



**Controls from Griesser.**  
Planning documents Griesser gBUS





**gBUS**



Information about the sensor system and accessories can be found in the "Sensors, operation and accessories" brochure.

- Controls between 1 and 32 groups
- Master operation
- Automatic sun control for several facades
- Automatic wind, rain, temperature, frost control
- Clock with power reserve
- Time programs
- Automatic locks
- Motor controls for blinds with test button
- Error diagnosis

**Griesser gBUS – at a glance**  
 The Griesser gBUS solar shading control offers sophisticated, end-to-end functionality in a comprehensive system suitable for smaller to very large buildings. With proven functions, such as sun tracking and horizon restrictions, even the highest demands placed on a solar shading control are met.  
 The best possible precision sun shading can be achieved using product settings that are dovetailed to Griesser facade products. The settings can be adapted to suit other products as well at the customer's request.  
 Existing systems can be easily expanded at any time to take care of future needs.

**Weather and solar shading control center**  
 gBUS weather and solar shading control centers record current meteorological data and process it to provide convenience and protection functions. Everything can be adjusted quickly and easily, from simple control functions to comprehensive solar shading automation systems.

**Motor controls for blinds**  
 The motor controls for blinds can be used for all common motors with 2 or 3 limit switches and Comfort drives. Thanks to sophisticated end position detection, all facade products can be optimally controlled. Motor controls for blinds with 6 or 9 independent motor channels can be installed in control cabinets. Motor controls for blinds with 3 independent motor channels or 1 motor channel can be installed locally in wall ducts, false floors or hollow ceilings.

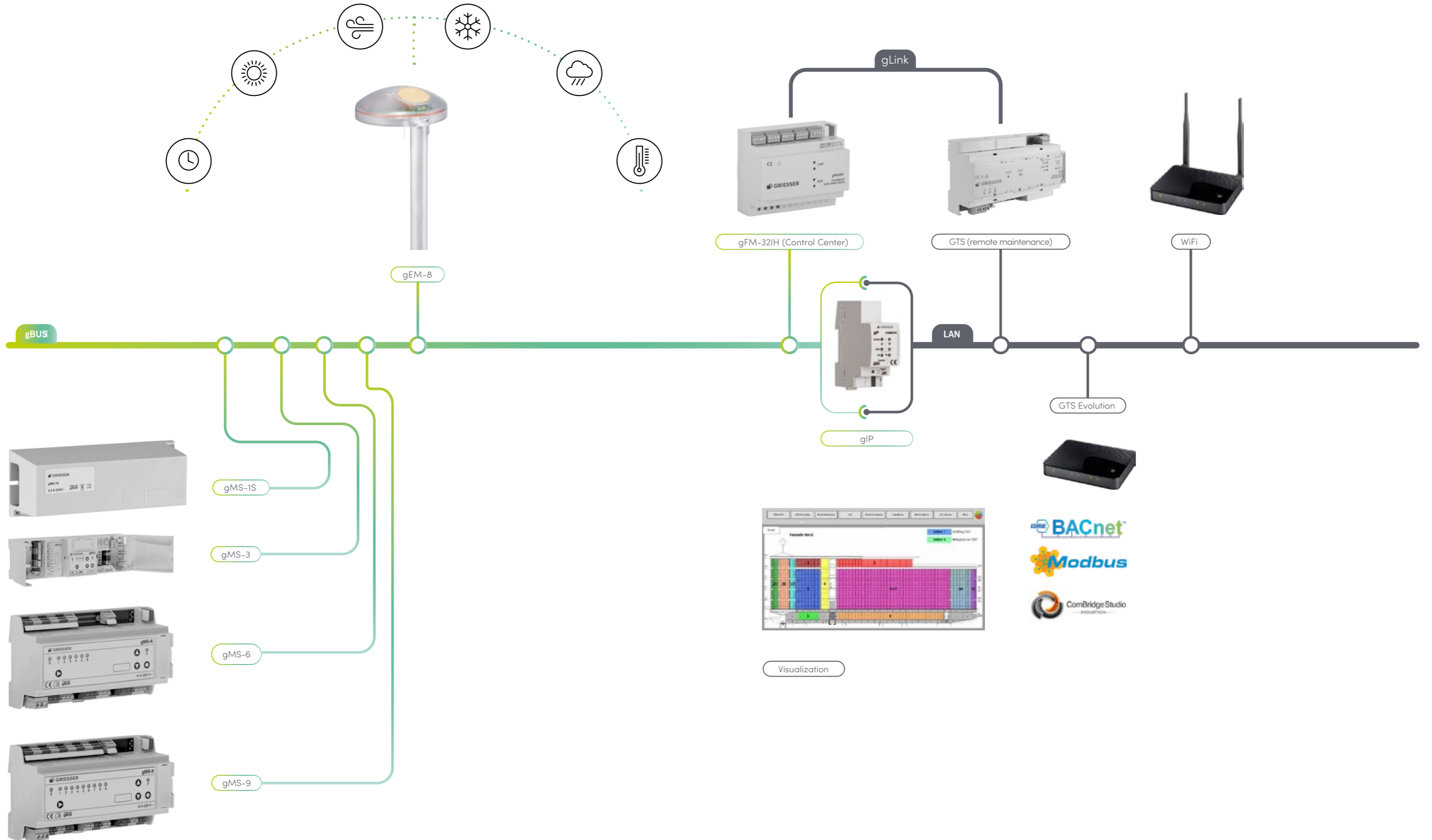
**Operation**  
 The touch panel is connected to the solar shading control unit and enables operation of a system with up to 32 sectors from one central point. The touch panel is available for flush-mounted or surface-mounted installation.

**Remote Maintenance**  
 The Griesser Terminal Server connects the Griesser LINK to Ethernet or TCP/IP. It enables remote access to the solar shading control unit and, consequently, to the automation of the entire shading system.

**GTS Evolution**  
 The GTS Evolution allows for implementation of sophisticated visualization and automation requirements in combination with other trades.



# gBUS System



## Weather control center for residential and functional buildings 1 to 8 sectors

Detection of brightness, wind, precipitation, temperature and global solar radiation

Wear-free wind measurement

Date and time reception

Status indicator for BUS and wind measurement

Connector cable 5 m with plug on device (operating power and BUS)

Installation on sensor mast (Ø 25 mm)

The gEM-8 weather centre unit combines the core and the sensors of the Griesser gBUS control in a single unit. The central unit offers flexible and extensive options for the solar shading automation of small to large systems, especially in residential construction. The advantage is the central configuration and management of all important automatic functions using the configuration tool. This makes it easy to set interdependencies dealing with automatic timing or shading.

