

AccessOne

Door controllers

Door controller TSG8



Assembly and operating manual

 English

Version VA1

BRO2323

Contents

1 About this manual	3
1.1 Manufacturer and service	3
1.2 Target groups of this manual	4
2 For your safety	5
2.1 EU Declaration of Conformity	5
2.2 Intended use	5
2.3 Basic safety instructions	6
3 About the TSG door controller	8
3.1 Operating elements and part designations	8
4 Assembly	10
5 Connections and wiring	11
5.1 RS485 – Tamper – RS232 – Power	11
6 Technical data	17
6.1 Dimensions	17
6.2 Equipment features	18
7 Maintenance	20
7.1 Routine maintenance work	20
7.2 Care for your devices	20
7.3 Service	20
8 Disposal	21
8.1 Notes on disposal	21

1 About this manual

This manual contains information on the installation and commissioning of a TSG door controller in the AccessOne access control system.

Other applicable documents

Setup	BRO2316_Instructions_AccessOne
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This manual should be treated as a part of the product and must be kept for the entire service life of the product. The manual should be passed on to any subsequent user or owner of the product.

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BRO2323 -2 Version: VA1



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Notes on trademark protection

MIFARE, MIFARE Classic and MIFARE DESFire are registered trademarks of NXP B.V. and are used under licence.

1.1 Manufacturer and service

The manufacturer of the door control is ACcesstronic GmbH. Service and support are provided by C.Ed. Schulte GmbH, Velbert. For service assistance, please contact CES Service. CES Service can be contacted at +49(0)2051 204 222 or by e-mail: hotline@ces.eu

Manufacturer

ACcesstronic GmbH
Gartenstr. 38
D-52249 Eschweiler

Service and Support

C.Ed. Schulte GmbH
Zylinderschlossfabrik
Friedrichstr. 243
D-42551 Velbert

Tel: +49 (0) 2051-204-0
Fax: +49 (0) 2051-204-229
www.ces.eu
info@ces.eu

1.2 Target groups of this manual

If a section of this manual is intended for a particular target group, this is stated at the start of the section. Sections that do not specify a particular group are relevant for all target groups.

Target group	Skills
CEStronics partners	<p>are trained experts in locking and security technology that have also worked with CES for many years and have a special level of product knowledge.</p> <p>Particular characteristics of the target group:</p> <ul style="list-style-type: none"> • Detailed knowledge of CES products • Participate regularly in product training
Locking and security technology specialists	<p>have many years of professional experience and/or relevant training in locking and security technology. For some tasks it may be necessary for specialists to have received training on the product beforehand.</p> <p>Particular characteristics of the target group:</p> <ul style="list-style-type: none"> • Knowledge of specialist terminology from the field of locks and handles • Knowledge of specific risks when mounting electronic cylinders and handle sets, for example • Experience of working with tools (relevant to lock systems) • Knowledge of relevant standards and regulations, e.g. for fire safety or emergency and escape routes • Basic understanding of electronic locking systems
Electricians	<p>have many years of professional experience and/or relevant training in electronics. For some tasks it may be necessary for specialists to have received training on the product beforehand.</p> <p>Particular characteristics of the target group:</p> <ul style="list-style-type: none"> • Knowledge of specialist electrical terminology and its symbols • Knowledge of the risks associated with handling sensitive electronic components
Personnel with product training	<p>have received training on the product by CES or a CESTronics partner. Here the personnel are given detailed and specific information to prepare them for the required task.</p> <p>Particular characteristics of the target group:</p> <ul style="list-style-type: none"> • Knowledge of CESTronics products and experience in handling them (assembly, operation, etc.)
IT/administration specialists	<p>have many years of professional experience in the fields of IT structures, administration and networks.</p> <p>Particular characteristics of the target group:</p> <ul style="list-style-type: none"> • Knowledge of specialist IT terminology • Knowledge of the structure and maintenance of networks, particularly knowledge of the network that they maintain
System operators	<p>have experience in the management of master key systems. This can be either a number of systems or a detailed knowledge of a single master key system.</p> <p>Particular characteristics of the target group:</p> <ul style="list-style-type: none"> • Knowledge of the specialist terminology related to master key systems • Skilled in the use of PCs and software
End users	<p>do not require specific skills.</p>

2 For your safety

2.1 EU Declaration of Conformity

The EU declaration of conformity can be obtained from the manufacturer.

