



Customizable,
High-Quality, Heavy Duty,
Industrial-Grade Actuators

INDUSTRIAL MOTION



TiMOTION ELECTRONIC LINEAR ACTUATORS – MOTION TECHNOLOGY THAT HELPS PROVIDE A CLEANER, BETTER FUTURE

Many industrial applications require heavy-duty automation on a large scale — especially for agricultural, construction, mining, ventilation, and process control machinery, among others. The technology is out there, and it's only getting better. Equipment manufacturers are increasingly turning to electric linear actuators as a cost-efficient and reliable alternative to previous industry standards, such as hydraulic and pneumatic motion systems. TiMOTION's Industrial Motion product line is shown within this catalog, as well as additional information about what we offer and the full benefits of our linear actuator technology.

JP series

TiMOTION's JP series actuator family is designed with an inline configuration. All the products in the JP series are suited for a wide variety of load requirements. Available with an IP69K rating, it's ideal for industrial applications used in harsh environments where dust and liquid ingress protection is necessary. The JP series is specifically designed for use in applications requiring tight envelopes, without sacrificing power or performance.



JP3 - Page 16

Max. load
2,000N (push/pull)

Max. speed at max. load
3.5mm/s

Max. speed at no load
23.5mm/s

Retracted length
≥ Stroke + 217mm

IP rating
IP69K (static)



JP4 - Page 18

Max. load
4,500N (push); 3,000N (pull)

Max. speed at max. load
2.5mm/s

Max. speed at no load
27.5mm/s

Retracted length
≥ Stroke + 289mm

IP rating
IP69K (static)



JP5 - Page 20

Max. load
1,500N (push/pull)

Max. speed at max. load
4.5mm/s

Max. speed at no load
12.4mm/s

Retracted length
≥ Stroke + 160mm

IP rating
IP69K (static)



JP6 - Page 22

Max. load
3,000N (push); 1,000N (pull)

Max. speed at max. load
3.5mm/s

Max. speed at no load
8.5mm/s

Retracted length
≥ Stroke + 229mm

IP rating
IP69K (static)



JP7 - Page 24

Max. load

4,500N (push/pull)

Max. speed at max. load

4mm/s

Max. speed at no load

19mm/s

Retracted length

≥ Stroke + 255mm

IP rating

IP69K (static)

MA series

TiMOTION's MA series actuator family is specifically designed for harsh working environments, requiring a durable, long-life solution. All of our MA series actuators are ideal for heavy-duty machinery, industrial equipment, and off-road vehicles. Also, an optional IP69K protection rating allows them to withstand high-pressure water jets, and the ingress of dust and other solid contaminants.



MA1 - Page 26

Max. load

ACME screw: 8,000N (push/pull)
Ball screw: 4,500N (push/pull)

Max. speed at max. load

5.7mm/s (ACME screw, DC motor)
14.8mm/s (Ball screw, DC motor)

Max. speed at no load

31.2mm/s (ACME screw, DC motor)
59mm/s (Ball screw, DC motor)

Retracted length

≥ Stroke + 160mm (ACME screw, without POT)
≥ Stroke + 201mm (Ball screw, without POT)

IP rating

IP69K (static)



MA2 - Page 28

Max. load

8,000N (push); 4,000N (pull)

Max. speed at max. load

5.5mm/s

Max. speed at no load

52.5mm/s

Retracted length

≥ Stroke + 132mm

IP rating

IP69K (static)



MA3 - Page 30

Max. load

ACME screw: 16,000N (push/pull)
Ball screw: 16,000N (push/pull)

Max. speed at max. load

6.2mm/s (ACME screw, DC motor)
8.9mm/s (Ball screw, DC motor)

Max. speed at no load

172.5mm/s (ACME screw, DC motor)
21.3mm/s (Ball screw, DC motor)

Retracted length

≥ Stroke + 200mm

IP rating

IP69K (static)



MA3B - Page 32

Max. load

10,000N (push/pull)

Max. speed at max. load

11.9mm/s

Max. speed at no load

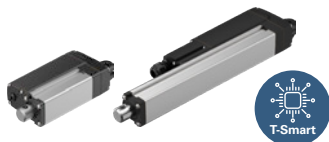
35.8mm/s

Retracted length

≥ Stroke + 230mm

IP rating

IP69K (static)



MA4 - Page 34

Max. load

2,500N (push/pull)

Max. speed at max. load

5.1mm/s

Max. speed at no load

43.1mm/s

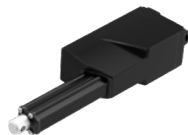
Retracted length

≥ 215mm

(depending on chosen options)

IP rating

IP69K (static)



MA5 - Page 36

Max. load

3,500N (push); 2,000N (pull)

Max. speed at max. load

2.4mm/s

Max. speed at no load

56.5mm/s

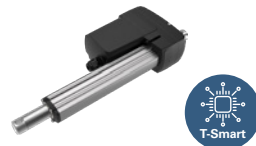
Retracted length

≥ 200mm

(depending on chosen options)

IP rating

IP69K (static)



MA6 - Page 38

Max. load

8,000N (push/pull)

Max. speed at max. load

6.2mm/s

Max. speed at no load

64mm/s

Retracted length

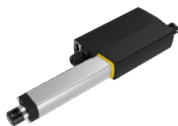
≥ Stroke + 162mm

IP rating

IP69K (static)

SR series

TiMOTION's SR series actuator family is specially designed for light industrial applications requiring quiet performance. Engineered with compact dimensions, the SR series is an ideal choice for pergolas, louvers, and a variety of other bioclimatic applications. With an optional IP rating up to IP69K, the SR series actuators are designed to perform in even the harshest of weather conditions.



SR1 - Page 40

Max. load

6,000N (push); 6,000N (pull)

Max. speed at max. load

3mm/s

Max. speed at no load

7.6mm/s

Retracted length

≥ 230mm

IP rating

IP69K (static)

VN series

TiMOTION's VN series is designed specifically for automated ventilation systems. Whether trying to improve a building's indoor air quality during lower peak summer temperatures, or enhancing the interior climate in livestock houses, our VN series can meet the growing demand for ventilation applications. All the actuators in our VN series have a robust metallic appearance with options of up to an IP66 rating.



VN1 - Page 42

Max. load

3,500N (push); 2,000N (pull)

Max. speed at max. load

3.8mm/s

Max. speed at no load

13mm/s

Retracted length

≥ 187mm (DC version, w/o T-Smart;
depending on chosen options);

≥ 414mm (AC version, w/o T-Smart;
depending on chosen options)

IP rating

IP66 (static)



VN2 - Page 44

Max. load

500N (push/pull)

Max. speed at max. load

8mm/s

Max. speed at no load

10.8mm/s

Retracted length

≥ Stroke + 189mm

IP rating

IP66 (static)



VN3 - Page 46

Max. load

3,000N (push/pull)

Max. speed at max. load

3mm/s

Max. speed at no load

6mm/s

Retracted length

≥ Stroke + 248mm

IP rating

IP66 (static)

TA series

TiMOTION's TA series actuator family is a well-developed product line for the industrial market segment. All the products in the TA series have a compact design servicing a wide variety of demands such as high-force, high-speed, and low noise requirements. The TA series is recommended for use in tight spaces where force and performance cannot be sacrificed.



TA2 - Page 48

Max. load

1,000N (push/pull)

Max. speed at max. load

7.6mm/s

Max. speed at no load

67.5mm/s

Retracted length

≥ Stroke + 105mm
(without output signals)

IP rating

IP66M (dynamic)



TA2P - Page 50

Max. load

3,500N (push); 2,000N (pull)

Max. speed at max. load

2.4mm/s

Max. speed at no load

56.5mm/s

Retracted length

≥ Stroke + 108mm
(with Hall sensors or without
output signals)

IP rating

IP66M (dynamic)



TA2PAC - Page 52

Max. load

2,000N (push/pull)

Max. speed at max. load

7.5mm/s

Max. speed at no load

52mm/s

Retracted length

> 235mm
(depending on chosen options)

IP rating

IP66M (dynamic)



TA16 - Page 54

Max. load

4,500N (push); 2,500N (pull)

Max. speed at max. load

4.9mm/s

Max. speed at no load

56.5mm/s

Retracted length

≥ Stroke + 112mm

IP rating

IP66M (dynamic)



TA21 - Page 56

Max. load

10,000N (push); 6,000N (pull)

Max. speed at max. load

6.3mm/s

Max. speed at no load

24.7mm/s

Retracted length

≥ 67mm



TA23 - Page 58

Max. load

10,000N (push); 4,000N (pull)

Max. speed at max. load

3.2mm/s

Max. speed at no load

39mm/s

Retracted length

≥ Stroke + 163mm

IP rating

IP66W



TA29AC - Page 60

Max. load

4,000N (push/pull)

Max. speed at max. load

4.5mm/s

Max. speed at no load

9.5mm/s

Retracted length

> 302mm
(depending on chosen options)

IP rating

IP66 (static)



TA38M - Page 62

Max. load

2,000N (push); 1,500N (pull)

Max. speed at max. load

6.2mm/s

Max. speed at no load

20mm/s

Retracted length

≥ 160mm
(depending on chosen options)

IP rating

IP66

TL series

TiMOTION's TL (lifting column) series is comprised of two or three extruded aluminum segments. Their rectangular profile provides the system great stability, along with customization options to support a wide stroke range while maintaining a compact retracted length. Our electric lifting columns are ideal for industrial applications such as height-adjustable workstations, monitor stands, and lifting tables.



TL3 - Page 64

Max. load
4,000N (push)

Self-locking force
4,000N

Max. dynamic bending moment
1,000Nm

Max. speed at max. load
13.7mm/s

Max. speed at no load
45mm/s

Retracted length
 $\geq \text{Stroke}/2 + 150\text{mm}$

IP rating
IPX6



TL17 - Page 66

Max. load
2,000N (push)

Max. dynamic bending moment
250Nm

Max. speed at max. load
11.5mm/s

Max. speed at no load
41mm/s

Retracted length
 $\geq \text{Stroke}/2 + 150\text{mm}$

IP rating
IPX6



TL18 - Page 68

Max. load
4,500N (push)

Self-locking force
4,500N

Max. dynamic bending moment
250Nm

Max. speed at max. load
6.6mm/s

Max. speed at no load
45mm/s

Retracted length
 $\geq \text{Stroke} + 147\text{mm}$



TL18AC - Page 70

Max. load
4,500N (push)

Self-locking force
4,500N

Max. dynamic bending moment
250Nm

Max. speed at max. load
6.6mm/s

Max. speed at no load
45mm/s

Retracted length
 $\geq 383\text{mm}$



TL51 - Page 72

Max. load

6,000N (push)

Self-locking force

6,000N

Max. dynamic bending moment

1000Nm ($\geq \text{Stroke}/2 + 180\text{mm}$)

1400Nm ($\geq \text{Stroke}/2 + 240\text{mm}$)

Max. speed at max. load

8.6mm/s

Max. speed at no load

26.2mm/s

Retracted length

$\geq \text{Stroke}/2 + 180\text{mm}$

$\geq \text{Stroke}/2 + 240\text{mm}$

IP rating

IPX4 (cable exit: top end socket)

IPX6 (cable exit: bottom sides)

TGM

series

TiMOTION's TGM (Gear Motor) series is primarily designed for height-adjustable table applications. The TGM products allow for fast, smooth and quiet adjustments of built-in spindles through the use of external limit switches. Additionally, a single shaft connection allows for mechanical synchronization of dual spindles.



TGM1 - Page 74

Max. rated torque
7.4Nm

Max. speed at max. load
72RPM ($\pm 5\%$)

Max. speed at no load
262.5RPM ($\pm 5\%$)

Output signals
Hall sensor*2



TGM2 - Page 76

Max. rated torque
18.3Nm

Max. speed at max. load
56~64RPM

Max. speed at no load
73~88RPM

Output signals
Hall sensor*2



TGM3 - Page 78

Max. rated torque
4.6Nm

Max. speed at max. load
61RPM ($\pm 5\%$)

Max. speed at no load
259RPM ($\pm 5\%$)

Output signals
Hall sensor*2



TGM4 - Page 80

Max. rated torque
4Nm

Max. speed at max. load
98RPM ($\pm 5\%$)

Max. speed at no load
219RPM ($\pm 5\%$)

Output signals
Hall sensor*2



TGM7 - Page 82

Max. rated torque

7.2Nm

Max. speed at max. load

78RPM ($\pm 5\%$)

Max. speed at no load

355RPM ($\pm 5\%$)

Output signals

Hall sensor*2



TIG1 - Page 84

Max. rated torque

60Nm

Max. speed at max. load

24RPM

Max. speed at no load

40RPM

Output signals

Hall sensor*1

Hall sensor*2

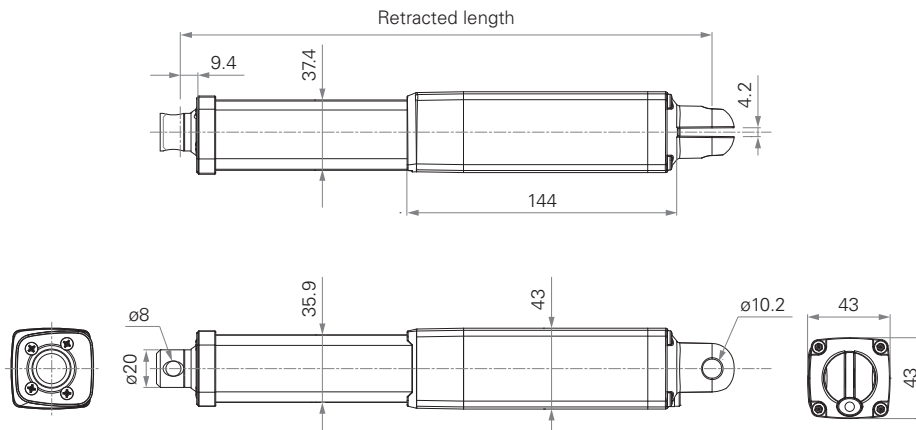
JP3

series



Standard Dimension

(mm)



General Features

Max. load	2,000N (push/pull)
Max. speed at max. load	3.5mm/s
Max. speed at no load	23.5mm/s
Retracted length	≥ Stroke + 217mm
IP rating	IP69K (static)
Certificate	UL73
Stroke	20~1000mm

Output signals	NPN Hall sensor (5~36V input) *2
Voltage	12/24V DC; 12/24V DC (PTC)
Color	Black, grey
Operational temperature range	-5°C~+65°C
Operational temperature range at full performance	+5°C~+45°C
Storage temperature range	-40°C~+70°C

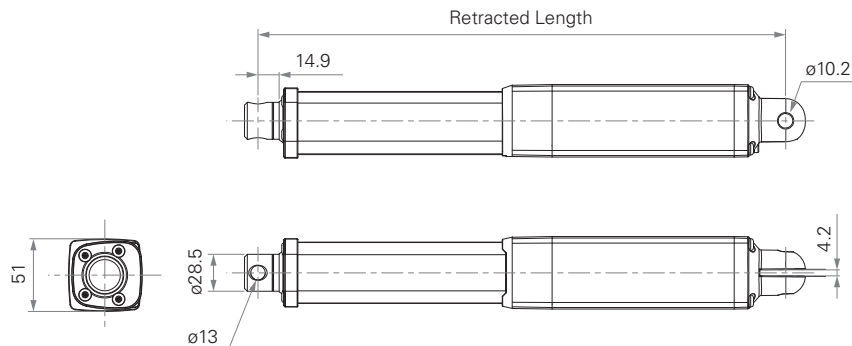
JP4

series



Standard Dimension

(mm)



