# SPEED GATE A1

SPECIFICATION SHEET







### HIGH-SPEED GATES - SPEEDGATE A1

A new generation of high-speed gates is dedicated for places where the speed of a device operation is a key factor.

The high-speed gate allows quick and liquid opening and closing of the gate wings. Drives of the device, in its standard version, allow clearing a passage zone within about 5 seconds, what in testing conditions allows driving through the passage zone practically without stopping a vehicle. The gate allows to connect a variety of devices to assist the device operation, e.g. an inductive loop, sensors of vehicles, intersecting sensors, light signalling, WIFI control devices, infrared control devices (e.g. a remote control).

The structure of folding wings allows using the gate at a site, where other types of gates (e.g. sliding or swinging) cannot be installed due to a lack of space.

A mechanisms of the drive was designed at the top of the gate in order to prevent snow or other impurities (e.g. road salt) from deposition.

The high-speed gate was designed to be used outside buildings, in particular for public utility facilities, factories, hotel car parks, military units, airports, sports facilities, etc.

Controlling the gate and its configuration is possible via a touch screen with a user friendly menu in a form of computer icons.

The gate is equipped in a mechanical lock, which can be unlocked if there is power shortage.

Software of the drives control allows a synchronous operation of wings, diagnostics of connections and the device operation, counting opening impulses, safe operation of the gate, configuration of output and input signals.



### SPEEDGATE A1 - BASIC FUNCTIONS

### Short time (5 sec) of clearing the passage



1. Short time of the gate wings opening and closing. Time of clearing the passage zone for a standard solution is about 5 seconds Short opening time allows using the gate at places where protection/control of vehicles movement and pedestrian traffic is necessary, for example instead of a road barrier, which protects the passage in terms of controlling traffic of vehicles only.

### The device durability



3. Assembly of the mechanism at the top of the gate means that stuff like snow, for example, cannot get inside the mechanical drive of the gate (what is often a cause of breakdowns in gates equipped in a drive located at a level of snow deposits), or road salt, which has a substantial impact on devices durability.

### A minimal zone of the wings movement

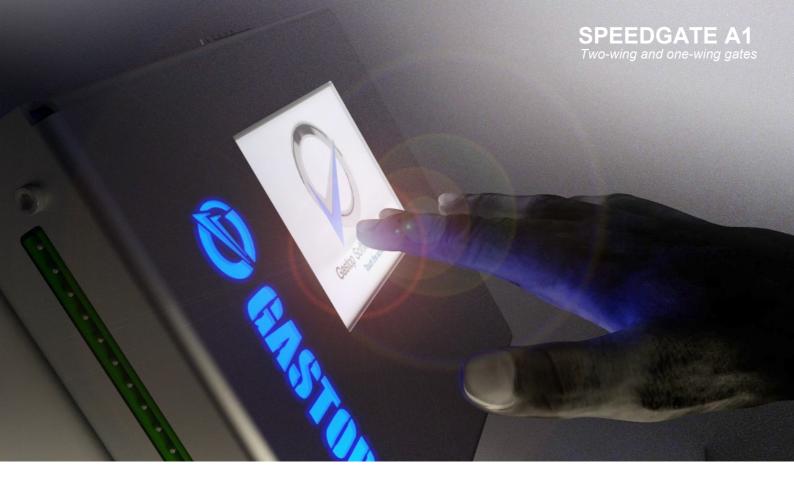


2. Saving space for the gate assembly. The gate takes almost twice less operational space when compared to swing or folded gates.

### The device durability



4. The gate driver can control either one or two wings synchronously, depending on a configuration set.



### SPEEDGATE A1 - FUNCTIONS



#### THE INTERNET

The device driver allows to control and change basic parameters via the Ethernet network\*. It is possible to connect the network via Wi-Fi after connecting a Wi-Fi router\*.



### COMMUNICATION

The device has inputs and outputs for cooperation with peripherals used for support, control, analysis, diagnostics or printing reports\*.



### A GRAPHIC TOUCH PANEL

The device is equipped in a colour LCD touch screen with a software using a window-like user interface, enabling easy access to the menu in order to configure and set parameters of the device.



### CONTROLLING

The gate is equipped in a supply and control box, which can power-up, but also control one or two wings of the gate synchronously.