2.2 Intended use

The TSG door controller is used for monitoring and controlling doors in an AccessOne access control system.

The product is intended solely for and may only be used for this purpose. Any other use is deemed to be improper use and could result in property damage or even personal injury.

The product may not be modified in any way without the written consent of C.Ed. Schulte GmbH Zylinderschlossfabrik.

2.3 Basic safety instructions

This device has been built using state-of-the-art technology and recognised safety rules. Nevertheless, its use may result in hazards for the user or third parties, or also have negative impacts on the device and other material assets.

Use the product only while it is in proper working order and only for its intended purpose, taking due account of safety and potential hazards, and in accordance with the operating manual. In particular, faults that affect the safety must be remedied immediately.

2.3.1 Danger to life

Particular dangers for children

Children playing with packaging films or plastic bags are at risk of suffocation. If children swallow small parts such as screws, they are at risk of suffocation or poisoning.

- ✓ Do not allow children to play with the device or its packaging.
- ✓ Keep the device and its packaging out of reach of children.

2.3.2 Risk of injury

Explosion hazard

Parts of the device that carry electric currents can produce electrical sparks even at low voltages (e.g. when electric circuits are switched on or off) and can thus act as sources of ignition. In areas with a risk of explosions, this can cause an explosion and cause injury to persons.

- ✓ Do not use the device in potentially explosive areas.

2.3.3 Danger of material damage

Hard shocks

Hard shocks can damage mechanical and electronic components of the device. Under some circumstances, damaged devices do not function correctly or do not function at all.

- ✓ Do not allow the device to fall onto the ground, onto hard surfaces or hard objects.

Electrostatic discharges

The electronic components are highly sensitive and can be damaged by electrostatic discharges or excessive voltage. In some circumstances, damaged devices do not function correctly or do not function at all.

- ✓ Do not assemble the device in areas affected by electrostatic charges.
- ✓ Do not touch any electronic components.

Liquids

Water and other liquids can damage the electronic components of the device. Under some circumstances, damaged devices do not function correctly or do not function at all.

- ✓ Protect the electronic components from water and other liquids.

Climatic influences

Climatic influences such as heat, cold and moisture can damage the device. Under some circumstances, damaged devices do not function correctly or do not function at all.

- ✓ Do not use the device in a corrosive atmosphere (chlorine, ammonia or lime water).
- ✓ Do not use the device in areas with high levels of dust.

- ✓ Do not use the device in the vicinity of heat sources.

Incorrect maintenance or repair

Incorrect or neglected maintenance and repair can result in the device not functioning correctly or not functioning at all.

- ✓ Have the device maintained and checked for proper functioning every six months by CES or a CESTronics partner.
- ✓ Always have repairs performed by qualified personnel.
- ✓ Use only accessories and spare parts recommended by CES.
- ✓ Before working on or in the device, ensure that it is isolated from the power supply.

