

## Linear Actuator Systems GR/I

### General description:

Linear actuator, control box and hand operator make a ready-to-operate linear drive.

Voltage supply 230V or 24V on choice.

Up to 4 linear actuators can be operated with only one hand operator. Synchronisation control on request.

**Usage:** Universal use, for operating windows, gates, and for many other processes with swivel motion or linear motion.

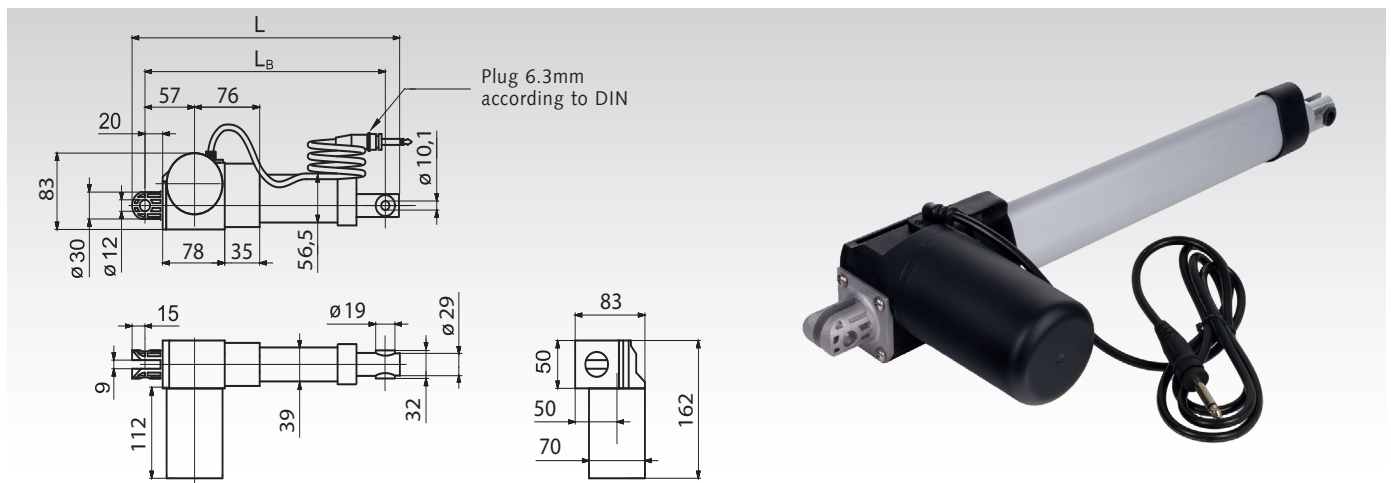
Standard: CE / UL 60601-1 / EN60601-1.

Temperature range -5°C up to +40°C.

**Linear actuators, control box and hand operator have to be ordered separately.**



## Linear Actuators GR/I



2 speeds.

8 stroke lengths. Other lengths in 50mm steps on request.

To be used with 230V AC or 24V DC-control box.

Motor voltage 24V DC. Absorbed power approx. 4,5A.

Protection class IP66. Cabel length approx. 1,2m.

Up to 4 actuators can be operated individually with only one hand operator.

Synchronisation control on request. Operating mode 10%, max. 2 minutes.

Motor end stop switch integrated. Standard: CE / UL 60601-1 / EN60601-1.

Permissible ambient operating temperature: -5°C up to +40°C.

**Linear actuators, control box and hand operator have to be ordered separately.**

Ordering details: e.g.: Prod.-No. 475 130 10, Linear actuator 3 mm/sec, stroke 100 mm

| Product No. | Speed<br>mm/sec | Stroke length<br>mm | max. Load<br>tensil *<br>N | max. Load<br>compressing *<br>N | Length<br>mm | Hole distance<br>L <sub>B</sub><br>mm | Weigth<br>kg |
|-------------|-----------------|---------------------|----------------------------|---------------------------------|--------------|---------------------------------------|--------------|
| 475 130 10  | 3               | 100                 | 4000                       | 6000                            | 301          | 275                                   | 1,98         |
| 475 130 20  | 3               | 200                 | 4000                       | 6000                            | 401          | 375                                   | 2,12         |
| 475 130 30  | 3               | 300                 | 4000                       | 3900                            | 501          | 475                                   | 2,40         |
| 475 130 40  | 3               | 400                 | 4000                       | 2300                            | 601          | 575                                   | 2,62         |
| 475 130 50  | 3               | 500                 | 4000                       | 1500                            | 701          | 675                                   | 2,78         |
| 475 130 60  | 3               | 600                 | 4000                       | 1100                            | 801          | 775                                   | 2,98         |
| 475 130 80  | 3               | 800                 | 4000                       | 610                             | 1001         | 975                                   | 3,40         |
| 475 131 00  | 3               | 1000                | 4000                       | 400                             | 1201         | 1175                                  | 3,80         |
| 475 140 10  | 12              | 100                 | 2000                       | 2000                            | 301          | 275                                   | 1,98         |
| 475 140 20  | 12              | 200                 | 2000                       | 2000                            | 401          | 375                                   | 2,12         |
| 475 140 30  | 12              | 300                 | 2000                       | 1300                            | 501          | 475                                   | 2,40         |
| 475 140 40  | 12              | 400                 | 2000                       | 766                             | 601          | 575                                   | 2,62         |
| 475 140 50  | 12              | 500                 | 2000                       | 509                             | 701          | 675                                   | 2,78         |
| 475 140 60  | 12              | 600                 | 2000                       | 366                             | 801          | 775                                   | 2,98         |
| 475 140 80  | 12              | 800                 | 2000                       | 202                             | 1001         | 975                                   | 3,40         |
| 475 141 00  | 12              | 1000                | 2000                       | 133                             | 1201         | 1175                                  | 3,80         |

\* Static and dynamic.