Programming and commissioning are quick, secure and simple due to the communication with the motor control for blinds via the Griesser object.

The Griesser object links the central unit with all motor controls via a group address.

### Purpose

Control of up to 8 sections

Full functionality in combination with Griesser solar shading control systems

Automatic sun control with solar tracking or guide for shade edge

Automatic program for safety sensing edge (wind, rain, frost)

Easy horizon limitation to take the shadow of the building into account

Energy utilisation function and global radiation assessment

Automatic daylight-savings/standard time switching

8 timer programs for Mon. - Fri. and Sat./Sun. with twilight function

Logic programs for the processing of external inputs

Blocking function with four fixed priorities

Simulation mode for the support of commissioning and for fault diagnosis

Reception and evaluation of sensor data via gBUS

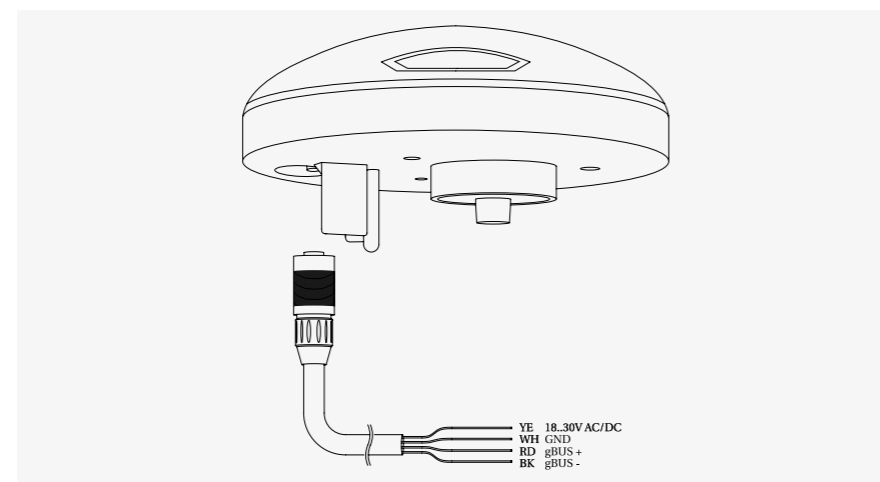
Transmission of internal sensors as well as time of day and date via gBUS

BUS monitoring

Configuration using a configuration tool



gEM-8



### TECHNICAL DATA

#### Device

Device type	gEM-8
Housing material	PC Makrolon
Dimensions	Ø 130 x 63.5 mm
Installation	wall, sensor mast 25 mm
Type of protection	IP 44, EN 50491
Operating environment	-30 until +60°C
Weight	215 g

#### Connections

##### Supply voltage

Voltage	18 V ... 30 V AC/DC, 50/60 Hz
Current consumption	120 mA @ 24 V (max. 300mA)
Electric circuit	SELV
KNX BUS	in accordance with KNX Standard
Cable	connection cable, Ø 4.5 mm with 4 x 0.25 mm <sup>2</sup> fine-stranded conductors, 5 m, extendable to max. 100m (DC), 50m (AC)

#### Brightness sensor

Recording range	horizontal 360°, 4 brightness sensors
Measuring range	0 ... 100 kLux, including twilight

#### Wind sensor

Measuring range	0 - 100 km/h
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#### Precipitation sensor

Switching delay	dry => wet: at once wet => dry: 3.5 minutes
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#### Temperature sensor

Measuring range	typically -30 to +60°C
Resistance	PT 1000 DIN EN 60751

#### Global radiation sensors

Measuring range	0 ... 1300 W/m <sup>2</sup>
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## Sun protection control center for 1 to 32 groups

The Griesser solar shading central is available in 3 versions:

gFM-8IH, gFM-16IH, gFM-32IH

Connection for up to four sensors such as brightness, wind, precipitation, temperature or contact input

Status indicator for device and BUS

Connector for BUS and Griesser LINK

Installation on DIN tracks (DIN 43880)



gFM-32IH

The sun protection control center is the heart of the Griesser gBUS control. The flexible concept enables individual controls to be fitted to form an extensive sun protection automation system in large systems. The benefit of this is that all key automatic programs can be managed centrally, enabling the dependences between automatic timers, automatic temperature functions and automatic sun control to be easily set up. Communication with the motor control for blinds via the gBUS Griesser product makes for quick, reliable and easy programming and commissioning.

The Griesser object links the central unit with all motor controls for blinds via a group address.

### Purpose

Control of up to 32 sections

Shading program with various shading strategies and adaptive delay times for reducing motion

Automatic programs for product protection (wind, rain, frost, fire)

Automatic programs for shading, temperature, heat and operation

Horizon limitation to take the shadow made by the adjacent buildings on the facade into account

Automatic switching between summer time/winter time

8 timer programs with daily and weekly automatic settings and an astro function. The timer programs can be selected per sector. Within the 8 automated timer programs, 50 timed commands can be managed

Calendar for setting the time programs during the freely selectable periods

Interdependencies among automatic programs can be programmed

Locking functions can be coordinated using 14 priority levels

Simulation mode to support commissioning and for error diagnosis

Reception and evaluation of sensor data via the gBUS

Internal sensor values with time and date can be sent to the gBUS

Input programs for processing external inputs like venetian blind push buttons or potential-free contacts in external systems which are integrated for individual control.

Output program for producing output signals on the gBUS for signaling other systems

Diffuse-light analysis optimizes shading during direct and diffuse light conditions

BUS monitoring

Configuration takes place with the Griesser FlexTool and the configuration tool

### TECHNICAL DATA

#### Device

Device type	gFM-8IH, gFM-16IH, gFM-32IH
Housing design	REG 6TE, DIN 43880
Housing material	Impact-resistant and flame-retardant plastic, yellow
Dimensions	161 x 91 x 63 mm
Installation	In switch cabinet on top-hat rail 35 mm (EN 50022) or equivalent
Type of protection	IP 20, EN 60529
Operating environment	Dry rooms, 0–50°C, level of pollution 2
CE conformity	In compliance with the EMC Directive, Low Voltage Directive and RoHS Directive
Weight	260 g

#### Connections

##### Mains

Voltage	230 V AC ±10%, 50 Hz
Current consumption	Typically 30 mA
Connection	Screw terminals, 4-pin
Cable	3 conductors (L, N, PE), 1.5 mm <sup>2</sup> , single stranded or finely stranded

#### Sensors

Number	4
Connection	Pluggable screw terminals, 4-pin
Electric circuit	PELV
Cable	2 or 3 conductors, 0.34–0.63 mm <sup>2</sup> , single stranded or finely stranded, twisted (at least 5 twists per meter)

