

Automatic operation units



General

The METRO drive units are intended for sectional garage doors and up and over doors.

Design and operating principle of the METRO drive unit

The drive forms a complete unit with the running rail which is necessary for the drive to work. Along the rail, which features a drive chain or a rack, runs a truck which operates the door leaf. The drive unit moves the door with an arm; one end of the arm is attached to the running truck, while the other is attached to the top part of the door leaf. Up to 32 PULSAR RST transmitters can be linked to the drive unit.

METRO RTS kit equipment

The kit includes:

- Drive head
- Running rail with chain
- Two PULSAR RTS 4-channel remote control transmitters

Note! If the GARAGE door and its drive unit are installed in a room without any other passageway (aside from the GARAGE door), the drive unit must feature the external drive unlocking option.

A complete drive unit comprises the drive assembly and a running rail of a suitable length, see the table below. These components are unavailable separately.

The METRO drive unit features protective overcurrent obstacle detection. When the closing door runs into an obstacle, the drive unit will stop and completely open the door.

METRO drive unit selection

The drive unit and the rail must be selected for the door leaf surface area and the door opening height H_o . The selection of drive units and running rails is as shown in the table below.

METRO drive unit delivery

The METRO drive unit with the rail are supplied in two separate packages.

METRO RTS drive unit and rail in automatic garage doors

Typ	Rail length - L_s	Sectional garage doors	Up and over garage doors	
METRO 800 RTS	—	$S_o \times H_o \leq 9,00$ [m ²]	$S_o \times H_o \leq 9,00$ [m ²]	- 230 [V] power supply - 24 [V] drive motor
METRO 1000 RTS	—	$S_o \times H_o > 9,00$ [m ²]	$S_o \times H_o > 9,00$ [m ²]	- two PULSAR RTS remote control transmitters - LED light
2900 running rail with chain	2900 [mm]	$H_o \leq 2250$ [mm]	$H_o \leq 2700$ [mm]	- single-pcs. running rail with truck
3500 running rail with chain	3500 [mm]	$H_o > 2250$ [mm] and $H_o \leq 2850$ [mm]	$H_o > 2700$ [mm]	
4500 running rail with rack	4500 [mm]	$H_o > 2850$ [mm]	—	- two-pcs. running rail with truck

OPTIONAL ACCESSORIES for METRO RTS

The METRO io drive ⁽⁴⁾ – extra charge on top of the price for the automatic door with the METRO RTS drive provided in the price list	+ 135 pcs.
The Connected version (Metro io+Connexoon) ⁽⁴⁾	+ 235 pcs.
PULSAR RTS	+ 28 pcs.
RTS wall-mounted transmitter	+ 30 pcs.
Digipad RTS code keypad ⁽¹⁾	+ 50 pcs.
RTS radio receiver	+ 48 pcs.
Photocells	+ 49 set.
Running rail with rack, extra charge	+ 47 pcs.
Emergency power supply battery	+ 28 pcs.
Mechanical truck lock	+ 60 set.
External drive unlocking (additional lock)	+ 30 set.
Open wicket sensor (wireless)	+ 157 set.
External drive unlocking with door handle ⁽⁵⁾	+ 15 set.
GSM control system, Light/Full version	+ 220 / + 236 pcs.
GSM programming unit w/cable	+ 28 pcs.
Alarm siren ⁽²⁾	+ 25 pcs.
LED warning lamp	+ 44 set.
Flush-mounted doorbell button	+ 7 pcs.

AW RF path

Additional AW four-channel transmitter	+ 24 pcs.
AW external radio receiver	+ 52 pcs.

