GfA ELEKTROMATEN®

Electrical operating instructions

Status - Monitoring Module

OPERATING INSTRUCTIONS

Page

**www.gfa-elektromaten.de**

DESCRIPTION

This module has five potential free changeover contacts available. This delivers information's about door position or failure at terminal X42.

The module is able to deliver four commands to the control panel TS 981; control signals are galvanic separated by using the terminals X41. LED's appearing all activated commands and signals.
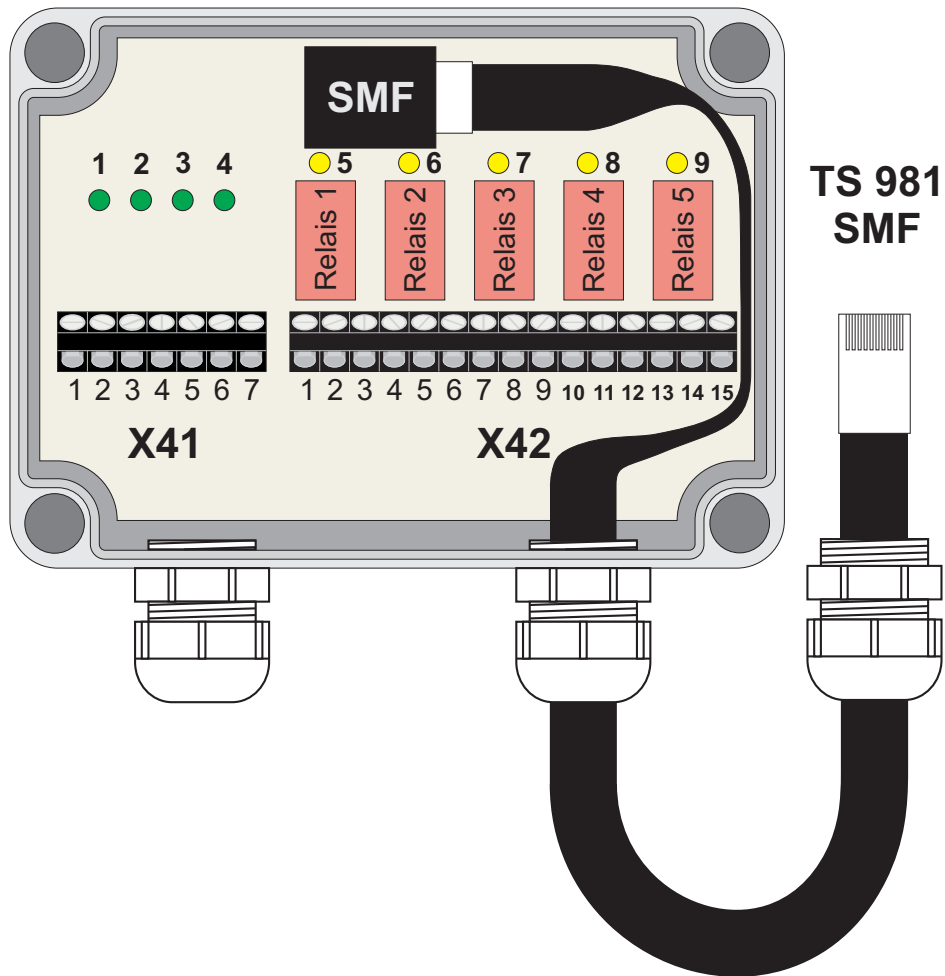
SMF   Plug - in
X41   Input
X42   Signal contact (potential free changeover contacts at relays 1-5)

⚠ **IMPORTANT NOTE:**
Before mounting, the mains supply must be switched OFF.

ENCLOSURE INSTALATION

The enclosure should be fitted directly beside the control panel. To connect the module, the lateral rubber plug must be carefully opened. The module cable should be guided thru the hole into the control enclosure, and following the pre-fitted cable gland may be softly tightened by using the enclosed nut.
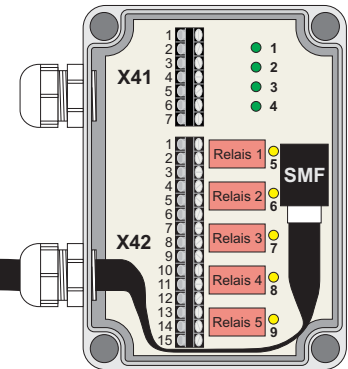
The module connection plug must be fitted into the SMF socket of the TS 981 control panel. To check the proper connection the connection cable may be pulled carefully.