General Features

Max. load	4,500N (push); 3,000N (pull)
Max. speed at max. load	2.5mm/s
Max. speed at no load	27.5mm/s
Retracted length	≥ Stroke + 289mm
IP rating	IP69K (static)
Certificate	UL73
Stroke	20~1000mm

Output signals	NPN Hall sensor (5~36V input) *2
Voltage	12/24V DC; 12/24V DC (PTC)
Color	Black, grey
Operational temperature range	-5°C~+65°C
Operational temperature range at full performance	+5°C~+45°C
Storage temperature range	-40°C~+70°C

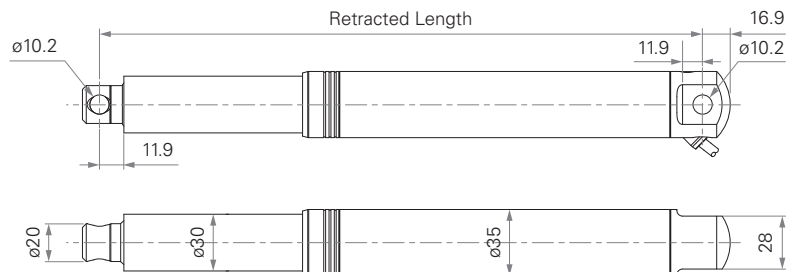
JP5

series



Standard Dimension

(mm)



General Features

Max. load	1,500N (push/pull)	Voltage	12/24V DC; 12/24V DC (PTC)
Max. speed at max. load	4.5mm/s	Operational temperature range	-10/-30°C~+70°C (with/without overcurrent protection PCBA)
Max. speed at no load	12.4mm/s	Operational temperature range at full performance	+5°C~+45°C
Retracted length	≥ Stroke + 160mm	Storage temperature range	-40°C~+85°C
IP rating	IP69K (static)		
Stroke	25~650mm		
Output signals	Hall sensor*2 (5V input) NPN Hall sensor (5~36V input) *2		

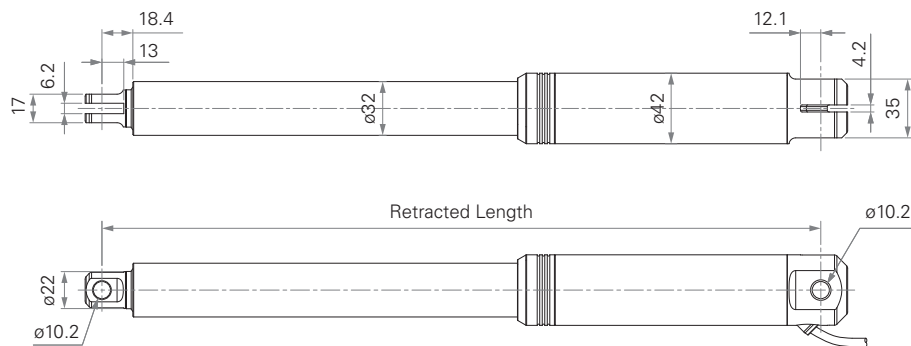
JP6

series



Standard Dimension

(mm)



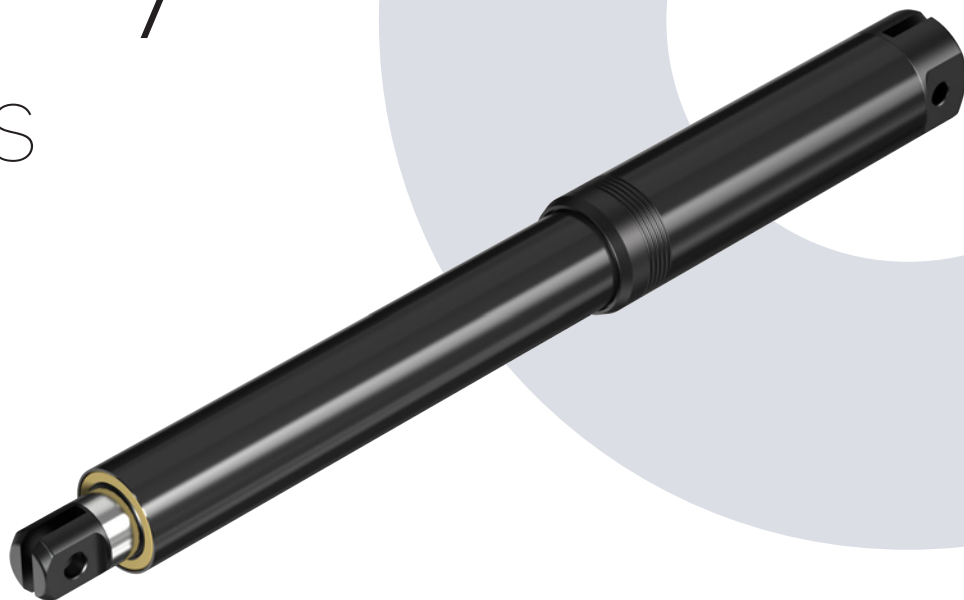
General Features

Max. load	3,000N (push); 1,000N (pull)
Max. speed at max. load	3.5mm/s
Max. speed at no load	8.5mm/s
Retracted length	≥ Stroke + 229mm
IP rating	IP69K (static)
Stroke	25~600mm
Output signals	Hall sensor*2 (5V input) NPN Hall sensor (5~36V input) *2

Voltage	12/24V DC; 12/24V DC (PTC)
Operational temperature range	-10/-30°C~+70°C (with/without overcurrent protection PCBA)
Operational temperature range at full performance	+5°C~+45°C
Storage temperature range	-40°C~+85°C

JP7

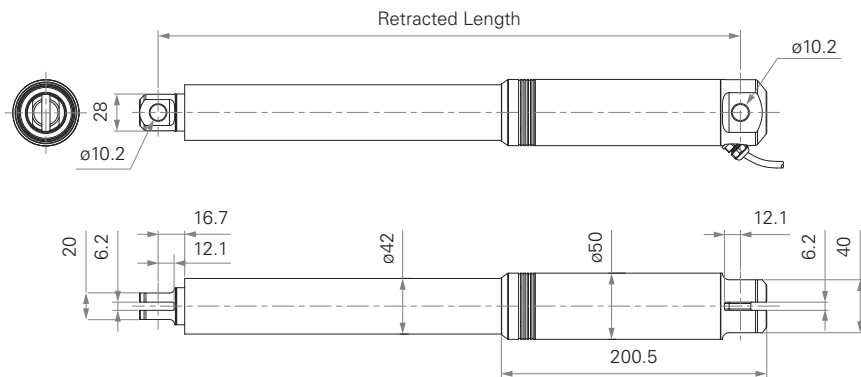
series



NEW

Standard Dimension

(mm)



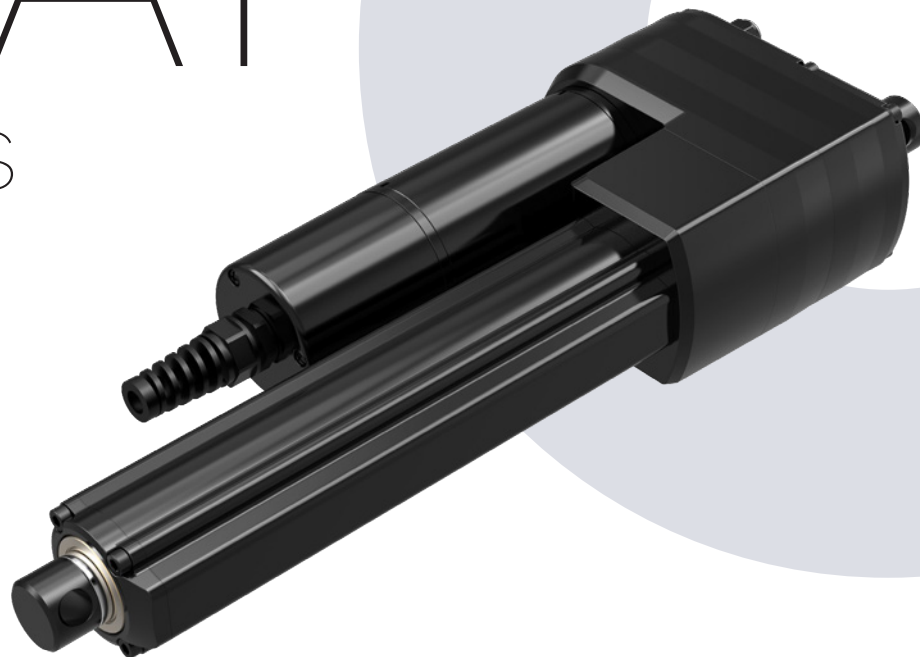
General Features

Max. load	4,500N (push/pull)
Max. speed at max. load	4mm/s
Max. speed at no load	19mm/s
Retracted length	≥ Stroke + 255mm
IP rating	IP69K (static)
Stroke	25~1000mm

Output signals	Hall sensor*2
Voltage	12V DC
Operational temperature range	-10°C~+65°C
Operational temperature range at full performance	+5°C~+45°C
Storage temperature range	-40°C~+85°C

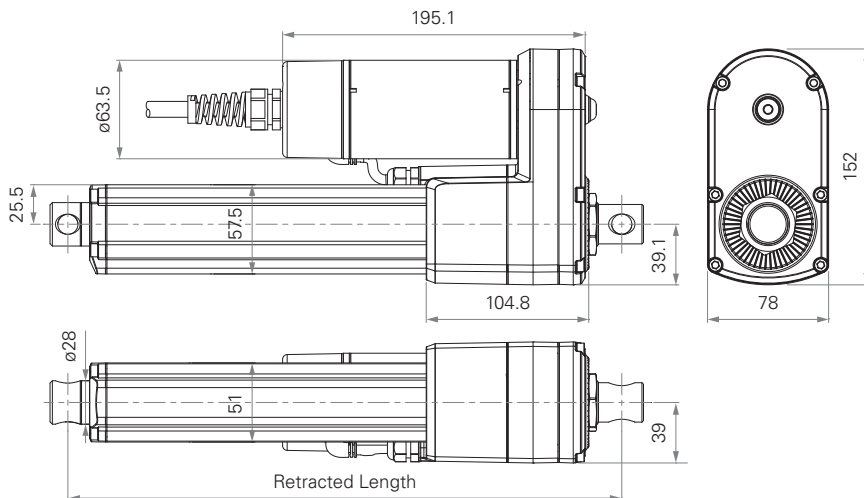
MA1

series



Standard Dimension

(mm)



General Features

Max. load

ACME screw: 8,000N (push/pull);
Ball screw: 4,500N (push/pull)

Max. speed at max. load

5.7mm/s (ACME screw, DC motor);
14.8mm/s (Ball screw, DC motor)

Max. speed at no load

31.2mm/s (ACME screw, DC motor);
59mm/s (Ball screw, DC motor)

Retracted length

≥ Stroke + 160mm (ACME screw,
without POT);
≥ Stroke + 201mm (Ball screw,
without POT)

IP rating

IP69K (static)

Certificate

UL73, EMC

Stroke

20~1000mm (ACME screw);
20~800mm (Ball screw)

Output signals

Mechanical pot., Hall sensors*2
(5-36V input or PNP type)

Options

Overload clutch, motor brake,
mechanical brake

Voltage

12/24/36/48V DC (thermal
switch); 115/230V AC

Spindle

ACME or Ball screw

Color

Black

Operational temperature range

-40°C~+85°C

Operational temperature range at full performance

+5°C~+45°C

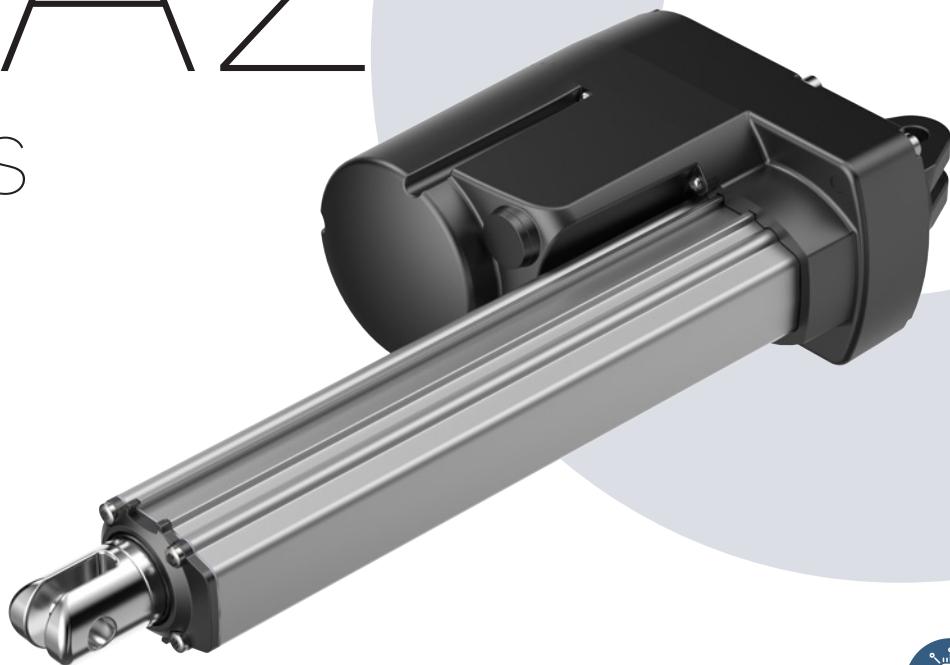
Electromagnetic brake option

Higher duty cycle (25%), corrosion proof

Manual drive

MA2

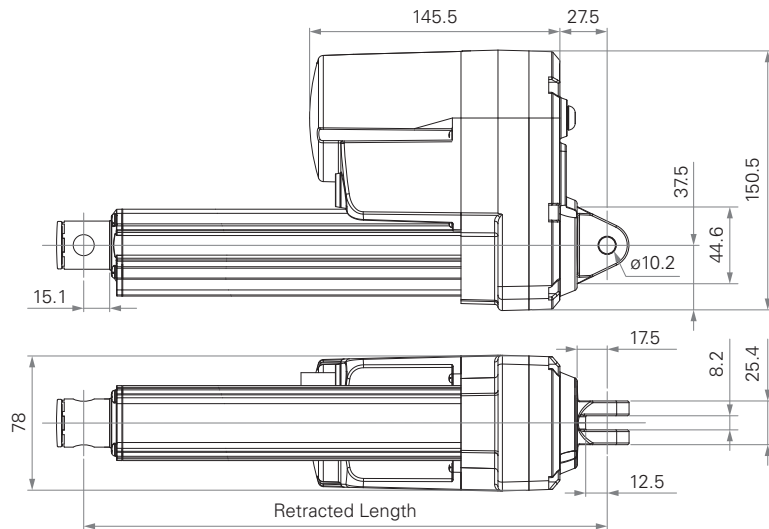
series



Standard Dimension

(mm)

