Table of contents

1	About the company	3
2	Automatic systems for sectional doors	7
	Automatic systems for residential sectional doors	8
	Automatic systems for residential and industrial sectional doors	12
	Automatic systems for industrial sectional doors	20
3	Automatic systems for gates	31
	Automatic systems for sliding gates	32
	Automatic systems for swing gates	38
4	Barriers	45
5	Rolling shutters, screens and awning automatics	51
6	All types of automatics accessories	67
	Automatic systems accessories	69
	Rolling systems automatics accessories	74
7	Certificates	81
8	Owned production and warehouse network	85

ABOUT THE COMPANY



ABOUT THE COMPANY

DoorHan Company Group





DoorHan Company Group Factories is the largest international manufacturer of all automatic gates and rolling systems.

Using modern high-technology equipment, we produce operators for all types of doors and rolling shutters automation. We offer operators for residential and industrial sectional doors, sliding and swing gates, rolling shutters, steel rolling doors and barriers.

DoorHan Company also supplies the wide range of control devices, safety devices and some additional accessories for all types of the motors supplied.

Those devices guarantee maximum safety and service convenience.

DoorHan takes into consideration an experience of European manufacturers and develops automation which is suited to hard working conditions (such as unstable voltage, seasonal temperature fluctuations etc.). All devices pass through a full range of tests and the obligatory certification. Line of operators and accessories under the trademark DoorHan meets all the requirements of the clients.

An automatics DoorHan quality control is provided by the multi-stage test, which guarantees the long working life and high performance.

System approach allows the satisfaction of all the comprehensive gates and rolling systems automation requests of our clients, and provide a professional mounting and after-sales service.



4

ABOUT THE COMPANY



Continious perfection of the production allows DoorHan Company Group Factories to hold leading positions on the market and offer its clients multi-purpose automatics, which can be combined with to all types of the products, manufactured by our company.

We are sure, that this catalogue will help you to choose the automatics just for your needs.



5

1

AUTOMATIC SYSTEMS FOR GATES AND DOORS





Sectional-1200

Garage door operator Sectional-750 is for residential use. Operator is fixed on the ceiling and opens the door by means of a chain drive. This is designed for the doors up to 2800 mm high with an area of up to 10 m^2 .

Garage door operators Sectional-750 and

Garage door operator Sectional-1200 is for residential and industrial use. Operator is fixed on the ceiling and opens the door by means of a chain drive. This is designed for the doors up to 3800 mm high with an area of up to 16 m^2 .

Operators' bodies have the up-to-date ergonomic design. Operators can be easily mounted on the rail and fixed on the ceiling. Built-in lamp for courtesy light is automatically activated when using operators.

- The opening and closing stop points are determined by the encorder and controlled by the chain reference point.
- To ensure the maximum safety operation, the control unit is provided with the current protection system.
- Self-locking non-reversing gearmotor prevents from any unauthorized garage door opening.
- Accessible emergency release system is provided for power cut situations.
- Automatic closing function with programmable pause time.
- Door fitting bracket ensures safe fixing procedures upon two planes.

- Rolling code of transmitters for maximum protection from any unauthorized using.
- Audio alarm function in case the door stays open for more than 10 minutes.
- Power consumption less than 8 Watts in standby mode.
- Smooth start-up and deceleration functions ensures the minimum loads to the system units, thus extending the door and the actuator service life.





Advantages



ENCLOSURE

Operator can be easily mounted on the rail and fixed on the ceiling. Built-in lamp for courtesy light is automatically activated when using operator.



COMFORT AND COST-EFFICIENCY

The package includes a radio key-button which can substitute a normal fixed switch and can be used as well as a transmitter. No extra devices are needed for the radio key-button to be used. The SE-750 actuator is remarkable for its low energy consumption. When in stand-by mode and the garage lighting switched off, the total power consumption is 8 W.



RELIABILITY, DURABILITY, USABILITY

The electromechanical operator is provided with the smooth start-up and deceleration functions, thus excluding any dynamic loads on the system units when starting and stopping the operator and extending its service life. The operator has a low noise level and high performance indicators.



EASY TO ADJUST

The operator is programmable with the relevant push-buttons and a special display unit reporting various operation performance values.

To put the operator in operation, only two parameters should be adjusted: upper and lower positions, then the door opening force should be automatically set. All the controls are available on the enclosure, under an ornamental easy to remove cover plate ensuring the controls to be easily accessible.



EXTRA DEVICES

To ensure the maximum safety operation mode, the relevant DoorHan photocells or optosensors could be connected to the control unit. Besides that, the relevant key-button additional devices, as well as radio code keypad and any kind of transmitters could be used. No extra devices are needed to use the extra devices.



RELEASE DEVICE

The door leaf is securely fixed when installing the electromechanical operator. Thus the operator functions as a lock, doesn't permit the doors to be opened manually. In case of power cut, the operator can be easily unblocked while pulling the built-in release device cord. To reset the operator, it is sufficient to pull the cord once again. When it is necessary to unblock the operator from the outside, an external cable release device should be previously installed; this is key-protected against any unauthorized unblocking.









Garage door operator Sectional-500

Garage door operator Sectional-500 is for residential use. Operator is fixed on the ceiling and opens the door by means of a chain drive. This is designed for the doors up to 2300 mm high with an area of up to 8 $\rm m^2$

Operator's body has the up-to-date ergonomic design. Operator can be easily mounted on the rail and fixed on the ceiling. Builtin lamp for courtesy light is automatically activated when using operator.

- The opening and closing stop points are determined by the encorder and controlled by the chain reference point
- ✓ To ensure the maximum safety operation, the control unit is provided with the current protection system
- Self-locking non-reversing gearmotor prevents from any unauthorized garage door opening
- ✓ Accessible emergency release system is provided for power cut situations
- Automatic closing function with programmable pause time
- Door fitting bracket ensures safe fixing procedures upon two planes

- Rolling code of transmitters for maximum protection from any unauthorized using
- Audio alarm function in case the door stays open for more than 10 minutes
- Power consumption less than 8 Watts in standby mode
- Smooth start-up and deceleration functions ensures the minimum loads to the system units, thus extending the door and the actuator service life





Power supply	230 V, 50 Hz
Maximum absorbed power	100 W
Thrust force	500N
Gate speed	0,14 m/sec
Protection class	IP20
Use frequency	continuous
Operating ambient temperature	from -20 °C to +55 °C
Aperture height	2300 mm
Maximum door area	8 m²



Advantages



CLASSICAL" DESIGN ENCLOSURE COMBINED WITH THE EASILY RECOGNIZABLE

DOORHAN BRAND.

Operator can be easily mounted on the rail and fixed on the ceiling. Built-in lamp for courtesy light is automatically activated when using operator.



ALL-INCLUSIVE PACKAGE

Obstacle detection capability ensured with the movement control function available. Control unit self-diagnostics function identifying and warning about possible fault conditions.



