

Overview GfA Door Controls

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

Comparison of Generations

- TS-A: TS 981
- TS-B: TS 959 / TS 970 / TS 971 / TS 971+
- TS-C: TS 91.11 / TS 92.12 / TS 93.13 / TS 93.25 / TS 95.25 / TS 96.25

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

Features

	TS 91.11	TS 92.12	TS 93.13	TS 93.25	TS 95.25	TS 96.25	TS 959	TS 970	TS 971	TS 971+	TS 981
Operation modes											
CLOSE in hold-to-run mode / OPEN in self-hold mode	●	●	●	●	●	●	●	●	●	●	●
CLOSE / OPEN in self-hold mode	-	●	●	●	●	●	-	●	●	●	●
Design											
Dimensions W x H x D [mm]:	175 x 390 x 90	175 x 390 x 90	175 x 390 x 90	175 x 390 x 90	175 x 390 x 90	175 x 390 x 90	155 x 386 x 90	155 x 386 x 90	155 x 386 x 90	155 x 386 x 90	190 x 300 x 115
For the control of mains-driven, FI, FX and DU ELEKTROMATEN	mains-driven only	●	●	●	●	●	mains-driven only	●	●	●	●
For ELEKTROMATEN with limit switch system	DES / NES ¹¹	DES / NES ¹¹	DES / NES ¹¹	DES / NES ¹¹	DES / NES ¹¹	DES / NES ¹¹	DES / NES	DES / NES	DES / NES	DES / NES	DES
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	-	● ²⁾	●	●	●	● ²⁾	● ²⁾	●	●	●	●
Safety devices											
Resistance-monitored pass-door/slack-rope switch	●	●	●	●	●	●	●	●	●	●	●
Safety edge systems (optical / electrical 8.2 kΩ / pneumatic 1.2 kΩ)	-	●	● ³⁾	●	●	● ³⁾	-	●	●	●	●
Light grids with and without blanking function	-	●	●	●	●	●	-	●	●	●	-
3-channel safety device against entrapment (optical/electrical 8.2kΩ/1.2kΩ) – normally open	-	-	-	●	●	●	-	-	-	-	●
Connection options											
24 V power supply for external devices	-	● ⁴⁾ [0,18 A]	● ⁴⁾ [0,35 A]	● ⁴⁾ [1,0 A]	● ⁴⁾ [1,0 A]	● ⁴⁾ [1,0 A]	-	● [0,18 A]	● [0,35 A]	● ⁵⁾ [1,0 A]	● [1,0 A]
230 V power supply for external devices	-	- ⁶⁾	- ⁶⁾	- ⁶⁾	- ⁶⁾	- ⁶⁾	● [1,6 A]	● [1,6 A]	● [1,6 A]	● [1,6 A]	● [1,6 A]
External command device [quantity]	● [1]	● [1]	● [1]	● [1]	● [1]	● [2]	● [1]	● [1]	● [1]	● [1]	● [2]
Light barrier / with test function or two-wire connection [quantity]	- / -	● / ● [1]	● / ● [1]	● / ● [1]	● / ● [1]	● / ● [2]	- / -	● / - [1]	● / - [1]	● / - [1]	● / - [2]
Impulse switch (external radio receiver / pull switch)	-	● [1]	● [1]	● [1]	● [1]	● [2]	-	● [1]	● [1]	● [1]	● [2]
Switch for partial opening function	-	●	●	●	●	●	-	●	●	●	●
Interface for additional devices [quantity]	-	-	● [1 DIF] ⁷⁾	● [3 DIF] ⁷⁾	● [3 DIF] ⁷⁾	● [3 DIF] ⁷⁾	-	● [1 UBS] ⁸⁾	● [1 UBS] ⁸⁾	● [1 UBS] ⁸⁾	● [5 UBS] ⁸⁾
↳ Lock function / status reporting function	- / -	- / -	● / ●	● / ●	● / ●	● / ●	- / -	- / -	- / -	- / -	● / ●
Parameterizable input [quantity]	-	● [1] ⁹⁾	● [1] ⁹⁾	● [1] ⁹⁾	● [1] ⁹⁾	● [2] ⁹⁾	-	-	-	-	-
↳ Smoke and heat extraction (RWA) function	-	●	●	●	●	●	-	-	-	-	●
Functions											
Partial opening function	-	●	●	●	●	●	-	●	●	●	●
Automatic time closing (0-300 s)	-	●	●	●	●	●	-	●	●	●	●
