

**inel**®



Everything under control

CATALOGUE 2015

# COMPANY



Inel Sp. z o.o. was **established in 1986** and is a leading manufacturer of control devices for roller shutters, doors, blinds and grilles in Poland.

We offer a **wide range of control devices** for roller shutters, from simple to advanced, using light sensors, wind sensors or the Internet.

We value **good relations** with our clients and provide **comprehensive support** during installation and exploitation of our devices and we guarantee all claims are dealt with without delay and further formalities.

To meet your needs we offer **technical training** sessions in our headquarters in Gdańsk. Contact us for detailed information and to arrange a meeting.

#### Training:

Phone: +48 58 305 49 77

Email: [biuro@inel.gda.pl](mailto:biuro@inel.gda.pl)



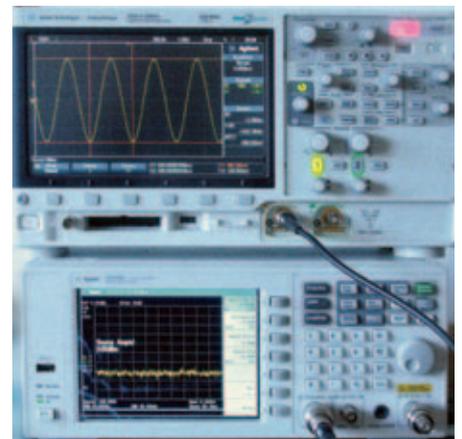
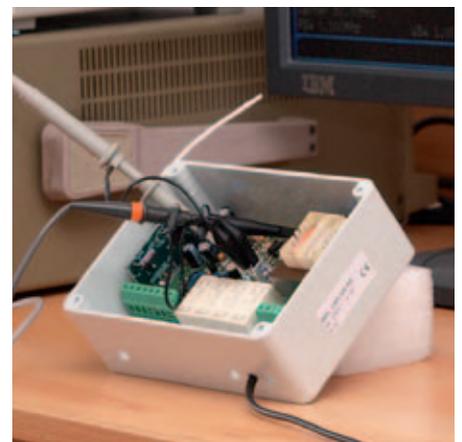
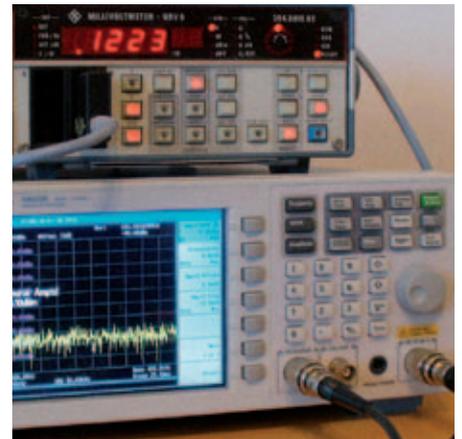
# PRODUCTION



Our distinguishing feature is the fact that all our roller shutter and door control systems are **designed and manufactured in our company in Poland** with the use of components produced by reliable leading manufacturers. All our systems can be easily modernised with updated devices. We also offer custom solutions. We can adapt most of our products to any requirements.

All our devices are provided with a **Declaration of Conformity** and relevant documentation.

All products are covered by a **5- year warranty**.



# REMOTE CONTROLS

We offer a wide range of remote controls featuring advanced and attractive design. Rolling codes guarantee the highest level of security.

## Wall-mounted remote controls

PIL-01NS



PIL-04NS



**PIL-01/04NS** – Wall-mounted 1-channel/4-channel remote control with touch panel. Available in three versions: white, silver and anthracite.

## Keychain remote controls



PIL-02XB

**PIL-02/04XB** – 2-channel/4-channel keychain remote control. It controls door and grille central control units. A sliding flap prevents accidental use.

PIL-04XB



# REMOTE CONTROLS

## Hand-held remote controls



PIL-01PM



PIL-05/09/19PM



PIL-19/99PMT  
PIL-99PMS

Available in two keypad versions: white and silver.  
Bracket holder included.

**PIL-01PM** – 1-channel remote control displays motor direction

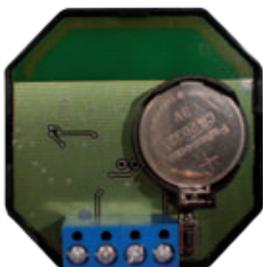
**PIL-05/09/19PM** –5-channel/9-channel/19-channel remote control. All remote controls have clear LCD display with channel number. PIL-05/09/19PM remote control also displays motor direction, battery level and operating mode (slat tilting).