RELIABILITY COMES FIRST

Low control power (24V) ensuring the required operation safety conditions. Chain rail ensuring high wear resistance. Steel driving pinion ensuring the actuator reliability and long service life.



EASY TO ADJUST, EASY TO USE

The actuator is programmable with the relevant push-buttons and special display reporting various performance values. To put the actuator in operation, only two parameters should be adjusted: upper and lower positions, then the door opening force should be automatically set.



MAXIMUM SAFETY MODE

To ensure the maximum safety operation mode, the relevant DoorHan photocells and optosensors could be connected to the control unit.



The powerful motor (thrust force of 500N) and compact dimensions optimum balance.



FULL PACKAGE READY TO BE USED FOR YOUR DOOR Ideal for residential use.



- S

RELEASE DEVICE

The door leaf is securely fixed when installing the electrical actuator. Thus the actuator functions as a lock, not permitting the doors to be opened manually. In case of power cut, the actuator could be easily unblocked while pulling the built-in release device cord. The actuator is automatically reset when restarting it (support passing over the carriage). When it is necessary to unblock the actuator from the outside, an external cable release device should be previously installed; this is key-protected against any unauthorized unblocking.





2

Automatic systems for residential and industrial sectional doors

Accessories

	LOCK Reliable protection from a breaking. The rope of the release is galvanized, what ensures its reliability while long-term usage. The emergency release was developed especially for the Doorhan sectional door operators, and it also suits for all manufacturers' garage door operators.	
	KEYSWITCH <i>Key-operated push-button KEYSWITCH is used for giving a control command to an operator's control board. A DIP-switch lets to give a control command in the step-by-step mode. There is used one control command for opening, stop and closing. There can be used both NO and NC contacts for connection. In order to give a command you need to turn the key controlling the microswitches contacts; when you release the key, it reverts.</i>	
	KEYPAD Radio code wireless numeric pad KEYPAD is used for remote control of an electronic operator, equipped with an internal or external DoorHan receiver.	
	DHRE-2 External receiver DHRE-2 is meant for other manufacturers automatics control with the help of DoorHan transmitter. It is possible to connect the receiver to any operator, which has normal opened (NO) control contacts. This receiver works on a frequency 433 MHz. The receiver DHRE-2 has two channels, thus it can control one or two operators.	
2	TRANSMITTER 4 Remote control transmitters DoorHan are meant for DoorHan automatics or any other device with the DoorHan radio receiver control. You can control one or more (up to 4) different devices (gates, barriers etc.) with the help of one transmitter.	
	OPTOKIT The opto-sensors safety device (OPTOKIT) consists of 2 infrared safety sensors: receiver and transmitter, installed in a special rubber profile (RUBBER) at the bottom of the door panel. The deformation of the rubber profile leads to the interruption of the optical beam and a signal is sent to the control unit. The control unit generates a universally recognized signal, which makes it possible to use an opto-sensor kit with various door automation devices.	
	PHOTOCELL Photoelectric detector Photocell is a safety device, consisting of infrared transmitter and receiver, which are installed in a gate opening. If an infrared beam is interrupted, the control board receives the signal of an obstacle in a dangerous area of an automatic system operation, and a system reacts as it was preset by the operation logic – stop or reverse of gates.	
	LOCK N The relese is designed ideally for sectional operators. A handle with a key maggot is placed on the gate panel surface. The turning of this handle leads to an easy release of the electric drive, that`s why the gate can be opened manually.	

Automatic systems for industrial sectional doors





SHAFT operators

Electromechanically driven SHAFT operators are designed to be used for spring balanced industrial sectional doors.

Operators are designed to mount strictly on the shaft. Advanced "oil bath" technology is used for gearmotors.

Operator consists of electric motor, reduction gear and built-in control unit. Electric motor and reduction gear are enclosed in united body.

3-buttons control unit is connected to the control board of the operator. There are 2 ways of installation - with "direct" transmission on the spring shaft or "indirect" transmission by chain.

Self-blocking reducer enables mechanical blocking of the gate shaft when the operator is stopped. In case of a power cut the door can be moved by using manually activated chain winch. In the event of long-timed power cut the door can be moved manually by activating release device lever.

Shaft rated torque of Shaft-30 operator is 30 Nm thus enabling to open the door with an area of up to 18 m². It's ideal both for industrial and residential sectional doors in case there is no possibility to mount a chain operator. Operator is compact and can be easily mounted both to the right and to the left from the door.

Shaft-120 is three-phased operator with shaft rated torque 120 Nm. It can be used for a door with an area of up to 40 $m^2\!.$

simple mounting and adjustment

- operator goes with all the necessary connections performed
- there is a possibility to enlarge shaft rated torque by using indirect chain transmission with different transmission ratio
- long-life manually activated chain winch

- **3-buttons control unit in package**
- different accessories can be integrated in automatic system
- automatic closing function with programmable pause time
- a chain winch can be lengthen in case of high door



2



Shaft rated torque	30 Nm	120 Nm
Rotation speed	32 rpm	29 rpm
Use frequency	50%	65%
Operating ambient temperature	-20.	+55⁰C
Protection class	I	P44
Maximum gate area	18 m ²	40 m ²

DoorHan[®]

Automatic systems for industrial sectional doors

Advantages





HIGH USE FREQUENCY

Operator body is made of sold die cast aluminium. Special cooling ribs enable to raise heat emission thus increasing use frequency.

SIMPLE AND ACCESSIBLE MOUNTING

Due to built-in control unit the operator has compact size and minimum quantity of projected parts. The package includes all the necessary fixing elements. The operator can be easily mounted on the spring shaft and fixed with bracket on the wall. Besides all electrical connections required are performed and all that is needed is to power up the operator and to adjust limit

switches. A screwdriver and a spanner from the package help you to make all adjustments.

LIMIT SWITCHES



Upper and lower end points of a gate are adjusted by limit switches caps. The caps are doubled to provide maximum safety. Every cap has rough and exact adjustment. Additional blue cap enables to integrate external devices in the automatic system.



It is also possible to use Shaft operator with "indirect" transmission by chain with different transmission ratio enabling use even



ACCESSORIES

times as much.

To ensure the maximum safety operation mode, the relevant DoorHan photocells or optosensors could be connected to the control unit. Besides that, the relevant key-button additional devices, as well as radio code keypad and any kind of transmitters could be used. In this case it is just needed that you connect external radio-receiver.

if the lateral space is insufficient or for particularly heavy doors. Shaft rated torque and door maximum area can be enlarged 1.5





In the event of long term power cut the operator is unblocked by the release lever and the door can be moved manually. Power supply is automatically switched off in this case to provide maximum safety.



CHAIN WINCH

Manually activated chain which enables the door to be moved in case of short term power cut.



QUALITY CONTROL

100% DoorHan operators undergo quality control for more than 15 criteria before shipment.