Single Cable



General Features

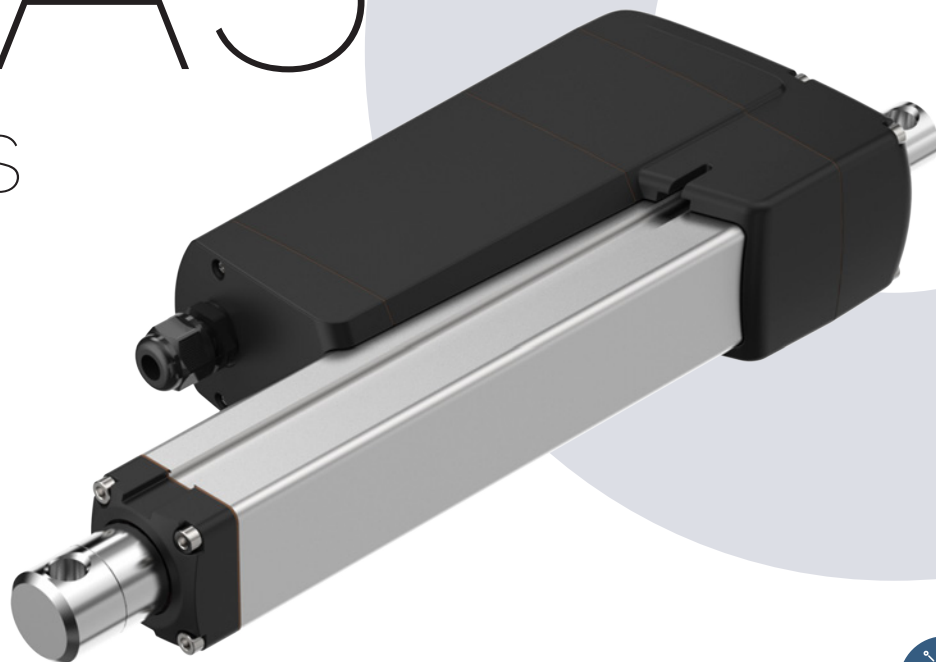
Max. load	8,000N (push); 4,000N (pull)
Max. speed at max. load	5.5mm/s
Max. speed at no load	52.5mm/s
Retracted length	≥ Stroke + 132mm
IP rating	IP69K (static)
Certificate	UL73, EMC
Stroke	25~1000mm

Output signals	External signal of actuator, mechanical Pot., NPN Hall sensor (5-36V input) *2
Voltage	12/24/36/48V DC
Operational temperature range	-40°C~+85°C
Operational temperature range at full performance	+5°C~+45°C
Protocol support	Advanced, SAE J1939, Modbus RTU

Manual drive

MA3

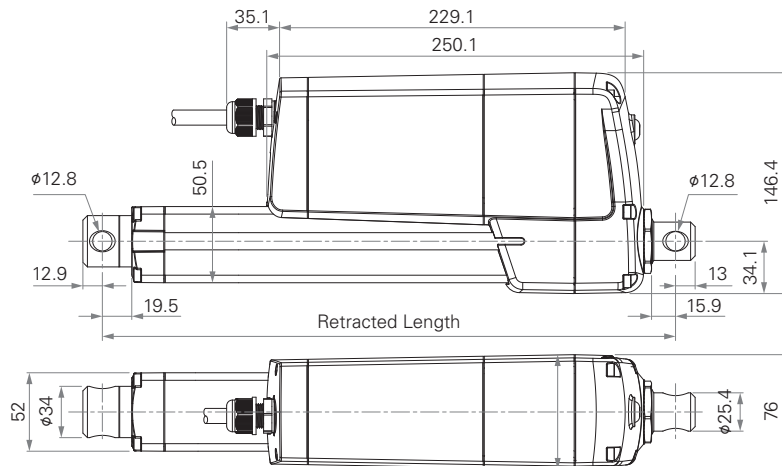
series



Standard Dimension

(mm)

Single Cable



General Features

Max. load

ACME screw: 16,000N (push/pull);
Ball screw: 16,000N (push/pull)

Max. speed at max. load

6.2mm/s (ACME screw, DC motor);
8.9mm/s (Ball screw, DC motor)

Max. speed at no load

172.5mm/s (ACME screw, DC motor);
21.3mm/s (Ball screw, DC motor)

Retracted length

$\geq \text{Stroke} + 200\text{mm}$

IP rating

IP69K (static)

Certificate

UL73, EMC

Stroke

25~1000mm

Output signals

Mechanical Pot., NPN Hall sensor*2, PNP Hall sensor*2, Hall sensor*2 input to T-Smart PCBA (T-Smart dedicated option)

Voltage

12/24V DC; 12/24V DC (thermal switch)

Operational temperature range

-40°C~+85°C

Operational temperature range at full performance

+5°C~+45°C

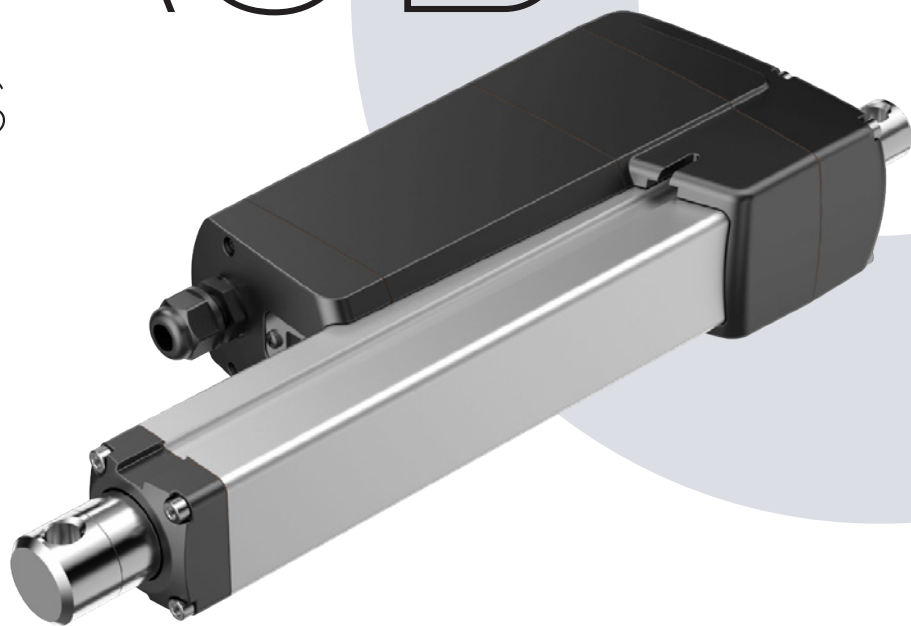
Protocol support

Advanced, SAE J1939, Modbus RTU

Manual drive

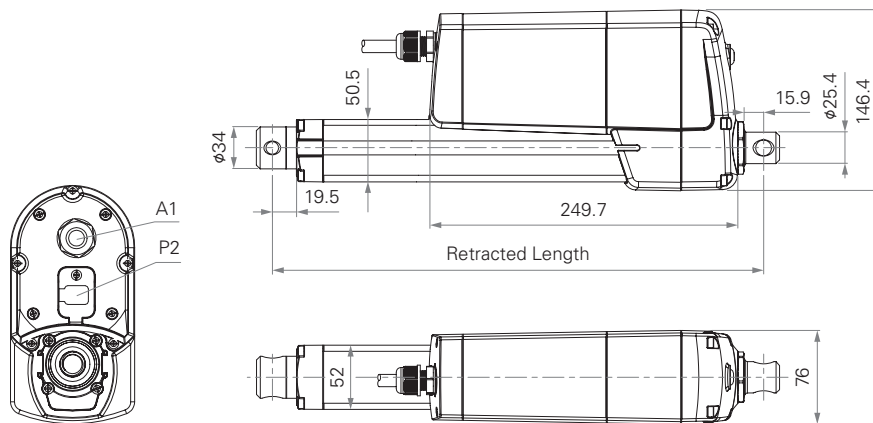
MA3B

series



Standard Dimension

(mm)



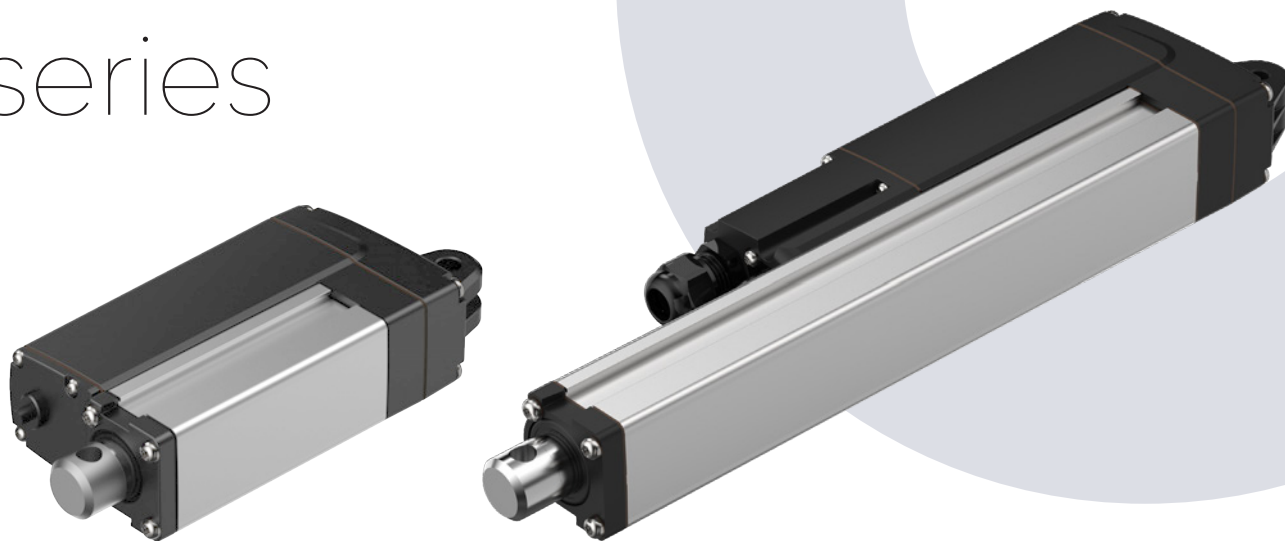
General Features

Max. load	10,000N (push/pull)
Max. speed at max. load	11.9mm/s
Max. speed at no load	35.8mm/s
Retracted length	$\geq$ Stroke + 230mm
IP rating	IP69K (static)
Stroke	30~800mm
Output signals	Hall sensor*2 input to PCBA (No output)

Options	Max. life: up to 200,000 cycles (4,000N)
Voltage	12/24V DC
Operational temperature range	-40°C~+85°C
Operational temperature range at full performance	+5°C~+45°C

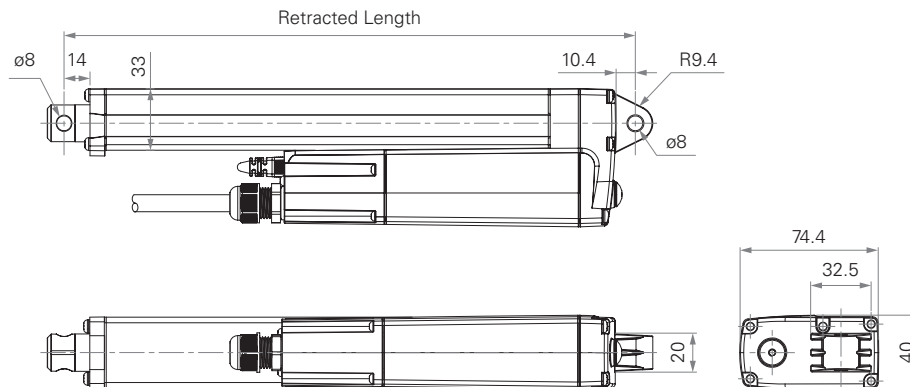
MA4

series



Standard Dimension

(mm)



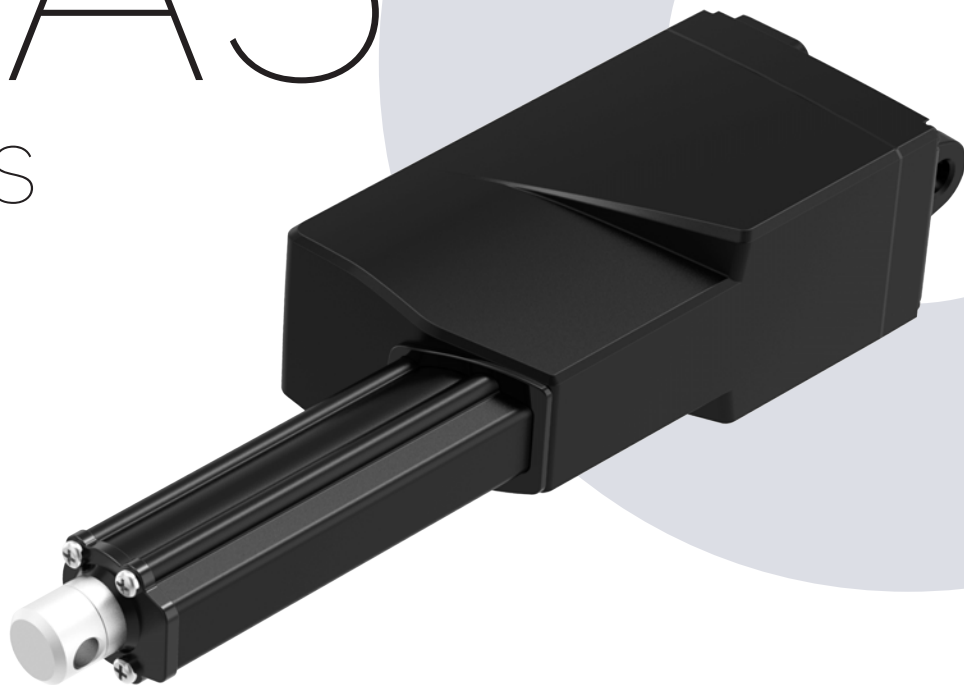
General Features

Max. load	2,500N (push/pull)
Max. speed at max. load	5.1mm/s
Max. speed at no load	43.1mm/s
Retracted length	≥ 215mm (depending on chosen options)
IP rating	IP69K (static)
Stroke	25~1000mm
Output signals	Mechanical Pot., Hall sensor*2 (5-36V input), Hall sensor*2, signals to embedded PCBA (T-Smart dedicated option)

Voltage	12/24V DC; 12/24V DC (thermal switch)
Operational temperature range	-40°C~+85°C
Operational temperature range at full performance	+5°C~+45°C
Protocol support	Advanced, SAE J1939, Modbus RTU
Manual drive	