METRO RTS drive and rail

Type	Rail length - L_s	Sectional garage doors	Up and over garage doors (3)		
METRO 800 RTS	—	$S_o \times H_o \leq 9.00$ [m ²]	$S_o \times H_o \leq 9,00$ [m ²]	- 230 [V] power supply - 24 [V] drive motor	+ 292 szt
METRO 1000 RTS	—	$S_o \times H_o > 9.00$ [m ²]	$S_o \times H_o > 9,00$ [m ²]	- two PULSAR RTS remote control transmitters - flashing light	+ 362 szt
2900 running rail with chain	2900 [mm]	$H_o \leq 2250$ [mm]	$H_o \leq 2700$ [mm]	- single-pcs. running rail with truck	+ 58 szt
3500 running rail with chain	3500 [mm]	$H_o > 2250$ [mm] and $H_o \leq 2850$ [mm]	$H_o > 2700$ [mm]		+ 85 szt
2900 running rail with rack	2900 [mm]	$H_o \leq 2250$ [mm]	$H_o \leq 2700$ [mm]	- single-pcs. running rail with truck	+ 114 szt
3500 running rail with rack	3500 [mm]	$H_o > 2250$ [mm] and $H_o \leq 2850$ [mm]	$H_o > 2700$ [mm]		+ 128 szt
4500 running rail with rack	4500 [mm]	$H_o > 2850$ [mm]	—	- two-pcs. running rail with truck	+ 162 szt

⁽¹⁾ - Enables control over drive units from third-party manufacturers. Requires the RTS RF receiver. ⁽²⁾ - Unavailable for installation with the mechanical truck lock.

⁽³⁾ - Available with WIŚNIEWSKI doors. ⁽⁴⁾ - Detailed information on the io-homecontrol system can be found in the Smart Technologies Price List. ⁽⁵⁾ Unavailable with track system HL.

General

The MOTO drive units are intended for sectional garage doors and up and over doors.

Design and operating principle of the MOTO drive unit

The drive forms a complete unit with the running rail which is necessary for the drive to work. Up to 20 WIŚNIEWSKI RF transmitters can be linked to the drive unit. The drive unit is installed on a running rail. A running truck moves along the running chain, which features a drive chain. The drive unit moves the door with an arm; one end of the arm is attached to the running truck, while the other is attached to the top part of the door leaf (on the inside).

MOTO drive unit equipment

The kit includes:

- Drive head
- Running rail with chain
- Two two-channel PULSAR RTS remote control transmitters

MOTO drive unit and rail in automatic garage doors

Type	Rail length - L _S	Sectional garage doors	Up and over garage doors ⁽²⁾	
MOTO 600 RTS	–	$S_o \times H_o \leq 9$ [m ²]	$S_o \times H_o \leq 9$ [m ²]	- drive motor - control panel with power supply unit
MOTO 750 RTS	–	$S_o \times H_o > 9$ [m ²]	$S_o \times H_o > 9$ [m ²]	- two PULSAR RTS remote control transmitters - LED warning lampD
Rail 2900 with chain	2900 [mm]	$H_o \leq 2250$ [mm]	$H_o \leq 2700$ [mm]	- running rail with chain
Rail 3500 with chain	3500 [mm]	$H_o > 2250$ [mm] i $H_o \leq 2850$ [mm]	$H_o > 2700$ [mm]	
Rail 4500 with belt	4500 [mm]	$H_o > 2850$ [mm]	–	- running rail with chain

Caution! When using the MOTO drive with a sectional door where the “Pre-installation for automatic bolting” or “Automatic bolting” option was not selected, the lock or sliding bolt should be locked in the unlocked position.

Additional options for MOTO RTS drive

PULSAR RTS two-channel transmitter	+22 szt.
PULSAR RTS four-channel transmitter	+28 szt.
RTS wall-mounted transmitter	+30 kpl.
Digital RTS code keypad (1)	+50 szt.
RTS radio receiver	+48 kpl.
Photocells	+49 kpl.
Track beam with a toothed belt – surcharge	+47 kpl.
Backup power supply battery	+30 szt.
Mechanical carriage lock	+60 szt.
Drive unit uncoupling from the outside (auxiliary lock)	+30 kpl.
Drive unit uncoupling through the handle (2)	+15 kpl.
GSM control system, Light / Full version	+220 / +243 szt.
Programmer with a cable for GSM	+47 szt.
Flush-mounted doorbell button	+7 kpl.

WIŚNIEWSKI radio transmission

Additional AW four-channel transmitter	+24 szt.
AW external radio receiver	+52 szt.