Package

- 1. Operator
- 2. Instruction manual
- 3. Fixing bracket
- 4. Chain (8m)
- 5. Fixing kit
- 6. 3-buttons control unit with 6m length cable
- 7. Dowel
- 8. Screwdriver
- 9. Spanner
- 10. Chain coupling



Control unit





Control unit technical specifications

Power supply	230 V
Motor max. load	800 W
Absorbed power	4 W
Accessories max. load	0.2 A
Fuse	6.3 A 250 V
Work time	Programmable (from 0 to 10 min)
Pause time	Programmable (from 0 to 5 min)
Terminal board inputs	Open-Close-Stop-Safety devices-Opening and closing limit switches-Power supply
Function logic	Automatic/"Stepped" semi-automatic/Safety/Semi-automatic B/"Dead man" C/ Mixed B+C



Automatic systems for industrial sectional doors



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Automatic systems for industrial sectional doors

Accessories		
	BUTTON 2K The three-positions control post has the protection code IP65. It is used for industrial sectional door (with the shaft type operators) control; there can be connected one near the door or several control posts. The three- positions control post easily connects to an operator and is placed near the door. One button is charged with the door's opening, another, another one – for closing. An unauthorized operators starting up is prevented by a key.	
	BUTTON 3 The three-positions control post has the protection code IP65. It is used for industrial sectional door (with the shaft type operators) control; there can be connected one or several control posts. The three-positions control post easily connects to an operator and is placed near to the door. One button is charged with the door's opening, another, another one – for closing. The "stop" button enables to stop the door immediately in any position. Besides, it is possible to control the door "step-by-step' by one button.	
6	TRANSMITTER 4 Remote control transmitters DoorHan are meant for DoorHan automatics or any other device with the DoorHan radio receiver control. You can control one or more (up to 4) different devices (gates, barriers etc.) with the help of one transmitter.	
	PHOTOCELL Photoelectric detector Photocell is a safety device, consisting of infrared transmitter and receiver, which are installed in a gate opening. If an infrared beam is interrupted, the control board receives the signal of an obstacle in a dangerous area of an automatic system operation, and a system reacts as it was preset by the operation logic – stop or reverse of gates.	
	KEYSWITCH <i>Key-operated push-button KEYSWITCH is used for giving a control command to an operator's control board. A DIP-switch lets give a control command in the step-by-step mode. One control command is used for opening, stop, and closing. Both NO and NC contacts can be used for connection. In order to give a command you need to turn the key controlling the microswitches contacts; when you release the key, it reverts.</i>	
	SWM SWM key-button is used to give a directive to the drive control unit. It has 2 positions - for opening and closing, In order to give a directive, turn the key that controls the contacts of the microswitchers. If you stop holding the key it will return to its original position.	
	KEYPAD Radio code wireless numeric pad KEYPAD is used for remote control of an electronic operator, equipped with an internal or external receiver DoorHan.	
0	WDKIT The WDKIT is used to prevent the drive from starting if the wicket-door is opened, when there's a wicket- door built in a sectional door. Open wicket sensor WDKIT is a magnet non-contact sensor, designed for the mounting in the wicket-door profile of a sectional door.	
	OPTOKIT The opto-sensors safety device (OPTOKIT) consists of 2 infrared safety sensors: receiver and transmitter, installed in a special rubber profile (RUBBER) at the bottom of the door panel. The deformation of the rubber profile leads to the interruption of the optical beam and a signal is sent to the control unit. The control unit generates a universally recognized signal, which makes it possible to use an opto-sensor kit with various door automation devices.	
DoorHan	- 23	





Sliding series operators

Sliding-1300(2100) operators are designed to be used for sliding gates. Pinion rotation is transmitted to linear motion by a rack that is fixed on the gate.

Self-blocking reducer enables to block the gate without any locks.

Sliding series operators were designed to be used in severe climatic conditions. Their advantages are:

key-operated release device makes it possible to open and close the gate manually in case of power cut; built-in control board; low noise level and thermal protection($+125^{\circ}$ C).

- **Magnetic limit switches**
- operating ambient temperature from -40 to +60°C
- **v** protection from unauthorized opening
- **control board enables to connect any external receiver**
- high use frequency
- maximum weight of a gate up to 2100 kg
- protection class IP54
- **compliance with Russian and European Safety Standards**

2



DoorHAN[®]

Advanteges



THE

USE FREQUENCY

Sliding series operators are designed with "oil bath" technology. Constant, complete "oil bath" lubrication of mechanical components enables much higher heat emission ensuring the highest use frequency.

GATE WEIGHT

Maximum gate weight is the main operator characteristic. The mostly widespread sliding gates weigh not more than 1000 kg. DoorHan operators for sliding gates are designed for gates up to 2100 kg thus enabling to use them both for residential and industrial gates.



MOISTURE PROTECTION

Good moisture protection ensures long service and no-failure life of the operator. DoorHan operators for sliding gates have waterproof body excluding moisture and dust penetration. Such important units as control board and limit switch unit are housed inside the body. Protection class of the operator (IP54) ensures his no-failure work.



LIMIT SWITCHES

DoorHan operators for sliding gates are equipped with non-contact magnetic limit switches. Limit switches unit has no projecting parts thus enabling to seal the operator body and ensuring long service life due to absence of mechanical actions. Doubled magnetically operated sealed switches ensure reliable limit switches activation.



OPERATORS FIXING

DoorHan operators for sliding gates have reliable fixing to mounting plate in 4 points. Lateral fixing brackets are galvanized and protected by plastic covers.



RELEASE DEVICE

Operator is non-reversing so no electric lock needs to be installed. In case of the event of power failure the key protected release device makes it possible to open and close the gate manually.



CONTROL UNIT

The operator is equipped with Italian control board which ensures maximum safety and functionality. Built-in control board ensures easy connection of any control and safety devices. Digital display and leds enable to control the adjustments and the state of the gate.



SAFETY

DoorHan operators comply with all Russian and European Safety Standards. Anty-crashing safety system ensures the safe work of automatic system.

QUALITY CONTROL

100% DoorHan operators undergo quality control for more than 15 criteria before shipment.



Package

1.Operator with built-in control board	1pcs.
2.Instruction manual	1 pcs.
3. Key-button	1 pcs.
4.Rack (1m length)	4 pcs.
5.Photocells	1 pcs.
6.Signaling lamp	1 pcs.
7.Receiver	1 pcs.
8.Mounting plate	1 pcs.