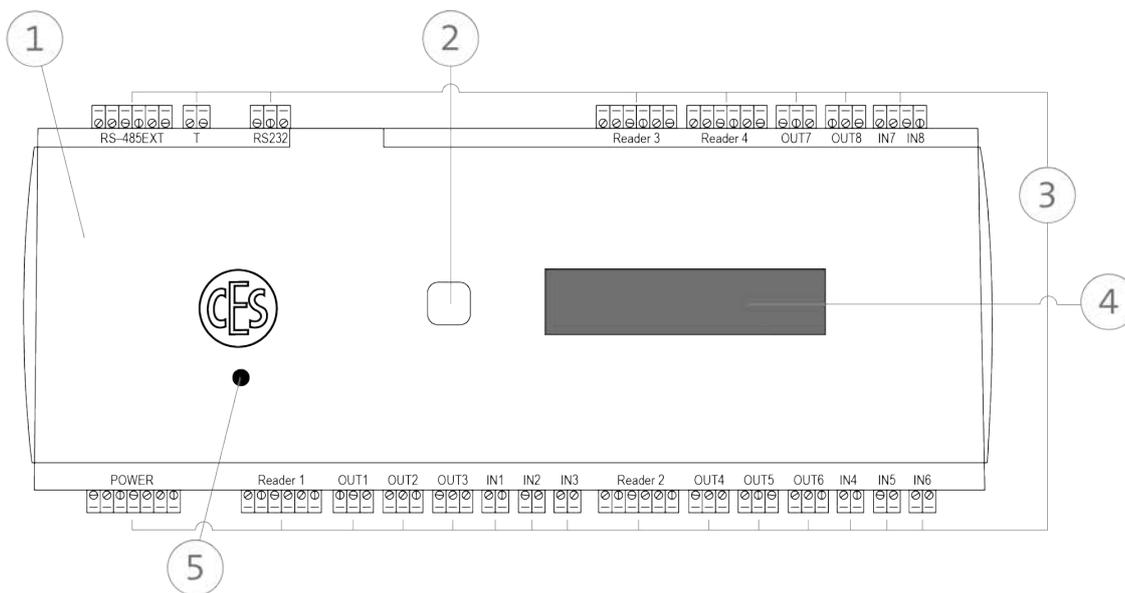
3 About the TSG door controller

The TSG8/Compact door controller monitors and controls up to eight doors (and its inputs and outputs can be expanded to 56 channels). Each TSG8 can be connected to a total of 32 readers or wall terminals. Lifts can also be controlled over up to 32 floors by means of contacts. The door controller uses its own operating system and has an interchangeable flash memory for future memory expansions.

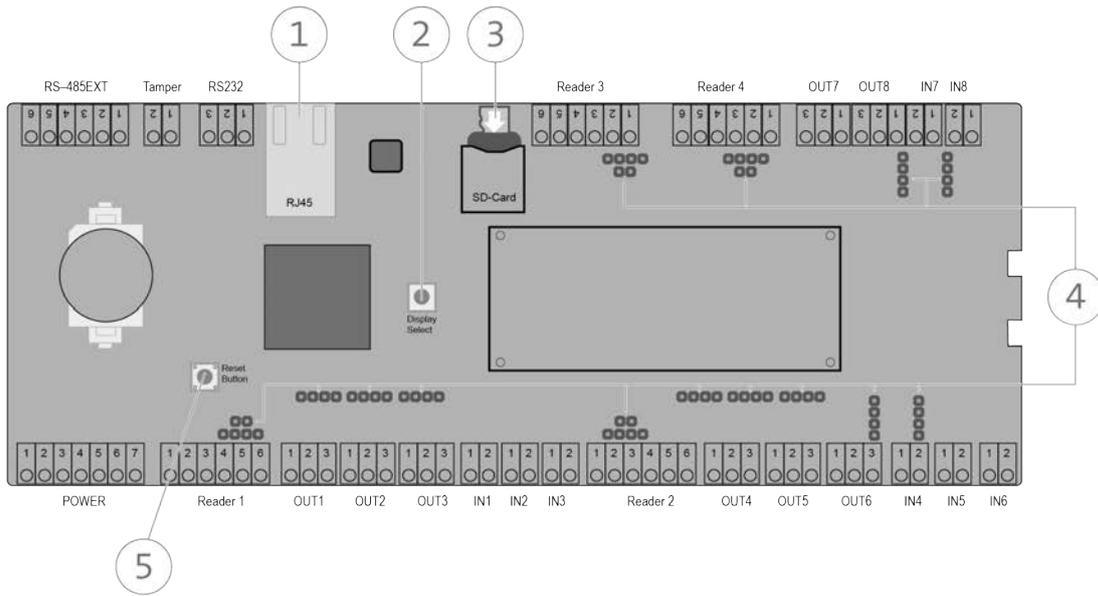
The 2-line LC display shows network and operating parameters (date, IP address, MAC address). Operation is via a button.