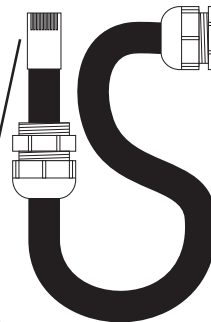Thereafter the cable could be laid into the housing and cable gland should be finally tightened.
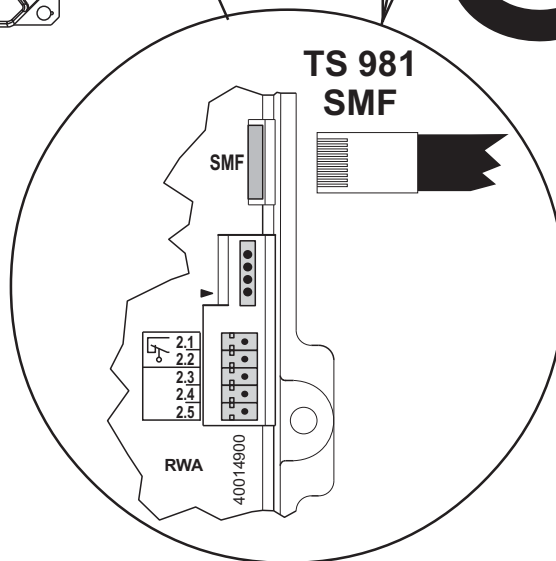
Control panel TS 981
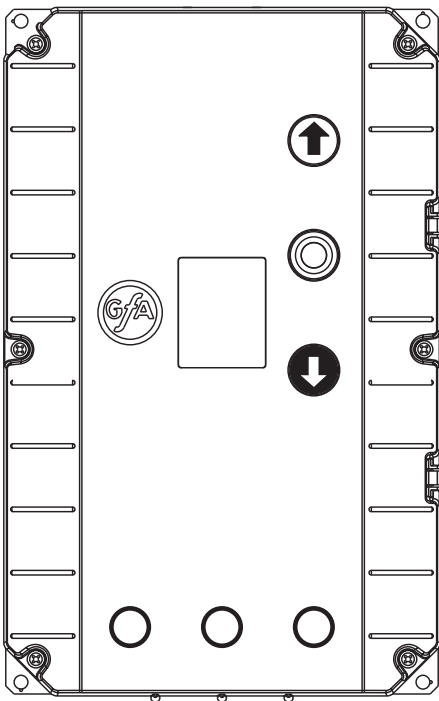
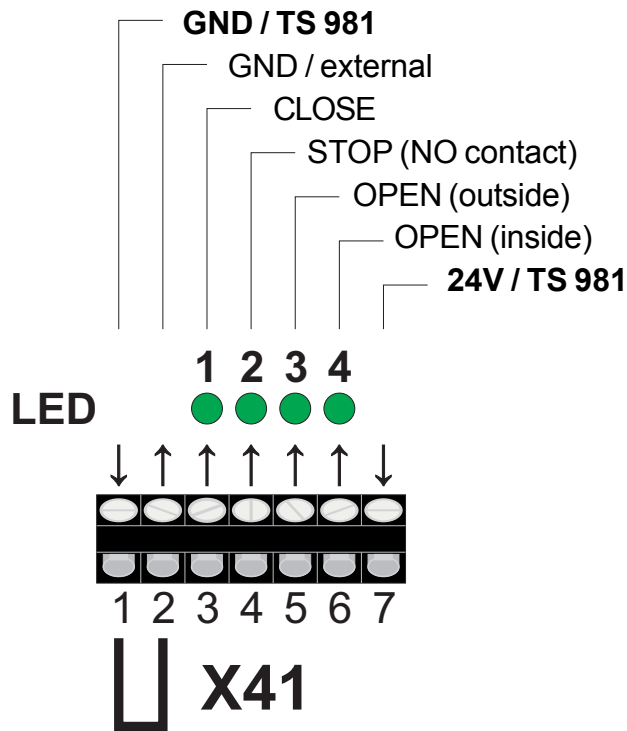**Status – Monitoring Module**

Plug - in SMF

COMMAND INPUT

The SMF Module has four input terminal available.