**PIL-19/99PMT** –Multi-channel remote control available in 19-channel or 99-channel version. Remote control with clear LCD display with channel number and 16-character alphanumeric description of each room, e.g. living room, bedroom etc. Roller shutter operation programs with integrated calendar with astro function and timer. Menu available in four languages: Polish, English, German and French.

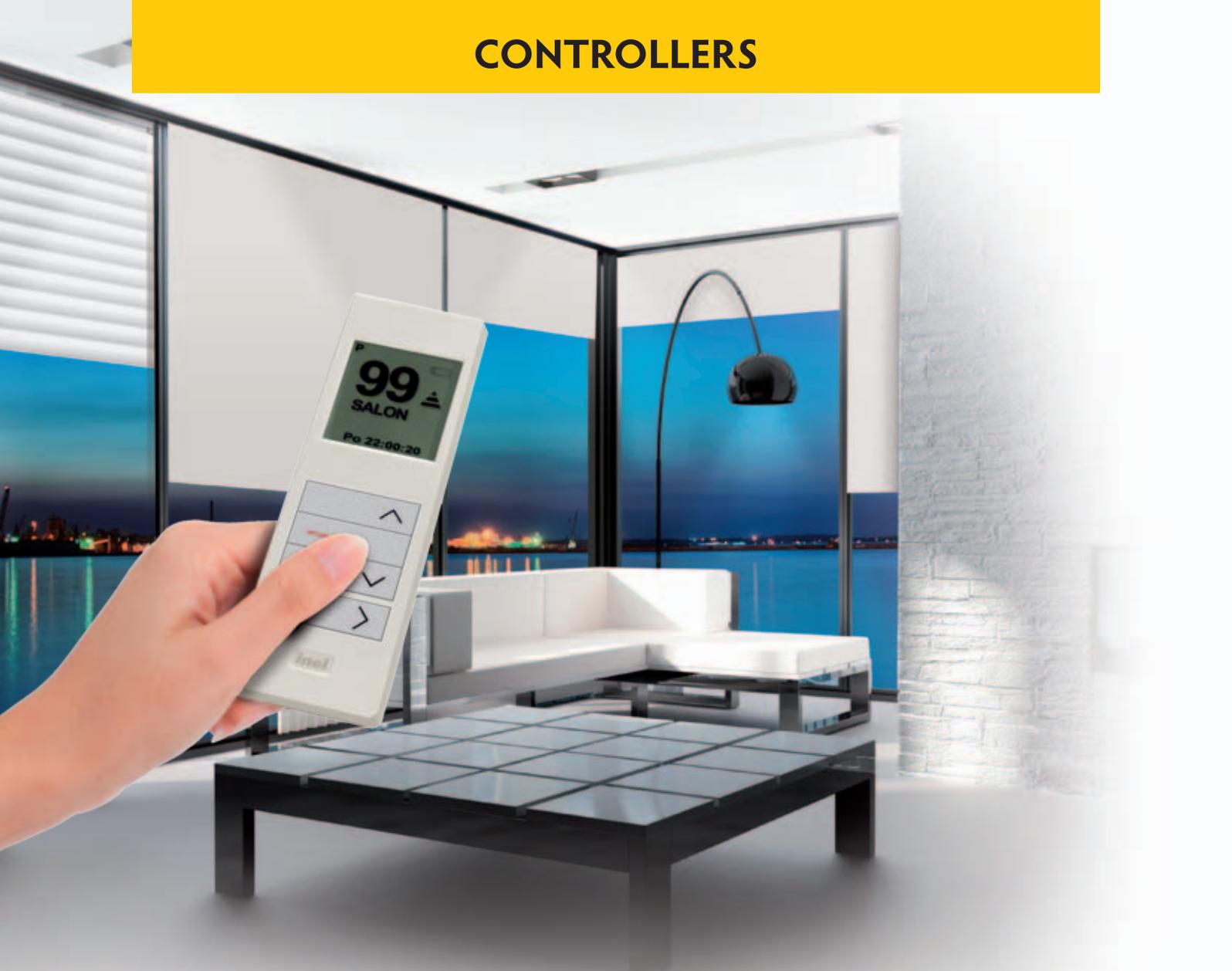
**PIL-99PMS** –Multi-channel (99-channel) remote control for wired systems with LCD display with 16-character alphanumeric description of each room, e.g. living room, bedroom etc

## Flush-mounted remote control

PIL-01PT



**PIL-01PT** - 1-channel flush-mounted and battery operated remote control compatible with various roller shutter switches and wall switch plates matching the rest of the building's accessories. Signal from the alarm control system or external sensors allows for automatic roller shutter operation.