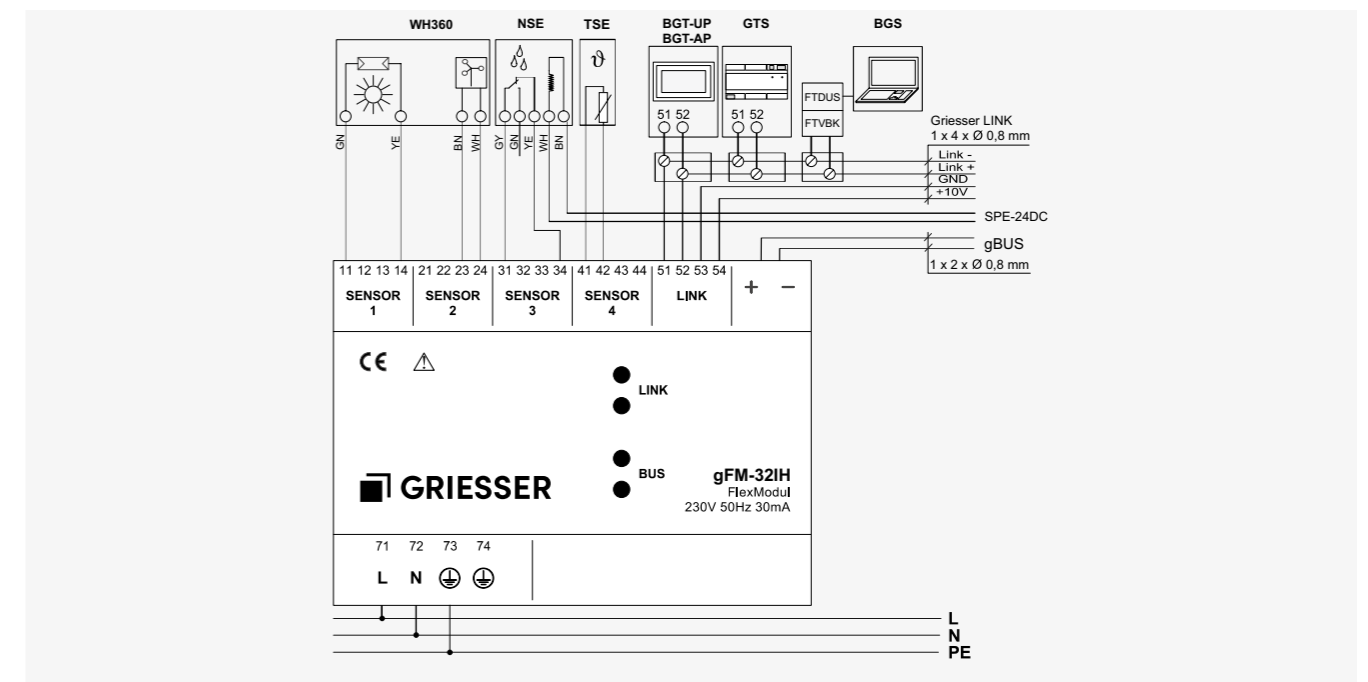
In order to ensure the expandability of the system, we recommend providing a 3 x 4 cable on the sensor pole for the connection to the central unit.

#### gBUS

Connection	Plug terminals, grey/black, 2x 4-pin
Cable	2 conductors, Ø 0.5–0.8 mm, single stranded

#### Griesser LINK

Electric circuit	PELV
Cable	4 conductors, Ø 0.8 mm, twisted (at least 5 twists per meter), length of cable max. 200 m



# Motor control for blinds for 9 motors

- 9 independent motor channels for motors with 2 mechanical limit switches
- End position detection via motor channel
- Status indicator for each motor channel
- Series mounting housing Reg 9TE according to DIN 43880
- Button for checking motor rotation direction
- Connector for local operation (per motor channel) incl. blocking function signal directly on the device
- Connector for simultaneous operation (all motor channels) directly on device
- Spring-type terminal for motor and operation connections
- Plug terminal for network and BUS connection

The sophisticated but robust 9-panel motor control for blinds is for controlling all common facade products such as external venetian blinds, rolling shutters or patio awnings. Using an integrated mathematical model, the mechanical properties of each facade product can be exactly modeled. Then, in combination with automatic end position detection, it makes an extremely precise adjustment with minimal dark phases.

Common commercial control elements, such as buttons are directly connected to the motor control system for the blinds and are also fully functional for each channel without gBUS. Using the group input, all channels can be operated simultaneously.

The motor control system for blinds offers even more possibilities when combined with Griesser's weather and solar shading master control. Whether for storm protection, the proper amount of shade or adjusting slats to the sun's position - having the greatest possible comfort possible is a given at work or home.

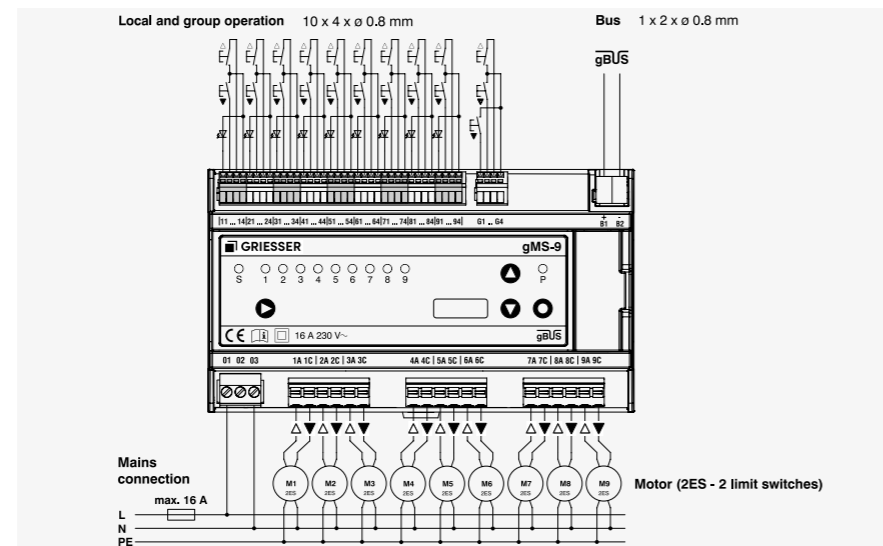
## Purpose

- Integrated facade product library with standard positions per facade product for accurate solar tracking control
- Exact positioning of the facade product for uniform facade appearance while taking the aging process and temperature fluctuations into account
- Temporary blocking function for the automatic glare protection per motor channel after having been manually operated by user
- Restricted range of motion for user operation when frost protection is active or higher energy radiation
- Feedback on status per motor channel.