Control board





Control board specifications

Power supply	230 V
Absorbed power	10 W
Motor max. load	1000 W
Accessories max. load	0.5 A
Operating ambient temperature	from -20 to +55°C
Fuses	2 (5A - motor)
Function logic	Automatic/"Stepped" automatic / Semi-automatic/"Stepped" semi-automatic/Safety/Semi-automatic B/"Dead man" C/ Mixed B+C
Work time	Programmable (from 0 to 10 min)
Pause time	Programmable (from 0 to 4 min)
Thrust force	Adjustable over 50 levels
Terminal board inputs	Open/Partially open/Opening safety devices/ Closing safety devices/Stop/Edge/Power supply+Earth
Programming	(+,-,F) buttons and display



2

Automatic systems for sliding gates



Accessories		
	LAMP The signal lamp «LAMP» is a safety device emitting a flashing light signal warning when the door is in movement. Depending on the device contacted, there could be realized the preliminary flashing mode (the lamp flashes during a particular period of time before the gate starts moving).	
6	TRANSMITTER 4 Remote control transmitters DoorHan are meant for DoorHan automatics or any other device with the DoorHan radio receiver control. You can control one or more (up to 4) different devices (gates, barriers etc.) with the help of one transmitter.	
	PHOTOCELL Photoelectric detector Photocell is a safety device, consisting of infrared transmitter and receiver, which are installed in a gate opening. If an infrared beam is interrupted, the control board receives the signal of an obstacle in a dangerous area of an automatic system operation, and a system reacts as it was preset by the operation logic – stop or reverse of the gates.	
(Doon Linn)	RACK Gear rack is used for sliding gates moving.	
	KEYSWITCH <i>Key-operated push-button KEYSWITCH is used for giving a control command to an operator's control board. A DIP-switch lets give a control command in the step-by-step mode. One control command is used for opening, stop, and closing. Both NO and NC contacts can be used for connection. In order to give a command you need to turn the key controlling the microswitches contacts; when you release the key, it reverts.</i>	
	SWM SWM key-button is used to give a directive to the drive control unit. It has 2 positions - for opening and closing, In order to give a directive, turn the key that controls the contacts of the microswitchers. If you stop holding the key it will return to its original position.	
	KEYPAD Radio code wireless numeric pad KEYPAD is used for remote control of an electronic operator, equipped with an internal or external receiver DoorHan.	
	DHRE-2 External receiver DHRE-2 is meant for other manufacturers automatics control with the help of DoorHan transmitter. It is possible to connect the receiver to any operator, which has normal opened (NO) control contacts. This receiver works on a frequency 433 MHz. The receiver DHRE-2 has two channels, thus it can control one or two operators.	
DoorHan	- 29	

2

Automatic systems for swing gates





Swing series operators

Electromechanically driven Swing operators are designed to be used for swing gates.

Swing series operators are non-reversing screw operators and, therefore, do not require electric locks and bolts.

In case of the power cut the operator can be easily released by the key.

The operator consists of electric motor, reducer coupled with the screw and lead nut. All units are housed in die cast aluminium body preventing their damage.

Powerful motor (3000N thrust) and end enlarged rod effective stroke enable to use the operator for leaves with the length of a leaf up to 5m and the weight up to 1000kg.

Operator is ideal for big swing gates with medium and high use frequency, leaf opening inwards or outwards.

- opening and closing limit switches
- 500 mm rod effective stroke enables outward opening
- die cast aluminium body prevents operator internal units from damage and protects from aggressive ambient
- reliable and functional control board
- operating ambient temperature from -40 to +55°C



3 m

993x88x126

500 mm

5 m

1000 kg





OPTIMUM DECISION FOR RESIDENTIAL AND INDUSTRIAL GATES

Swing-5000 is the most practical and economical choice for residential and industrial gates of medium and high area. The non-reversing operator enables to fix a leaf in ultimate positions and, therefore, does not require electric locks and bolts.



FAST AND EASY INSTALLATION

It is just necessary to fasten the front fixing bracket to the leaf and the rear fixing bracket to the pilaster without any additional attachments.



SAFETY

452 MPS electronic control board ensures anti-crashing safety due to direct control operator drive torque. In case of emergency or power cut the release key makes it possible to move the gate manually.

Electromechanical limit switches enable a smooth stop in ultimate points also prolonging operator life.





MAXIMUM DURABILITY

Die cast aluminium enclosure with special treatment ensures IP54 protection class and operator units protection from mechanical damage and aggressive ambient. Long life wear-resistant surface saves operator effective appearance.

Swing-5000 operator doesn't require special maintenance work and is notable for minimum operating cost.



FAST AND EASY ACTIVATED RELEASE SYSTEM Midget three-edged key activated reliable release system enables to move the gate manually in case of power cuts. Release unit waterproof cover prevents moisture penetration inside the system.

HIGHER RELIABILITY - LESS MAINTENANCE WORK



SIMPLIFIED CONNECTION Both motor and limit switches are connected by a single three-wire cable.





USABILITY AND FUNCTIONALITY 452 MPS control board ensures the improvement of the automatic system functionality enabling to connect photocells, the usage of auto closing function and pedestrian passage, the adjustment of the operators drive torque.



ROD

Special shape rod guarantees better rod-nut transmission kinematic characteristics. Special shape screw thread ensures lubricant keeping in friction zone enabling to raise operator wear-resistance and smoothness of running meanwhile reducing noise level.



PACKAGE

1. SWING-5000 operator	2 pcs.
2. Instruction manual	1 pcs.
3. Fixing kit	2 pcs.
4. Key-switch	1 pcs.
5. Signaling lamp	1 pcs.
6. Photocells	1 pcs.
7. Receiver	1 pcs.
8. Control board	1 pcs.
9. Enclosure for control board	1 pcs.







TECHNICAL SPECIFICATIONS

Power supply	230 V
Absorbed power	10 W
Motor max. load	800 W
Accessories max. load	0.5 A
Electric lock max. load	15VA
Operating ambient temperature	from -20 to +55°C
Fuses	0.8 A – accessories, 5A – motor
Function logics	Automatic/Semi-automatic/Safety operated/"Stepped" semi-automatic/"Dead man" C
Work time	Programmable (from 0 to 120 s)
Pause time	Programmable (0, 10, 20, 30, 60, 120 s)
Closing leaf delay	0, 5, 10, 20 s
Opening leaf delay	2 s (can be disabled)
Thrust force	8 levels
Terminal board outputs	Lamp/Motor/+24V,-24V/Indicator light/Photocells test/Electric lock
Terminal board inputs	Open/Partial open/Closing safety devices/Opening safety devices/Stop/Power supply+Earth



Leaf width, m	Leaf weight, kg
2.00	1000
2.50	800
3.00	600
4.00	500
5.00	400

INSTALLATION DIMENSIONS



Opening angle	A, mm	B, mm	Cmax, mm
90°	200	200	120
120º	200	140	70

INSTALLATIONS



- 1. Transmitter
- 2. Signaling lamp
- 3. External reciver
- 4. Key button
- 5. Operator
- 6. Photocells

