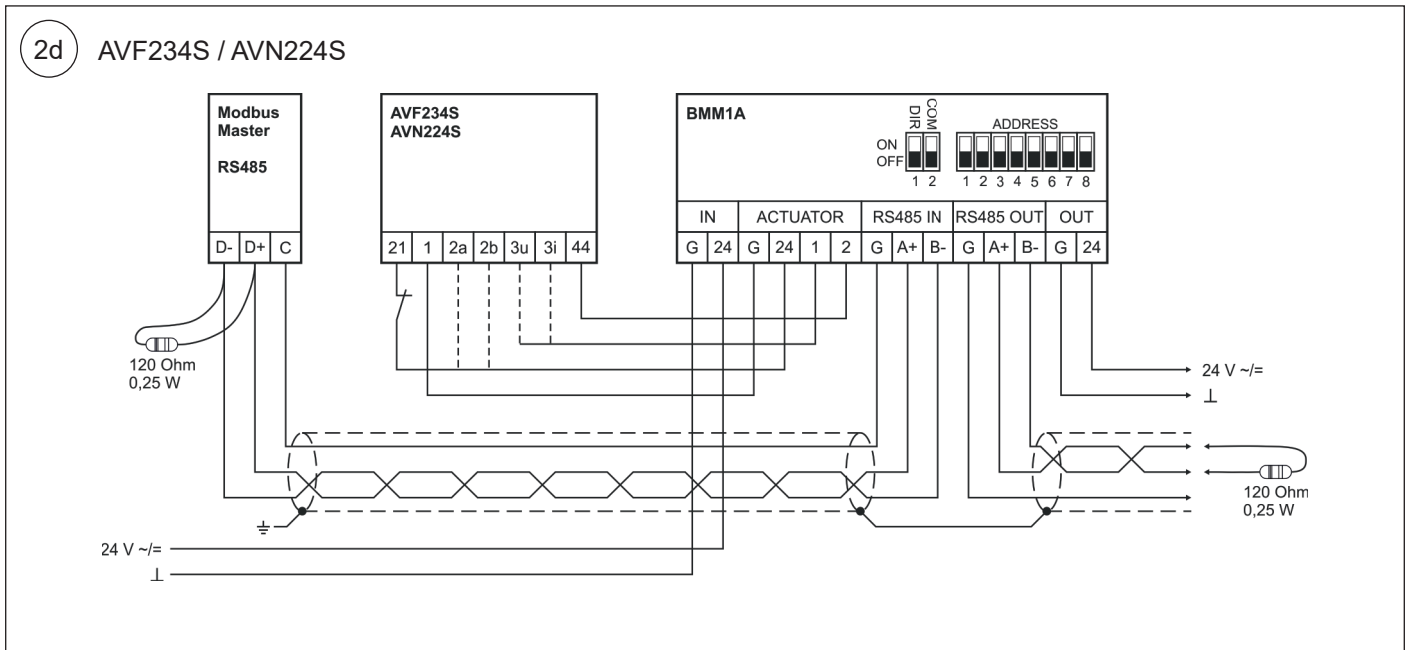
2b AVM32.S / ADM322S



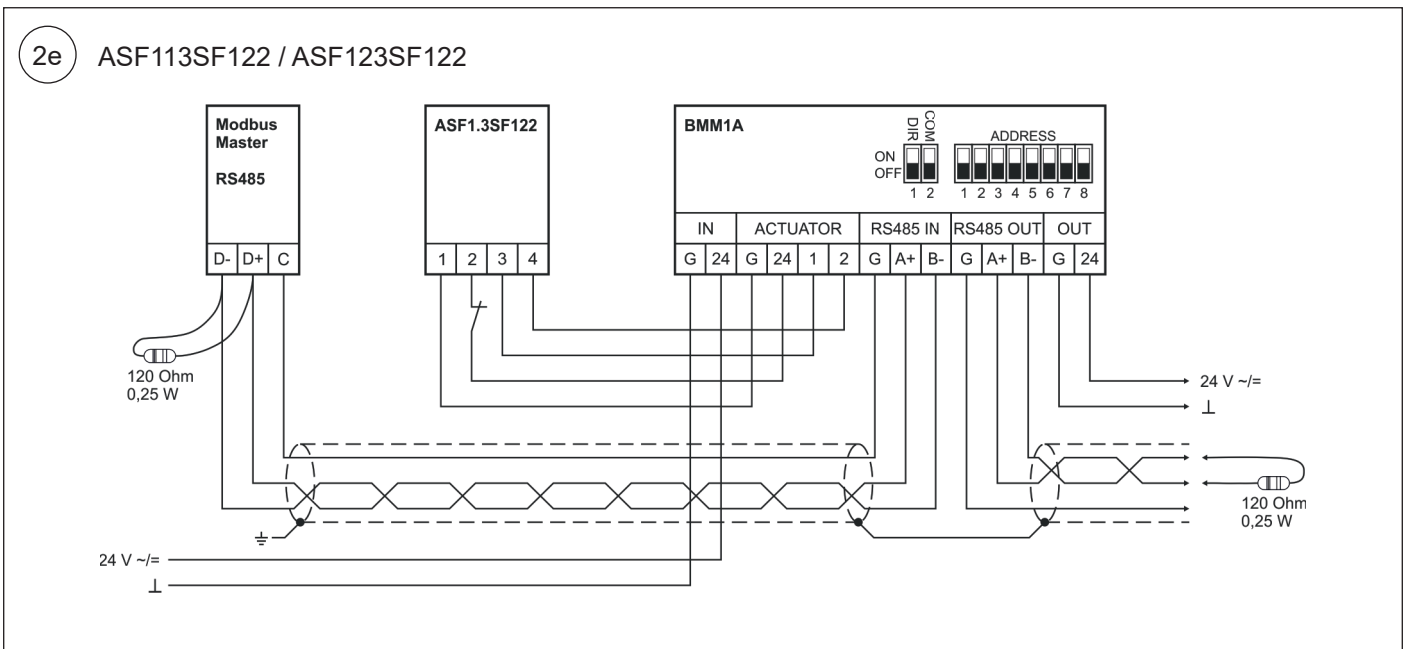
2c AVM234S



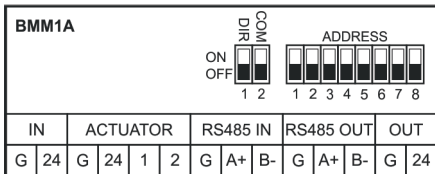
2d AVF234S / AVN224S



2e ASF113SF122 / ASF123SF122



3



DIR / COM Communication setting
 ADDRESS 8 bit addressing
 COMM LED Communication indicator LED

- IN G Power supply GND (input)
- IN 24 Power supply 24 V AC/DC (input)
- ACTUATOR G Power supply GND (actuator)
- ACTUATOR 24 Power supply 24 V AC/DC (actuator)
- ACTUATOR 1 Control signal 0(2)...10 V / (0)4...20 mA (actuator)
- ACTUATOR 2 Feedback signal 0...10 V (actuator)
- RS485 IN G Communication GND (input)
- RS485 IN A+ Communication D+ (input)
- RS485 IN B- Communication D- (input)
- RS485 OUT G Communication GND (output)
- RS485 OUT A+ Communication D+ (output)
- RS485 OUT B- Communication D- (output)
- OUT G Power supply GND (output)
- OUT 24 Power supply 24 V AC/DC (output)

4 DIP-switch



- DIR OFF: direct operating output signal
 ON: inverted output signal
- COM OFF: Modbus RTU
 ON: BACnet MS/TP (autobaud rate)
- ADDRESS OFF: Modbus address
 ON: MAC address

5a Modbus RTU



Modbus RTU:
 Default communication settings: 9600N1
 Commands allowed: 0x03, 0x06

Holding registers map:

Address	Description	Range of values	Rights
0x0000	Analog input value	x100, 10V => value 1000	R
0x0100	Analog output value	x100, 10V => value 1000	R/W
0x0200	Watchdog timeout value (seconds)	0 – 65535 seconds	R/W