gMS-9

## Connection diagram



## TECHNICAL DATA

### Device

Device type gMS-9

### Connections

Voltage 230 V AC +10% / -20%, 50 Hz  
Standby power per channel 0.1 W  
Circuit breaker max. 16 A

### Mechanical data

Dimensions 157 x 90 x 57 mm (W x H x D)  
Housing shape Series built-in housing REG 9TE according to DIN 43880  
Housing material ABS, flame-resistant and halogen-free plastic  
Color zinc-yellow RAL 1018  
Installation in switch cabinet on DIN rail 35 mm according to DIN EN 60715  
Weight approx. 320 g

### Electric Safety

Type of protection IP 20 according to EN 60529 in correctly installed switch cabinet, IP 00 according to EN 60529  
Protection class II according to EN 60730-1  
Software class A according to EN 60730-1  
Contamination level 2 according to EN 60730-1  
Mode of operation 1 according to EN 60730-1

### Surrounding conditions

Surroundings weather protected  
Operating temperature 5 bis +45 °C  
Humidity ≤ 95 %, non-condensing  
Surroundings class 3K5 according to EN 60721

### Connections

### Power supply

Number 1  
Connection screw terminal, pluggable, 3-pin  
Cable 2 cables (L, N), max 2.5 mm<sup>2</sup>, single or fine-strand

### Motor

Number 9  
Connection spring type terminal 2-pin  
Cable 2 cables (UP, DOWN2), 1.5 mm<sup>2</sup>, single or fine-strand  
Current max. 2.5 A per channel, sum of channels max. 16 A  
End position detection existing, asynchronous motor 230 V AC, 50 Hz, with 2 mech. end switches, power factor > 0,9  
**Motors with integrated electronic on request!**

### Local operation

Number 9  
Connection spring type terminal, 4-pin  
Cable 4 cables (LED, DOWN, UP, +12 V DC), Ø 0.8 mm, single, twisted (min. 5 turns per meter)  
Length of lead up to 100 m  
Circuit SELV according to EN 60730-1  
LED current type 2 mA  
Switch contact 12 V DC, 3 mA, isolated, gilded  
Binary input 18

### Group operation

Number 1  
Connection spring type terminal, 4-pin  
Cable 4 cables (DOWN2, DOWN1, UP, +12 V DC), Ø 0.8 mm, single, twisted (min. 5 turns per meter)  
Length of lead up to 100 m  
Circuit SELV according to EN 60730-1  
Switch contact 12 V DC, 3 mA, isolated, gilded  
Binary input 3

### Communication BUS

Number 1  
Connection spring type terminal, pluggable, 2 x 4-pin  
Cable 2 cables (+, -), Ø 0.5-0.8 mm, single wire  
Current 12 mA (normal operation)  
30 mA (without 230 V power supply)

# Motor control for blinds for 6 motors

- 6 independent motor channels for motors with 2 or 3 mechanical limit switches
- End position detection via motor channel
- Status indicator for each motor channel
- Series mounting housing Reg 9TE according to DIN 43880
- Button for checking motor rotation direction
- Connector for local operation (per motor channel) incl. blocking function signal directly on the device
- Connector for simultaneous operation (all motor channels) directly on device
- Spring-type terminal for motor and operation connections
- Plug terminal for network and BUS connection



gMS-6

The sophisticated but robust 6-panel motor control for blinds is for controlling all common facade products such as external venetian blinds, rolling shutters or patio awnings. Using an integrated mathematical model, the mechanical properties of each facade product can be exactly modeled. Then, in combination with automatic end position detection, it makes an extremely precise adjustment with minimal dark phases.

Common commercial control elements, such as buttons, are directly connected to the motor control system for the blinds and are also fully functional for each channel without gBUS. Using the group input, all channels can be operated simultaneously.

The motor control system for blinds offers even more possibilities when combined with Griesser's weather and solar shading master control. Whether for storm protection, the proper amount of shade or adjusting slats to the sun's position - having the greatest possible comfort possible is a given at work or home.

## Purpose

Integrated facade product library with standard positions per facade product for accurate solar tracking control

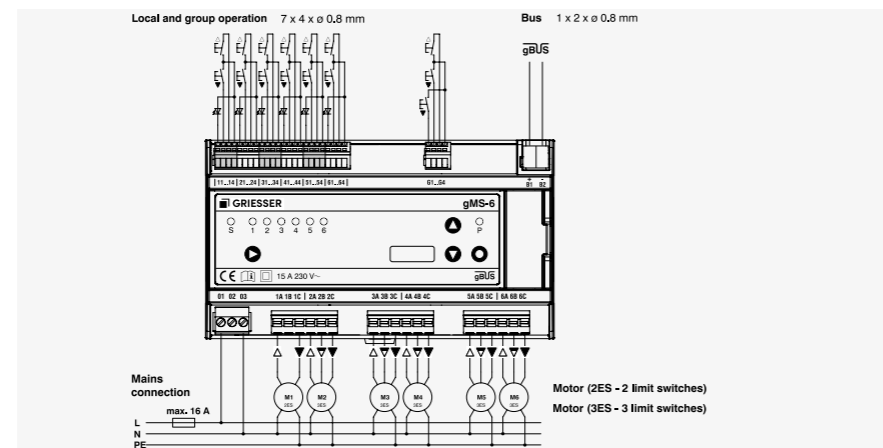
Exact positioning of the facade product for uniform facade appearance while taking the aging process and temperature fluctuations into account

Temporary blocking function for the automatic glare protection per motor channel after having been manually operated by user

Restricted range of motion for user operation when frost protection is active or higher energy radiation

Feedback on status per motor channel.

## Connection diagram



## TECHNICAL DATA

### Device

Device type gMS-6

### Power supply

Number 1  
 Connection screw terminal, pluggable, 3-pin  
 Cable 2 cables (L, N), max 2.5 mm<sup>2</sup>, single or fine-strand

### Connections

Voltage 230 V AC +10% / -20%, 50 Hz  
 Standby power per channel 0.2 W  
 Circuit breaker max. 16 A

### Motor

Number 6  
 Connection spring type terminal 3-pin  
 Cable 3 cables (UP, DOWN2, DOWN1), 1.5 mm<sup>2</sup>, single or fine-strand  
 Current max. 2.5 A per channel  
 End position detection existing, asynchronous motor 230 V AC, 50 Hz, with 2 or 3 mech. end switches, power factor > 0,9  
**Motors with integrated electronic on request!**

### Mechanical data

Dimensions 157 x 90 x 57 mm (W x H x D)  
 Housing shape Series built-in housing REG 9TE according to DIN 43880  
 Housing material ABS, flame-resistant and halogen-free plastic  
 Color zinc-yellow RAL 1018  
 Installation in switch cabinet on DIN rail 35 mm according to DIN EN 60715  
 Weight approx. 320 g