#### A HIGH-SPEED DRIVE

An engine of the drive with a gear allows fluent and quick movement of a wing or wings of the gate.



### SAFETY SYSTEMS

The gate is equipped in touch strips in a plastic housing as a standard, which switch the drive off is a force is detected.

<sup>\* -</sup> in order to use a given function, it is necessary to use a respective controlling software. Additional software is not included in the gate equipment.

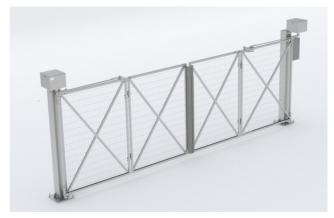


## **SPEEDGATE A1 - TYPES OF GATES**

### TWO-WING GATES



Two-wing gates with a gate wing filling made of closed profiles.



Two-wing gates with a gate wing filling made of fence panels.

### **ONE-WING GATES**



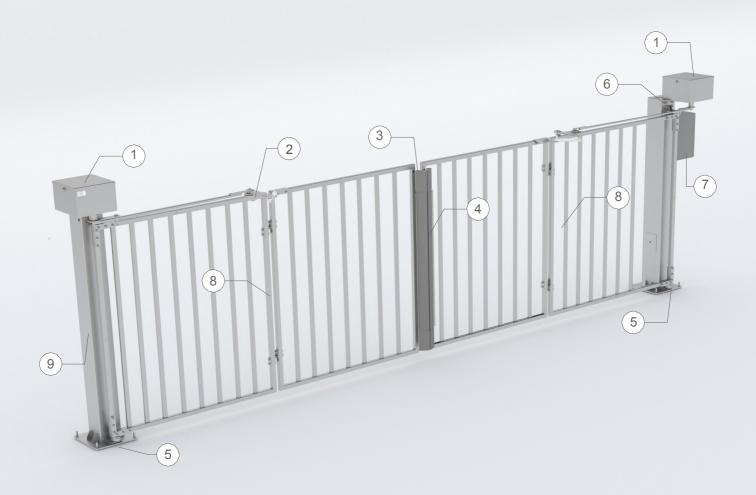
One-wing gates with a gate wing filling made of closed profiles.



One-wing gates with a gate wing filling made of fence panels.

### **SPEEDGATE A1 - TWO-WING GATES**

Two-wing gates filled with 40 x 40 mm profiles



#### Description of a structure and components of the gate

(1) - a drive of the gate wing is equipped in an electrical engine with a gear and a grip for its fitting to the gate mast. A two-wing gate includes: two drive mechanisms, one for each wing, (2) a joint to control folding of a wing of two parts of the gate wings, (3) - a roller positioning the gate wings in a closed position, (4) – touch strips turning the drive mechanism off if a wing comes across a resistance (pressing the touch strip), (5) – masts assembled to a substrate with the use of glued-in anchors, to which the gate wings with the wings drive are then fitted. The mast allows to lead a power wiring system into the substrate. A supply and control box can be fitted to the mast as well, (6) – a grip to assemble the joint to control folding of a wing, equipped in a bolt with a possibility to put on a lock. The lock enables unlocking of the gate in case of a voltage decay, for example.

(7) – a supply and control box to control drives of two or one wing, equipped in an inverter or inverters, a residual-current device, a gate control, which allows connecting external devices such as an infrared remote, a card reader, a biometric reader, a control panel and other devices, as well as safety features such as an inductive loop, photoelectric sensors, sound signalling and visual signalling, among others. The control also has inputs (Ethernet, USB) which, if an appropriate software is installed and correct connection established, allow to control or verify the gate status from the level of a computer connected to a computer network, (8) - the gate wing is made of closed profiles as a standard. It is possible to make a filling of the wings individually, according to a Client's design or concept.

### SPEEDGATE A1 - ONE-WING GATES

One-wing gates filled with 40 x 40 mm profiles



#### Description of a structure and components of the gate

(1) - a drive of the gate wing is equipped in an electrical engine with a gear and a grip for its fitting to the gate mast. A two-wing gate includes: two drive mechanisms, one for each wing, (2) a joint to control folding of a wing of two parts of the gate wings, (3) - a roller positioning the gate wings in a closed position, (4) - touch strips turning the drive mechanism off if a wing comes across a resistance (pressing the touch strip), (5) - masts assembled to a substrate with the use of glued-in anchors, to which the gate wings with the wings drive are then fitted. The mast allows to lead a power wiring system into the substrate. A supply and control box can be fitted to the mast as well, (6) – a grip to assemble the joint to control folding of a wing, equipped in a bolt with a possibility to put on a lock. The lock enables unlocking of the gate in case of a voltage decay, for example.

