

Instructions

SASIL-MOT Fuse Combination Unit

GA-E016e

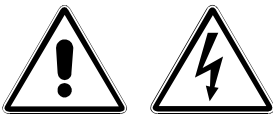
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Fuse combination unit with motor drive

SASIL-MOT	Size 00	...160A
	Size 1	...250A
	Size 2	...400A
Coupling unit	Size 2	...400A
	Size 3	...630A
Coupling unit	Size 3	...630A

Auxiliary voltage DC 24V



Attention: To prevent electrical shock, disconnect from power source before installing or servicing.

General

These Instructions for Use contain all the information and advice needed by the user for the correct handling of the fuse combination units.

The SASIL-MOT fuse combination units are equipped with fuse monitoring system as standard and can optionally be combined with an intelligent EMDE... measuring sensor module.

This document provides separate instructions for each equipment level.

Note

This document does not contain the technical specifications and technical data of the standard SASIL models.

Therefore, before using the fuse combination units with motor drive, you should familiarise yourself with the operation and technical data of the standard version.

The equipment and individual components may differ in detail from the illustrations contained in this document.

These Instructions for Use contain all necessary information for operating the described equipment in accordance with its intended use.

The instructions are intended for technically qualified personnel who have been specially trained and/or have relevant knowledge in the field of switchgear.

Note

The border cover with the drive unit is calibrated in connection with the border basic equipment. Motor drive and basic equipment form a coordinated functional unit. Both components are characterized by an identical seriennummer. If the border cover (with motor drive) at another basic equipment is operated, it can come to malfunctions. A calibration process becomes necessary for the newly formed unit. The complete calibration process can be accomplished only in the manufacturer!



Fuse combination unit
SASIL-MOT Size 00 - 160A



Fuse combination unit
SASIL-MOT Size 1 - 250A



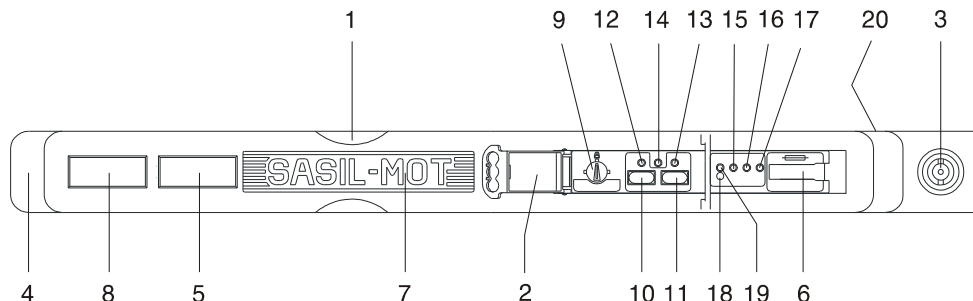
Fuse combination unit
SASIL-MOT Size 2 - 400A (Coupling unit)




Fuse combination unit
SASIL-MOT Size 3 - 630A (Coupling unit)

Components

- | | | | |
|----|---|----|--|
| 1 | Cover block | 11 | ON button (multifunction) |
| 2 | Mobile cover (lockable) | 12 | LED indicator – OFF (green) |
| 3 | Espagnolette bolt for locking the cover block | 13 | LED indicator – ON (red) |
| 4 | Internal hinge-catch | 14 | LED indicator – STATUS |
| 5 | Nameplate | 15 | LED indicator – Fuse F1 blown (red) |
| 6 | Notice plate for fuse size | 16 | LED indicator – Fuse F2 blown (red) |
| 7 | Emergency switch (behind the face plate) | 17 | LED indicator – Fuse F3 blown (red) |
| 8 | Rating plate | 18 | Function button (e.g. bus address) |
| 9 | Key switch (mode selector) | 19 | LED indicator – STATUS |
| 10 | OFF button (multifunction) | 20 | 16-pin signal connector (back panel of unit) |