### Local operation

Number 6  
 Connection spring type terminal, 4-pin  
 Cable 4 cables (LED, DOWN, UP, +12 V DC), Ø 0.8 mm, single, twisted (min. 5 turns per meter)  
 Length of lead up to 100 m  
 Circuit SELV according to EN 60730-1  
 LED current type 2 mA  
 Switch contact 12 V DC, 3 mA, isolated, gilded  
 Binary input 12

### Electric Safety

Type of protection IP 20 according to EN 60529 in correctly installed switch cabinet, IP 00 according to EN 60529  
 Protection class II according to EN 60730-1  
 Software class A according to EN 60730-1  
 Contamination level 2 according to EN 60730-1  
 Mode of operation 1 according to EN 60730-1

### Group operation

Number 1  
 Connection spring type terminal, 4-pin  
 Cable 4 cables (DOWN2, DOWN1, UP, +12 V DC), Ø 0.8 mm, single, twisted (min. 5 turns per meter)  
 Length of lead up to 100 m  
 Circuit SELV according to EN 60730-1  
 Switch contact 12 V DC, 3 mA, isolated, gilded  
 Binary input 3

### Surrounding conditions

Surroundings weather protected  
 Operating temperature 5 bis +45 °C  
 Humidity ≤ 95 %, non-condensing  
 Surroundings class 3K5 according to EN 60721

### Communication BUS

Number 1  
 Connection spring type terminal, pluggable, 2 x 4-pin  
 Cable 2 cables (+, -), Ø 0.5-0.8 mm, single wire  
 Current 12 mA (normal operation)  
 30 mA (without 230 V power supply)

### Labeling

CE Guidelines In compliance with the EMC Directive, Low Voltage Directive and RoHS Directive  
 Marking -

### Connections

## Motor control for blinds for 3 motors

- 3 independent motor channels
- for motors with 2 or 3 mechanical limit switches
- End position detection via motor channel
- Status indicator for each motor channel
- Bar-type housing for decentralized installation with integrated anti-drag mechanism
- Button for checking motor rotation direction
- Connector for local operation (per motor channel) incl. blocking function signal directly on the device
- Connector for simultaneous operation (all motor channels) directly on device
- Spring-type terminal for motor and operation connections

The sophisticated but robust 3-panel motor control for blinds is for controlling all common facade products such as external venetian blinds, rolling shutters or patio awnings. Using an integrated mathematical model, the mechanical properties of each facade product can be exactly modeled. Then, in combination with automatic end position detection, it makes an extremely precise adjustment with minimal dark phases.

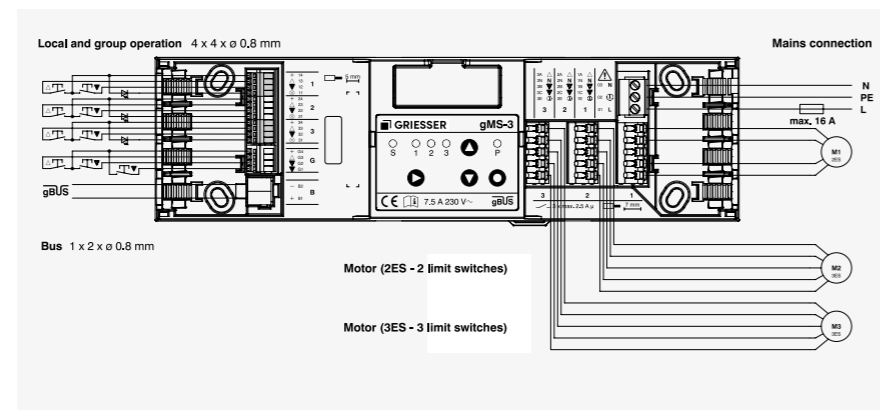
Common commercial control elements, such as buttons are directly connected to the motor control system for the blinds and are also fully functional for each channel without gBUS. Using the group input, all channels can be operated simultaneously.

The motor control system for blinds offers even more possibilities when combined with Griesser's weather and solar shading master control. Whether for storm protection, the proper amount of shade or adjusting slats to the sun's position - having the greatest possible comfort possible is a given at work or home.

### Purpose

- Integrated facade product library with standard positions per facade product for accurate solar tracking control
- Exact positioning of the facade product for uniform facade appearance while taking the aging process and temperature fluctuations into account
- Temporary blocking function for the automatic glare protection per motor channel after having been manually operated by user
- Restricted range of motion for user operation when frost protection is active or higher energy radiation
- Feedback on status per motor channel

### Connection diagram



gMS-3

### TECHNICAL DATA

#### Device

Device type gMS-3

#### Connections

Voltage 230 V AC +10% / -20%, 50 Hz  
Standby power per channel 0.3 W  
Circuit breaker max. 16 A

#### Mechanical data

Dimensions 250 x 70 x 50 mm (W x H x D)  
Housing shape Bar-type housing for decentralized installation with integrated anti-drag mechanism  
Housing material ABS, flame-resistant and halogen-free plastic  
Color zinc-yellow RAL 1018  
Installation DIN rail, railing channel, false floor, wall or false ceiling  
Weight approx. 380 g

#### Electric Safety

Type of protection IP 20 according to EN 60529 (closed)  
Protection class I according to EN 60730-1  
Software class A according to EN 60730-1  
Contamination level 2 according to EN 60730-1  
Mode of operation 1 according to EN 60730-1

#### Surrounding conditions

Surroundings weather protected  
Operating temperature 5 bis +45 °C  
Humidity ≤ 95 %, non-condensing  
Surroundings class 3K5 according to EN 60721

#### Labeling

CE Guidelines in compliance with the EMC Directive, Low Voltage Directive and RoHS Directive  
Marking -

#### Connections

##### Power supply

Number 1  
Connection screw terminal, pluggable, 3-pin  
Cable 2 cables (L, N), max 2.5 mm<sup>2</sup>, single or fine-strand

##### Motor

Number 3  
Connection spring type terminal 5-pin  
Cable 5 cables (PE, DOWN2, DOWN1, N, UP), 1.5 mm<sup>2</sup>, single or fine-strand  
Current max. 2.5 A per channel  
End position detection existing, asynchronous motor 230 V AC, 50 Hz, with 2 or 3 mech. end switches, power factor > 0,9  
**Motors with integrated electronic on request!**