7. Control unit enclosure

- 8. Photocells
- 9. Electric lock



Accessories	
	LAMP The signal lamp «LAMP»is a safety device emitting a flashing light signal warning when the door is in movement. Depending on the device contacted, there could be realized the preliminary flashing mode (the lamp flashes during a particular period of time before the gate starts moving).
2	TRANSMITTER 4 Remote control transmitters DoorHan are meant for DoorHan automatics or any other device with the DoorHan radio receiver control. You can control one or more (up to 4) different devices (gates, barri- ers etc.) with the help of one transmitter.
	PHOTOCELL Photoelectric detector Photocell is a safety device, consisting of infrared transmitter and receive which are installed in a gate opening. If an infrared beam is interrupted, the control board receives th signal of an obstacle in a dangerous area of an automatic system operation, and a system reacts a it was preset by the operation logic – stop or reverse of gates.
	KEYPAD Key-operated push-button KEYSWITCH is used for giving a control command to an operator's contr board. A DIP-switch lets to give a control command in the step-by-step mode. There is used one contr command for opening, stop and closing. There can be used both NO and NC contacts for connection In order to give a command you need to turn the key controlling the microswitches contacts; when you release the key, it reverts.
	DHRE-2 External receiver DHRE-2 is meant for other manufacturers automatics control with the help of DoorHa transmitter. It is possible to connect the receiver to any operator, which has normal opened (NO) contro contacts. This receiver works on a frequency 433 MHz. The receiver DHRE-2 has two channels, thus it can control one or two operators.
	KEYSWITCH Radio code wireless numeric pad KEYPAD is used for remote control of an electronic operate equipped with an internal or external receiver DoorHan.
	SWM SWM key-button is used to give a directive to the drive control unit. It has 2 positions - for opening and closing, In order to give a directive, turn the key that controls the contacts of the microswitchers If you stop holding the key it will return to its original position.
DoorHan	35
BARRIERS



Barrier series automatic barriers

Electromechanical barrier BARRIER is meant for automation of the passages with the opening up to 6 meters. The construction of the barrier's motor-reducer enables to use it with the high intensity.

BARRIER perfectly can be used in severe operation conditions and conforms to the required safety conditions. Thanks to the reinforced reducer, the barrier has a high reliability and long working life. The barrier consists of a beam and a cabinet, which has a motor-reducer, balancing mechanism and a control board inside.



- Heavy duty gear wheels of reducer.
- Non-contact magnet limit switches.
- Bottom profile is made of the frost-resisting polymeric material.
- Any additional device can be installed.
- High use frequency.
- The barrier can be easily released and operated manually.



3 Barriers Dimensions, mm till 6 m 1050 mm 160 ≻ı 1 Π Π | | I ±_____ ī 20 300 mm h

Technical specifications

Model	Barrier
Maximum beam length	6 m
Opening time	5-7 s
Power supply	230 V
Type of beam	Rectangular, aluminium
Use frequency (t=20°C)	70%
Dimensions, mm	270x1015x140
Motor rotation speed	1400 rpm
Absorbed power	220 W
Thermal protection	120 °C
Operating ambient temperature	from -40° to +55°C (from -60°C – with thermal heater)
Protection class	IP54
Limit switches	magnetic



Т

3

Barriers

Advantages



USE FREQUENCY

Thanks to a particular reducer, the barrier has high usage intensity, that is a very important advantage in the passage automatization. The self-locking reducer guarantees a smooth movement and an accurate positioning of a beam in the limit points. In spite of a quite fast opening/closing speed, the smooth stop in the limit points helps to avoid a dynamical load of the system, and thus extends the barrier service life.



BALANCING MECHANISM

The balancing mechanism of the barrier has two specially selected springs, that significantly depress the load on the load-bearing elements of the operator. The mechanism includes springs with an extended length. While operating they are loaded and distorted little, and they can be heavy used during all the period of the barrier's service. Besides, the springs have a special corrosion-resistant coating.



RELIABILITY

Thanks to the simple design of the operator and to the usage of the heavy-duty gear wheels of the reducer, the barrier has a long service life; besides, the operator doesn't overheat even when it is used heavily. The construction of the electrical operator has low-sensitivity of the balancing adjusting thus simplifying its startup. The barrier's cabinet protects the internal elements from aggressive ambient.



ALUMINUM BEAM

The aluminum beam with reflective stickers has special reinforced elements in the fixation point, that securely fix it on a cabinet. If any objects appear during the opening, the bottom damper protects against the impact. The beam's fastening is protected by a decorative plastic cover.



SAFE

The barrier is equipped with a control board, which meets all the required safety conditions. The control board enables the adjustment of the beam's lowering force and prevents from an impact, if any objects are appeared in the operating zone of a beam. It is placed in a special control box, which is well located inside the barrier's cabinet. In order to provide the barrier startup as soon as possible, all the needed connections are already completed.



BUILT-IN EMERGENCY RELEASE

The barrier can be easily released and operated manually in case of power cut. The balancing mechanism enables an easy raise of the beam. In order to provide maximum comfort and safety, any additional devices can be installed on the barrier.



Barriers Package 1. Cabinet with built-in control board 1pc. 2. Instruction manual 1pc. 3. Key-button 1pc. 4. Photocells 1pc. 5. Signaling lamp 1pc. 1pc. 7. Fixing kit 1pc. 8. Beam support 1pc. **Control board**



Technical specifications 230 V **Power supply** Absorbed power 10 W 1000 W Motor max. load Accessories max. load 0.5 A from -20 to +55°C **Operating ambient temperature** Fuses 2 (800mA - accessories, 5A - motor) Automatic/"Stepped" automatic / Semi-automatic/"Stepped" semi-automatic/Safety/Semi-automatic B/"Dead man" **Function logic** C/ Mixed B+C Work time Programmable (from 0 to 10 min) Pause time Programmable (from 0 to 4 min) Thrust force Adjustable over 50 levels **Terminal board inputs** Open/Partially open/Opening safety devices/ Closing safety devices/Stop/Edge/Power supply+Earth Programming (+,-,F) buttons and display