Explanation of instruments and controls

1. **Front cover**
The front housing comprises the complete drive unit and contains all drive, control and operating components. Before using the device, it is essential to make sure that the front housing is locked with the locking bolt 3. To open the front cover (only possible when switched off), e.g. in order to replace a fuse, remove the front housing by releasing the internal hinge 4 (heavy intrinsic weight).
2. **Mobile cover**
The components required to control and set the device are located behind this cover. The cover can be locked by external locks (up to 3) and is designed to prevent inadvertent operation.
3. **Front cover locking bolt**
The front cover is locked for operation by means of locking bolt 3 (see also item 1). It is imperative to make sure that front covering 1 is locked with locking bolt 3 during operation.
4. **Internal hinge-catch**
The hinge-catch 4 is a releasable hinge between the front covering and switch block.
5. **Nameplate: label to be provided by customer**
6. **Notice plate for fuse sizes**
7. **Emergency switch**
For mechanically switching off the fuse combination block in the event of auxiliary voltage failure or of a defect in the control electronics when the unit is **switched on**.
Remove the SASIL-MOT faceplate and follow the instructions under the plate.
NOTE: The emergency manipulation of the SASIL MOT border may only for switching the switched on SASIL MOT border off used will to switching on of the SASIL MOT border on without necessary foreign supply voltage DC 24V must a handtransacted cover be used.
8. **Manufacturer's nameplate/rating plate**
9. **Key switch (mode selector)**
The key switch (located behind the mobile cover 2) can be used to set 3 operating modes.
a = man (manual)
ON/OFF function only with buttons 10 and 11
b =  (locked)
No switch functions possible in either manual or automatic mode.
c = auto (automatic)
In this mode, external DC 24V signals and control signals can be transmitted via the internal BUS (depending on type of application)
10. **OFF button**
To trigger the manual "Off" switching function, hold down the green button for **about 1-2 seconds** (internal scan cycle).
11. **ON button**
To trigger the manual "On" switching function, hold down the red button for **about 1-2 seconds** (internal scan cycle).
12. **LED indicator – OFF**
Green LED lights up to signal OFF status.
13. **LED indicator – ON**
Red LED lights up to signal ON status.
14. **LED indicator – STATUS**
These status light emitting diode shines in the normal operating mode green.
The switch safeguard border is in the configuration mode flashes this light emitting diode red green. The configuration mode can be only activated, if the engine-claimant switch safeguard border in the system group with the PLMaster energy management system (EMS) is operated (see also: Enterprise of the border in of EMS the system group). If an error is present flashes this light emitting diode red. In a case of an error it flashes a certain number and shines thereafter for one moment continuous. If one counts the number of dark phases up to the next phase of the steady light, one can recognize the kind of the error. The following table shows the error table.

Error table:

Number of dark phases	Error message
1	Code switch defectively
2	Position feedback under minimum
3	Position feedback over maximum
4	Position calibration incorrectly
5	Processor error
6	Engine run time error
7	
8	
9	Auxiliary switch defectively
10	Engine overcurrent (hardware detecting)
11	Supply voltage polarizes
12	Engine overcurrent (software detecting)
13	Position feedback incorrectly
14	Current too small
15	Engine does not turn
16	Data errors

15. **LED indicator – F1**
Red LED to indicate fuse F1 has blown.
16. **LED indicator – F2**
Red LED to indicate fuse F2 has blown.
17. **LED indicator – F3**
Red LED to indicate fuse F3 has blown.
18. **Function switch (FN)**
Only in combination with an optionally installed EMDE... intelligent measuring sensor (setting for the EMDE... bus address).
19. **LED indicator – STATUS**
These status light emitting diode shines in the normal operating mode green.
If an error is present shines this light emitting diode red. This error message refers to malfunctions of inserted electronics components (indicating fuse or measuring module). The switch safeguard border with a measuring module operated will flash likewise the configuration mode through red green is indicated (see also: Enterprise of the border in of EMS the system group).


Operation of the SASIL-MOT fuse combination units in the EMS system (JM Data Bus)

If the SASIL-MOT fuse combination unit is operated via the JM data bus (EMS system), a unique address must be programmed for the "Drive" station and, where applicable, for the "EMDE... measuring sensor" station.



This requirement means that up to **2 stations** may be present in the fuse combination unit and must be programmed with the **same** bus address.

Setting the "Drive" address

1. Set key switch 9 to "  " (locked).
2. Hold down keys 10 and 11 simultaneously for approx. 2 seconds (setting mode).
3. The STATUS LED 14 flashes alternately red/green.
4. Select the address in the EMS metering panel (see separate description).
5. Hold down keys 10 and 11 again for about 2 seconds to quit setting mode.
6. Set key switch 9 to "auto" (automatic mode).

Setting the "EMDE... measuring sensor" address

1. Hold down the "STATUS" 18 button for approx. 2 seconds (setting mode).
2. The STATUS LED 19 flashes alternately red/green.
3. Select the **same** address in the EMS metering panel.
4. Hold down the "STATUS" 18 button again for about 2 seconds to quit setting mode.