MOTO RTS drive i rail

Type	Rail length - L _S	Sectional garage doors	Up and over garage doors ⁽²⁾		
MOTO 600 RTS	–	$S_o \times H_o \leq 9$ [m ²]	$S_o \times H_o \leq 9$ [m ²]	- drive motor - control panel with power supply unit	+205 szt.
MOTO 750 RTS	–	$S_o \times H_o > 9$ [m ²]	$S_o \times H_o > 9$ [m ²]	- two PULSAR RTS remote control transmitters - LED warning lamp	
Rail 2900 with chain	2900 [mm]	$H_o \leq 2250$ [mm]	$H_o \leq 2700$ [mm]	- running rail with chain	+58 szt.
Rail 3500 with chain	3500 [mm]	$H_o > 2250$ [mm] i $H_o \leq 2850$ [mm]	$H_o > 2700$ [mm]		+85 szt.
Rail 2900 with belt	2900 [mm]	$H_o \leq 2250$ [mm]	$H_o \leq 2700$ [mm]	- running rail with chain	+114 szt.
Rail 3500 with belt	3500 [mm]	$H_o > 2250$ [mm] i $H_o \leq 2850$ [mm]	$H_o > 2700$ [mm]	- running rail with chain	+128 szt.
Rail 4500 with belt	4500 [mm]	$H_o > 2850$ [mm]	$H_o > 2700$ [mm]	- running rail with chain	+162 szt.

⁽¹⁾ - Open radio transmission

⁽²⁾ - Applies to WIŚNIEWSKI doors

Note! If the GARAGE door and its drive unit are installed in a room without any other passageway (aside from the GARAGE door), the drive unit must feature the external drive unlocking option.

A complete drive unit comprises the drive assembly and a running rail of a suitable length, see the table below. These components are unavailable separately.

The MOTO drive unit features protective overcurrent obstacle detection. When the closing door runs into an obstacle, the drive unit will stop and reverse for a short distance.

MOTO drive unit selection

The drive unit and the rail must be selected for the door leaf surface area and the door opening height H_o. The selection of drive units and running rails is as shown in the table below.

MOTO drive unit delivery

The MOTO drive unit with the rail are supplied in two separate packages.

General

Tiziano drives are designed for sectional and up-and-over garage doors.

Tiziano drive design and operation

The drive constitutes a set with the running rail which is necessary for the drive to work. The drive is installed at the end of the running rail. The carriage moves along the rail equipped with chain. The drive moves the door by the arm; one end of the arm is attached to the drive front, while the other is attached to the top part of the door leaf (on the inside). 10 transmitters can be programmed to the drive.

Selection of Tiziano drive

The drive and running rail are selected for the door surface area and opening height H_o . To select the drive or running rail, see the table below.

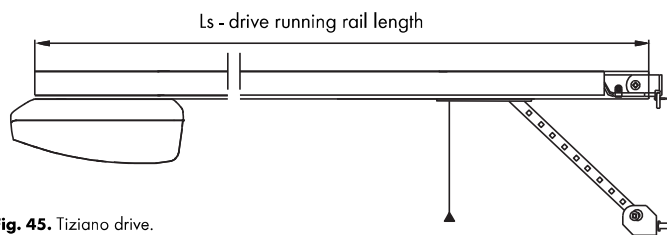


Fig. 45. Tiziano drive.

Note! BFT Tiziano drive features overcurrent obstacle detection.
If an obstacle is encountered while the door is closing, the drive stops and slightly reverses.

Note! If a power-operated door is installed in a room without any other access (apart from the garage door), select a drive with the external drive unlocking option.

The drive unit includes the drive and running rail of a required length, see the table below. These components cannot be ordered separately.

Tiziano drive equipment

The drive with integrated controller and power supply adaptor, one two-channel BFT remote transmitter, warning light, running rail with fixed chain.

Delivery of Tiziano drive

Tiziano drive and running rail are supplied in two separate packages.

External drive unlocking

The unlocking system includes: a lock cylinder, a ring and a steel cable. The unlocking system should be installed 300 [mm] from the upper edge of the assembly opening.

