



TS Control Panel Overview

for GfA ELEKTROMATEN® drives with DES digital limit switch or NES mechanical limit switch

Features

Operation modes

CLOSE in hold-to-run / OPEN in self-hold
CLOSE / OPEN in self-hold

Design

Dimensions W x H x D [mm]
For the control of mains-driven, FI, FX and DU drive units
Compatible limit switch systems

Supply voltage

1N- 190-240 V; 3- 190-240 V; 3N- 360-415 V - 50/60 Hz
1N- 190-240 V; 3- 190-240 V; 3/3N- 360-415 V - 50/60 Hz

Safety devices

Resistance-monitored pass-door / slack-rope switch
Safety edge systems (optical / electrical 8.2 kΩ / pneumatic 1.2 kΩ)
Light curtains with and without blanking function
Integral protection for anti-entrapment (optical / electrical 8.2 kΩ / 1.2 kΩ) – normally open

Connection options

24 VDC power supply for external devices
230 VAC power supply for external devices
External command device [quantity]
Photocell / With test function or two-wire connection [quantity]
Impulse switch (external radio receiver / pull switch)
Switch for partial opening function
Interface for additional devices [quantity]
↳ Lock function / Status reporting function (UBS / DIF)
Parameterisable input [quantity]
↳ Smoke and heat extraction (RWA) function

Functions

Partial opening
Automatic timed closing (0-300 s)
Automatic timed opening (1-99 min)
Traffic light control
Real-time clock with world time zones¹¹⁾
Daylight saving / standard time for 4 date ranges
Weekly timer with day-specific switching functions
Operating calendar
Activation counter for safety devices
4-digit access code for parameterisation via rotary selector switch
Controller parameterisation via evodo-Toolkit app
Software update

Communication

Integrated radio receiver for handheld transmitters
Integrated radio receiver for WSD¹⁵⁾
Bluetooth interface for parameterisation
WLAN (2,4 GHz)¹⁶⁾ / LTE/NB modem¹⁷⁾

Volt-free relay contacts

Programmable function changeover [quantity]
Counterflow control with red-green traffic light

Door control comparison

Equivalent TS Control Panel
Main distinguishing features
Part no.

								
	TS 959	TS 970	TS 971 TS 971+	TS 981	TS 91.11	TS 92.12	TS 93.13 TS 93.25	TS 96.25
Operation modes	• -	• •	• •	• •	• -	• •	• •	• •
Design	155 x 386 x 90 mains-driven only DES / NES	155 x 386 x 90 • DES / NES	155 x 386 x 90 • DES / NES	190 x 300 x 115 • DES	175 x 390 x 90 mains-driven only DES / NES ¹¹⁾	175 x 390 x 90 • DES / NES ¹¹⁾	175 x 390 x 90 • DES / NES ¹¹⁾	175 x 390 x 90 • DES / NES ¹¹⁾
Supply voltage	• • ²⁾	- •	- •	- •	• -	- • ²⁾	- •	- • ²⁾
Safety devices	• - - • ⁴⁾	• • • • ⁴⁾	• • • • ⁴⁾	• • • •	• - - • ⁴⁾	• • • • ⁴⁾	• • ³⁾ • • ⁴⁾	• • ³⁾ • •
Connection options	- • [1,6 A] • [1] - / - - - - - / - - -	• [0,18 A] • [1,6 A] • [1] • / - [1] • [1] • [1 UBS] ⁹⁾ - / - - -	• [0,35 A] • ⁶⁾ [1,0 A] • [1,6 A] • [1] • / - [1] • [1] • [1 UBS] ⁹⁾ - / - - -	• [1,0 A] • [1,6 A] • [2] • / - [2] • [2] • [5 UBS] ⁹⁾ • / • - • ¹³⁾	- • ⁷⁾ • [1] - / - - - - / - - • ¹²⁾	• ⁵⁾ [0,18 A] • ⁷⁾ • [1] • / • [1] • [1] - - - / - • [1] ¹⁰⁾	• ⁵⁾ [0,35 A] • ⁵⁾ [1,0 A] • ⁷⁾ • [1] • / • [1] • [1] • [1 DIF] ⁸⁾ • / • • [1] ¹⁰⁾	• ⁵⁾ [1,0 A] • ⁷⁾ • [2] • / • [2] • [2] • [3 DIF] ⁸⁾ • / • • [2] ¹⁰⁾
Functions	- - - - - - - - • - - - -	• • - - - - - - • - - - -	• • • - - - - - • - - - -	• • • - • - - - • - - • ¹³⁾	- • • • • • • • • • • ¹²⁾	• • • • • • • • • • • ¹²⁾	• • • • • • • • • • • • ¹²⁾	• • • • • • • • • • • • ¹²⁾
Communication	- - • ¹⁶⁾ - / -	- - • ¹⁶⁾ - / -	• - • ¹⁶⁾ - / -	- - - - / -	- - • • / -	- - • • / -	• - • • / • as an option	• ¹⁴⁾ • • • / • as an option
Volt-free relay contacts	• [1] -	• [1] -	• [2] -	• [2] ¹⁹⁾ •	• [1] -	• [1] -	• [2] -	• [2] •
Door control comparison	TS 91.11 Mains supply without Neutral / with relay contact 20095900	TS 92.12 - 20197000	TS 93.13 TS 93.25 with WSD (only in comparison to TS 93.13) 20097100 20197100	TS 95.25 TS 96.25 without WSD with counterflow control 20098100	TS 959 Mains supply with Neutral / without relay contact 20910110	TS 970 - 20920120	TS 971 without WSD with WSD 20930130 20930250	TS 981 With WSD 20960250

General features

- Safety reversing contactor
- Optional mains switch
- Integrated OPEN-STOP-CLOSE control device
- 2-digit digital display
- Rotary selector switch
- Perm. temperature range: -10 °C...+50 °C
- Protection class: IP65
- Maintenance cycle counter
- Optional emergency STOP / key switch

1) Can be realised via optional NES adapter

2) Optional: 3- 500 V - 50/60 Hz

3) Optional with connection for second safety edge

4) Possible via additional OSE relay module

5) Switchable by time and date

6) Both variants available

7) Can be realised via optional additional adapter [1,6 A]

8) DIF (Digital Interface): e.g., for lock function with panic function, status reporting function (I/O modul), command devices with display

9) UBS (Universal Command Sensor System): e.g., for loop detector, external radio receiver, external command device, light barrier

10) Parameterisable input: e.g., usable as opener/closer, smoke and heat extraction (RWA signal contact, or door interlock)

11) Serves as time log for event documentation

12) Via the **evodo-Sync App**

13) Using SD card

14) Switchable between 868 MHz and 433 MHz

15) **Wireless Safety Device** – replaces spiral cable

16) Possible via GfA Bluetooth Diagnostic Tool to read out and display key door-controller data

17) For example, for live monitoring of your door systems with numerous user-friendly features via the evodo IoT platform

18) 2 of 4 relays are coupled via a common COM

19) Expandable by five additional changeover contacts via the SMF status- reporting module (not function-programmable)