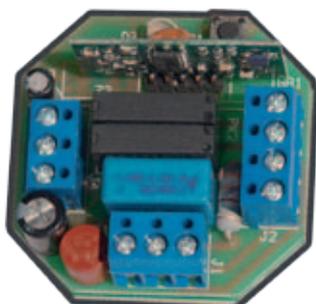
## Controllers for the SSN-04R roller shutter radio control system

Controllers with a radio receiver for roller shutters with 230 VAC motors. They can be used to control external and internal Venetian blinds with 230 VAC motors (slat tilting). A single controller can control a single roller shutter. The radio controllers are compatible with all our remote controls.

### Available versions with built-in radio receiver:

**ST-01R** - Flush-mounted controller installed in a double depth back box. Compatible with all ST-01R manual roller shutter switches to ensure compatibility with the remaining building equipment. A special version of the radio controller also controls lighting (ON/OFF)-ST-01RS or Venetian blinds (external and internal) with 230 VAC motor (slat tilting)-ST-01RZ.

**ST-01RL** - Airtight controller installed in a roller shutter box. ST-01RLZ controls external and internal Venetian blinds with 230 VAC motors (slat tilting).



ST-01R/ST-01RZ/ST-01RS



ST-01RL/ST-01RLZ

# CONTROLLERS

## Controllers for wired SSN-04 roller shutter control systems

**CR-02** central control unit is the key system component. It can be used for direct (local keyboard) or remote (PIL-99MS remote control) closing and opening of individual or multiple roller shutters. Define groups and set daily programs for individual or multiple roller shutters on specific days of the week. Clear and easy to use menu allows easy central control unit programming.

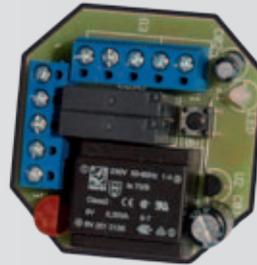
Individual **ST-01** controller is a basic SSN-04 system component. Each motor requires an individual ST-01 controller. ST-01 controller can be operated with any roller shutter switch, any brand. Press a key to fully open or close the roller shutter. Press any key during roller shutter movement to stop. ST-01 controllers are installed in 60 mm dia. double depth back boxes. ST-01S controller allows lighting control (ON/OFF).

**ST-02** group controller can be used to open/close a group of roller shutters connected to ST-01 controllers communicating with a CR-02 control unit. The group may include 1 to 64 roller shutters and is defined in CR-02 control unit connected to the ST-02 controller. The ST-02 controller can be operated with any roller shutter switch, any brand and is compatible with alarm system or weather sensor (wind and sun) signals. Flush-mounted in a 60 mm dia. double depth back box.

CR-02



ST-01/ST-01S



ST-02



## Wired roller shutter central control system with 230 VAC bus

**ST-0P** controller functions as an individual or group controller. One ST-0P controller unit ought to be connected to each drive. Individual controllers comprising a group ought to be connected to the ST-0P unit functioning as a group controller. Short press any key during roller shutter movement to stop the roller shutter in any position. ST-0P controllers are installed in 60 mm dia. double depth back boxes. ST-0PZ controls external and internal Venetian blinds with 230VAC motors (slat tilting).

**LUMINA DUO** - Timer featuring: two weekly programs (two open/two close times per day), holiday mode, impulse mode and automatic daylight saving time switchover. Manufactured by Inprojal.

ST-0P/ST-0PZ



ZEGAR LUMINA

# INEL Net-01 INTERNET CENTRAL CONTROL UNIT

## Roller shutter control via Internet - simple and easy!

Manage your roller shutters from anywhere in the world using your smartphone, tablet or PC.

Roller shutter control using any smartphone, PC or tablet with Internet access. The remote control menu (available in the Internet browser) allows direct control of the roller shutters. No additional applications required.

Remote roller shutter control with Inel Net-01 Internet central control unit connected to the home network.



# DOOR AND GRILLE CONTROL UNITS

Control units are key components of door automatic systems. The following devices can be used to improve safety standard: optically activated safety switches, pressure-activated safety strips, magnetic loops, pressure/optical/resistive edges.