Open wicket door sensor

Required to protect the door leaf against uncontrolled movement in case the wicket door is open.

The drive is selected for the type and surface area of the door, while the rail is selected for the door height. The drive and rail constitutes a set with the door, and cannot be ordered separately.

Tiziano drive with rail

Typ	Rail length - Ls	Sectional garage doors	
Tiziano 600	—	$S_o \times H_o \leq 9,00$ [m ²]	- 24 [V] motor - control unit with power supply
Rail 3020	3020 [mm]	$H_o \leq 2250$ [mm]	- one BFT remote transmitter - rail with chain

Note! If Tiziano drive is used with sectional door without „Pre-installation for automatic bolting“ or „Automatic bolting“ options, the lock and/or manual bolt should be blocked in the open position.

Tiziano EXTRA OPTIONS

Additional two-channel BFT transmitter	+ 19 pcs.
BFT DESME photocells	+ 49 set.
External drive unlocking (additional lock)	+ 30 set.
Drive unlocking with a handle	+ 15 set.
Wireless open wicket door sensor	+ 157 set.
GSM control system, Light / Full version	+ 220 / 243 pcs.
GSM programming unit w/cable	+ 47 pcs.

WIŚNIEWSKI radio path

Additional AW four-channel transmitter	+ 24 pcs.
AW external radio receiver	+ 52 pcs.

Remote control transmitter

The transmitter works with the radio receiver to enable wireless remote control of the door drive unit. The four-drive transmitter enables control over several drive units linked to it.



Fig. 1. Transmitter.

Photocells

The photocells (with the transmitting and receiving units) prevent inadvertent movement of the gate leaf when a physical object enters the gate clear width. The photocells are an obligatory safety feature of power-driven doors.



Fig. 2. Photocells.

RTS wall-mounted transmitter

The 2-channel transmitter works with the RF receiver to enable wireless drive unit control. 3V CR2430 battery powered. The protection rating is IP54. The operating range is 30 m. Dimensions: 104 x 74 x 26 [mm]. Operating temperature range: -20°C to +60°C. Plastic enclosure.



Fig. 3. RTS wall-mounted transmitter.

Digipad RTS code keypad

The Digipad works with the RF receiver to enable wireless drive unit control. The keypad is a 2-channel device which exchanges encrypted data with the drive unit. 3V CR2450 battery powered. The protection rating is IP 54. The operating range is 30 m. Dimensions: 105 x 75 x 25 [mm]. Operating temperature range: -20°C to +60°C. Plastic enclosure.



Fig. 4. Digipad RTS code keypad.

Alarm siren

When connected to a drive unit, the alarm siren warns of any attempt at unauthorized opening of the powered door. The siren sounds a 105 ± 5 dB signal for 2 minutes. Compatible with the METRO drive unit only. Supply voltage: 24 [V]. Dimensions: 47 x 39 x 24 [mm].



Fig. 5. Alarm siren.

RTS radio receiver

Enables control over other drive units with the PULSAR RTS transmitters. The RF receiver is a 2-channel device which can be linked to a maximum of 16 transmitters. Supply voltage: 24 [V] AC. The protection rating is IP 55. Dimensions: 110 x 110 x 40 [mm].



Fig. 6. External RF receiver.

Emergency battery unit

When connected to the drive unit, it enables performance of up to 10 operating cycles in case of main power outage. Battery performance depends on the drive type, ambient temperature, and the dimensions and weight of the door leaf. The battery is fully charged automatically within 48 hours. Compatible only with the METRO drive unit. The backup battery is not available with automatic doors with a wicket.



Fig. 7. Emergency battery unit.

Mechanical truck lock

The mechanical truck lock is a safety component that when installed on the running truck increases the garage door closing safety. The component does not lock the door closed when the drive unit is decoupled. Compatible with the METRO drive unit only.



Fig. 8. Mechanical truck lock.

LED warning lamp

An orange light which indicates that the door is moving. Supply voltage: 24 [V].



Fig. 9. Warning lamp.

