

Technical Datasheet ombra BA4 / BA8 / BA16-SMI

1. Product description



The ombra BAxx-SMI (standard motor interface) series LON sunblind actuators can be used with spega M/R series LON controller.

Up to 16 SMI motors can be connected to the actuator, which has four independent SMI channels.

The SMI-Interface allows for precise positioning of SMI motors. Diagnostic and position reports can be read by the controller and transmitted over the LON network.

Because of its precise positioning SMI motors are very well suited for sophisticated sunblind concepts like sun tracking slat angle control of venetian blinds.

A comfortable LNS plug-in is included, that can be used for configuring / commissioning of the actuator.

ombra BA16-SMI series

ombra BA16-SMI series actuators are capable of controlling motors in up to 16 groups. Group membership is independent of the SMI channel to which the motor is connected (individual addressing).

ombra BA8-SMI series

ombra BA8-SMI series actuators are capable of controlling motors in up to 8 groups. Group membership is independent of the SMI channel to which the motor is connected (individual addressing).

ombra BA4-SMI series

ombra BA4-SMI series actuators are capable of controlling motors in 4 groups. Group membership is tied to the SMI channel to which the motor is connected.

low voltage motors (LoVo)

All actuators of the ombra BAxx-SMI series are also available in a SMI-LoVo variant suited for controlling low voltage (24VDC) SMI motors.

manual control (-b)

The actuators are also available in a variant with manual control elements and LED status indicators (-b).

2. Mounting and installation

2.1. Mounting

1. Installation on DIN EN50022 rail, width 4 TE
2. The connection interface is located on the left-hand side of the housing. The actuator must only be operated with spega e.control controllers. Observe the maximum space available on the DIN rail.



Electrical devices must be assembled and installed by trained personnel only.



Please observe local standards, guidelines and regulations when planning and installing electrical devices.



Do not exceed device specifications.



The system installer has to take care that the correct application and the associated parameters are corresponding with the wiring and the intended use of the device.



Connecting or disconnecting modules or controllers is only allowed if they are disconnected from all power supplies.

Actuators of the ombra BAxx-SMI series have four logically independent SMI channels. SMI commands send for instance via channel 1, cannot be received by units connected to the other three channels.

The four channels are interconnected with each other through the I- communication line. There is a maximum of 16 SMI motors per actuator that can be controlled, independently of how the motors are distributed over the SMI channels. If there are more than 16 motors connected to the actuator, then this is signaled as an error.

Depending on the actuator series type the connected motors are differently administered by the actuator.

Motor groups and slat angle control

All SMI motors of a group are controlled in parallel. Therefore they must consist of identical motors and connected to mechanical identical blinds.

Identical blinds in the sense of this manual must have identical mechanics and identical blind lengths. The end positions must also be set identical.



Different blind mechanics, blind lengths or end positions of blinds within a single group can cause slat angles not to be moving synchronously with each other!



The accuracy of the slat angle control depends largely on the accuracy of the blind mechanics.

2.2. Installation

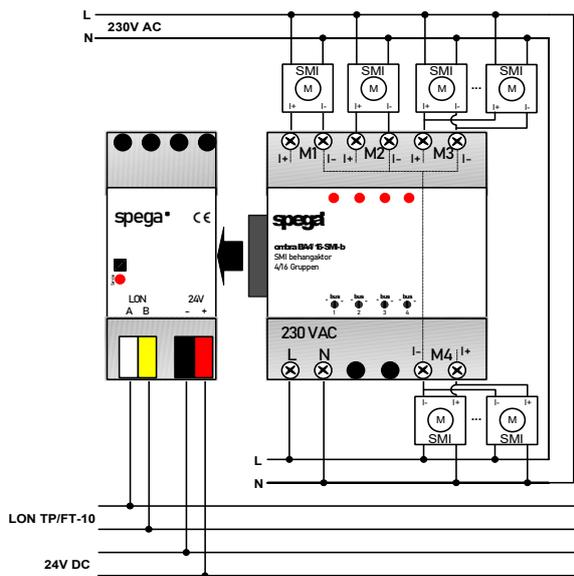


Image 1: 230V SMI actuator connection

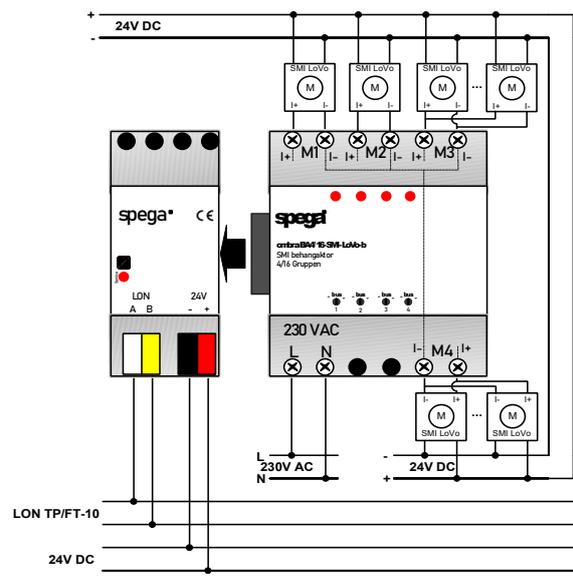


Image 2: SMI-LoVo actuator connection

230VAC SMI motors are only allowed to be connected to 230VAC SMI actuators and not to SMI-LoVo actuators!