It is mounted on a DIN rail in switching cabinets or in its own, lockable housings that are monitored for unauthorised access.

3.1 Operating elements and part designations



1	Door controller
2	1-button menu navigation
3	Connection terminals
4	LC display
5	Reset



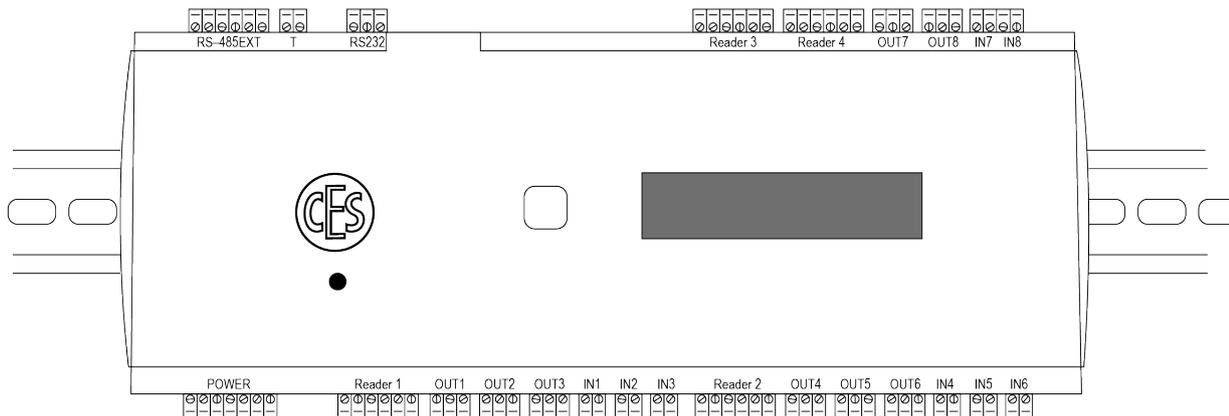
1	RJ45 connector
2	1-button menu navigation
3	SD card slot
4	Jumpers
5	Reset button

4 Assembly

Target group of this section::

- CESTronics partners
- Electricians
- Electricians with product training
- IT/administration specialists

The door controller is mounted on DIN rails.



5 Connections and wiring

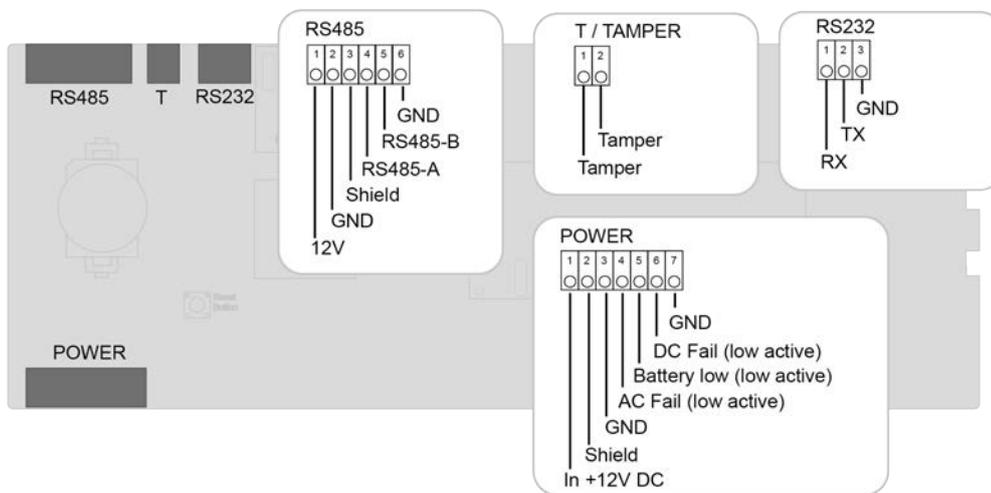
Target group of this section::

- CESTronics partners
- Electricians
- Electricians with product training
- IT/administration specialists

 **Risk of damage.** Before working on or in the device, ensure that it is isolated from the power supply.

5.1 RS485 – Tamper – RS232 – Power

For the connection of additional contacts, e.g. tamper, and connection of the power supply.