DoorHan®

6. Beam

2

Barriers

Accessories

Accessories	
	LAMP The signal lamp «LAMP» is a safety device emitting a flashing light signal warning when the door is in movement. Depending on the device contacted, there could be realized the preliminary flashing mode (the lamp flashes during a particular period of time before the gate starts moving).
6	TRANSMITTER 4 Remote control transmitters DoorHan are meant for DoorHan automatics or any other device with the DoorHan radio receiver control. You can control one or more (up to 4) different devices (gates, barri- ers etc.) with the help of one transmitter.
	PHOTOCELL Photoelectric detector Photocell is a safety device, consisting of infrared transmitter and receiver, which are installed in a gate opening. If an infrared beam is interrupted, the control board receives the signal of an obstacle in a dangerous area of an automatic system operation, and a system reacts as it was preset by the operation logic – stop or reverse of gates.
Ĭ	FOOT The stationary support of the barrier's beam. It is used for a fixation of the beam, when it is closed and enables to minimize a wind load.
	KEYSWITCH <i>Key-operated push-button KEYSWITCH is used for giving a control command to an operator's control board. A DIP-switch lets give a control command in the step-by-step mode. There is used one control command for opening, stop and closing. There can be used both NO and NC contacts for connection. In order to give a command you need to turn the key controlling the microswitches contacts; when you release the key, it reverts.</i>
	KEYPAD Radio code wireless numeric pad KEYPAD is used for remote control of an electronic operator, equipped with an internal or external receiver DoorHan.
	DHRE-2 External receiver DHRE-2 is meant for other manufacturers automatics control with the help of DoorHan transmitter. It is possible to connect the receiver to any operator, which has normal opened (NO) control contacts. This receiver works on a frequency 433 MHz. The receiver DHRE-2 has two channels, thus it can control one or two operators.
	OPTOKIT The opto-sensors safety device (OPTOKIT) consists of 2 infrared safety sensors: receiver and transmit- ter, installed in a special rubber profile (RUBBER) at the bottom of the door panel. The deformation of the rubber profile leads to the interruption of the optical beam and a signal is sent to the control unit. The control unit generates a universally recognized signal, which makes it possible to use an opto-sensor kit with various door automation devices.
42	DoorHan*

ROLLING SHUTTERS, SCREENS AND AWNING AUTOMATICS

ROLLING SHUTTERS, SCREENS AND AWNING AUTOMATICS DOORHAN ROLLING SHUTTER SYSTEMS AUTOMATION WILL MAKE YOUR LIFE COMFORTABLE

At the present time easy automatic control of different kinds of systems becomes more and more popular, as it has incontestable advantage over any hand drive. Rolling systems, controlled both by mechanical operators and automatically (with the help of tubular motors), is no exception.

You can control rolling shutters by different types of switches or by remote (radio) control transmitters. Easy touch of a transmitter's button you can open one or any number of rolling shutters.

DoorHan Company developed the full range of tubular motors, electronic devices and accessories for automatic control of rolling shutters and rolling door, sun awnings, automatic screens.

It is often very inconvenient or even impossible to control large size rolling systems, rolling doors by means of a mechanical drive. In this case an automatic is needed.

Moreover, few people like to close many rolling shutters manually – it takes much time and force. DoorHan automatics save you these inconveniences, if you control the particular group of rolling shutters by single button.



Automatic control







DoorHan tubular motors

DoorHan tubular motors are mainly used for rolling shutters, sun awnings, screens and venetian blinds automation. DoorHan tubular motors combine high quality, easy mounting and service.

Under the DoorHan trademark you get high-tech operator, which technical characteristics exceed well-known European suppliers' operators.

Everything needed for mounting is already included in a kit of electromotor: support plate and a set of adapters. We offer a lot of accessories for tubular motors with emergency manual opening function.















Tubular motors load LOAD, KG 95 100 105 110 115 120 125 130 ROLLER TUBE, MM 10Nm 20Nm 50Nm 100Nm 30Nm 40Nm

Tubular motors accessories

We offer the range of accessories for emergency opening and a tubular motor mounting. Everything needed for mounting is already included in a kit of electromotor. Loop and cardan joints are forseen in case of an emergency opening.

Adapters	
	DH216 Crown DH216 for the DoorHan tubular motor, series 55, for the shaft RV102.
	DL212 Drive adapter DL212 for the DoorHan tubular motor, series 55, for the shaft RV102.
	DL60 Drive adapter DL60 for the DoorHan tubular motor, series 45, for the shaft RV70. - plastic, - black, - for shaft rotation.
	DH51 Crown DH51 for the DoorHan tubular motor, series 45, for the shaft RV70. - plastic, - black, - positioning of limit microswitches.











DoorHAN^{*}

Rolling shutters, screens ar	nd awning automatics 4	
SUCCOR Contraction of the second seco	CV01 Remote control board CV01 has the internal receiver for DoorHan's transmitters. It is possible to connect receivers of most rolling shutters and gate automation manufacturers.	
	TRANSMITTER 4 4-channel remote control transmitter is used together with the control board CV01, and can control 4 devices.	
Control devices of the series 2		
	ROLL 1 Control device ROLL 1 is used for remote control of 1 tubular motor with help of remote control transmitters T1, T5, T15, T0.	
Prolinea	ROLL 2 Control device ROLL 2 is used for control of 2 tubular motors with help of remote control transmitters T1, T5, T15, T0.	
	T1 1-channel remote control transmitter T1 is used with control devices of the series 2 CV2.1 and CV2.2. It controls 1 channel.	
0	T5 5-channel remote control transmitter T5 is used with control devices of the series 2 CV2.1 and CV2.2. It controls 5 channels simultaneously and separately.	
DoorHan*	59	





ALL TYPES OF AUTOMATICS ACCESSORIES

All types of automatics accessories

Door automatics and accessories, realized by DoorHan company, are wonderful for their high quality and are adapted to the domestic operational conditions. It is easy to install and to control the automatics under the DoorHan trademark; it has high operational characteristics and a modern design.

While developing automatics we take into account the most severe safety requirements. All automatics pass through many tests and inspections, and thank to that the highest quality the reliability is guaranteed.

The accessories for the DoorHan automatics make gate usage maximum convenient and safety.

Remote control transmitters, photoelectric detectors, external receivers and other additional devices are noted for their complete compatibility, reliability, easy and convenient mounting.

- They perfectly suit for a usage with the DoorHan automatics and also can work with automatics of other suppliers.
- Compact dimensions, modern design, reliability.
- High operational characteristics.
- Easy and convenient mounting and service.

Accessories

Eternal receiver "DHRE-2""



- Built-in antenna.
- Simultaneous control of 1 or 2 devices.
- Compact dimensions.

External receiver DHRE-2 is meant for other manufacturers automatics control with the help of DoorHan transmitter. It is possible to connect the receiver to any operator, which has normal opened (NO) control contacts. This receiver works on a frequency 433 MHz. The receiver DHRE-2 has two channels, thus it can control one or two operators.