## CRS-435XG

Central control unit for a single 230VAC motor. Manual operation with sequential switch or radio control using a remote control (two remote controls included). Central control can be used with up to 15 different remote controls. Manually set operation time for both directions. Potentiometer set time limit from 10 to 120 sec.

## CRS-435XG3

Central control unit for a single 230 VAC motor. Manual control using UP, STOP, DOWN keys or radio control using a remote control. Compatible with photocells, safety edges, magnetic loops and other safety devices.

### Two operating modes:

1. **standard** – operation with external controls (with hold-down function), remote controls or sequential switch;
2. **deadman** – manual closing without hold-down function (door closing as long as DOWN key is being pressed), remote controls and sequence switch are inactive in this mode.

## CRS-436XG

Central control unit for two 230 VAC motors. Manual operation with sequential switch or radio controlled using a remote control (two remote controls included). Rolling codes (16 million combinations). Central control unit can be used with up to 15 different remote controls.

### Three operating modes:

1. **2-channel** – controls two independent motors;
2. **1-channel** – controls a single motor and a signal light;
3. **1-channel auto** – controls a single motor and a signal light. Control mode: user uses the remote control to open the door, the door closes after preset time.

## ORS-X2T/ORS-X4T

2-channel/4-channel radio link (using PIL-02/04XB remote control) compatible with control units of different manufacturers (e.g. horizontal sliding and tilt doors etc.). Standard version can be used with up to 255 remote controls. Two remote controls included.

## FOT-01

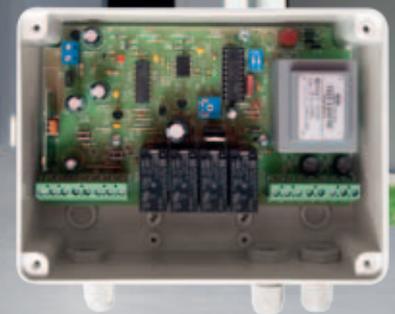
Photocell barrier compatible with CRS-435XG, CRS-436XG, CRS-435XG3. Manufactured by Nologo.



CRS-435XG



CRS-435XG3



CRS-436XG



ORS-X2T/ORS-X4T



FOT-01

# TUBULAR MOTORS

INEL motors are compatible with roller shutters, roller blinds, awnings, doors and grilles. We offer motors for every application.

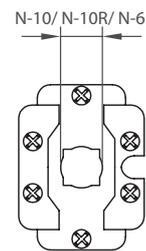
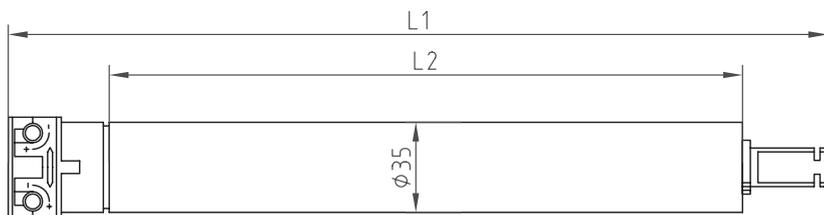
Motor in special version with built-in radio controller for 50 mm Venetian blinds (slat tilting).

## Standard and radio controlled motors

### YYGL35S/YYGL35R/YYGL35SH



Motor for octagonal 40 mm dia. tubes. Mechanical limit switches. "R" indicates version with a built-in radio receiver, "SH" indicates short version. The set includes a crown an adapter and a bracket.

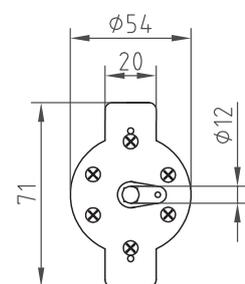
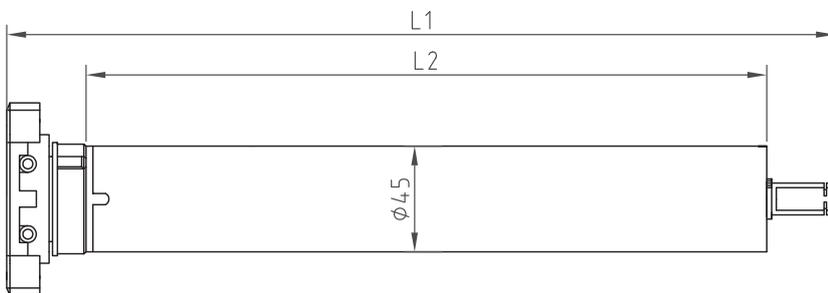