5.1.1 RS485

No.	Connection	Function
1	12 V	Power supply
2	GND	Ground. The signal voltages are measured against this cable.
3	Shield	Switch input for triggering the wall terminal with the push button or similar.
4	RS485-A	
5	RS485-B	
6	GND	Ground. The signal voltages are measured against this cable.

5.1.2 Tamper

No.	Connection
1	Tamper
2	Tamper

5.1.3 RS232

No.	Connection	Function
1	RX	Receive data cable for outgoing data (negative logic)
2	TX	Transmit data cable for outgoing data (negative logic)
3	GND	Ground. The signal voltages are measured against this cable.

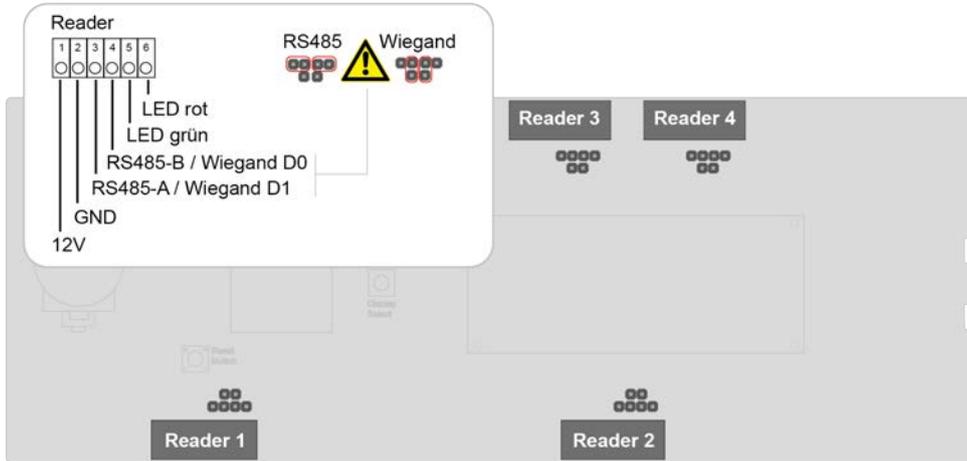
5.1.4 Power

No.	Connection	Function
1	+12 V DC	Power supply
2	Shield	
3	GND	Ground. The signal voltages are measured against this cable.
4	AC fail (low active)	
5	Battery low (low active)	
6	GND	Ground. The signal voltages are measured against this cable.
7	+12 V DC	Power supply

5.1.5 Reader 1–4

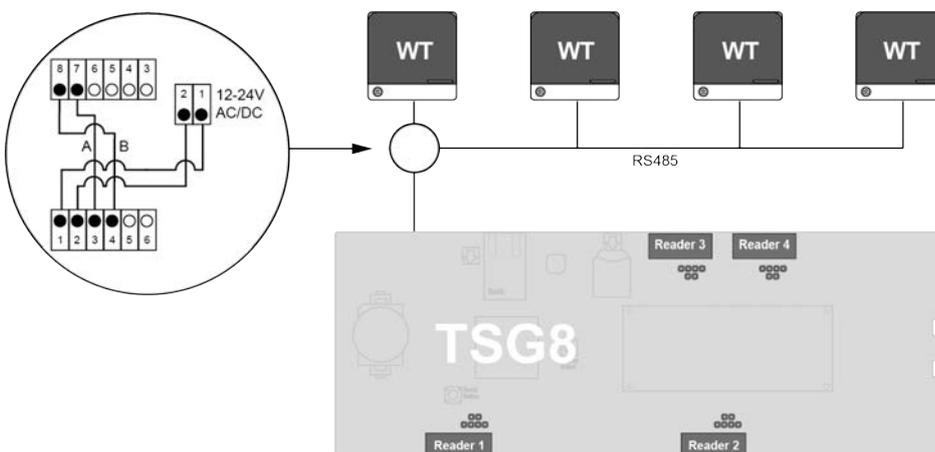
For the connection of readers and wall terminals.