Technical characteristics

Model	DHRE-2
Working frequency	433 MHz
Supply voltage	12/24 V AC/DC
Max. quantity of transmitters	115 pcs
Quantity of channels	2
Range of working temperatures	from -40 to +55 °C



Remote control transmitter "Transmitter 4	33
Remote control transmitters DoorHan are meant fo You can control one or more (up to 4) different devices (16 mln of the rolling code 4 independent channels Ergonomic design Rolling code system KeeLoq r DoorHan automatics or any other device with the DoorHan radio receiver control gates, barriers etc.) with the help of one transmitter.
Technical characteristics	
Nodel	Transmitter 4
Working frequency	433 MHz
Quantity of channels	4
Range of working temperatures	-40 to +55 °C
Battery	12 V, type 27A
SolarTransmitter	
DoorHan remote controls are equipped with a univ	Solar powered Metal case 16 mil. combination rolling code 4 independent channels que double power system. The control has a strong metal case and a solar batte
DoorHan remote controls are equipped with a univ chargeable accumulator. DoorHan remote controls are used to operate Doo	Metal case 16 mil. combination rolling code 4 independent channels que double power system. The control has a strong metal case and a solar batter rHan automation or any other devices connected to DoorHan radio receiver.
DoorHan remote controls are equipped with a unit chargeable accumulator. DoorHan remote controls are used to operate Doo Model	Metal case 16 mil. combination rolling code 4 independent channels que double power system. The control has a strong metal case and a solar batter rHan automation or any other devices connected to DoorHan radio receiver. SOLAR TRANS
DoorHan remote controls are equipped with a unic chargeable accumulator. DoorHan remote controls are used to operate Doo Model Working frequency	Metal case 16 mil. combination rolling code 4 independent channels que double power system. The control has a strong metal case and a solar batter rHan automation or any other devices connected to DoorHan radio receiver.
DoorHan remote controls are equipped with a unic chargeable accumulator. DoorHan remote controls are used to operate Doo Model	Metal case 16 mil. combination rolling code 4 independent channels que double power system. The control has a strong metal case and a solar batter rHan automation or any other devices connected to DoorHan radio receiver. SOLAR TRANS 433 MHz

Key-operated push-button "KEYSWITCH"



- Reliable return mechanism.
- Compact case.
- **Easy** mounting and connection.
- Key protected pushing.

Key-operated push-button KEYSWITCH is used for giving a control command to an operator's control board. A DIP-switch lets the operator give a control command in the step-by-step mode. There is used one control command for opening, stop and closing. There can be used both NO and NC contacts for connection. In order to give a command you need to turn the key controlling the microswitches contacts; when you release the key, it reverts.

Key-operated push-button has a mechanical interlock, which prevents from opening of the cover without an installed and turned key.

Technical characteristics

Model	KEYSWITCH
Voltage at contacts	24 V DC
Control contact type	NO/NC
Protection class	IP 54
Range of working temperatures	from -40 to +55 °C

Radio code numeric pad "KEYPAD"



Radio code numeric pad "KEYPAD"
 Four numbers coding.
 Light and audio indication.
 2 channels.
 Protection class – IP54.

Radio code wireless numeric pad KEYPAD is used for remote control of an electronic operator, equipped with an internal or external receiver DoorHan.

Radio control commands can be sent only after a serial input of a code (from 0 to 9), which should be equal to the preset entry code. If the dialed code is right, the keypad sounds twice, blinks in green and sends an opening, stop or closing command. If the code is wrong, the keypad blinks in red. The buttons are highlighted while dialing.

Technical characteristics

Model	KEYPAD
Working frequency	433 MHz
Supply voltage	3 V
Working distance	50 m
Protection class	IP 54
Range of working temperatures	from -40 to +55 °C



Accessories

Safety devices

Photoelectric detector "PHOTOCELL"



- Photoelectric detector "PHOTOCELL"
- \checkmark Can be connected with any supply voltage - 12/24 V AC/DC.
- Can be connected with any control contact NO/NC.
- Compact dimensions let PHOTOCELL be easy installed in a gate opening.

Photoelectric detector PHOTOCELL is a safety device, consisting of infrared transmitter and receiver, which are installed in a gate opening. If an infrared beam is interrupted, the control board receives the signal of an obstacle in a dangerous area of an automatic system operation, and a system reacts as it was preset by the operation logic - stop or reverse of gates.

Technical characteristics

Model	PHOTOCELL
Working distance	up to 25 m
Supply voltage	12/24 V AC/DC
Current consumption	50 mA
Protection class	IP 54
Range of working temperatures	from -40 to +55 °C
Automatic equalization angle	< ± 10°
Control contact type	NO/NC

Open wicket-door sensor "WDKIT"



\checkmark	3 m of cable is included.
\checkmark	Trip distance setting is modifiable.

 \checkmark **Compact dimensions.**

The WDKIT is used to prevent the drive from starting if the wicket-door is opened, when there's a wicket-door built in a sectional door. Open wicket sensor WDKIT is a magnet non-contact sensor, designed for the mounting in the wicketdoor profile of a sectional door.

Technical characteristics

Model	WDKIT
Operating time	20 ms
Supply voltage	12/24 V AC/DC
Protection class	IP 68
Range of working temperatures	from -40 to +55 °C
Control contact type	NO/NC
Standard kit:	
1. Built-in open wicket-door sensor	1 pc.
2. Twisted cable for a door with a height up to 6 m	1 pc.

2 pcs.

Dimensions, mm



DoorHan[®]

3. Terminal box

Opto-sensors "OPTOKIT"



- \checkmark Output contacts type: NO and NC.
- \checkmark Operating time 16 ms.
- \checkmark Protection class IP 65.

The opto-sensors safety device (OPTOKIT) consists of 2 infrared safety sensors: receiver and transmitter, installed in a special rubber profile (RUBBER) at the bottom of the door panel.

The deformation of the rubber profile leads to the interruption of the optical beam and a signal is sent to the control unit. The control unit generates a universally recognized signal, which makes it possible to use an opto-sensor kit with various door automation devices.

Technical characteristics

Model	OPTOKIT	
Operating time	16 ms	
Supply voltage	24 V AC/DC	
Protection class	IP 65	
Range of working temperatures	from -40 to +55 °C	
Control contact type	NO/NC	
Standard kit: 1. Plastic bamper 2. Twisted cable for a door with a height up to 6 m 3. Terminal box	2 pcs.4. Opto-sensors: receiver/transmitter with the cable 10,5m1 pc.1 pc.5. Opto-sensors control block IP65Set1 pc.	

Signal lamp "LAMP"



- Bright, easy noticeable light. \checkmark
- \checkmark Built-in antenna.
- \checkmark Modern design. \checkmark
- Built-in control board.

The signal lamp «LAMP» is a safety device emitting a flashing light signal warning when the door is in movement. Depending on the contacted device, the preliminary flashing mode could be realized (the lamp flashes during a particular period of time before the gate starts moving).

Technical characteristics

Model	LAMP
Supply voltage	230 V
Protection class	IP 54
Range of working temperatures	от -40 до +55 °С
Power	25 W







External emergency release "LOCK"



- Reliable protection from any breaking.
- The rope of the release is galvanized, that ensures its reliability in long-term usage.
- The emergency release was developed especially for the Doorhan sectional door operators, and it also can be combined with all manufacturers' garage door operators.
- The emergency release is stocked with 2 keys.
- The cover protects the cylinder against foreign objects.

The LOCK universal external release device is designed for mounting on sectional doors equipped with overhead gear chains and is recommended to use in case of power failure. The external release device allows the door to be opened from the outside without power supply.

The emergency release has a polymer material sleeve of the rope, which protects the rope against a mechanical damage and simplifies its fixation to the door parts.