	Symbol	Torque (Nm)	Speed (obr./min.)	Tube diamete (mm)	Supply voltage (V)	Supply frequency (Hz)	Power (W)	Current (A)	Operating time (min)	Protection rating (IP)	Maximum revolutions	Weight (kg)	Length L1/L2 (mm)
YYGL35S-6/28	<b>N-6</b>	6	28	35	230	50	115	0.50	≥ 4	IP 44	39	1.8	510/450
YYGL35R-6/28	<b>N-6R</b>	6	28	35	230	50	115	0.50	≥ 4	IP 44	39	1.8	510/450
YYGL35SH-6/17	<b>N-6SH</b>	6	17	35	230	50	81	0.35	≥ 4	IP 44	20	1.5	390/330
YYGL35S-10/17	<b>N-10</b>	10	17	35	230	50	126	0.56	≥ 4	IP 44	39	1.8	510/450
YYGL35R-10/17	<b>N-10R</b>	10	17	35	230	50	126	0.56	≥ 4	IP 44	39	1.9	560/490



### YYGL45S/YYGL45R

Motor for octagonal 50/60 mm dia. tubes. Mechanical limit switches. "R" indicates version with a built-in radio receiver. The set includes a crown, an adapter and a bracket.



	Symbol	Torque (Nm)	Speed (obr./min.)	Tube diamete (mm)	Supply voltage (V)	Supply frequency (Hz)	Power (W)	Current (A)	Operating time (min)	Protection rating (IP)	Maximum revolutions	Weight (kg)	Length L1/L2 (mm)
YYGL45S-20/15	<b>N-20</b>	20	15	45	230	50	156	0.68	≥ 4	IP 44	22	2.5	460/400
YYGL45R-20/15	<b>N-20R</b>	20	15	45	230	50	156	0.68	≥ 4	IP 44	22	2.6	480/420
YYGL45S-40/15	<b>N-40</b>	40	15	45	230	50	218	0.95	≥ 4	IP 44	22	3.8	530/470
YYGL45R-40/15	<b>N-40R</b>	40	15	45	230	50	218	0.95	≥ 4	IP 44	22	3.9	530/470

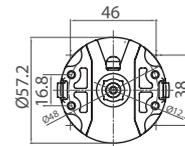
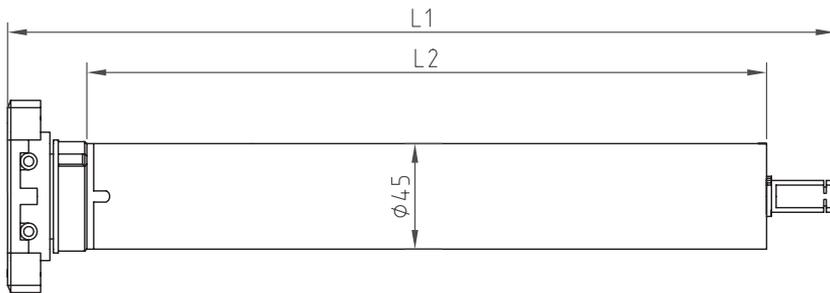
# TUBULAR MOTORS

## Obstacle detection motors



### YYGL45E/YYGL45RE

Obstacle detection motor for octagonal 50/60 mm dia. tubes. Electronic limit switches. "R" indicates version with a built-in radio receiver. "S" indicates a reverse channel (SSN-06 system motor). The set includes a crown, an adapter and a bracket.



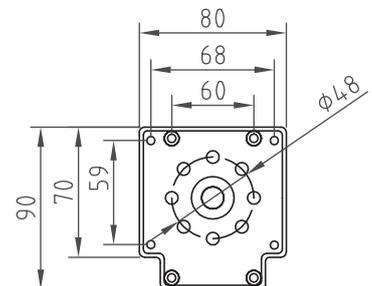
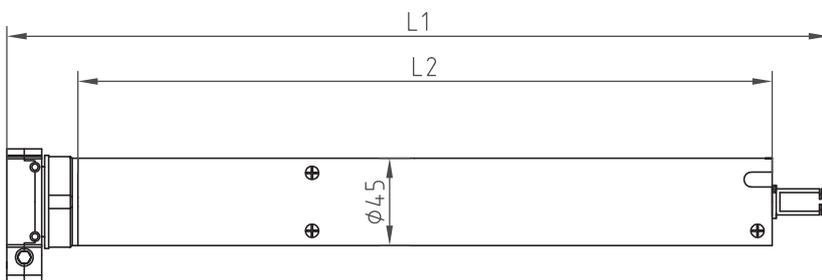
	Symbol	Torque (Nm)	Speed (obr./min.)	Tube diamete (mm)	Supply voltage (V)	Supply frequency (Hz)	Power (W)	Current (A)	Operating time (min)	Protection rating (IP)	Maximum revolutions	Weight (kg)	Length L1/L2 (mm)
YYGL45E-20/15	<b>N-20E</b>	20	15	45	230	50	156	0.68	≥ 4	IP 44	22	2.5	460/400
YYGL45RE-20/15	<b>N-20RE</b>	20	15	45	230	50	156	0.68	≥ 4	IP 44	22	2.6	460/400
YYGL45ES-20/15	<b>N-20ES</b>	20	15	45	230	50	156	0.68	≥ 4	IP 44	22	2.6	460/400