 Set the jumper settings in accordance with the interface configuration (RS485/Wiegand).



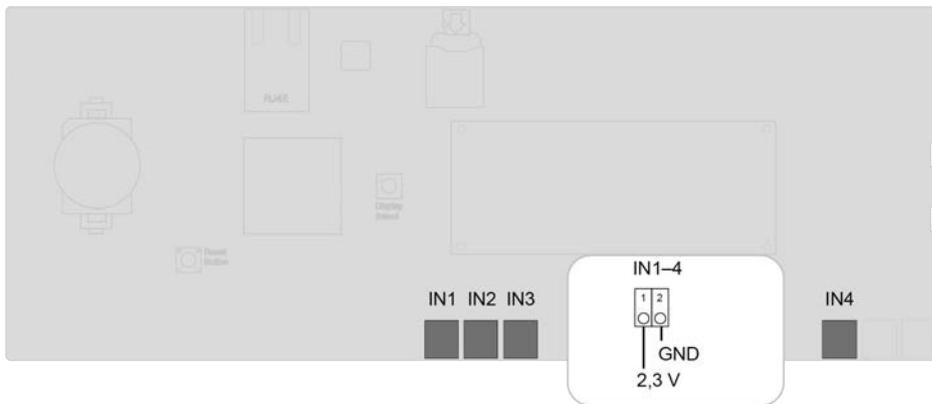
No.	Connection	Function
1	12 V	Power supply
2	GND	Ground. The signal voltages are measured against this cable.
3	RS485-A / Wiegand D1	
4	RS485-B / Wiegand D0	
5	LED green	Ground. The signal voltages are measured against this cable.
6	LED red	Ground. The signal voltages are measured against this cable.

Door controller connection to wall terminal:



5.1.6 IN1–4 analogue

For the connection of the door contact, release button, floor circuit, burglar alarm system ready to arm, burglar alarm system armed, motion detector triggered, etc.

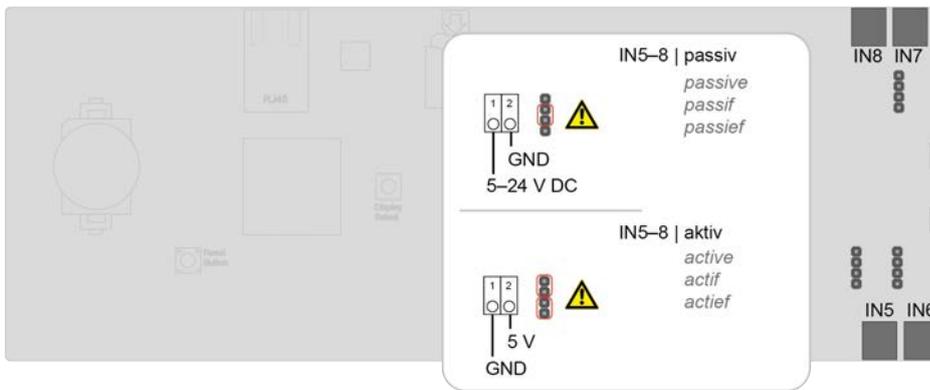


No.	Connection	Function
1	2.3 V	2.3 V AC/DC
2	GND	Ground. The signal voltages are measured against this cable.

5.1.7 IN5-8

For the connection of the door contact, release button, floor circuit, burglar alarm system ready to arm, burglar alarm system armed, motion detector triggered, etc.

 Set the jumper settings in accordance with the interface configuration (active/passive).



