

# Door controls for ELEKTROMATEN® ST

WS 905  
TS 400

## WS 905 – Reversing contactor control

### Technical data

- Suitable for ELEKTROMATEN ST with NES mechanical limit switch
- Supply voltage:
  - 1N~230 V, PE
  - 3~230 V, PE
  - 3N~400 V, PE
- Control voltage: 24 V AC
- 2 reversing contactors
- Permissible temperature range: -10 °C...+50 °C

### Housing

- Dimensions W x H x D [mm]: 145 x 101 x 209
- Protection class: IP54

### Design

- Mechanically locked reversing contactors
- Positioning button CLOSE/OPEN
- Plug-in connection cable to ELEKTROMATEN for configuration with integrated mechanical limit switch NES
- Available with optional ready-wired CEE plug, regarded as mains circuit breaker under the terms of EN 12453

### Functions

- Operating mode: Hold to run CLOSE/OPEN via an external control device



WS 905



TS 400

## TS 400 – Automatic door control

### Technical data

- Suitable for ELEKTROMATEN ST with DES digital limit switch or NES mechanical limit switch
- Supply voltage:
  - 1N~230 V, PE / 3~230 V, PE / 3N~400 V, PE
- Control voltage: 24 V DC
- Mains supply ratings for external devices:
  - 24 V DC (0.5 A) / 230 V AC (1 A)
- 2 integrated reversing contactors (up to 3 kW motor power)
- Display for programming (2 lines with 20 signs)
- Permissible temperature range: -10 °C...+50 °C

### Housing

- Synthetic housing with transparent cover, Dimensions W x H x D [mm]: 230 x 300 x 85
- Protection class: IP55

### Design

- Plugged terminals with screw connections
- Pluggable cable sets to the ELEKTROMATEN with DES or NES
- Integrated push buttons for the adjustment of the door positions in use with DES
- Connectors for 3 control devices (2 for the door area, 1 for gatekeeper operation)

### Functions

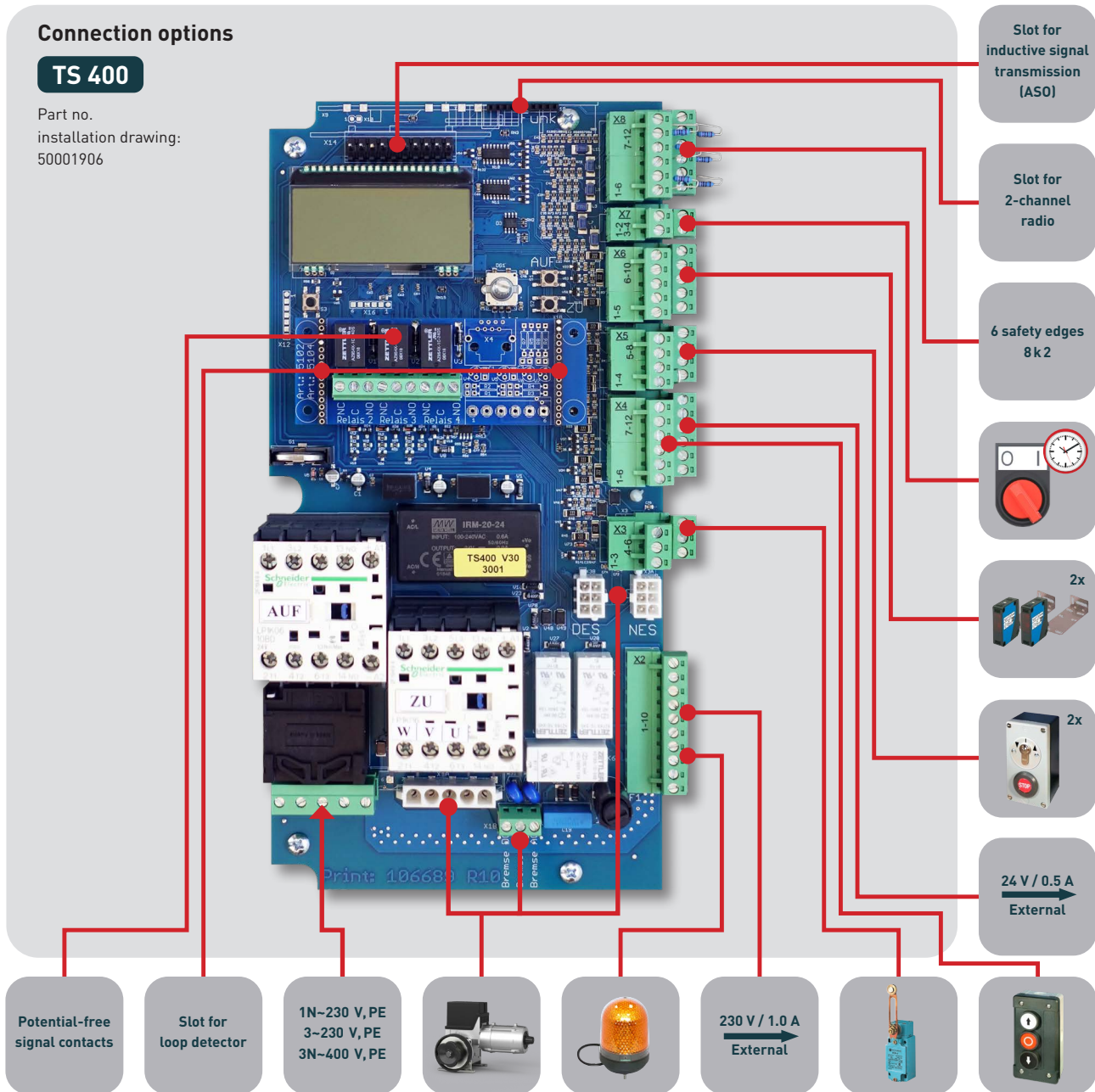
- Automatic detection of DES or NES limit switches
- Intermediate open position for passengers (for use with NES is an additional limit switch required)