MA5

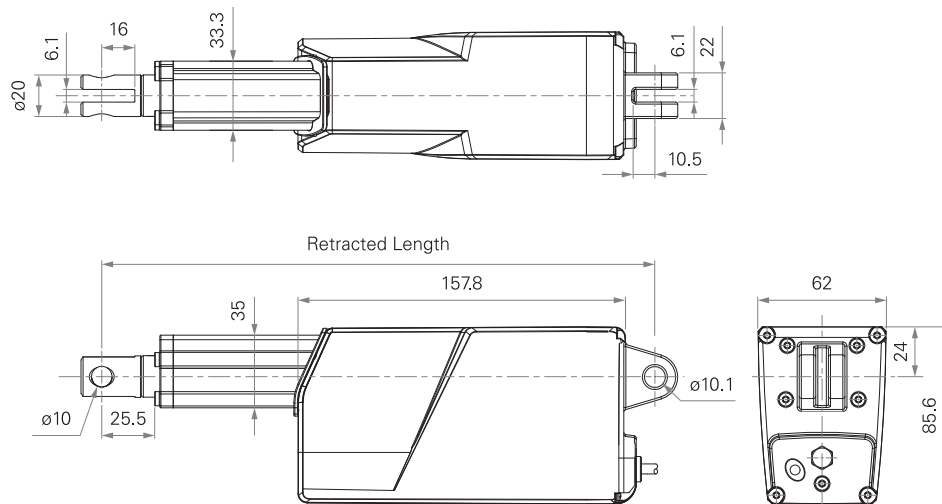
series



Standard Dimension

(mm)

Normal Wiper,
Without Grease Chamber



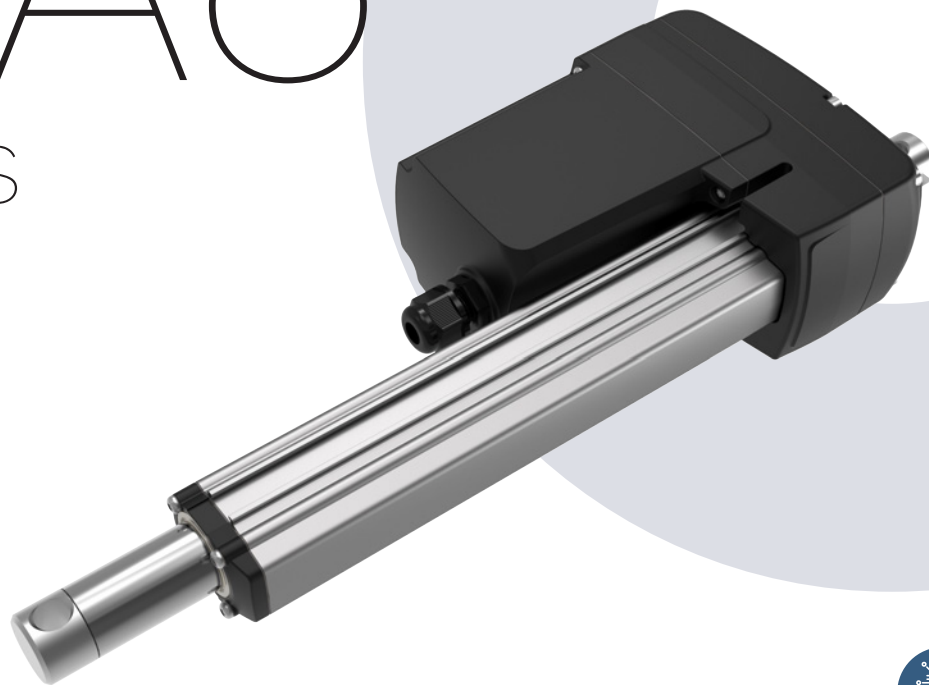
General Features

Max. load	3,500N (push); 2,000N (pull)
Max. speed at max. load	2.4mm/s
Max. speed at no load	56.5mm/s
Retracted length	≥ 200mm (depending on chosen options)
IP rating	IP69K (static)
Stroke	20~1000mm

Output signals	Mechanical pot., Hall sensor*2 (5-36V input)
Options	Grease chamber
Voltage	12/24/48V DC; 12/24/48V DC (PTC)
Operational temperature range	-25°C~+65°C
Operational temperature range at full performance	+5°C~+45°C

MA6

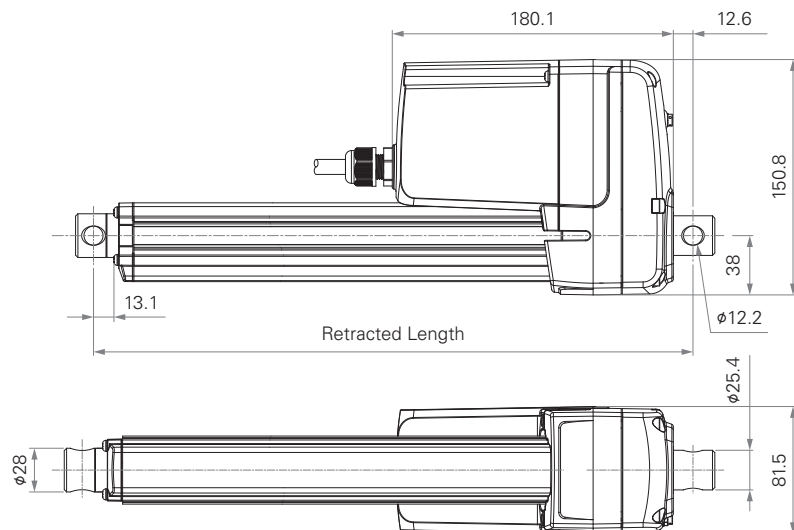
series



Standard Dimension

(mm)

Single Cable



General Features

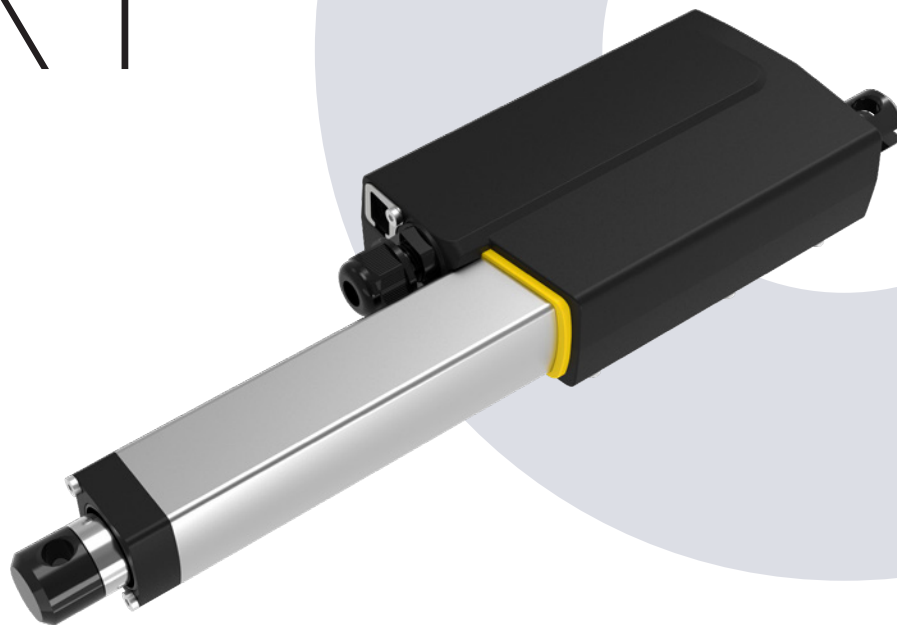
Max. load	8,000N (push/pull)
Max. speed at max. load	6.2mm/s
Max. speed at no load	64mm/s
Retracted length	≥ Stroke + 162mm
IP rating	IP69K (static)
Stroke	25~1000mm
Output signals	Mechanical Pot., NPN Hall sensor*2, Hall sensor*2 for T-Smart (T-Smart dedicated option)

Voltage	12/24V DC; 12/24V DC (thermal switch)
Operational temperature range	-40°C~+85°C
Operational temperature range at full performance	+5°C~+45°C
Protocol support	Advanced, SAE J1939, Modbus RTU

Manual drive

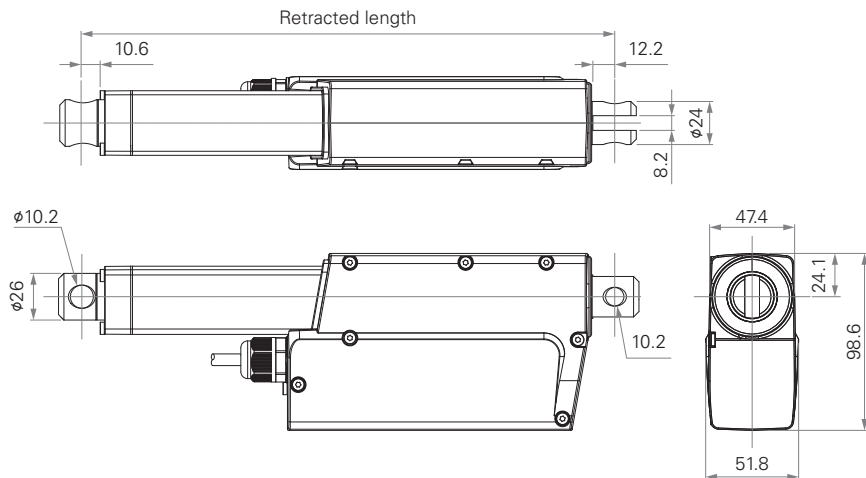
SR1

series



Standard Dimension

(mm)



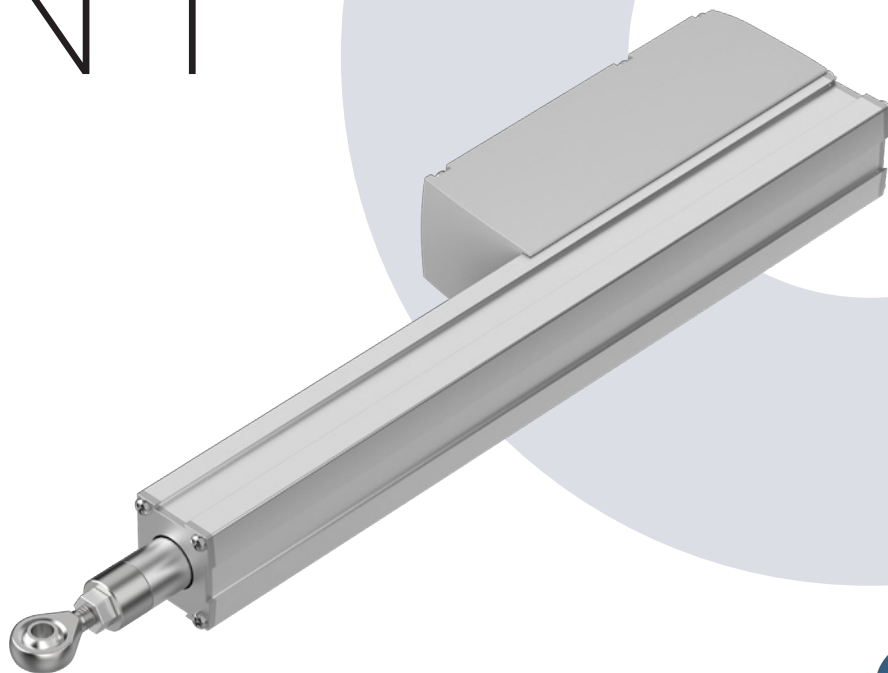
General Features

Max. load	6,000N (push); 6,000N (pull)
Max. speed at max. load	3mm/s
Max. speed at no load	7.6mm/s
Retracted length	≥ 230mm
IP rating	IP69K (static)
Stroke	50~1000mm

Output signals	Mechanical pot., NPN Hall sensor (5-36V input) *2
Options	Manual drive
Voltage	12/24V DC
Operational temperature range	-25°C~+65°C
Operational temperature range at full performance	+5°C~+45°C
Low noise	

VN1

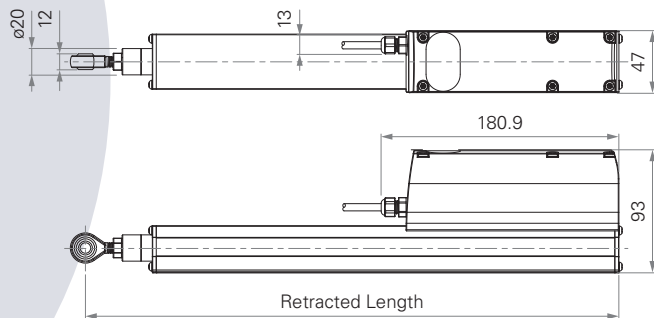
series



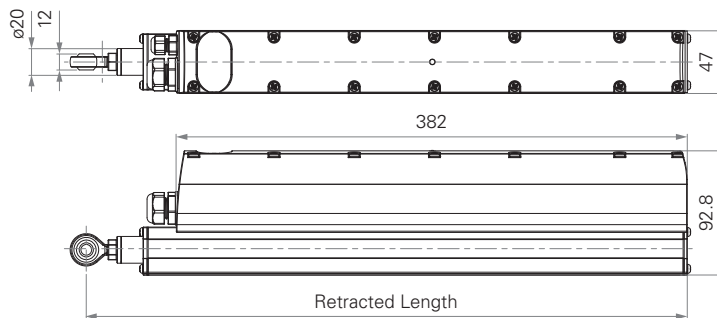
Standard Dimension

(mm)

With DC Voltage



With AC Voltage



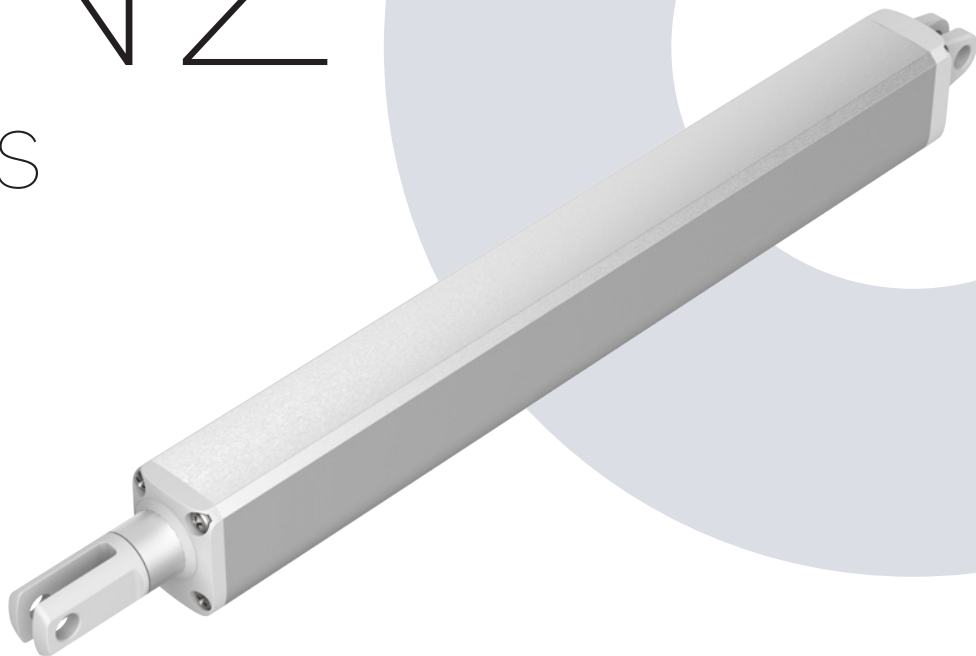
General Features

Max. load	3,500N (push); 2,000N (pull)
Max. speed at max. load	3.8mm/s
Max. speed at no load	13mm/s
Retracted length	≥ 187mm (DC version, w/o T-Smart; depending on chosen options); ≥ 414mm (AC version, w/o T-Smart; depending on chosen options)
IP rating	IP66 (static)
Stroke	20~500mm
Output signals	NPN Hall sensor*2, Hall sensor*2, signals to embedded PCBA (T-Smart dedicated option)