## Linear Actuator Systems GR/I

### Control Boxes for Linear Actuators GR/I

**Material:** Housing in shock resistant, black plastic.

For voltage supply and processing the actuators.

On choice for 230V AC or 24V DC.

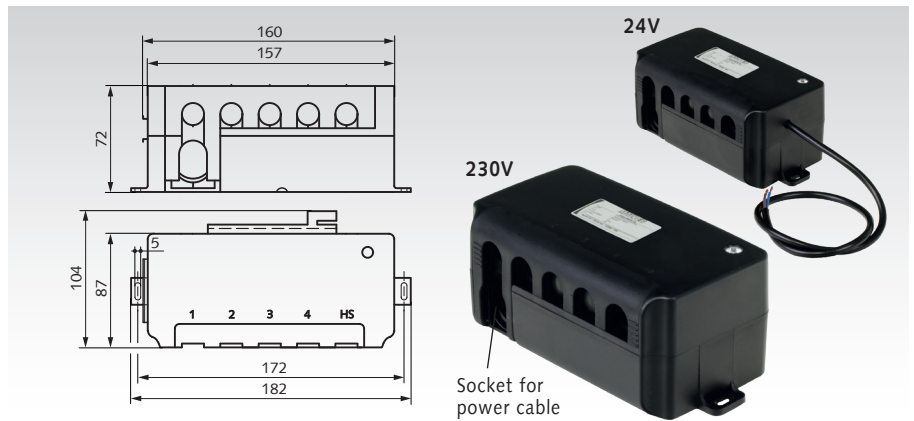
On choice for 1 actuator, 2 actuators or up to 4 actuators.

Limit switch and overload protection are integrated.

230V-version with IEC power cord with plug, cable length approx. 3m.

24V-version with 0.5m-connecting cable.

Protection class IP54.



Ordering details: e.g.: Prod.-No. 475 190 11, control box 230V for 1 actuator

| Product No. | Voltage supply | Suitable for  | Weight Control Box kg | Weight 230V-Cord kg |
|-------------|----------------|---------------|-----------------------|---------------------|
| 475 190 11  | 230V AC        | 1 actuator    | 0,52                  | 0,29                |
| 475 190 12  | 230V AC        | 1-2 actuators | 0,52                  | 0,29                |
| 475 190 14  | 230V AC        | 1-4 actuators | 0,52                  | 0,29                |
| 475 191 11  | 24V DC         | 1 actuator    | 0,37                  | -                   |
| 475 191 12  | 24V DC         | 1-2 actuators | 0,37                  | -                   |
| 475 191 14  | 24V DC         | 1-4 actuators | 0,37                  | -                   |

### Hand Operators for Linear Actuators GR/I

**Material:** Housing in shock resistant, black plastic.

For operating the linear actuators.

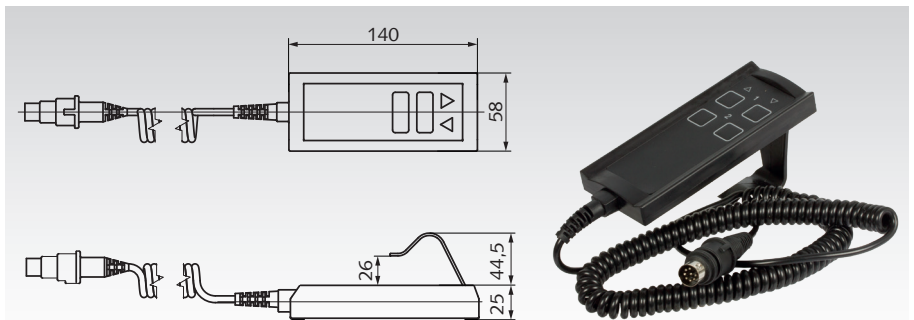
To be used with 230V AC or 24V DC control box.

On choice for 1 actuator, 2 actuators or up to 4 actuators.

The actuators can be operated separately by holding down the key.

With spiral cable, length 1m, tinsiled approx. 2m.

Protection class IP54.



Ordering details: e.g.: Prod. No. 475 192 01, Hand operator for 1 actuator

| Product No. | Suitable for  | Number of Keys | Weight kg |
|-------------|---------------|----------------|-----------|
| 475 192 01  | 1 actuator    | 1 pair of keys | 0,20      |
| 475 192 02  | 1-2 actuators | 2 pair of keys | 0,22      |
| 475 192 04  | 1-4 actuators | 4 pair of keys | 0,24      |

### Cable with plug for Linear Actuators GR/I, to connect with a Customer's Controller

**Product No. 475 192 05**

Cable with plug with 8 pins and screen for to connect the GR/I control box with a customer's controller (alternatively to the hand operator). Cable length approx. 1.8m - extended approx. 4m. Note: only for potentialfree contacts.

PIN 1: white, actuator #2 up.  
PIN 2: green, actuator #3 up.  
PIN 3: brown, actuator #1 up.  
PIN 4: red, actuator #1 down.  
PIN 5: yellow, actuator #3 down.

PIN 6: blue, actuator #4 down.  
PIN 7: black, actuator #4 up.  
PIN 8: violet, actuator #2 down.  
Screen: transparent.  
Ground: common.