##### Local operation

Number 3  
Connection spring type terminal, 4-pin  
Cable 4 cables (LED, DOWN, UP, +12 V DC), Ø 0.8 mm, single, twisted (min. 5 turns per meter)  
Length of lead up to 100 m  
Circuit SELV according to EN 60730-1  
LED current type 2 mA  
Switch contact 12 V DC, 3 mA, isolated, gilded  
Binary input 6

##### Group operation

Number 1  
Connection spring type terminal, 4-pin  
Cable 4 cables (LED, DOWN, UP, +12 V DC), Ø 0.8 mm, single-strand, twisted (min. 5 turns per meter)  
Length of lead up to 100 m  
Circuit SELV according to EN 60730-1  
Switch contact 12 V DC, 3 mA, isolated, gilded  
Binary input 3

##### Communication BUS

Number 1  
Connection spring type terminal, pluggable, 2 x 4-pin  
Cable 2 cables (+, -), Ø 0.5-0.8 mm, single wire  
Current 12 mA (normal operation)  
30 mA (without 230 V power supply)

# Motor control for blinds for 1 motor

- 1 motor channel
- for motors with 2 or 3 mechanical limit switches
- End position detection
- Status indicator
- Bar-type housing for decentralized installation with integrated anti-drag mechanism
- Button for checking motor rotation direction
- Connector for local operation incl. blocking function signal directly on the device
- Connector for simultaneous operation directly on device
- Spring-type terminal for motor and operation connections
- Plug terminal for network and BUS connection

The sophisticated but robust 1-panel motor control for blinds is for controlling all common facade products such as external venetian blinds, rolling shutters or patio awnings. Using an integrated mathematical model, the mechanical properties of each facade product can be exactly modeled. Then, in combination with automatic end position detection, it makes an extremely precise adjustment with minimal dark phases.

Common commercial control elements, such as buttons are directly connected to the motor control system for the blinds and are also fully functional for each channel without gBUS. Using the group input, all channels of several motor controls for blinds can be operated simultaneously.

The motor control system for blinds offers even more possibilities when combined with Griesser's weather and solar shading master control. Whether for storm protection, the proper amount of shade or adjusting slats to the sun's position - having the greatest possible comfort possible is a given at work or home.

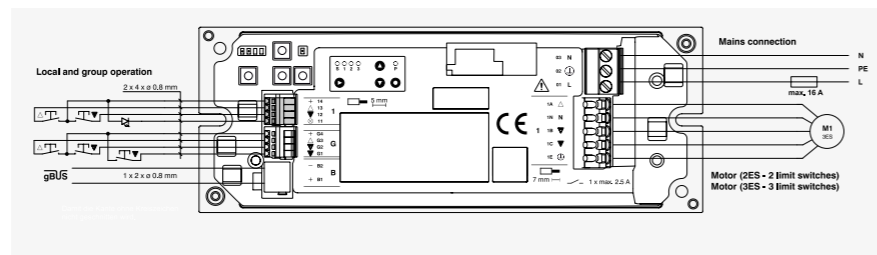
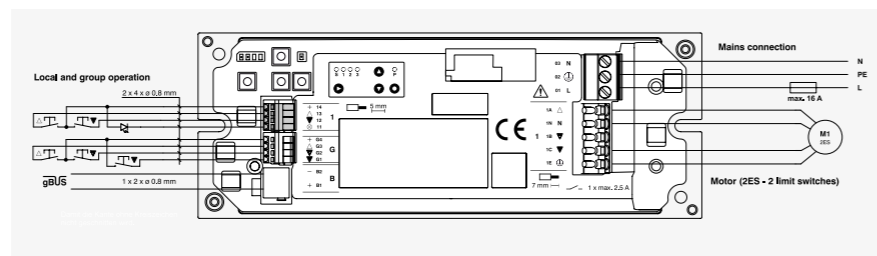
## Purpose

- Integrated facade product library with standard positions per facade product for accurate solar tracking control
- Exact positioning of the facade product for uniform facade appearance while taking the aging process and temperature fluctuations into account
- Temporary blocking function for the automatic glare protection per motor channel after having been manually operated by user
- Restricted range of motion for user operation when frost protection is active or higher energy radiation
- Feedback on status.



gMS-1S

## Connection diagrams



## TECHNICAL DATA

<b>Device</b>		<b>Connections</b>	
Device type	gMS-1 / gMS-1S	<b>Power supply</b>	
		Number	1
		Connection	screw terminal, pluggable, 3-pin
		Cable	2 cables (L, N), max 2.5 mm <sup>2</sup> , single or fine-strand
		<b>Motor</b>	
<b>Connections</b>		Number	1
Voltage	230 V AC +10% / -20%, 50 Hz	Connection	spring type terminal 5-pin
Standby power per channel	0.3 W	Cable	gMS-1: 4 cables (PE, DOWN, N, UP), max 2.5 mm <sup>2</sup> , single-strand or finely stranded gMS-1S: 5 cables (PE, DOWN2, DOWN1, N, UP), max 2.5 mm <sup>2</sup> , single-strand or finely stranded
Circuit breaker	max. 16 A	Current	max. 2.5 A per channel
		End position detection	included, asynchronous motor 230 V AC, 50 Hz, with 2 or 3 mechanical limit switches, power factor > 0.9
		<b>Motors with integrated electronic on request!</b>	
<b>Mechanical data</b>		<b>Local operation</b>	
Dimensions	190 x 70 x 52 mm (W x H x D)	Number	1
Housing shape	Bar-type housing for decentralized installation with integrated anti-drag mechanism	Connection	spring type terminal, 4-pin
Housing material	ABS, flame-resistant and halogen-free plastic	Cable	4 cables (LED, DOWN, UP, +12 V DC), Ø 0.8 mm, single, twisted (min. 5 turns per meter)
Color	zinc-yellow RAL 1018	Length of lead	up to 100 m
Installation	DIN rail, railing channel, false floor, wall or false ceiling	Circuit	SELV according to EN 60730-1
Weight	approx. 300g	LED Current	type 2 mA
		Switch contact	12 V DC, 3 mA, isolated, gilded
		Binary input	6
<b>Electric Safety</b>		<b>Group operation</b>	
Type of protection	IP 20 according to EN 60529 (closed)	Number	1
Protection class	I according to EN 60730-1	Connection	spring type terminal, 4-pin
Software class	A according to EN 60730-1	Cable	4 cables (DOWN2, DOWN1, UP, +12 V DC), Ø 0.8 mm, single-strand, twisted (min. 5 turns per meter)
Contamination level	2 according to EN 60730-1	Length of lead	up to 100 m
Mode of operation	1 according to EN 60730-1	Circuit	SELV according to EN 60730-1
		Switch contact	12 V DC, 3 mA, isolated, gilded
		Binary input	3
<b>Surrounding conditions</b>		<b>Communication BUS</b>	
Surroundings	weather protected	Number	1
Operating temperature	5 bis +45 °C	Connection	spring type terminal, pluggable, 2 x 4-pin
Humidity	≤ 95 %, non-condensing	Cable	2 cables (+, -), Ø 0.5-0.8 mm, single wire
Surroundings class	3K5 according to EN 60721	Current	12 mA (normal operation) 30 mA (without 230 V power supply)
<b>Labeling</b>			
CE Guidelines	in compliance with the EMC Directive, Low Voltage Directive and RoHS Directive		
Marking	-		