## Motor with emergency opening function



### YYGL45M/YYGL45MR

Motor with emergency manual override function for octagonal 60/70 mm dia. tubes. Mechanical limit switches. "R" indicates version with a built-in radio receiver. The set includes a crown an adapter and a bracket.



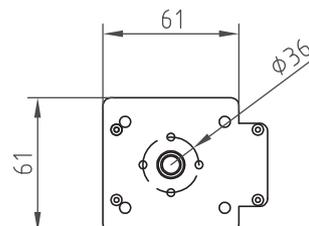
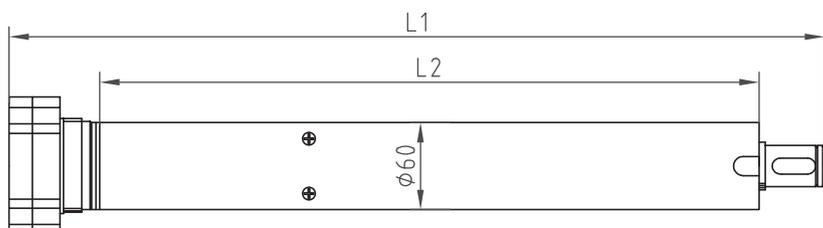
	Symbol	Torque (Nm)	Speed (obr./min.)	Tube diamete (mm)	Supply voltage (V)	Supply frequency (Hz)	Power (W)	Current (A)	Operating time (min)	Protection rating (IP)	Maximum revolutions	Weight (kg)	Length L1/L2 (mm)
YYGL45M-50/12	<b>N-50 NHK</b>	50	12	45	230	50	232	1.01	≥ 4	IP 44	22	4.3	600/520
YYGL45MR-50/12	<b>N-50R NHK</b>	50	12	45	230	50	232	1.01	≥ 4	IP 44	22	4.4	720/650

# TUBULAR MOTORS

## GM59M/GM59S



Motor for octagonal 70/105 mm dia. tubes. GM59M with emergency manual override function. Mechanical limit switches. The set includes a crown, an adapter and a bracket.



	Symbol	Torque (Nm)	Speed (obr./min.)	Tube diamete (mm)	Supply voltage (V)	Supply frequency (Hz)	Power (W)	Current (A)	Operating time (min)	Protection rating (IP)	Maximum revolutions	Weight (kg)	Length L1/L2 (mm)
GM59M-100/11	<b>N-100 NHK</b>	100	9	59	230	50	342	1.53	≥ 4	IP 44	20	8	666/600
GM59S-100/11	<b>N-100S</b>	100	9	59	230	50	342	1.53	≥ 4	IP 44	20	8	653/585
GM59M-140/7	<b>N-140 NHK</b>	140	7	59	230	50	378	1.64	≥ 4	IP 44	20	8	666/600

### TUBULAR MOTOR SELECTION TABLE

TORQUE		ROLLER SHUTTER LENGTH			
		1,5m	2m	2,5m	3m
N-10Nm	Φ=40mm	20kg	19kg	18kg	17kg
N-20Nm	Φ=50mm	46kg	44kg	41kg	39kg
N-20Nm	Φ=60mm	42kg	40kg	38kg	36kg
N-40Nm	Φ=60mm	83kg	79kg	72kg	69kg
N-40Nm	Φ=70mm	70kg	68kg	66kg	64kg
N-50Nm	Φ=60mm	88kg	84kg	81kg	78kg
N-50Nm	Φ=70mm	82kg	80kg	77kg	74kg

TORQUE		ROLLER SHUTTER LENGTH				
		2,5m	3m	3,5m	4m	5m
N-100Nm	Φ=70mm	117kg	110kg	105kg	100kg	-
N-140Nm	Φ=70mm	-	150kg	145kg	140kg	130kg
N-140Nm	Φ=105mm	-	140kg	135kg	130kg	120kg

#### Cauti!

The data is not exact and depends on several factors (installation conditions, friction coefficient of the roller box, atmospheric conditions etc.).