Options	Safety nut, window seal mechanism, T-Smart
Voltage	12/24V DC; 12/24V DC (PTC); 100~240V AC (50Hz)
Color	Black, grey
Operational temperature range	-15°C~+50°C
Operational temperature range at full performance	+5°C~+45°C
Protocol support	LIN bus

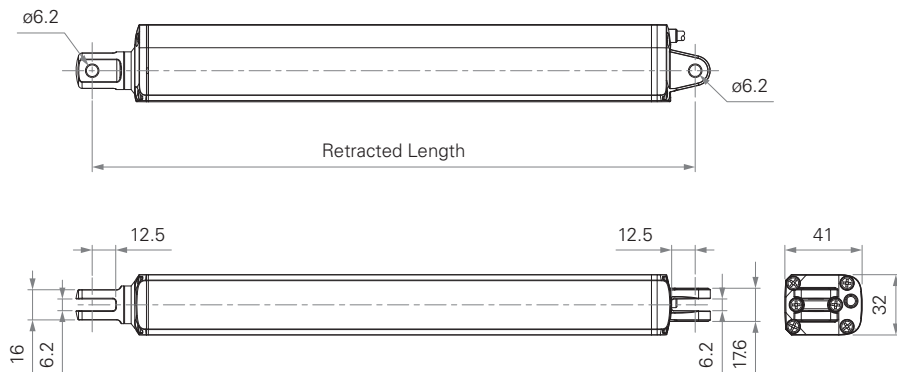
VN2

series



Standard Dimension

(mm)



General Features

Max. load	500N (push/pull)
Max. speed at max. load	8mm/s
Max. speed at no load	10.8mm/s
Retracted length	$\geq \text{Stroke} + 189\text{mm}$
IP rating	IP66 (static)
Stroke	20~500mm

Output signals	NPN Hall sensor(5~36V)*2
Voltage	12/24V DC; 12/24V DC (thermal switch)
Operational temperature range	-40°C~+85°C
Operational temperature range at full performance	+5°C~+45°C

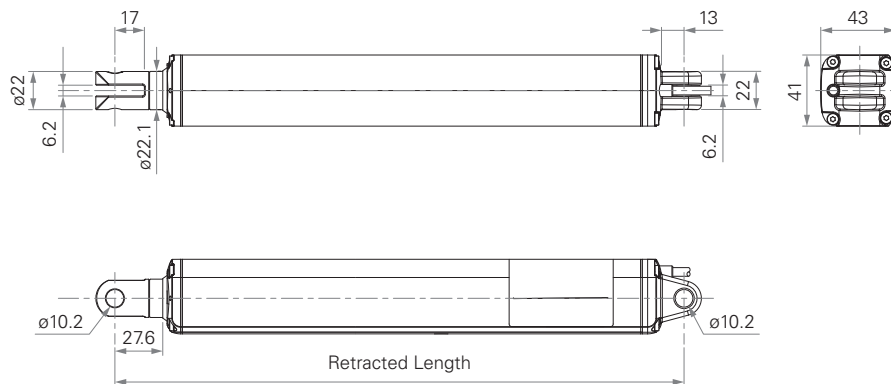
VN3

series



Standard Dimension

(mm)



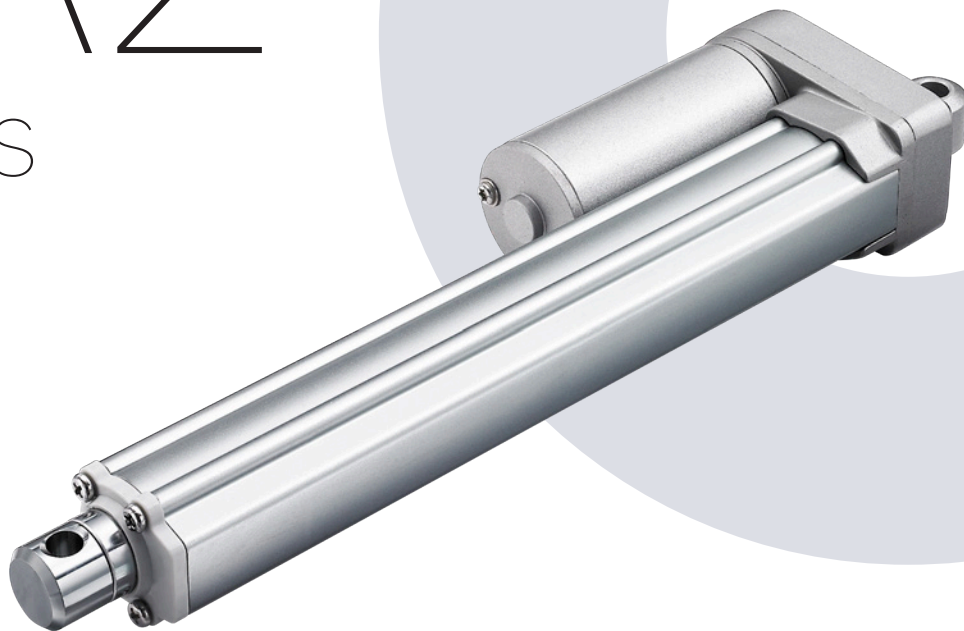
General Features

Max. load	3,000N (push/pull)
Max. speed at max. load	3mm/s
Max. speed at no load	6mm/s
Retracted length	≥ Stroke + 248mm
IP rating	IP66 (static)
Stroke	20~500mm

Output signals	NPN Hall sensor(5~36V)*2
Voltage	12/24V DC
Operational temperature range	-20°C~+65°C
Operational temperature range at full performance	+5°C~+45°C

TA2

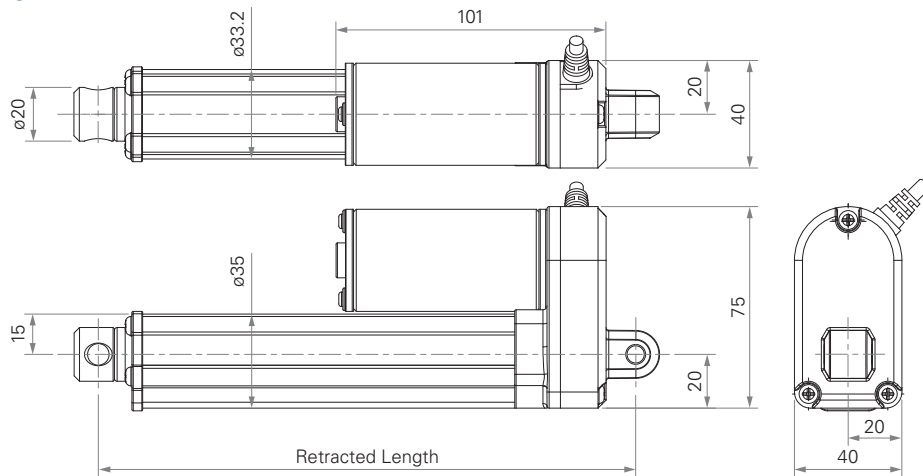
series



Standard Dimension

(mm)

Without
Output Signals



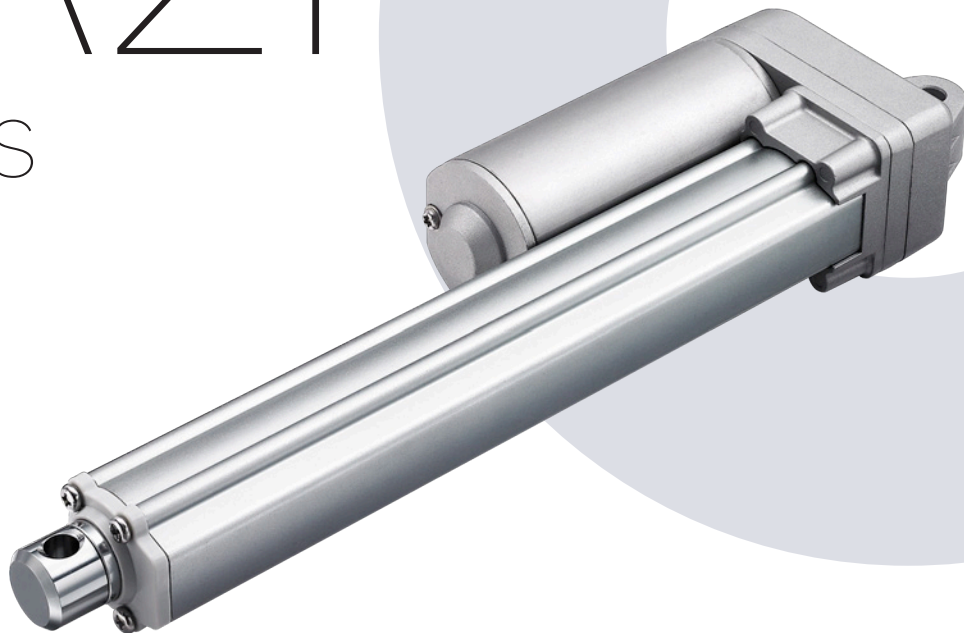
General Features

Max. load	1,000N (push/pull)
Max. speed at max. load	7.6mm/s
Max. speed at no load	67.5mm/s
Retracted length	$\geq$ Stroke + 105mm (without output signals)
IP rating	IP66M (dynamic)
Certificate	EMC
Stroke	20~1000mm

Output signals	Mechanical pot., NPN Hall sensor (5~36V)*2, Outer Adjustable Reed switch
Voltage	12/24/36/48V DC; 12/24/36/48V DC (PTC)
Color	Silver
Operational temperature range	+5°C~+45°C (Load < 500N); -25°C~+65°C (Load $\geq$ 500N)
Operational temperature range at full performance	+5°C~+45°C

TA2P

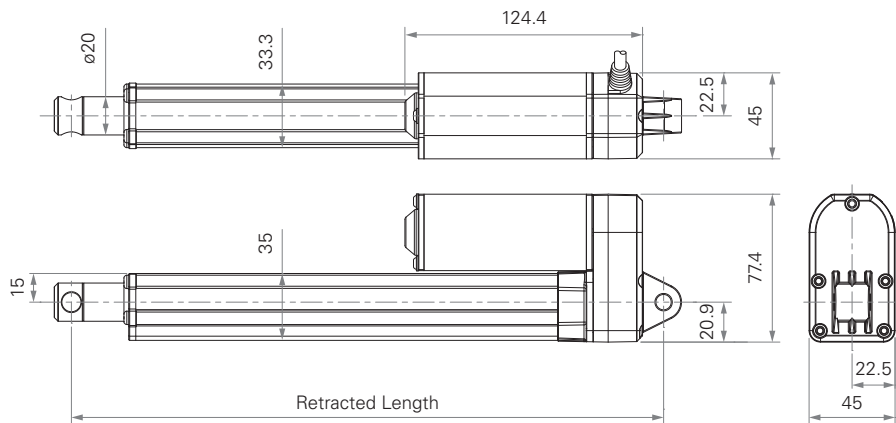
series



Standard Dimension

(mm)

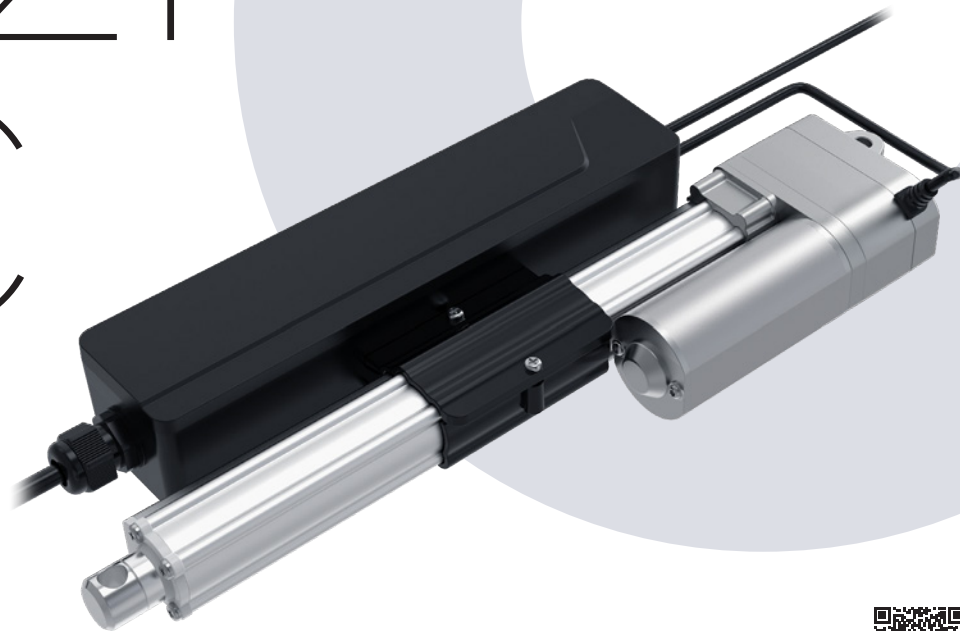
Without Sensor or
with Hall Sensors



General Features

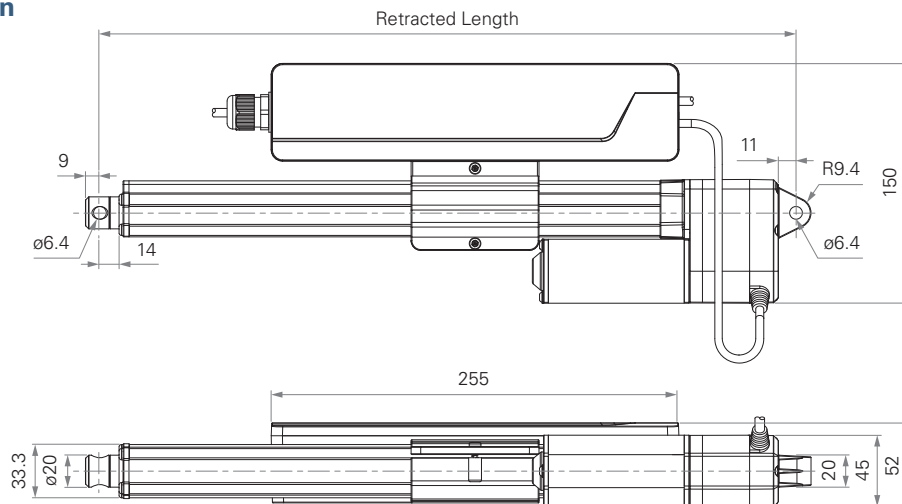
Max. load	3,500N (push); 2,000N (pull)	Output signals	Mechanical pot., Hall sensor*2 (5-36V input)
Max. speed at max. load	2.4mm/s	Voltage	12/24/36/48V DC; 12/24/48V DC (PTC)
Max. speed at no load	56.5mm/s	Color	Silver
Retracted length	≥ Stroke + 108mm (with Hall sensors or without output signals)	Operational temperature range	-25°C~+65°C
IP rating	IP66M (dynamic)	Operational temperature range at full performance	+5°C~+45°C
Certificate	UL73		
Stroke	20~1000mm		