The emergency release is placed in a durable steel body with an anticorrosion finish, which ensures long-term using and an aesthetic appearance.

LOCK N



- Handle with 2 individual keys
- 1.25 diameter and 4,700 mm long shortenable cable
- 4.62 mm diameter and 4,520 mm long shortenable braiding for cable
- Kit for lock-release fastening

The release is ideal for overhead operators DoorHan and FAAC. The handle and the key plate are fastened on the outside of the panel. You can easily release the operator by turning the handle. Then you can open the gate manually. The elegant handle will fit into any gate design. The reliable lock mechanism ensures faultless and long operation.

Switch 1-button "SWITCH"



- Reliable return mechanism.
- Compact case.
- Easy mounting and connection.
- It is possible to use the switch 1 button with any device, which has an impulse signal.

The switch 1 button SWITCH is used for giving a control command to an operator's control board. One control command for opening, stop and closing of the garage door.

There can be used both NO and NC contacts for connection. Every pushing of the button coinsides with one control command: "Open – Stop –Close – Stop".



Control devices of the series 1



The main advantage of this series control devices is that it is possible to realize maximum wanted variants of control, associating them in different schemes. With help of the series 1 control boards you can remotely control both one rolling shutter and a group of rolling shutters. It is possible to connect different switches, offered by the DoorHan Company, to the control boards. All control devices of the series 1 have hermetic case with the IP65 protection class, and they suit for outdoor installation.

CV01



Remote control board CV01 has the internal receiver for DoorHan's transmitters. It is possible to connect receivers of most rolling shutters and gate automation manufacturers.

Technical characteristics of CV01	E.S.
Supply voltage of the control board	230 V, 50 Hz
Max. commutate current	no more than 7 A
Max. commutating voltage	230±10 V
Current rating of fuse actuation	4 A
Variants of control	by transmitter: "up" – "stop" – "down" – "stop" – "up" (circled)
	by push-button: "up" – "stop" – "down" – "stop" – "up" (circled)
Controlled electrical motors	1
Dimensions, mm	90x90x50
Weight, g	no more than 400
Range of working temperatures by GOST 15150	from -40 to +70 °C
Electrical protection class by GOST 27570	Ш





GC2



Group control board GC2 for the control of 2 electric operators with help of common switch and separate buttons for each operator. It is possible to connect a separate switch for each tubular motor.

Technical characteristics of GC2

Nominal supply voltage of the control board	230 (+10/-15) V, 50 Hz
Max. commutate current	no more than 3 A
Nominal commutating voltage	230±10 V
Controlled electrical motors	2
Dimensions, mm	94x130x57
Range of working temperatures	from -20 to +45 °C
Case protection class by GOST 14254 (no protection earth requirement)	IP65
Electrical protection class by GOST 27570	Ш



GC4



Group control board GC4 for the control of 4 electric operators. It is used for combining many operators in one group for a simultaneous control.

Technical characteristics of GC4

Nominal supply voltage of the control board	230 (+10/-15) V, 50 Hz
Max. commutate current	no more than 3 A
Nominal commutating voltage	230±10 V
Controlled electrical motors	4
Dimensions, mm	94x130x57
Range of working temperatures	from -20 to +45 °C
Case protection class by GOST 14254	IP65
Electrical protection class by GOST 27570 (no protection earth requirement)	П



Control devices of the series 2



switches are not needed, as the devices already have the control buttons.

We offer several variants of one-, two- and fifteen-channels office-style transmitters and one-channel pocket keychain-transmitter. The multichannel transmitters can control a number of tubular motors separately and simultaneously. It is possible to control simultaneously all control devices with the help of the channel on the transmitter.

The system combines easy mounting and setting with high efficiency of the devices, which enables to realize many control combinations. You can control the whole group of devices as a unit and divide it into several groups by one transmitter.

ROLL1



Control device ROLL1 is used together with the remote control of 1 tubular motor with the help of remote control transmitters T1, T5, T15, T0.



Control implementation with 2 blocks

Control devices of the series 2 combine modern ergonomic design, easy installation and electrical connections, more convenient

One of the advantages of the control devices of the series 2 is the three-position control that help of buttons "up", "stop", "down", which are situated not only on the control device, but also on the transmitter. During the control boards connection mini-

While control boards connection mini-

mum electric power is used. When using the control devices of the series 2 additional

series.

remote control.

mum electrical wiring is used.

Technical characteristics of ROLL1

Supply voltage	230 V, 50 Hz
Range of transmitters operation	up to 80 m
Variants of control	by 3 positions transmitter and buttons on control device: from the "up" button – rising, from the "stop" button – stop, from the "down" button – lowering.
Controlled electrical motors	1
Dimensions, mm	86x86x48
Working frequency, MHz	433, 92/315
Range of working temperatures Electrical protection class by GOST	from -10 to + 50 °C
27570	l l l l l l l l l l l l l l l l l l l

ROLL2



Technical characteristics of ROLL2

Supply voltage	230 V, 50 Hz
Range of transmitters operation	up to 80 m
Variants of control	by 3 positions transmitter and buttons on control device: from the "up" button – rising, from the "stop" button – stop, from the "down" button – lowering.
Controlled electrical motors	2
Dimensions, mm	86x86x48
Working frequency, MHz	433, 92/315
Range of working temperatures	from -10 to + 50 °C

Control device ROLL2 is used to control 2 tubular motors with the help of remote control transmitters T1, T5, T15, T0.



Accessories

SWM



- Reliable anti-vandal metal housing
- Easy installation and wiring
- Hermetic rear wall prevents moisture penetration into housing
- **Reliable origin return spring mechanism**
- **Protection with a key against unauthorized push**

SWM anti-vandal two-position key-switch and is used to operate rolling shutter tubular motors. The SWM key-switch is suitable for overhead mounting. It is equipped with a locking to avoid installation or removal of cover without inserted and turned key. Protection rating of housing – IP54.

Gear rack "RACK"



- Corrosion-resistant finish
- Reliable gearing
- Aesthetic appearance

Gear rack is used for sliding gates moving. Gear racks are joined together and are fixed on a the gate. The length of a gear rack is one meter, and you can take up the required length of the gear body right to the particular gate opening.

Thick gears of the rack guarantee a long-term using. Besides, the gear rack has a corrosion-resistant coating, which enables to keep the durability and aesthetic appearance during the all working life.

Technical characteristics

Model	
Gear spacing	M4
Dimensions, mm	12x30x1005

BUTTON2K



- Protection with a key against unauthorized switching on of operator
- Locking of buttons without using of the key
- Compact sizes, can be connected to any shaft operators
- **Dust-and-moisture protection rating IP65**

BUTTON2K control station is designed to operate sectional gate shaft operators. It is equipped with protection against unauthorized switching on.





DoorHAN^{*}

CERTIFICATES

CERTIFICATES