# ACCESSORIES

## OCTAGONAL TUBE ACCESSORIES

HTL 05 Crown Ø40mm



HTH01 Adapter Ø40mm

HTL 47 Crown Ø60mm



HTH 35 Adapter Ø60mm

HTL 62 Crown Ø50mm



HTH 62 Adapter Ø50mm

HTL 08 Crown Ø70mm



HTH 04 Adapter Ø70mm

## ROUND TUBE ACCESSORIES

HTL 35 Crown Ø37,5mm



HTH 27 Adapter Ø37,5mm

HTL 36 Crown Ø60mm



HTH 28 Adapter Ø60mm

HTL 56 Crown Ø78mm



HTH 40 Adapter Ø78mm

## AWNING ACCESSORIES

HTL 63 Crown Ø70mm



HTH 63 Adapter Ø70mm

HTL 40 Crown Ø78mm



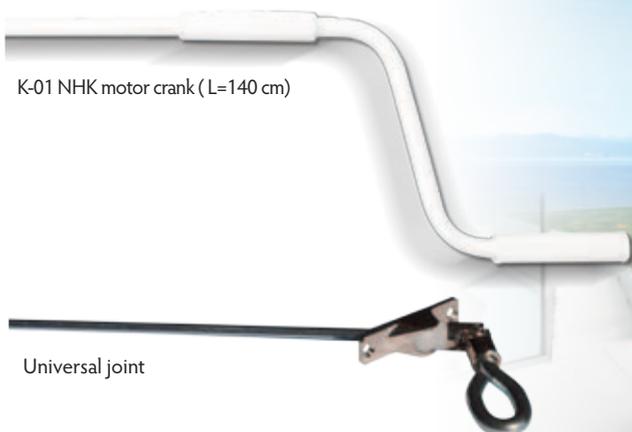
HTH 67 Adapter Ø78mm

RCW-01 Vibration sensor



## OTHER ACCESSORIES

K-01 NHK motor crank (L=140 cm)



