



DOOR CONTROL

Intelligence, reliability and high safety

The Tamware door controller family has been designed alongside the new generation Tamware electric doors, providing suitable and safe door solutions for public transportation. Within Tamware's bus applications, this family consists of the TW-265 door controller and the TW-465 door controller. Tamware's door controlling has three in-built safety systems, which enable safe door usage for passengers. Tamware's controllers measure current levels and pulses from door actuators and monitor the overall time from the door to open and close, analyzing the limits and ranges and executing actions accordingly. These safety features with common sensitive edges within the doors a high-level safety can be ensured for the passengers.

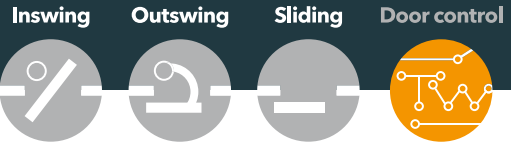
The TW-265 door controller is a low-cost controller designed for controlling common Tamware single or double door applications and is equipped with a special, signature software which ensures high safety and adjustable, user-configurable parameters. The communication between the vehicle and the TW-265 unit can be done with conventional wiring or with a CAN -buss. The TW-265 is an

ideal controller for city bus electric doors and the signature software and adjustable parameters fulfill most customer requirements.

The TW-465 is a higher end door controller for controlling door systems on buses and trams. It is provided with several I/O's and has a programmable software, which can be tailored for more demanding customer needs. With the galvanically isolated interfaces and higher number of I/O's the TW-465 enables the use of additional subsidiary door systems, such as photocells, special lighting and adjustable buzzers. Just as the TW-265, the TW-465 can also handle communication to the vehicle with either hard wiring or via CAN -buss.

For both controllers, Tamware has developed diagnostics tools TW-100 and TW-200 with which customers can read through the diagnostics values and logs from each door and adjust the functionality parameters, such as door accelerations, movement dampening, sensitivity and operating speeds.

TAMWARE PRODUCT GROUPS



SAMPLE APPLICATIONS

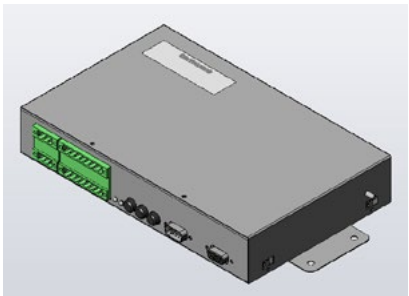
TW-265

- Bus/coach/tram door controller
- One/two leaf doors
- Easy parameter setting
- Comprehensive safety system
- CAN interface
- 12/24 VDC
- -40...+75°C operational temperature
- E-approval



TW-465

- Bus/coach/tram/train door controller
- One/two leaf doors
- Freely programmable
- I/O signals with galvanic isolation
- 2 x CAN interface (1 with galvanic isolation)
- 24-110 VDC
- -40...+75°C operational temperature
- EN50155



DIAGNOSTICS

- TW-100 PC software for TW265
- TW-200 PC software for TW465
- CAN/Serial connection
- Parameter setting
- Error messages
- Door control



PRODUCT INFORMATION

	DOOR CONTROL	CAN interface	Software type	Power requirement	Operating temperature options	Certificates	Parameter settings
	TW-265	Included	Locked software	12/24 VDC	-40°C ... +80°C	E-approval	Changeable
	TW-465	2x included, 1 interface galvanically isolated	Freely programmable	24-110 VDC	-40°C ... +80°C	E-approval, EN50155, EN50121-3	Changeable
	DIAGNOSTICS TOOLS	Connection type	Functionality changes	Parameter changes	Error logs	Door diagnostics logs	
	TW-100	CAN/Serial connection	Enabled	Enabled	Included	Included	
	TW-200	CAN/Serial connection	Enabled	Enabled	Included	Included	

All Tamware bus door products are designed according to EU Regulation ECE R107.



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