Passive

No.	Connection	Function
1	5-24 V DC	Power supply
2	GND	Ground. The signal voltages are measured against this cable.

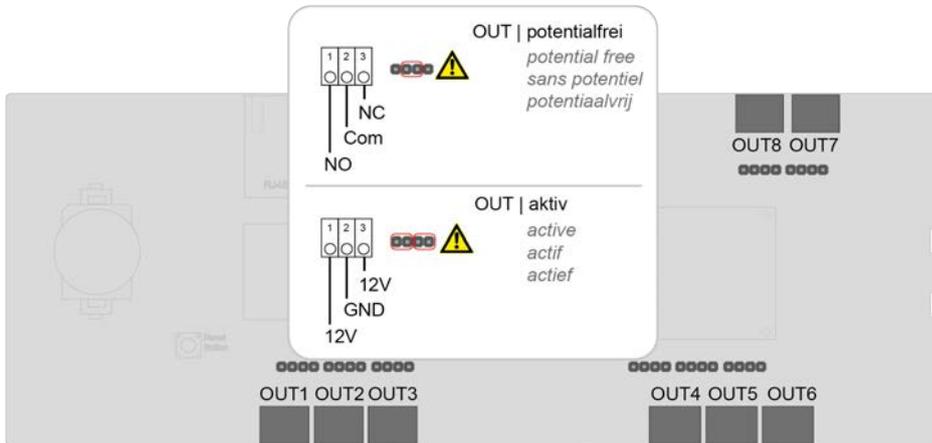
Active

No.	Connection	Function
1	GND	Ground. The signal voltages are measured against this cable.
2	5 V	Power supply

5.1.8 OUT1–8

For the connection of actuators (door opener*, motorised lock, etc.), arming of the burglar alarm system, door alarm, silent alarm, start video recording, etc.

*For door openers, continuous supply with free-wheeling diode where possible



OUT potential-free

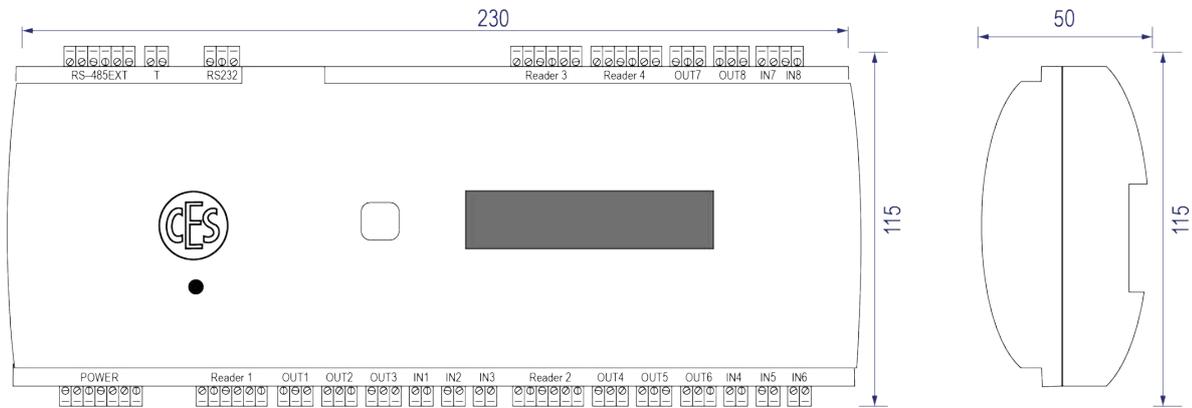
No.	Connection
1	Normally open contact (NO)
2	Changeover/Com
3	Normally closed contact (NC)

OUT active

No.	Connection	Function
1	12 V	Power supply
2	GND	Ground. The signal voltages are measured against this cable.
3	12 V	Power supply