# Operation

- BGT touch panel operating terminal**
- 5.7" graphic display
- On-wall BGT for surface-mounted installation
- BGT-UP for concealed installation
- Compatible with Feller EDIZIOdue\*\*
- Master and group operation
- Intuitive operation using sequences
- Up to 32 sections can be controlled
- Visualization of sensor and group statuses
- Switch programs on/off
- Colored status indicator

The touch panel (BGT) provides a modular solution for convenient operation and visualization of a Griesser blind control system.

The touch panel is connected directly to the Griesser LINK. It is used to intuitively operate all the blinds in a building and display the status of the automatic functions. The contact-sensitive indicator enables the system to be directly operated and provides information about operation.

The hand-held transmitters (SFB-1M, SFB-5M) can be used to operate motor controls for blinds without major installation effort. Any changes required due to adaptations in the room design can be made quickly and flexibly.

The following accessories for the BGT-UP must be ordered separately:

BGT - FRONT front plate touch panel

BGT frame (white)

\*\* EDIZIOdue cover frame Size 3x2



BGT-UP

## TECHNICAL DATA BGT-UP & BGT-AP

### BGT

Dimensions	BGT-UP 108 x 148 x 42 mm BGT-AP 199 x 178 x 89 mm
Installation	In-wall inlet box size 3x2 box 9926EIB, E no. 372.116.129
Image area	5.7", approx. 115 x 86 mm
Colors	65536 (16Bit)
Resolution	320 x 240 pixels (QVGA)
Display technology	Active TFT LCD
Touch sensor	Resistive
Memory card	Slot for microSD™ Card, 1 or 2 GByte Accessible once front cover has been removed
Type of protection	IP20, EN 60529
Operating environment	Dry rooms, 0–50°C
CE conformity	In compliance with the EMC Directive, Low Voltage Directive and RoHS Directive

### Connections

<b>Mains</b>	
Voltage	230 V AC ±10%, 50 Hz
Power consumption	max. 8 W
Standby performance	3 W
Connection	Pluggable screw terminals, 3-pin
Cable	3 conductors (L, PE, N), 1.5 mm <sup>2</sup> , single stranded or finely stranded
Ethernet	RJ45 plug, 8-pin

### Griesser LINK

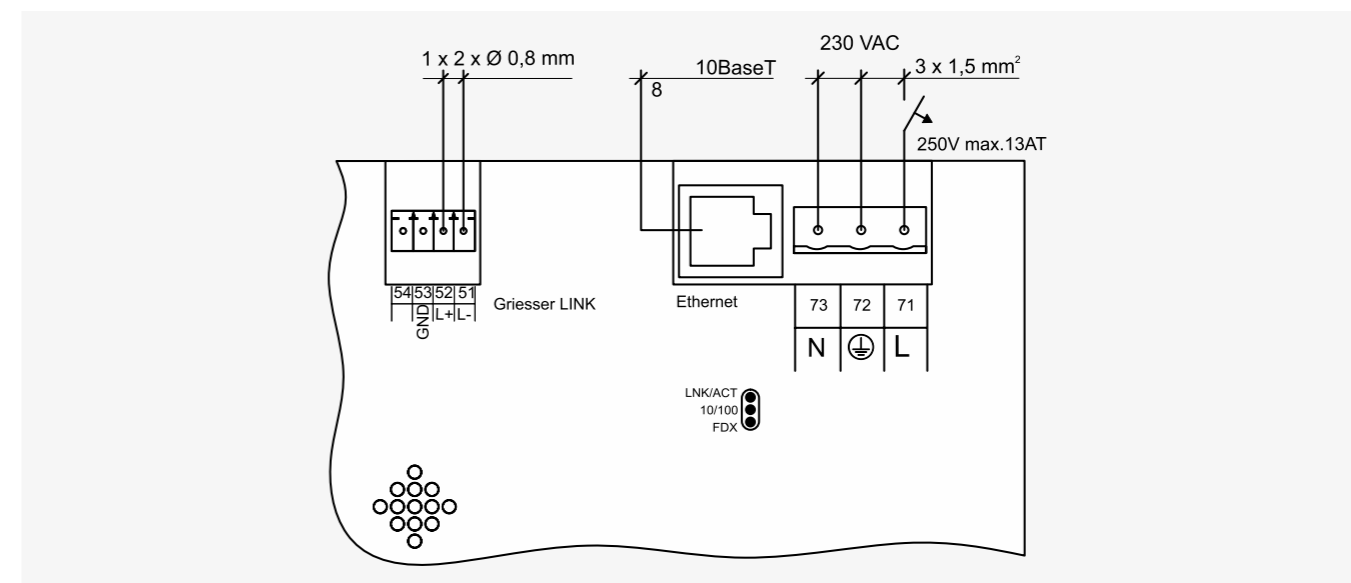
Electric circuit	PELV
Connection	Pluggable screw terminal, 4-pin
Cable	2 cables, Ø 0.8 mm, twisted (min. 5 turns per meter), max. cable length 200 m (terminals 51 / 52) or 4 cables, Ø 0.8 mm, twisted (min. 5 turns per meter), max. cable length 200 m (terminals 51 / 52 / 53 / 54)

### SFB-1M / SFB-5M

Operating voltage	3 VDC
Battery type	2 x LR06 (AA Mignon)
Protection class	IP 20
Temperature range	0 ... +55 °C
Radio frequency	868 Mhz-Band
Dimensions	120 x 51 x 26 mm
Weight	120 g

### MOFUB / MOFUB-1

	MOFUB	MOFUB-1
Temperature range	0 ... +55 °C	0 ... +55 °C
Radio frequency	868 Mhz-Band	868 Mhz-Band
Dimensions	45 x 35 x 16 mm	33 x 35 x 8 mm
Weight	12 g	8 g



## Visualization, remote maintenance

### GTS Griesser Terminal server

Connection between Griesser LINK and Ethernet/TCP-IP

Enables remote maintenance with FlexTool

Connections to supervisory system via Modbus/TCP

The GTS Griesser Terminal Server links the Griesser LINK with the ethernet/TCP-IP. It enables remote access to the solar shading central which makes it possible to remotely control the Griesser blinds control device. Remote control can take place over the internet or intranet. Using the Griesser Terminal Server and the configuration software (FlexTool), the solar shading central can be selected and reconfigured and events can be recorded. The user or a facility manager can thus access the system at any time independently of the building location. In addition, the Griesser Terminal Server offers the possibility of linking the Griesser control to a third-party system for communication via a Modbus/TCP interface.