- Settings via selector switch with digital display
- Adjustment of the door final positions and intermediate positions from the operator level (DES)
- Self-hold in both directions, in case of failure - automatic switching to Hold to run mode
- Safety edge system 8k2, evaluation for 6 safety edges
- Connection plugs for control devices with next function (pull switch or external radio receiver)
- Integrated timer with week program, OFF via external switch
- Automatical run time monitoring (real runtime + 8 %)
- Automatic closing feature adjustable (2-999 s), adjustable in steps of 2 seconds
- Possibility of adjustable clearance time (1-99 s)
- Separated adjustment of the automatic closing function for complete- or partially opening
- Adjustable function of the traffic lights in the final door positions or the clearance time
- Adjustable reaction of the photo cell in the final limit position OPEN
- Fault memory
- Cycle counter (non-resettable) and maintenance cycle counter
- Modul with 3 Relays for the final door positions and faults, etc. (potential free)

## Connection options

### TS 400

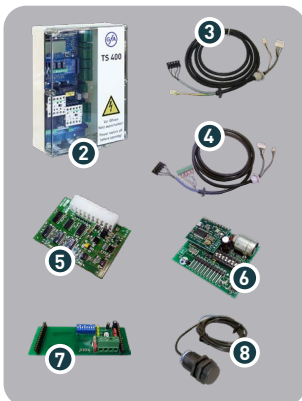
Part no.  
installation drawing:  
50001906



## Door controls and accessories



Part no.  
installation drawing:  
50001883



Designation	Description	Part no.
WS 905 2- Reversing contactors 24 V	1 For drives without limit switch; with 0.8 m cable and connection plugs for ELEKTROMATEN, without CEE-plug	20090500.00001 <sup>1)</sup>
WS 905 2- Reversing contactors 24 V	1 For drives with limit switch; with 0.8 m cable and connection plugs for ELEKTROMATEN, without CEE-plug	20090500.10001 <sup>1)</sup>
TS 400	2 ST-door control for DES/NES	20040000.00001
DES connection cable with separate brake control	3 Connection to ELEKTROMATEN drives with digital limit switch, pluggable on both sides; length of cable: 3 m	20003024.00300
NES connection cable with separate brake control	4 Connection to ELEKTROMATEN drives with mechanical limit switch, pluggable on both sides; length of cable: 3 m	20003387.00300
Inductive signal transmission (ASO)	5 Modul for TS 400 for monitoring of inductive signals from safety edges (brand ASO)	40014240
Radio receiver 2-channel	6 Modul for TS 400 (for Opening and Intermediate opening)	40014833
Loop detector 2-channel	7 Modul for TS 400 (for OPEN- and CLOSE signal)	40016544
Separate limit switch	8 Inductive limit switch (2 pc.) with 1,5 m cable; M30x1,5	30004270

■ 1) Discontinued part