Note



For a precise description of the parameterisation and addressing of the individual bus stations please refer to the Instructions for Use of the "EMS Metering Panel" (GA-E021).



Before measurement of the insulation resistance in the manufacturer of the switch installation builders and/or during the suburb measurement according to DIN EN 60439-1 and/or VDE 0660 part of 500 and VDE 0100 part of 610 it must be guaranteed that the SASIL module min. 7mm is pulled out of the border guidance. These measures are to be excluded urgently necessarily around possible damages of the electronic elements.

Fuse monitor function

When the SASIL-MOT fuse combination unit is **switched on** and an auxiliary voltage of DC24 V is applied the STATUS LED 19 lights up green if all the fuse links are intact.

If one or more fuses have blown, the corresponding LED(s) 15, 16 and/or 17 light up and the built-in relay picks up.



After replacing the fuse(s), the system is automatically reset when it is switched on again, and the monitoring operation of the fuse monitor is restored. (Fault indicator LEDs off, relay released).



Note

If the block is switched off to replace a fuse, the relevant fault indicator LED automatically goes out.

Inserting/changing fuses

Switch off the fuse combination unit and unlock it by releasing the espagnolette locking bolt 3. Open the front unit on its hinge.



The switch position in the inspection window 7 must be  (OFF).

Hold the front of the unit with the left hand and push the hinge 4 forwards with the right hand.

The front unit can now be removed. Insert or replace the fuses.

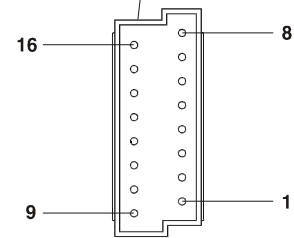
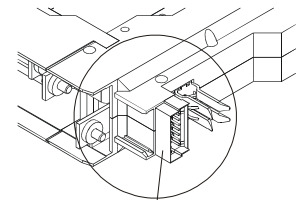
Refit the front unit in reverse order. The front panel must then **imperatively** be relocked with the locking bolt 3.

20. 16-pin male connector layout (back panel)

The following pin layouts are possible, depending on the equipment level with fuse monitoring or EMDE... measuring sensor module:

Maximum SASIL-MOT configuration with fuse monitor (standard version)

Pin No. 1-16	Designation	Function
1	Current measurement (S2)	Transformer L1 (optional)
2	Current measurement (S1)	
3	Break (NC) contact (11)	Switch position indicator
4	Break (NC) contact (12)	
5	Make (NO) contact (23)	Switch position indicator
6	Make (NO) contact (24)	
7	Break	Fuse monitor EMDS
8	Make	
9	Common	
10	Protective earth	PE
11	Systems N	N
12	DC 24V ON	External motor controller
13	DC 24V GND	
14	DC 24V OFF	
15	+ DC 24V	Auxiliary voltage
16	- (GND)	



View of the connector on the connection side (from rear)

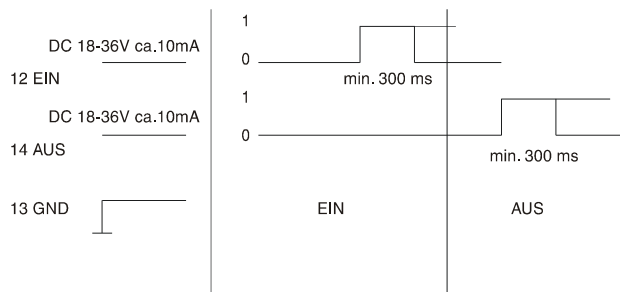
Maximum SASIL-MOT configuration with EMDE... measuring sensor module (optional) and data bus connection (EMS system)

Pin No. 1-16	Designation	Function
1	GND (BUS)	Data bus
2	Make (NO) contact (13)	
3	BUS DATA A	Data bus
4	BUS DATA B	
5	BUS (shield)	
6	Make (NO) contact (14)	Switch position indicator Make (optional)
7	Break	Switch contact (optional) Relay (changeover)
8	Make	
9	Common	
10	Protective earth	PE
11	Systems N	N
12	DC 24V ON	External motor controller
13	DC 24V GND	
14	DC 24V OFF	
15	+ DC 24V	Auxiliary voltage
16	- (GND)	

Technical Data (Drive) Size 00 to 3

Control Signal DC 24V (DC 18V to DC 36V) 10mA
Signal duration min. 300 ms or permanent

Current consumption, drive Active 500mA
(typically 1 sec.)
Standby 100mA



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Subject to technical alternations!

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