6 Technical data

6.1 Dimensions



All dimensions in mm

6.2 Equipment features

Article description	TSG8 / Compact (Art.-Nr 348007V)
Design	Plastic housing for top-hat rail mounting
Performance parameters	<p>Fully stand-alone capable</p> <p>4GB Flash memory , exchangeable, for</p> <ul style="list-style-type: none"> • up to 200,000 locking media records • up to 100,000 events • Up to 255 minute-based day models with 3 time intervals • 8 special day categories with own day model • 40 special days with automatic calculation starting from Easter • Permanent opening/permanent locking time-controlled • dynamic, daily calculation of offline data • 128 Bit AES encrypted communication • Entry / exit control • Door release time, door monitoring time, alarm delay and triggering programmable from 0.1 ... 600 seconds • 2-line LC display (display of network settings and operating parameters) / operation via 1-button menu navigation
Data interfaces	<p>5x RS485, 1x RS232, 1x RJ45 (TCP/IP), 4x Wiegand</p> <p>Support for up to 4 different reader protocols</p>
Communication	UDP Port 10001
Inputs / Outputs (IN/OUT)	<p>8 outputs:</p> <ul style="list-style-type: none"> • configurable as potential-free NC contact / NO contact or active output <p>8 inputs:</p> <ul style="list-style-type: none"> • 4 analogue inputs for monitored potential-free signalling contacts, sensors, push-buttons • 4 digital inputs, optionally for potential-free contact or input voltage (12-24V) for external signals, signalling contacts, sensors, push-buttons • Sabotage input for housing contact <p>Expandable via additional modules by 8 or 16 inputs/outputs up to 56 inputs/outputs</p>

Load capacity relay outputs potential-free	max. switching capacity: 60 W max. switching voltage: 30V DC max. switching current: 2A
Operating voltage	+12 V DC
max. current consumption without periphery at 12V	200 mA
Operating performance Output OUT 1–8 at 12V	Σ 2,0 A \pm 20 % (Activ)
Operating performance Reader Reader 1,2,3 and 4 at 12V	Σ 2,0 A \pm 20 %
Temperature range	10 °C up to +70 °
Unacceptable climates	Not suitable for use in corrosive atmospheres (chlorine, ammonia, lime water)
Protection class	IP30

7 Maintenance

Target group of this section::

- CESTronics partners
- Electricians
- Electricians with product training
- IT/administration specialists

7.1 Routine maintenance work

Device

Have the device maintained and checked for proper functioning every six months by CES or a CESTronics partner.

7.2 Care for your devices

You can clean the external, accessible parts of your devices (housing, labelling, etc.) with a soft, slightly damp cloth.



Do not use oils or lubricants to maintain the locking devices.



Solvent-based cleaning agents may damage the surfaces, you should therefore avoid the use of such solvent-based agents.

7.3 Service

For service assistance, please contact your CESTronics partner.

8 Disposal

8.1 Notes on disposal

Device

In accordance with the Waste Electrical and Electronic Equipment (WEEE) Directive, all consumers have a duty to dispose of old electronic appliances separately from household waste. Disposal of electronic devices in household waste is prohibited. Unwanted equipment can be disposed of at local municipal collection points. You can also return the equipment to C.Ed. Schulte GmbH Zylinderschlossfabrik. Please ensure that the correct carriage costs are paid for the return.



The crossed-out bin symbol means: do not dispose of old electronic equipment in household waste.

Electronic equipment contains a wide variety of substances and materials. If waste electrical and electronic equipment (WEEE) is not disposed of correctly, environmental and health risks may arise due to any pollutants still present. Additionally, proper disposal enables recyclable materials to be recovered and recycled, which makes a significant contribution to the conservation of natural resources.

Packaging

The packaging of the components is made from environmentally friendly and recyclable materials. Specifically, these are:

- Outer packaging and inlays made of cardboard
- Inlays and protective films made of polyethylene (PE)



Please dispose of the packaging in an environmentally friendly way by separating the waste types.

Teaming up for security
since 1840



C.Ed. Schulte GmbH
Zylinderschlossfabrik

Friedrichstraße 243

D-42551 Velbert

☎ +49 2051 204 0

☎ +49 2051 204 229

✉ info@ces.eu