



CNC SMART DOOR SOLUTIONS.

Your Door Drive System for
Machine Tools – TSG V4.

TSG Drive System



Turning and milling machines, machining centres



TSG V4 External – IP54



TSG V4 Internal – IP20



Benefits of the TSG V4



Underwriter
Laboratorie



High safety standards

- TÜV-certified: Performance Level (PL) "d" in accordance with EN ISO 13849-1
- Emergency stop function always active – including during the automatic learning cycle
- UL-certified for the USA and Canada

Flexible integration

- External (IP54) or internal (IP20) control unit
- Integrated power supply in the enclosure, saving space in the control cabinet
- Cable lengths from 1.5 m to 20 m available
- PROFINET, EtherCAT or CAN-Bus
- Standalone unit
- All parameters and their evaluation handled on board

Easy operation

- All parameters can be configured directly on the unit – no software required
- Optional operation via web interface or Ethernet
- Automatic learning cycle
- Plug-in connection for motor and encoder
- Optional diagnostic unit for manufacturers – convenient commissioning via IP access using a PC, laptop or tablet

Availability

- Dedicated support team
- All components kept in stock for rapid delivery

TSG V4 technical specifications

Enclosure

- External for machine mounting (IP54)
- Internal for installation in the control cabinet (IP20)

Operating modes and additional functions

- Automatic mode
- Enable mode
- Safety guard mode
- Assisted operation
- Push-to-open operation
- Operation with a safety sensor (e.g. light curtain, safety edge or laser scanner)
- Dual-channel emergency stop function
- Obstacle detection (automatic reverse function)
- Positioning to any desired position

Mechanical specifications

- Door travel of up to 20 m as standard (greater distances available on request)
- Drive system for interlocking safety doors weighing up to 1,000 kg
- Cable lengths between the drive system and control unit: 1.5 m to 20 m
- Connection of additional safety devices possible

Interfaces / control options

- PROFINET
- EtherCAT
- CAN bus
- Discrete inputs and outputs

Supply voltage

- 115 V AC
- 200 V AC
- 230 V AC
- 400 V AC
- 480 V AC
- 24 V DC / 36 V DC

Certifications

- EN ISO 13849-1 PL "d"
- EN 14120
- EN ISO 23125
- EN 81-20
- EN 81-50
- EN 16005
- EN 16089
- EN 16090-1
- EN 16092-1
- UL certification for the USA and Canada
- Atex 100 certification

Commissioning and diagnostics

- Visualisation via web interface
- Connection via Ethernet or Wi-Fi
- Integrated control panel