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### **TECHNICAL DATA**

PARAMETER	VALUE
Supply voltage	230V 50Hz AC
Power	100 W
Maximum current consumption while not active (for one drive)	~ 0.2 A
Maximum current consumption while active (for one drive)	~ 1.8 A
Miniature circuit breaker	6 A (B)
Residual-current device	25 A
Speed of the wings	depending on a version

### **MARKING AND NAMES OF GATES**

### EXAMPLE OF A NAME AND DESCRIPTION

SPEEDGATE - A1 - LR - 4 m - PROF(40 x 20) - INOX

A B C D E

### NAMES OF GATES - MARKINGS

Item	NAME	DESCRIPTION
Α	SPEEDGATE-A1	Name of the gate type
В	LR	L – left wing, R – right wing, LR - left and right wing
С	4m	Width of the gate (meters)
D	PROF(40 x 40)	Type of the wing filling (40 x 40 mm profile)
E	INOX	Type and material of the gate finishing (AISI304 steel - so called stainless steel)

### TYPES OF WINGS AND WIDTH OF THE GATE

Item	NAME	DESCRIPTION			
1	LR - 4m	Two-wing gate - width: 4 meters*			
2	LR - 5m	Two-wing gate - width: 5 meters*			
3	LR - 6m	Two-wing gate - width: 6 meters*			
4	LR - 7m	Two-wing gate - width: 7 meters*			
5	LR - 8m	Two-wing gate - width: 8 meters*			
6	L - 2m	Left-wing gate - width: 2 meters*			
7	L - 3m	Left-wing gate - width: 3 meters*			
8	L - 4m	Left-wing gate - width: 4 meters*			
9	R - 2m	Right-wing gate - width: 2 meters*			
10	R - 3m	Right-wing gate - width: 3 meters*			
11	R - 4m	Right-wing gate - width: 4 meters*			

### TYPES OF FILLING OF THE GATE WINGS

Item	NAME	DESCRIPTION
1	PROF(40x20)	Profile having dimensions 40 x 20 mm
2	MESH	Grid according to a pattern

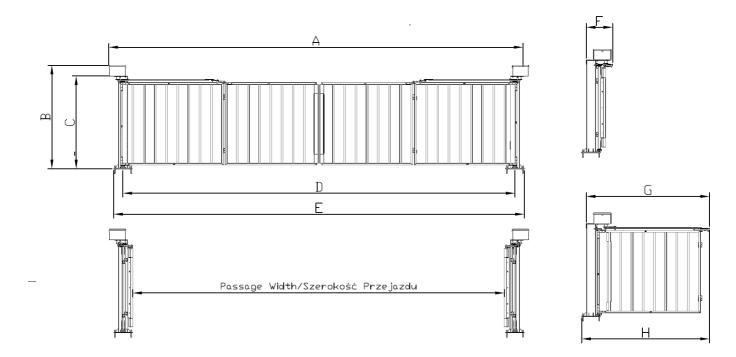
### MATERIAL OF THE GATE FINISHING

Item	NAME	DESCRIPTION				
1	INOX	Stainless steel AISI304**				
2	ZINC	Black hot dip zinc coated steel**				
3	PAINTED ( RAL X )	Black zinc coated steel, powder painted to a colour of an X number from the RAL colour palette**				

<sup>\* -</sup> the size of the gate is approximated to a 0.01 of the gate size, \*\* - applies to assembly masts and wings of the gate