TA2P AC series



Standard Dimension

(mm)



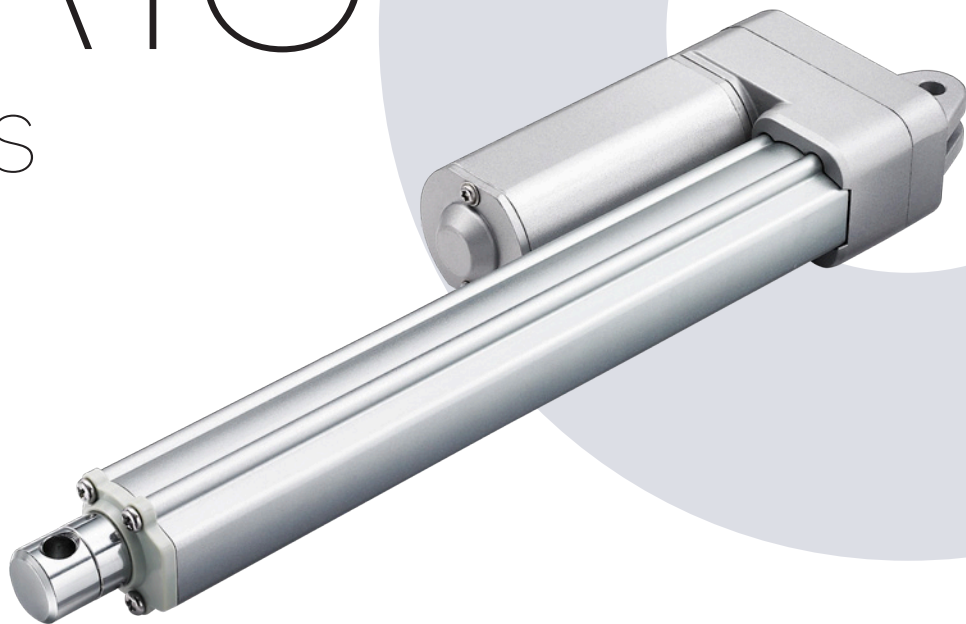
General Features

Max. load	2,000N (push/pull)
Max. speed at max. load	7.5mm/s
Max. speed at no load	52mm/s
Retracted length	> 235mm (depending on chosen options)
IP rating	IP66M (dynamic)

Stroke	20~1000mm
Output signals	POT
Voltage	100~240V AC
Operational temperature range	-25°C~+65°C
Operational temperature range at full performance	+5°C~+45°C

TA16

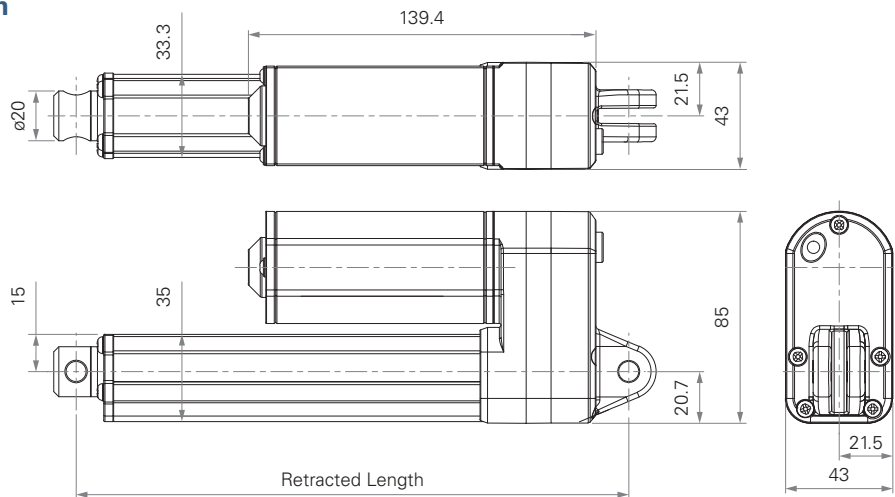
series



Standard Dimension

(mm)

Without Output Signal
or with Hall Sensors



General Features

Max. load	4,500N (push); 2,500N (pull)
Max. speed at max. load	4.9mm/s
Max. speed at no load	56.5mm/s
Retracted length	≥ Stroke + 112mm
IP rating	IP66M (dynamic)
Certificate	IEC60601-1, ES60601-1, IEC60601-1-2, UL962, EMC
Stroke	20~600mm

Output signals

Mechanical Pot., NPN Hall
sensor(5~36V)*2

Options

Motor brake

Voltage

12/24/36/48V DC;
12/24/48V DC (PTC)

Color

Silver

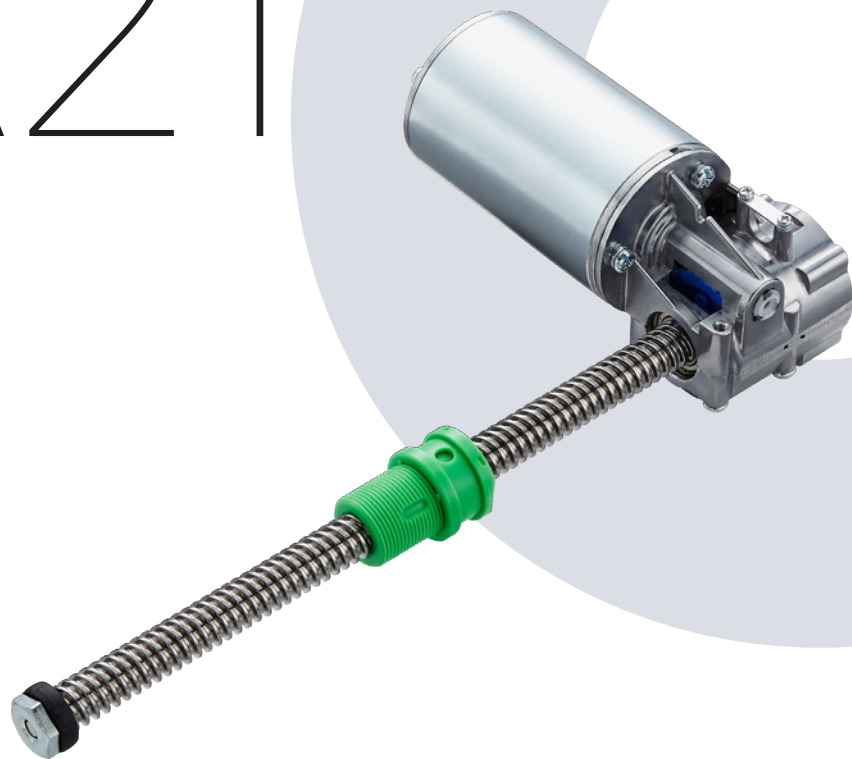
Operational temperature range at full performance

+5°C~+45°C

With very low noise, small size for easy installation

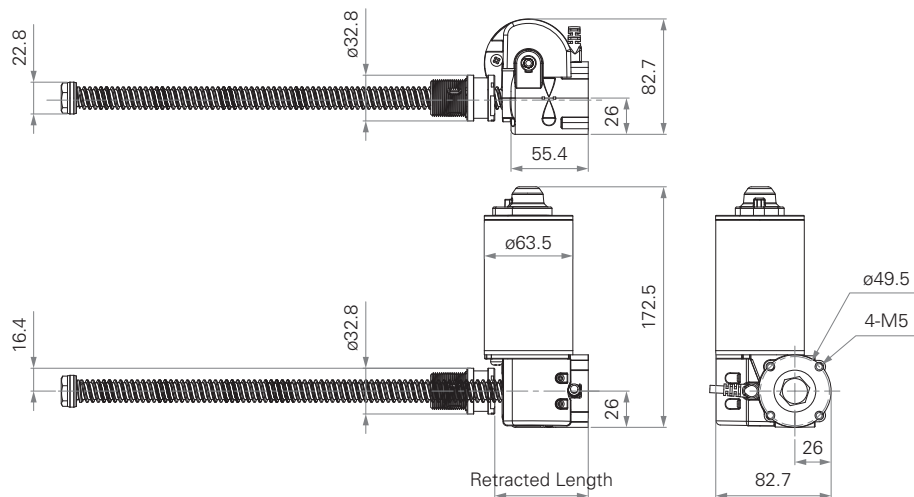
TA21

series



Standard Dimension

(mm)



General Features

Max. load 10,000N (push); 6,000N (pull)

Max. speed at max. load 6.3mm/s

Max. speed at no load 24.7mm/s

Retracted length ≥ 67 mm

Certificate UL962

Stroke 25~400mm

Output signals Hall sensor*2, Reed sensor

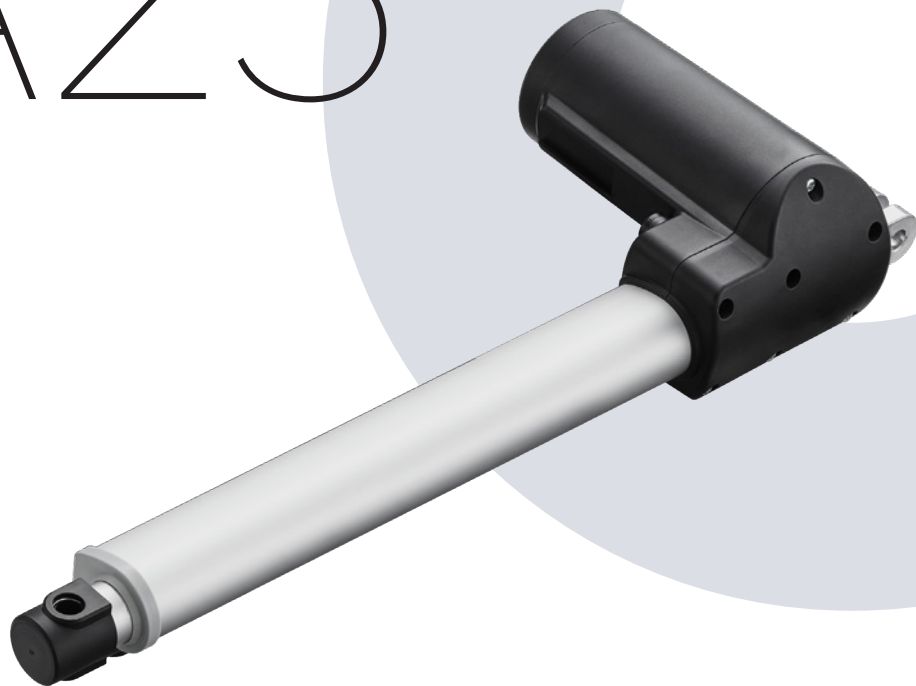
Voltage 24V DC; 24V DC (UL)

Color Black, grey

High design flexibility

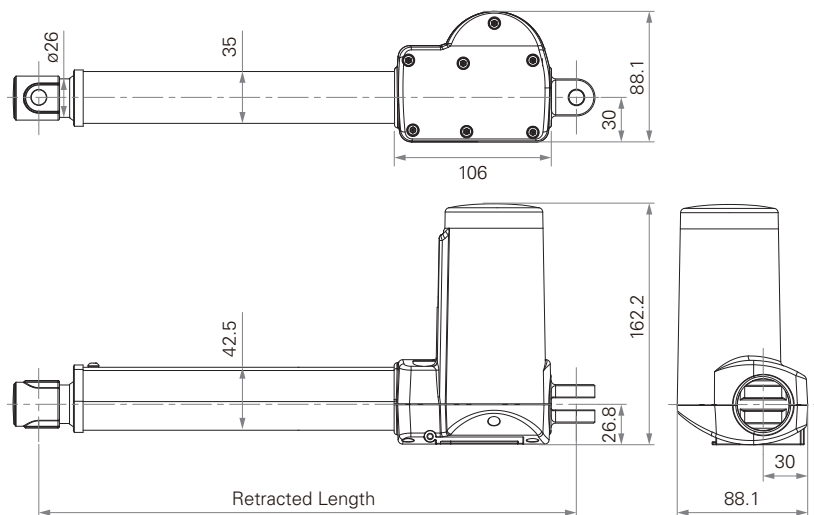
TA23

series



Standard Dimension

(mm)



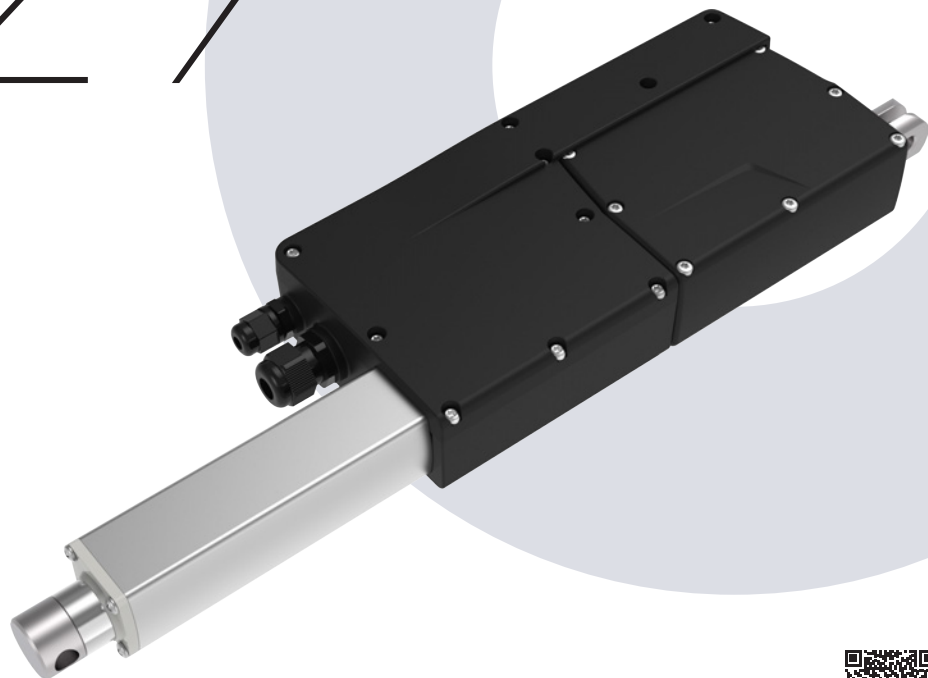
General Features

Max. load	10,000N (push); 4,000N (pull)	Stroke	25~1000mm
Max. speed at max. load	3.2mm/s	Output signals	Hall sensor*2
Max. speed at no load	39mm/s	Voltage	12/24/36V DC; 24V DC (PTC)
Retracted length	≥ Stroke + 163mm	Color	Black, grey
IP rating	IP66W	Operational temperature range	+5°C~+45°C
Certificate	IEC60601-1, ES60601-1, IEC60601-1-2, EMC		