### GTS EVOLUTION

Integration into the building control systems

Connection between Griesser GTS and Ethernet / TCP-IP

Connection to the superordinated system

FMX template facilitates remote maintenance

The GTS Evolution server allows complex visualization and automation requirements to be met. A facility manager can incorporate the Griesser shading control into the building control system by means of the simple and user-friendly management system. Communication is also possible with external systems, such as Bacnet or Modbus, without limiting the number of process points or visualization pages.

The GTS Evolution server provides users with full user control along with a comprehensive analysis and evaluation of the performance of modern buildings.

The GTS Evolution server is connected to the Griesser solar shading control via the Griesser Terminal Server.



GTS Griesser Terminal Server



GTS Evolution

### TECHNICAL DATA GRIESSER-BOX & GTS GRIESSER TERMINAL SERVER

#### GTS Griesser Terminal Server

Housing design	REG 9TE, DIN 43880
Housing material	Impact-resistant and flame-retardant plastic, yellow
Dimensions	161 x 91 x 63 mm
Installation	In switch cabinet on top hat rail 35 mm (EN 50022) or equivalent
Memory card	Slot for microSD™ Card, 1 or 2 GByte Accessible once switch cabinet cover has been removed
Type of protection	IP20, EN 60529
Operating environment	Dry rooms, 0–50°C
CE conformity	In compliance with EMC Guideline, Low Voltage Directive and RoHS Directive

#### Connections

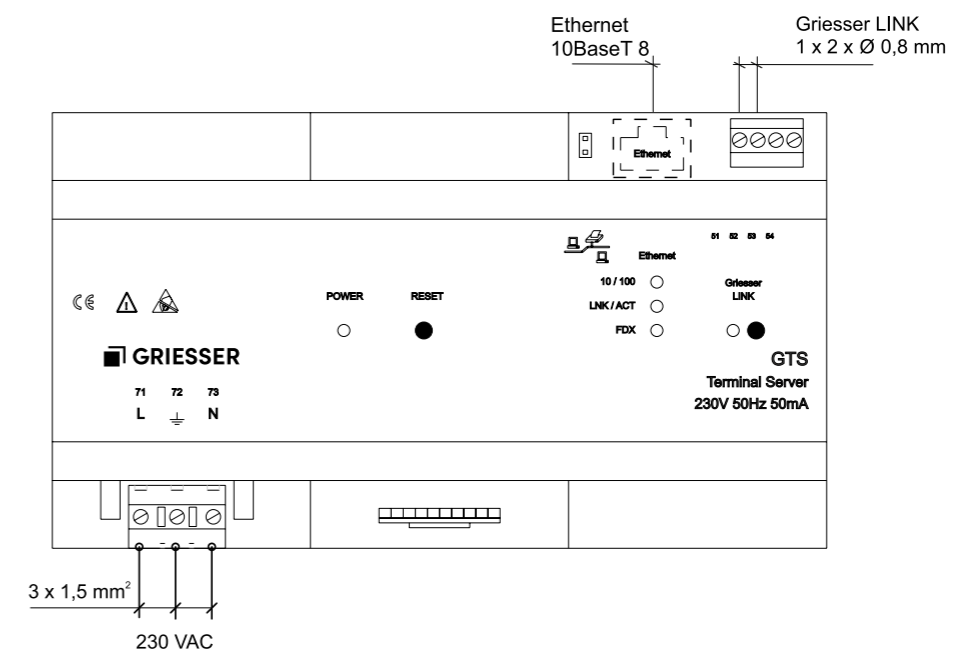
##### Mains

Voltage	230 V AC ±10%, 50 Hz
Power consumption	type 6 W
Connection	Pluggable screw terminals, 3-pin
Cable	3 conductors (L, PE, N), 1.5 mm <sup>2</sup> , single stranded or finely stranded
Ethernet	RJ45 plug, 8-pin

##### Griesser LINK

Electric circuit	PELV
Connection	Pluggable screw terminal, 4-pin
Cable	2 cables, Ø 0.8 mm, twisted (min. 5 turns per meter), max. cable length 200 m (terminals 51 / 52) or 4 cables, Ø 0.8 mm, twisted (min. 5 turns per meter), max. cable length 200 m (terminals 51 / 52 / 53 / 54)

### Connection diagram GTS Griesser Terminal Server



## Functionality of gEM-8 weather control center and gFM-IH solar shading control center



<b>System size</b>		
Number of central units	1	1
Number of motors (max.)	540	540
Number of motor controls (max.)	60	60
Number of facade sectors	8	32
<b>Configuration</b>		
Remote maintenance	with configuration tool	via RFM
Programming	with configuration tool	FlexTool + configuration tool
<b>Functions</b>		
Shading programme (SP)		
Solar shading / visual protection	x	x
Twilight	x	x
Solar tracking	x	x
Shadow outline tracking	x	x
Roof/vertical louvres	-	x
Horizon limitation	2 points	200 points
Global radiation	x	x
Timer programmes (ZP)	16 time commands	50 time commands
Wind programmes (WP)	x	x
Rain programmes (RP)	x	x
Frost programme (FP)	x	x
Temperature programme (TP)	-	x
Heat programme (HP)	-	x
Input programme (EP) for a third-party system	-	x
Priority handling	-	x

## Services in and around intelligent glare protection and solar shading.

As a Member of the Facility Management Switzerland professional society, we are able to provide comprehensive supervision of solar shading systems on buildings of any and all types and size throughout their entire periods of utilization. Furthermore, it is primarily also expert support that we provide in cases of renovations and adapt existing buildings to the current state-of-the-art technology and comfort. Particularly as well with respect to energy savings with automatic solar shading systems.

### Our service offering

Support of electrical planners and building owners in the project planning and request for quotation stages

Testing your existing system

Checking the compatibility of blinds motors and Griesser control

Creation of a remodeling plan

Study for the placement of wind sensors

Shade management with building simulation

Energy optimization with horizon limitation

Free telephone assistance with the possibility of using TeamViewer

Service subscription, remote maintenance, expert assessments

Preparation of general object-specific diagrams

Predictive maintenance by means of operating data acquisition and monitoring

Inspired by the **Sun.**

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**[griesser.com](http://griesser.com)**