Universal joint

MAN-001 Manual switch



# ROLLER SHUTTER CONTROL SYSTEMS

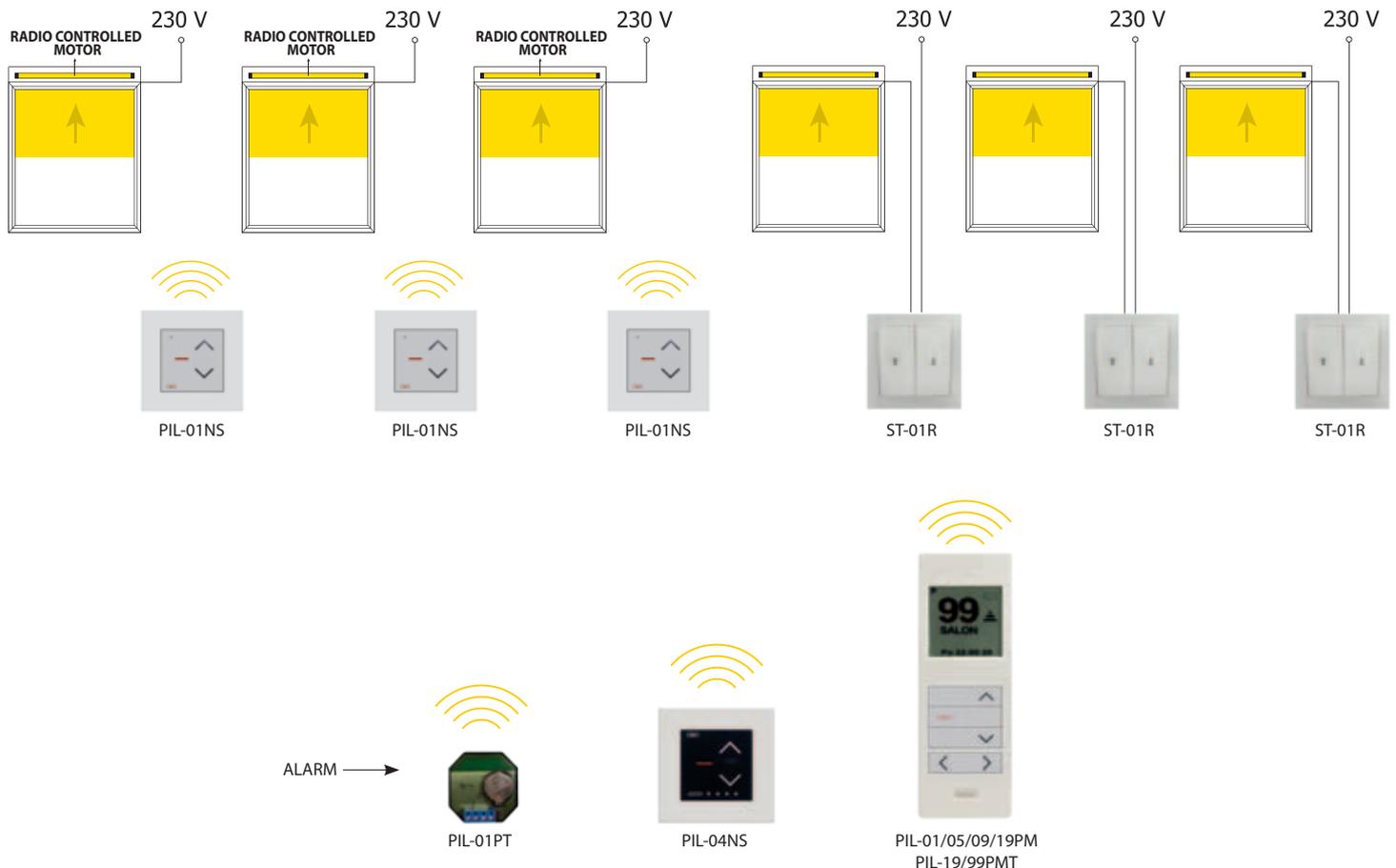
## SSN-04R remote radio control system

The radio control system enables remote, complete operation of the roller shutters in the building. The system includes: receivers (i.e. ST-01R/ST-01RL controller and/or motors with built-in radio receiver marked with 'R' – N-6R/N-10R/N-20R/N-20RE/N-40R/ 50R NHK) and transmitter or transmitters (wide range of remote controls available: PIL-02/04XB, PIL-01/04NS, PIL-01PT, PIL-01/05/09/19PM, PIL- 19/99PMT). The wide range of available control unit casings (Wall and flush-mounted) allows for custom system installation to meet special requirements.

The transmitter (remote control) sends commands for roller shutter operation and the receiver (controller or radio controlled motor) receives, decodes and executes the command. Controller programming method allows to create a flexible roller shutter control system. The roller shutters can be opened and closed individually, in groups or all at once with a single command. PIL-19PMT/PIL-99PMT remote control allows to program all available roller shutters in the building. The operation is automatic based on programmed schedule.

ST-01RS controller allows not only to control the roller shutters but also lighting or other 230VAC devices (ON/OFF).

### Example control system configuration



# ROLLER SHUTTER CONTROL SYSTEMS

## SSN-06 wired remote control system for roller shutters with reverse channel

### The system can be configured to custom requirements.

The configuration depends on individual requirements.

System includes: N-20ES roller shutter motors, ST-02 group controllers, CR-02S timer, Inel Net-02 Internet module and PIL-99GS/ PIL-99PMS remote control.

**N-20ES roller shutter motor** allows manual closing and opening of a single roller shutter. N-20ES can be operated with any roller shutter switch to match the equipment used in the building.

**ST-02 group controller** controls any number of individual motors, e.g. floor, room, façade, both manually and via signals from an alarm control system or external sensors (wind, sun and dusk).

**CR-02S timer** with 2 lines 16 characters per line LCD and a plastic film keypad with 8 keys. Clear and easy to use menu allows for the easy programming of the central control unit.

The central control unit can be used to define groups and set daily programs of automatic opening and closing of individual and multiple roller shutters on particular days of the week. CR-02S control system has an ajar function (roller shutters slightly ajar to allow limited light access to the room).

**Inel Net-02 Internet control** unit for CR-02S central control unit allows remote roller shutter control and CR-02S programming via the Internet. Roller shutters can be controlled using any smartphone, PC or tablet with Internet access. The central control unit menu (available via a web browser) allows for the direct control of the roller shutters, defining groups and easy programming of automatic roller shutter open/close cycles. It can also be used for assigning names to individual roller shutters and groups of roller shutters and checking current roller shutter status.

### Return signal flow chart





# inel<sup>®</sup>



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