Technical Information

2022–04–01 / 120-Aa
Y M D

50002133.00002

Subject

Door control TS 981 – Hardware adaptation and new software version 3.0

Description

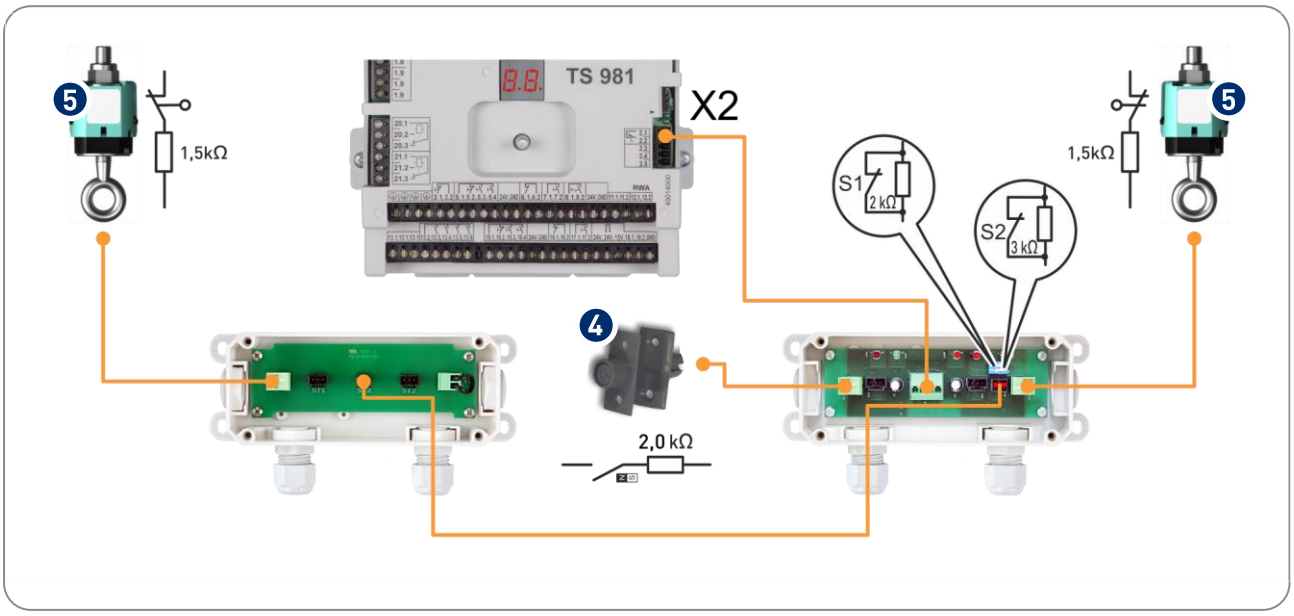
The hardware adaptation for the door control TS 981 (❶) has been implemented to meet the requirements of the upcoming amendment to EN 12453[1]. Among other elements, an additional contactor is installed to realise an independent shutdown option (❷). The door control also receives the new software version 3.0.

The TS 981 is thus also provided with cross-fault monitoring functions[2], which have already been incorporated into other GfA products (❸) since the end of 2019 (see TI 112 of 2019).

Please read the information about the introduction of the product on page 2 of this Technical Information.

Technical background of the adjustments

The safety functions implemented in the door control must at least correspond to performance level c (PLc) according to EN ISO 13849-1. This means that the safety devices connected to the door control, such as pass-door switches (❹) and slack-rope switches (❺), require monitoring for cross faults. This is achieved by a resistor evaluation according to the following overview.



1) EN 12453:2017, probably soon to be replaced by EN 12453:2022
2) A cross fault refers to the unintended, faulty connection between two redundant circuits.

Door control change

With respect to the hardware and apart from the contactors, the interface X2 for door safety switches is also changed. It will have a resistor evaluation option analogous to the TS-B door controls. A resistor of 5kΩ is now expected on terminals X2.1 and X2.2. The resistor (❼) is factory-installed instead of a wire link (❻).

If the resistor is not applied (e.g. in the case of a line short circuit, fault with the connected door safety switches or an open safety circuit due to a triggered slack-rope or pass-door switch), operating the door is not possible. A corresponding fault indication is displayed.

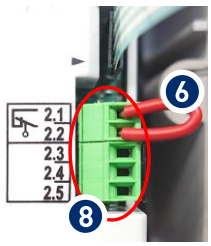
To differentiate visually between the new and old door controls, the colour of the plugs installed on X2 will be changed from green to black (❽).

The TS 981 is also provided with the new software version 3.0. The version is printed on the name plate. The new software version is used only to implement the change to resistor evaluation. The range of functions and the operation of the door controls remain unchanged.

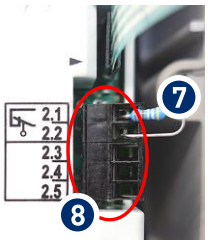
The compatibility matrix (❾) below shows how door controls, door safety switches and door leaf boxes with the old technology can be combined with the new technology.

Interface X2

Previous



New



❾ Compatibility matrix

Door control	Door safety switch	Door leaf box	Possible combinations
			
New	New	New	Yes
		Old	Yes
	Old	New	Yes
		Old	Yes
Old	New	New	No
		Old	No
	Old	New	Yes
		Old	Yes

New: With resistor evaluation Old: Without resistor evaluation

Notes

- The new TS 981 will be successively introduced starting 07/2022. The part numbers remain unchanged.
- As a sample control unit for test purposes, the TS 981 with 3~400 V and a 5-pin CEE mains supply is available now under the separate part no. 20098191.00002.
- The new door controls come supplied with revised installation instructions and this Technical Information both in German and English (at the start).
- Shipments may be mixed with door controls of the previous type during the introductory phase.
- Due to the extensive hardware adaptations, the prices must be adjusted for the TS 981 door control family.

Sample control unit
TS 981 (3~400 V)
Part no.: 20098191.00002

Do you have further questions about the new TS 981 door control or the price adjustment? Do you need a sample control unit? Your sales representative will gladly advise you:
http://gfa-elektromaten.com/en-DE/contact.html