TA29

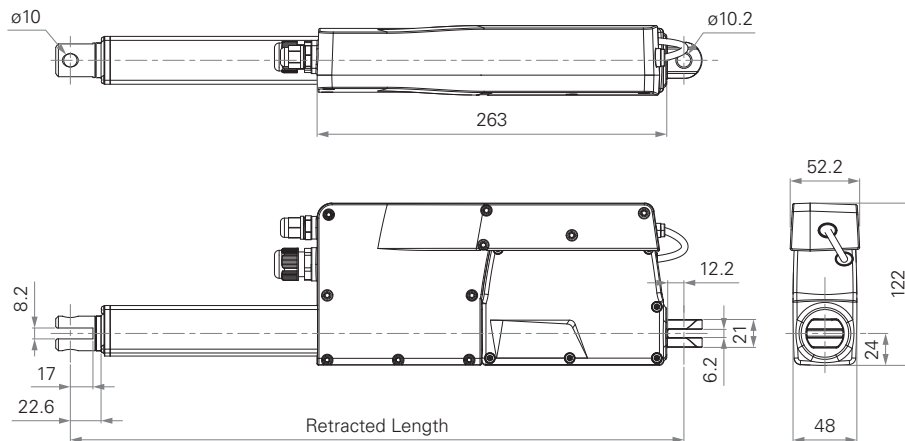
AC

series



Standard Dimension

(mm)

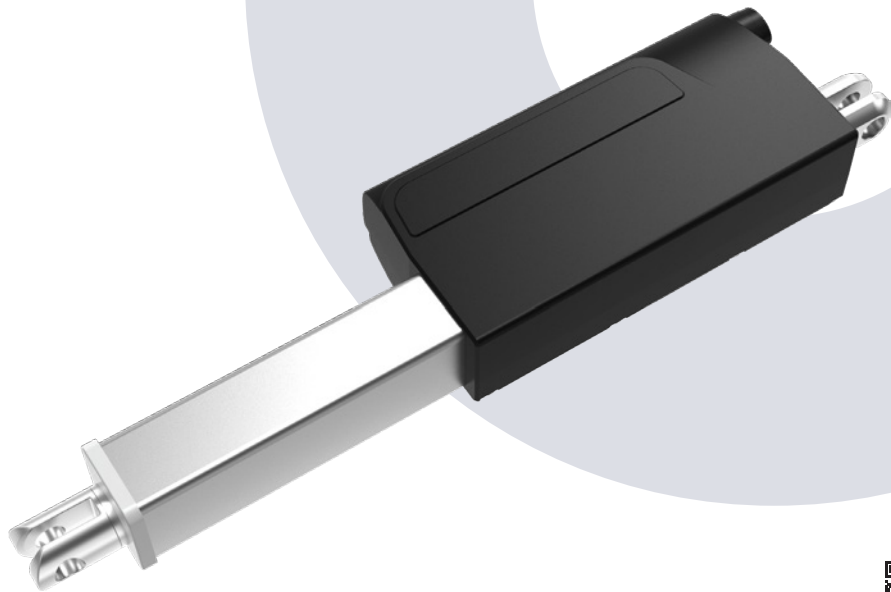


General Features

Max. load	4,000N (push/pull)	Stroke	25~1000mm
Max. speed at max. load	4.5mm/s	Output signals	POT
Max. speed at no load	9.5mm/s	Voltage	100~240V AC
Retracted length	> 302mm (depending on chosen options)	Color	Black, grey
IP rating	IP66 (static)	Operational temperature range	+5°C~+45°C

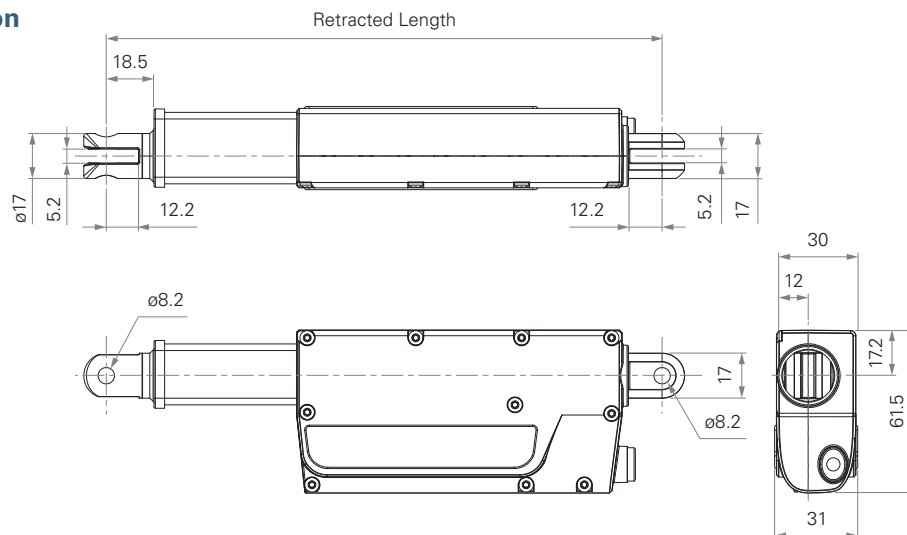
TA38M

series



Standard Dimension

(mm)



General Features

Max. load	2,000N (push); 1,500N (pull)	Stroke	20~300mm
Max. speed at max. load	6.2mm/s	Output signals	Hall sensor*2
Max. speed at no load	20mm/s	Voltage	12/24V DC; 12/24V DC (PTC)
Retracted length	≥ 160mm (depending on chosen options)	Color	Black, grey
IP rating	IP66	Operational temperature range	+5°C~+45°C

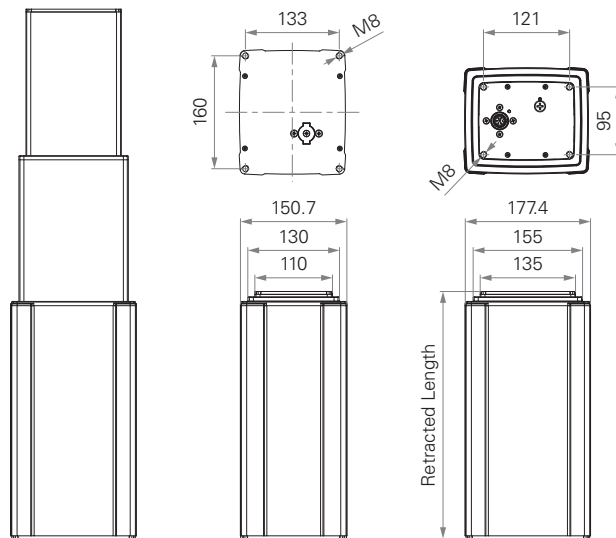
TL3

series



Standard Dimension

(mm)



General Features

Max. load	4,000N (push)	Stages	3-stage
Self-locking force	4,000N	Stroke	250~1200mm
Max. dynamic bending moment	1,000Nm	Certificate	IEC60601-1, EMC
Max. static bending moment	2,000Nm	Output signals	POT, Hall sensor*2
Max. speed at max. load	13.7mm/s	Options	Direct cut system
Max. speed at no load	45mm/s	Voltage	12V DC; 24V DC (thermal control)
Retracted length	$\geq \text{Stroke}/2 + 150\text{mm}$	Color	Black, matte silver
IP rating	IPX6	Operational temperature range	+5°C~+45°C
Outer profile	177.4*150.7mm rectangular		

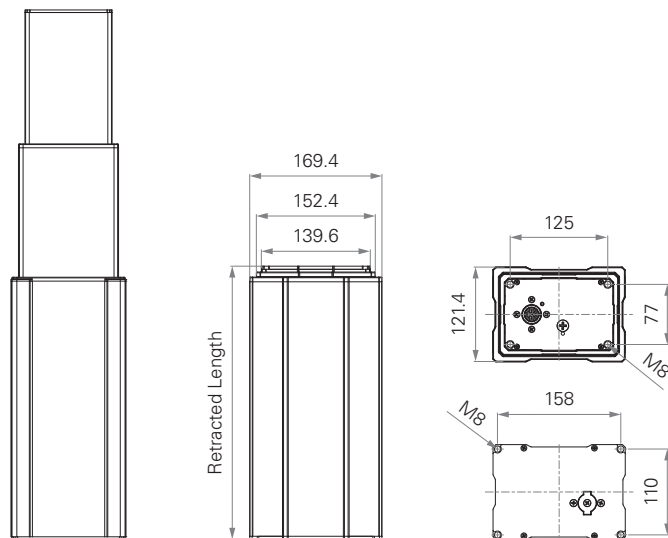
TL17

series



Standard Dimension

(mm)



General Features

Max. load	2,000N (push)
Max. dynamic bending moment	250Nm
Max. static bending moment	500Nm
Max. speed at max. load	11.5mm/s
Max. speed at no load	41mm/s
Retracted length	$\geq \text{Stroke}/2 + 150\text{mm}$
IP rating	IPX6
Outer profile	169.4*121.4mm rectangular

Stages	3-stage
Stroke	250~1200mm
Certificate	IEC60601-1, ES60601-1, IEC60601-1-2
Output signals	Hall sensor*2
Voltage	12V DC; 24V DC (PTC)
Color	Silver, black
Operational temperature range	+5°C~+45°C

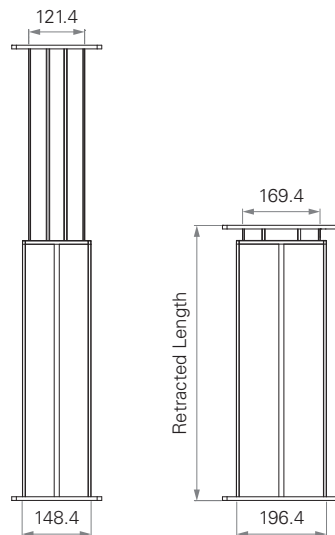
TL18

series



Standard Dimension

(mm)

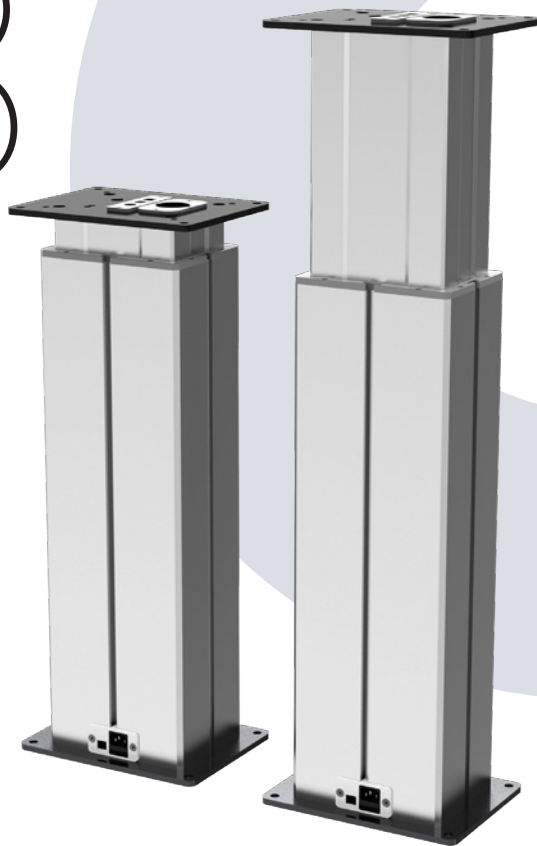


General Features

Max. load	4,500N (push)
Self-locking force	4,500N
Max. dynamic bending moment	250Nm
Max. static bending moment	500Nm
Max. speed at max. load	6.6mm/s
Max. speed at no load	45mm/s
Retracted length	$\geq \text{Stroke} + 147\text{mm}$
Outer profile	196.4*148.4mm rectangular

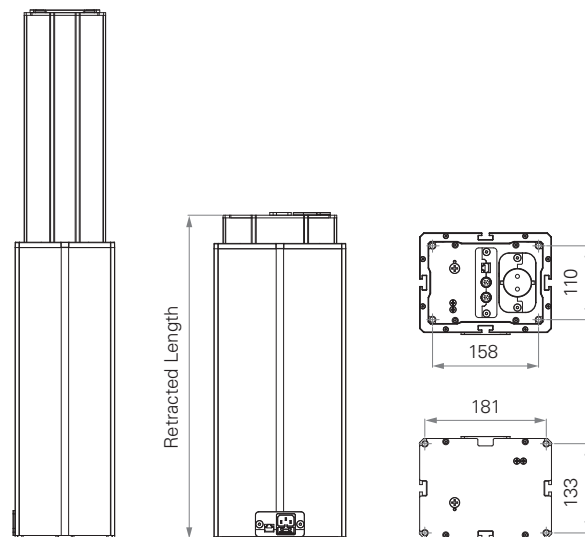
Stages	2-stage
Stroke	100~1000mm
Certificate	IEC60601-1, ES60601-1, IEC60601-1-2, UL73, EMC
Output signals	Hall sensor*2
Options	Cable exit from top or bottom side, direct cut system
Voltage	12/24V DC
Operational temperature range	+5°C~+45°C

TL18 AC series



Standard Dimension

(mm)



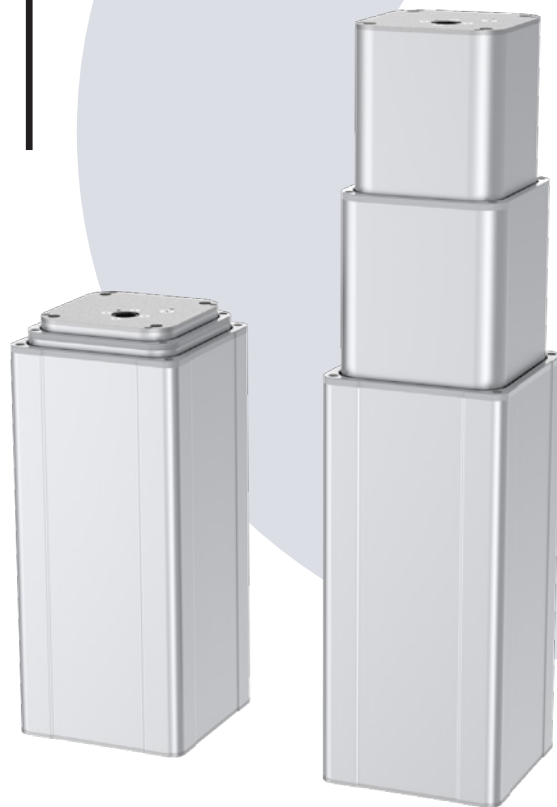
General Features

Max. load	4,500N (push)
Self-locking force	4,500N
Max. dynamic bending moment	250Nm
Max. static bending moment	500Nm
Max. speed at max. load	6.6mm/s
Max. speed at no load	45mm/s
Retracted length	≥ 383mm

Outer profile	196.4*148.4mm rectangular
Stages	2-stage
Stroke	20~700mm
Options	AC cable exit from top end, top side; Ethernet socket
Operational temperature range	+5°C~+45°C