All commands, especially STOP COMMAND must be NO contact commands. The LED's 1 – 4 appearing all activated commands.

The control signals are galvanic separated; means all control signals could be supplied from internal (TS 981) or external power source (e.g. output SPS).

If the control signal should be delivered from the internal power source (TS 981) a bridge must be fitted at terminal X41/ 1-2 (enclosed into first delivery). All actual commands delivered to X41/ 3 up to 6 should be supplied with +24VDC potential (X41/ 7).

If the control signal would be supplied from an external power source (external voltage) the bridge at terminal X41/ 1-2 must be removed. GND (0V potential) from external power supply must be connected at terminal X41/ 2. All actual commands to X41/ 3 up to 6 should be delivered +24VDC potential by external power source.

```
            ┌─── GND / TS 981
            │  ┌─ GND / external
            │  │  ┌─ CLOSE
            │  │  │  ┌─ STOP (NO contact)
            │  │  │  │  ┌─ OPEN (outside)
            │  │  │  │  │  ┌─ OPEN (inside)
            │  │  │  │  │  │  ┌─ 24V / TS 981

                  1  2  3  4
      LED         ●  ●  ●  ●

            ↓  ↑  ↑  ↑  ↑  ↑  ↓
           ┌──────────────────────┐
           │  ○  ○  ○  ○  ○  ○  ○  │
           ├──────────────────────┤
           │  ○  ○  ○  ○  ○  ○  ○  │
           └──────────────────────┘
            1  2  3  4  5  6  7

            ┌┐
            └┘   X41
```

✶
Remove bridge for external supply and connect external GND at X41/ 2!
Commands from the external 24V DC power source must be connected at terminal X41/ 3-6!

⚠️ **IMPORTANT NOTE:**
Incorrect fitting will damage all connected parts and systems

SIGNAL CONTACTS

This module has five potential free changeover contacts available. LED's 5 – 9 appearing the actuated signals. The signal contacts are able to switch DC continuous or AC alternate voltage.

Data:
Continuous voltage: 24VDC (nominal) <30VDC,
Alternate voltage :   max 230VAC,
If resistive loads are to be switched the max current should not exceed 1A (max. starting current 5A),
If switching inductive loads (e.g. other relays): The max. current should not exceed 1A (max. starting current 5A), those have to be protected with free-wheeling Diodes

> ⚠ **IMPORTANT NOTE!**
> Exceeding of the max, permitted current delivers a strong reduction of the relay's lifetime.
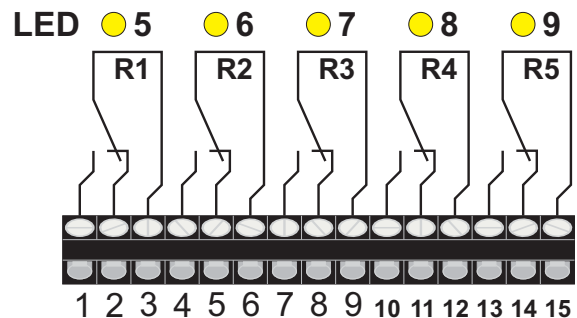
Relay contact functions

R 1 = Multiple indication safety edge
R 2 = Multiple indication Stop
R 3 = Signal photo-beam
R 4 = Shutter CLOSED
R 5 = Shutter OPEN

Relay 1 = Multiple indication safety edge
This relay switches when following failures appearing:
- Safety edge actuated
- Safety edge defective
- Safety edge two time consecutively actuated

Relay 2 = Multiple indication Stop
This relay switches when following failures appearing:
- Stop - command
- Emergency Stop actuated
- Electrical safety chain interrupted
- Pass-door OPEN

Relay 3 = Signal Photo-Beam
This relay switches when following failures appearing:
- Photo-beam actuated
- Photo-beam defective

Relay 4 = Shutter CLOSED
This relay switches, if the shutter is finally CLOSED

Relay 5 = Shutter OPEN
This relay switches, if the shutter is finally OPEN

CONTROL PROGRAMMING

2. Select program and confirm	3. Adjustment			4. Memorise
Additional door funcions				
⌐⌐ **Status message function SMF ON / OFF**	⫫⁺	⌐	**SMF OFF**	⊡ **Press selector**
		/	**SMF for message module**	
		⌐⌐	**SMF for unidirectional RS 232 interface module**	