Automatic time opening, e.g. for cold storage (1-99 min)	-	●	●	●	●	●	-	●	●	●	●
Traffic light control	-	●	●	●	●	●	-	●	●	●	●
Real-time clock with world time zones ¹⁰⁾	●	●	●	●	●	●	-	●	●	●	●
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 parameterization via rotary selector switch	●	●	●	●	●	●	-	●	●	●	●
Controller parameterization via evodo - Toolkit app	●	●	●	●	●	●	-	●	●	●	●
Software update	● ¹¹⁾	● ¹¹⁾	● ¹¹⁾	● ¹¹⁾	● ¹¹⁾	● ¹¹⁾	-	-	-	-	● ¹²⁾
Communication											
Integrated radio receiver for handheld transmitter	-	-	● ¹³⁾	● ¹³⁾	● ¹³⁾	● ¹³⁾	-	-	●	●	-
WSD ¹⁴⁾ - Integrated radio receiver	-	-	-	●	●	●	-	-	●	●	-
Bluetooth interface for parameterization	●	●	●	●	●	●	- ¹⁵⁾	- ¹⁵⁾	- ¹⁵⁾	- ¹⁵⁾	-
WLAN (2,4 GHz) ¹⁶⁾ / LTE/NB modem ¹⁶⁾	● / -	● / -	● / ● as an option	● / -	● / -	● / ● as an option	- / -	- / -	- / -	- / -	- / -
Volt-free relay contacts											
Function-programmable changeover [quantity]	● [1]	● [1]	● [2]	● [4] ¹⁷⁾	● [2]	● [2]	● [1]	● [1]	● [2]	● [2]	● [2] ¹⁸⁾
Counterflow control with red-green traffic light	-	-	-	-	-	●	-	-	-	-	●
Door control comparison											
Door control of the other generation	→ TS 959	→ TS 970	→ TS 971	→ TS 981	→ TS 981	→ TS 981	→ TS 91.11	→ TS 92.12	→ TS 93.13 / TS 93.25	→ TS 95.25 / TS 96.25	→ TS 981
Main distinguishing features	Mains supply with Neutral / without relay contact		without WSD	with WSD / without counterflow control	with WSD		Mains supply without Neutral / with relay contact		with WSD ^{only in comparison to TS 93.13)}	without WSD with counterflow control	
Part no.	20910110	20920120	20930130	20930250	20950250	20960250	20095900	20197000	20097100	20197100	20098100

1) Can be realized via optional NES adapter
 2) Optional: 3~ 500 V - 50/60 Hz
 3) Optional with connection for second safety edge
 4) Switchable by time and date
 5) Both variants available
 6) Can be realized via optional additional adapter [1.6 A]

7) DIF (Digital Interface): e.g., for lock function with panic function, status reporting function (I/O modul), command devices with display
 8) UBS (Universal Command Sensor System): e.g., for loop detector, external radio receiver, external command device, light barrier
 9) Parameterizable input: e.g., usable as opener/closer, smoke and heat extraction (RWA) signal contact, or door interlock

10) Serves as time log for event documentation
 11) Via the evodo - Sync App
 12) Using SD card
 13) Switchable between 868 MHz and 433 MHz
 14) Wireless Safety Device - replaces spiral cable
 15) Possible via GfA stick to read out and display key door-controller data

16) For example, for live monitoring of your door systems with numerous user-friendly features via the evodo IoT platform
 17) 2 of 4 relays are coupled via a common COM
 18) Expandable by five additional changeover contacts via the SMF status-reporting module (not function-programmable)