0x0600	Communication bus speed (respected only for Modbus RTU mode)	0 – 2.4 kbit 1 – 4.8 kbit 2 – 9.6 kbit (default) 3 – 14.4 kbit 4 – 19.2 kbit 5 – 28.8 kbit 6 – 38.4 kbit 7 – 57.6 kbit 8 – 76.8 kbit 9 – 115.2 kbit 10 – 230.4 kbit 11 – 250 kbit 12 – 500 kbit	R/W
0x0601	Watchdog reset event	0 – output set command 1 – online (communication with device)	R/W
0x0602	Watchdog behaviour	0 – relinquish of outputs 1 – do nothing	R/W

5b BACnet MS/TP

Build-in autobaud rate functionality

Services supported:

*SERVICE_UNCONFIRMED_WHO_IS,
SERVICE_UNCONFIRMED_WHO_HAS,
SERVICE_UNCONFIRMED_I_AM,
SERVICE_UNCONFIRMED_I_HAVE,*

*SERVICE_CONFIRMED_READ_PROPERTY,
SERVICE_CONFIRMED_READ_PROP_MULTIPLE,
SERVICE_CONFIRMED_REINITIALIZE_DEVICE,
SERVICE_CONFIRMED_WRITE_PROPERTY,
SERVICE_CONFIRMED_WRITE_PROP_MULTIPLE,
SERVICE_CONFIRMED_PRIVATE_TRANSFER,
SERVICE_CONFIRMED_DEVICE_COMMUNICATION_CONTROL*

Objects supported:

*OBJECT_DEVICE,
OBJECT_ANALOG_INPUT,
OBJECT_ANALOG_OUTPUT,
OBJECT_ANALOG_VALUE,
OBJECT_MULTI_STATE_VALUE,*



- Electrical connection
- There is a danger to life from electric shock. Parts carrying mains voltage are located under the cover.
- The device may only be opened by a qualified electrician or the service staff of the manufacturer.
- Before starting any work on the electrical connections, disconnect the device from the mains.
- Do not energize the device until it is completely assembled and the housing is closed.
- Do not leave the device in the open state unattended to prevent access by non-specialists and especially children.

en Keep this document

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