# **DIMENSIONS - TWO-WING GATES**

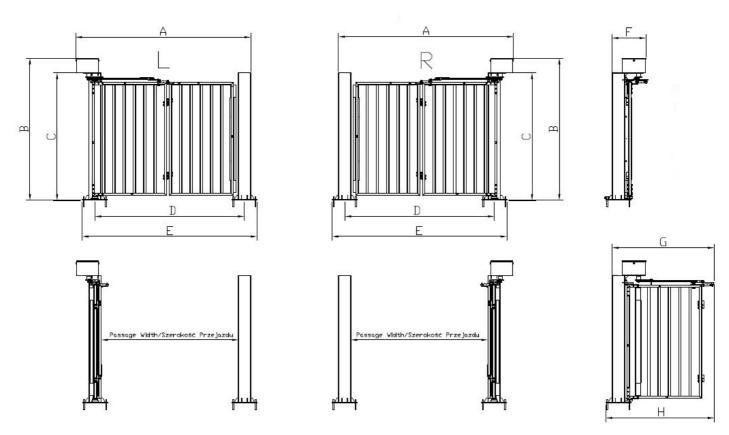


# **TABLE OF DIMENSIONS**

Width of a passage	А	В	С	D	Е	F	G	Н
LR (8m)	9098	2251	2020	8490	8890	534	2650	2750
LR (7m)	8098	2251	2020	7490	7890	534	2387	2487
LR (6m)	7098	2251	2020	6490	6890	534	2125	2225
LR (5m)	6098	2251	2020	5490	5890	534	1862	1962
LR (4m)	5098	2251	2020	4490	4890	534	1600	1700



# **DIMENSIONS - ONE-WING GATES**



# **TABLE OF DIMENSIONS**

Width of a passage	Α	В	С	D	Е	F	G	Н
4m	4768	2251	2020	4364	4764	534	2650	2750
3m	3768	2251	2020	3364	3764	534	2125	2225
2m	2768	2251	2020	2364	2764	534	1600	1714



### **OPTIONAL/ADDITIONAL EQUIPMENT\***



#### A signal lamp (3)

An LED signal lamp can be connected to the SpeedGate A1 gate. The signal lamp is used to inform about movement of the gate wings. Colour of the light - yellow. Movement of wings is signalled with blinking of the light.

Power supply - 12-24V, Power consumption 230V AC - 2.5 W, Working temperature -20 to +60 C, Protection rating: IP54.



### A sensor – photocell (transmitter, receiver) (1),(2),(9),(10),(5),(11)

A photocell consists of a transmitter and receiver. An infrared beam is sent from the transmitter. If an obstacle is detected (e.g. a car) in the photocell detection zone, a response from the photocell is triggered, being switching the output transmitter. The receiver has control contacts of NC and NO type led out. Power supply - 12-24 AC/DC, Current consumption - max. 25 mA, Working temperature -20 to +60 C, Protection rating: IP54, Dimensions: 35 x 30 x 110 mm, Range: 1-15 m.



#### A remote control (transmitter, receiver) (12)

A remote control (infrared) consists of a transmitter and receiver.

Power supply – 12V, Current consumption – max. 25 mA, Working temperature -20 to +60 C, Protection rating: IP20.



#### A GSM Module (module of notifying and remote control)

The device is meant to control the SpeedGate A1 gate. It allows to connect outputs via an SMS or CLIP from a maximum of 255 telephones, an SMS and CLIP notification sent to a maximum of 6 telephone numbers entered, to add and remove phones from the list remotely, limit a number of SMS reports sent within 24 hours. Power supply - 12V, Current consumption 5 mA (max. 1 A, Working temperature -20 to +40 C, Protection rating: IP20, Dimensions (without an aerial): 96 x 63 x 28 mm.



#### **Detector of vehicles detection**

A detector of vehicles detection is meant to connect to an inductive loop (a wire to make an inductive loop is not a part of the device set/component) and the SpeedGate A1 gate control. The detector should be fitted to a bus in a supply and control box. The detector is of a single-channel type - it cooperates with a single inductive loop. Power supply -24V, Power consumption 230V AC - 3W, Working temperature -20 to +60 C, Protection rating: IP20. Dimensions:  $75 \times 37 \times 68$  mm.



### A set of masts with sensors (transmitter, receiver) (1),(2),(9),(10),(5),(11)

The set consists of two masts: a mast with an installed transmitter and a mast with an installed photocell receiver. If an obstacle is detected (e.g. a car) in the photocell detection zone, a response from the photocell is triggered being switching the output transmitter. Masts are made of AISI304 stainless steel. Power supply - 12-24V, Current consumption - max. 25 mA, Working temperature - 20 to +55 C, Protection rating: IP54, Dimensions of an assembly rosette: 90 x 120 mm, Height: 70 cm, Range: 1-15 m.

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