All SMI 230VAC motors must be connected to the same mains phase!

SMI-LoVo motors are only allowed to be connected to SMI-LoVo actuators!



Under no circumstances is it allowed to connect SMI-LoVo motors and SMI 230VAC motors to the same actuator!

Disregard may lead to danger of short circuit, fire or injuries!



SMI Components are connected in parallel. With the exception of a ring topology, all topologies are allowed. The maximum length of the SMI bus is limited to 350 meters.

3. Technical Data

Power supply

Operating voltage DC	via spega M/R series LON controller
Current consumption DC	typ. 15 mA (0,4W) DC, max. 50mA (1,2W) DC (manual control option)
Operating voltage AC	230VAC ($\pm 10\%$)
Current consumption AC	typ. 1,5 VA
Power dissipation	1,9 W

Inputs/Outputs

Actuator interface	Control interface for spega modules
Motor interface, 230V SMI variants	4 x SMI Interface (common I- line) A total of 16 SMI 230VAC motors can be connected.
Motor interface, SMI-LoVo variants	4 x SMI Interface (common I- line) A total of 16 SMI-LoVo motors can be connected.

Connections

Actuator Interface	integrated 14 pin connector
SMI	4 x 2pin terminal screw connection, \emptyset up to 4mm ²
Power supply AC	1 x 2pin terminal screw connection, \emptyset up to 4mm ²

Control elements

w/o manual control option	-
with manual control option	3-stage rotary switches for 4 channels. Functions: „down“, „bus“, „up“

Indicators

w/o manual control option	-
with manual control option	Multi color status LED for every SMI channel / rotary switch

Housing

Protection	IP 20 (EN 60529)
Dimensions	85(45) x 70 x 60 mm (H x W x D) – corresponds to 4 modular spacings
Type/location of installation	distribution board, 35mm DIN mounting rail

Ambient conditions

Operating temperature	-5°C ... +45°C
Storage temperature	-25°C ... +55°C
Transport temperature	-25°C ... +70°C
Relative humidity	5% ... 93% (w/o condensation)
Installation height	up to 2000 m above sea level

Safety

Electrical isolation	SELV (EN 60950)
Protection class	II (DIN EN 61140, VDE 0140-1)

Standards

Device safety	EN 50 090-2-2
Immunity	EN 50 090-2-2
Certification	CE

4. Order information

Order no.	Product	Description
120 254	<i>ombra BA4-SMI</i>	Sunblind actuator 4 x SMI
120 255	<i>ombra BA4-SMI-b</i>	Sunblind actuator 4 x SMI with additional manual control option
120 258	<i>ombra BA8-SMI</i>	Sunblind actuator 8 x SMI
120 259	<i>ombra BA8-SMI-b</i>	Sunblind actuator 8 x SMI with additional manual control option
120 256	<i>ombra BA16-SMI</i>	Sunblind actuator 16 x SMI
120 257	<i>ombra BA16-SMI-b</i>	Sunblind actuator 16 x SMI with additional manual control option
120 264	<i>ombra BA4-SMI-LoVo</i>	Sunblind actuator 4 x SMI-LoVo for low voltage motors
120 265	<i>ombra BA4-SMI-LoVo-b</i>	Sunblind actuator 4 x SMI-LoVo for low voltage motors with additional manual control option
120 268	<i>ombra BA8-SMI-LoVo</i>	Sunblind actuator 8 x SMI-LoVo for low voltage motors
120 269	<i>ombra BA8-SMI-LoVo-b</i>	Sunblind actuator 8 x SMI-LoVo for low voltage motors with additional manual control option
120 266	<i>ombra BA16-SMI-LoVo</i>	Sunblind actuator 16 x SMI-LoVo for low voltage motors
120 267	<i>ombra BA16-SMI-LoVo-b</i>	Sunblind actuator 16 x SMI-LoVo for low voltage motors with additional manual control option
121 000 C	<i>sistema MC</i>	LON Universal controller for M/R series modular actuators

5. Support

The information given in this manual was carefully compiled. Should you have any further questions regarding this product, please contact:

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