Comparison table

L+L	Notes	Siemens	Notes
Door control units TSG V4		Door control units	
8.20.40415.04 Internal Version Relay	All parameters and the au- tomatic learning cycle can be configured and activated directly on the door control unit – no additional software or tools required.	SIDOOR ATD401W 6FB1141-1AT11-3WE2 Relay module	Power supply, additional software and control panel required.
8.20.40410.04 External Version Relay		SIDOOR ATD401W 6FB1141-1AT11-3WE2 Relay module	
8.20.40xxx.04 Internal Version PROFIBUS available upon request		SIDOOR ATD420W 6FB1141-2AT10-3WE2 PROFIBUS	
8.20.40xxx.04 External Version PROFIBUS available upon request		SIDOOR ATD420W 6FB1141-2AT10-3WE2 PROFIBUS	
8.20.40676.04 Internal Version PROFINET		SIDOOR ATD430W 6FB1141-3AT10-3WE2 PROFINET	
8.20.40691.04 External Version PROFINET		SIDOOR ATD430W 6FB1141-3AT10-3WE2 PROFINET	
Drives		Drives	
TSG2x Drive 8.20.20×20.X1 With 1.5 m cable set Left-hand, 200 kg	Fixed pinion (176 mm circumference)	SIDOOR M3 L 6FB1103-0AT10-4MB0 Cable length: 1.5 m Left-hand, 180 kg	Fixed pinion (176 mm circumference)
TSG2x Drive 8.20.20×21.X1 With 1.5 m cable set Right-hand, 200 kg	Fixed pinion (176 mm circumference)	SIDOOR M3 R 6FB1103-0AT11-4MB0 Cable length: 1.5 m Right-hand, 180 kg	Fixed pinion (176 mm circumference)
TSG2x Drive 8.20.20020.X1 Plug-in Left-hand, 200 kg	Without drive pinion	SIDOOR MDG3 L 6FB1103-0AT14-4MB1 Plug-in Left-hand, 180 kg	Without drive pinion
TSG2x Drive 8.20.20021.X1 Plug-in Right-hand, 200 kg	Without drive pinion	SIDOOR MDG3 R 6FB1103-0AT13-4MB1 Plug-in Right-hand, 180 kg	Without drive pinion
TSG4x Drive 8.20.40224.X1 With fixed 2.5 m cable Left-hand, 400 kg	Fixed pinion (176 mm circumference)	SIDOOR M4 L 6FB1103-0AT10-3MC0 Cable length: 1.5 m Left-hand, 400 kg	Fixed pinion (176 mm circumference)
8.20.40225.X1 TSG4x Drive With fixed 2.5 m cable Right-hand, 400 kg	Fixed pinion (176 mm circumference)	SIDOOR M4 R 6FB1103-0AT11-3MC0 Cable length: 1.5 m Right-hand, 400 kg	Fixed pinion (176 mm circumference)
TSG4x Drive 8.20.40020.X1 Plug-in Left-hand, 400 kg	Without drive pinion	SIDOOR MDG4 L 6FB1103-0AT14-3MC2 Plug-in Left-hand, 400 kg	Without drive pinion

Comparison table

L+L	Notes	Siemens	Notes
Drives		Drives	
TSG4x Drive 8.20.40021.X1 Plug-in Right-hand, 400 kg	Without drive pinion	SIDOOR MDG4 R 6FB1103-0AT13-3MC2 Plug-in Right-hand, 400 kg	Without drive pinion
TSG7x Drive 8.20.700×2.X1 With 1.5 m cable set Left-hand, 700 kg	Fixed pinion (176 mm circumference)	SIDOOR M5 L 6FB1103-0AT10-3MD0 Cable length: 1.5 m Left-hand, 700 kg	Fixed pinion (176 mm circumference)
TSG7x Drive 8.20.700×3.X1 With 1.5 m cable set Right-hand, 700 kg	Fixed pinion (176 mm circumference)	SIDOOR M5 R 6FB1103-0AT11-3MD0 Cable length: 1.5 m Right-hand, 700 kg	Fixed pinion (176 mm circumference)
TSG7x Drive 8.20.70002.X1 Plug-in Left-hand, 700 kg	Without drive pinion	SIDOOR MDG5 L 6FB1103-0AT14-3MG2 Plug-in Left-hand, 700 kg	Without drive pinion
TSG7x Drive 8.20.70003.X1 Plug-in Right-hand, 700 kg	Without drive pinion	SIDOOR MDG5 R 6FB1103-0AT13-3MG2 Plug-in Right-hand, 700 kg	Without drive pinion
Power supplies		Power supplies	
The power supplies are integrated into the door control units and are available for the following supply voltages: 115 V, 200 V, 230 V, 400 V and 480 V ... Software with all operating functions is fully integrated into the door control units. No additional software packages or hardware are required.		SITOP PSU8200 6EP3446-8SB10-0AY0	Power supplies required for SIDOOR
		SIDOOR NT40 6FB1112-0AT20-3PS0	
		SIDOOR TRANSFORMER 6FB1112-0AT20-2TR0	
		SIDOOR TRANSFORMER UL 6FB1112-0AT21-2TR0	Required for commis- sioning and servicing
		SIDOOR SOFTWARE KIT	
Commissioning and diagnostic tools		Commissioning and diagnostic tools	
Web interface 8.20.70041	Optional – not required for commissioning or servicing. Software and power supply are integrated.	SIDOOR SERVICE TOOL	Required for commis- sioning and servicing
Web interface with WiFi-Router 8.20.70051		SIDOOR LINK Adapter	