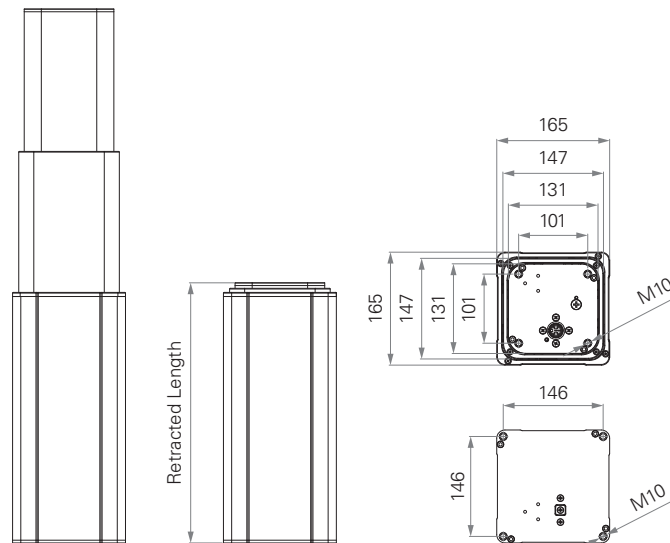
TL51

series



Standard Dimension

(mm)

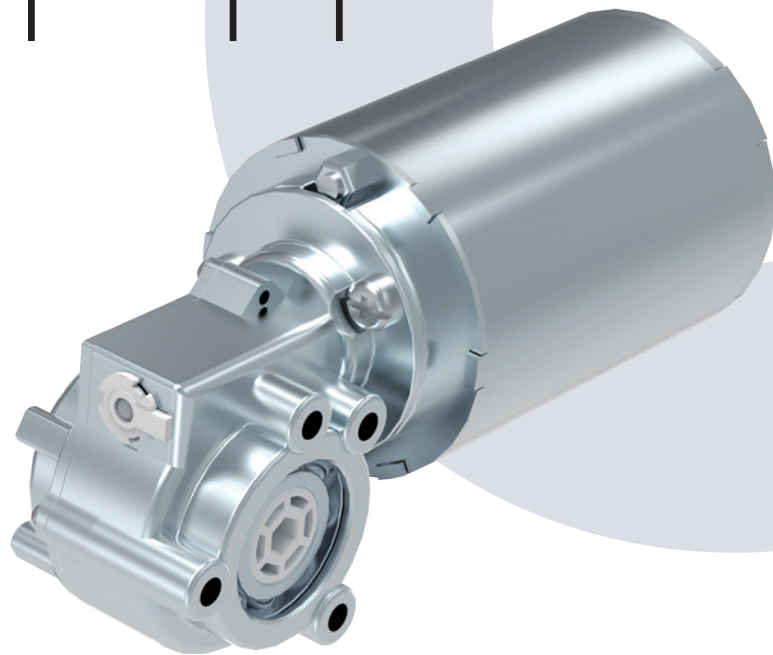


General Features

Max. load	6,000N (push)	IP rating	IPX4 (cable exit: top end socket) IPX6 (cable exit: bottom sides)
Self-locking force	6,000N	Outer profile	165*165mm square
Max. dynamic bending moment	1000Nm ($\geq$ Stroke/2 + 180mm) 1400Nm ($\geq$ Stroke/2 + 240mm)	Stages	3-stage
Max. static bending moment	2000Nm ($\geq$ Stroke/2 + 180mm) 2800Nm ($\geq$ Stroke/2 + 240mm)	Stroke	250~1000mm
Max. speed at max. load	8.6mm/s	Output signals	POT, Hall sensor*2
Max. speed at no load	26.2mm/s	Voltage	24V DC, thermal switch
Retracted length	$\geq$ Stroke/2 + 180mm $\geq$ Stroke/2 + 240mm	Color	Matte silver, black
		Operational temperature range	+5°C~+45°C

TGM1

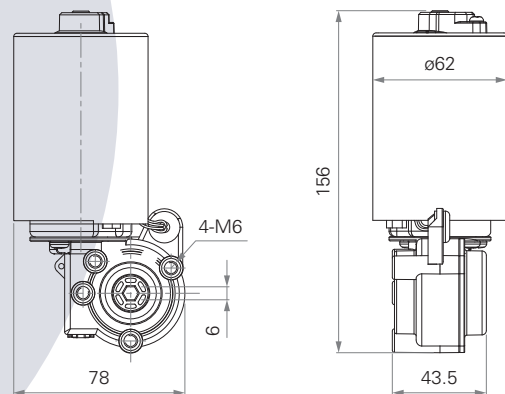
series



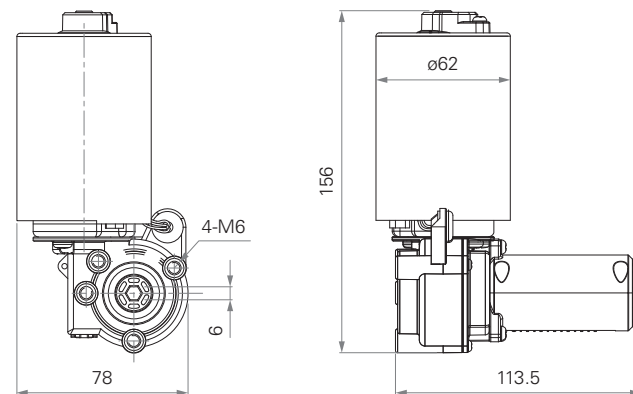
Standard Dimension

(mm)

Without TES2



With TES2



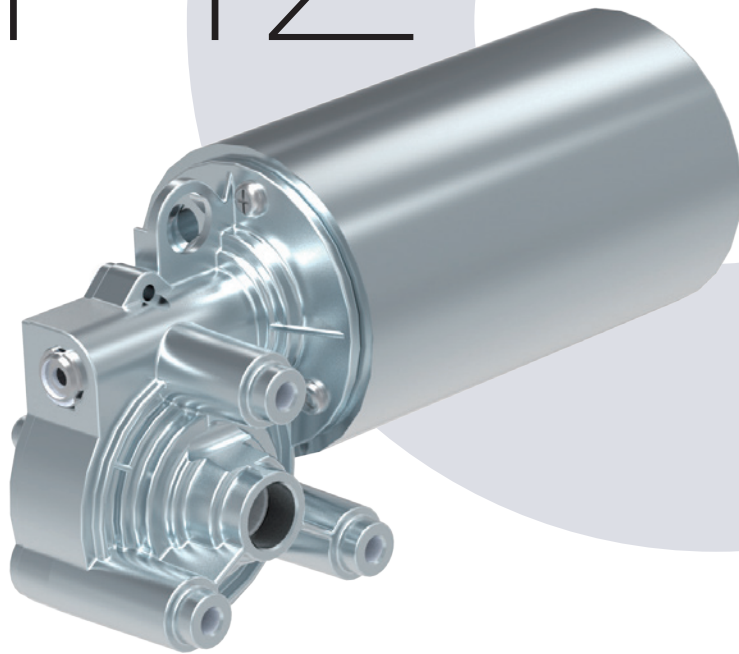
General Features

Max. rated torque	7.4Nm
Max. speed at max. load	72RPM ($\pm 5\%$)
Max. speed at no load	262.5RPM ($\pm 5\%$)
Certificate	UL962
Output signals	Hall sensor*2

Voltage	12/24V DC or 24V DC (PTC)
Operational temperature range at full performance	+5°C~+45°C
Hexagon hole for the shaft by 6 or 9.1mm diameter	
Low noise	

TGM2

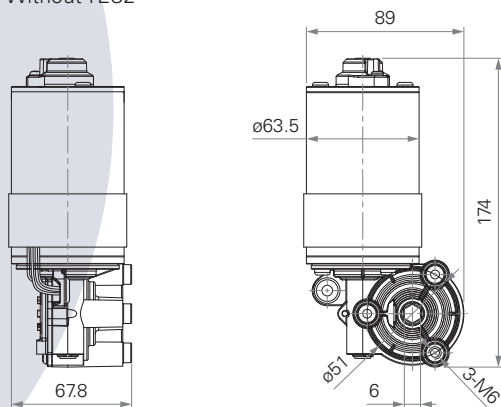
series



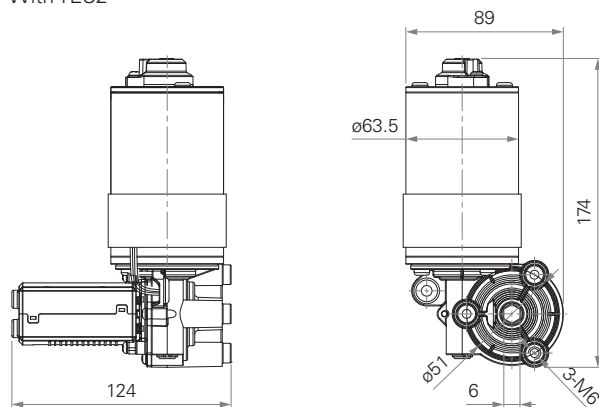
Standard Dimension

(mm)

Without TES2



With TES2



General Features

Max. rated torque	18.3Nm
Max. speed at max. load	56~64RPM
Max. speed at no load	73~88RPM
Output signals	Hall sensor*2

Options

Voltage

Low noise

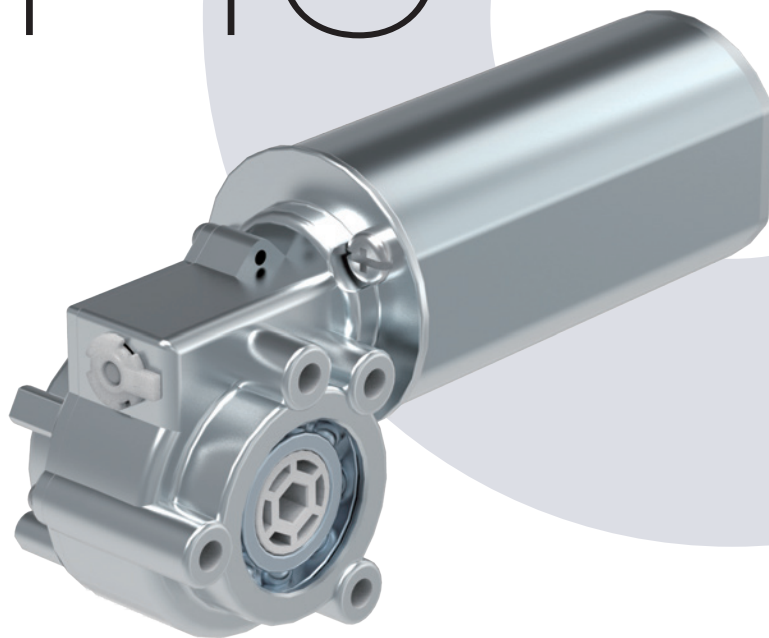
Motor brake

12V DC

24V DC (thermal protector)

TGM3

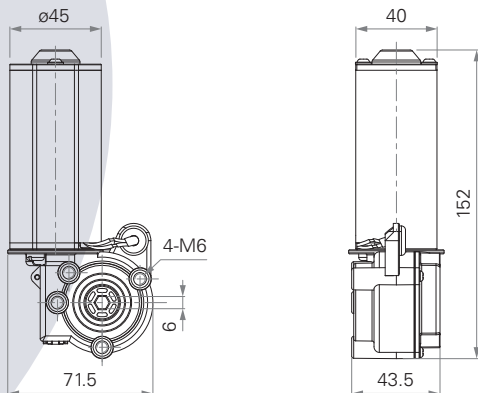
series



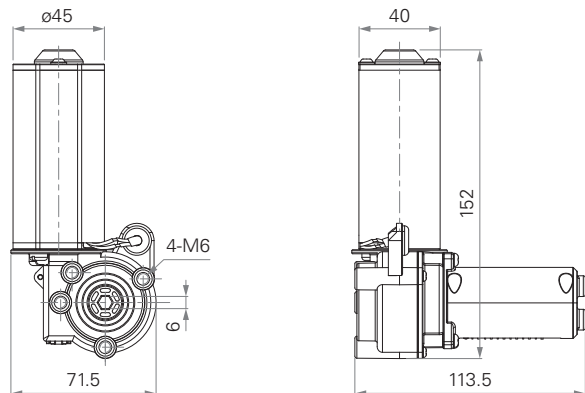
Standard Dimension

(mm)

Without TES2



With TES2



General Features

Max. rated torque	4.6Nm
Max. speed at max. load	61RPM (±5%)
Max. speed at no load	259RPM (±5%)
Output signals	Hall sensor*2

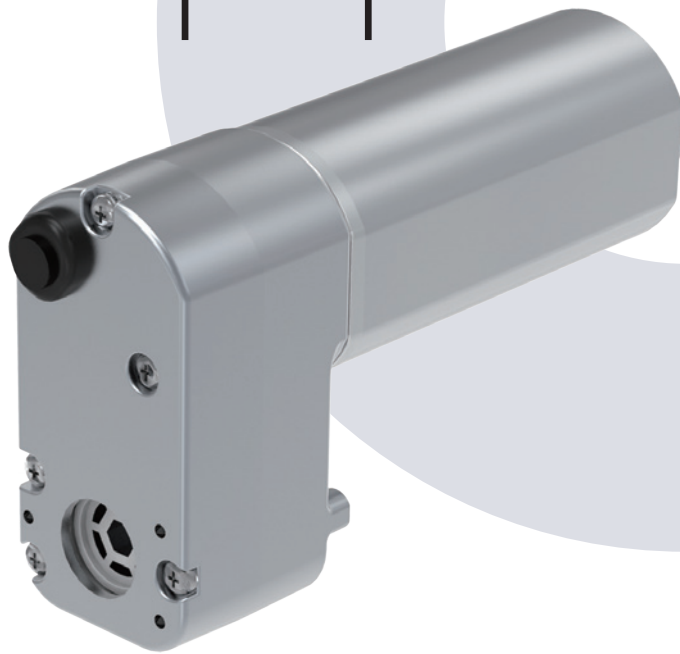
Voltage	24V DC
Operational temperature range at full performance	+5°C~+45°C

Hexagon hole for the shaft by 6mm diameter

Low noise

TGM4

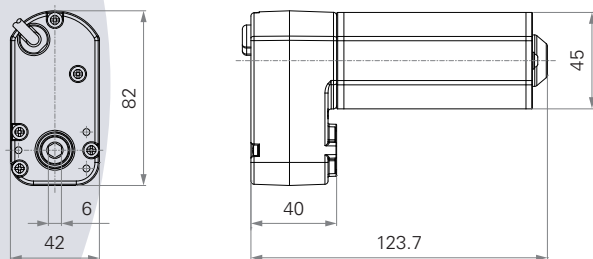
series



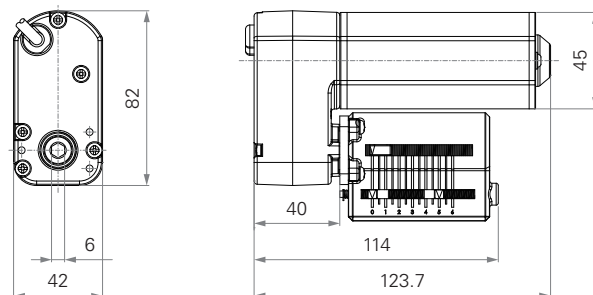
Standard Dimension

(mm)

Without TES2



With TES2



General Features

Max. rated torque	4Nm
Max. speed at max. load	98RPM (±5%)
Max. speed at no load	219RPM (±5%)
Output signals	Hall sensor*2
Options	Motor brake

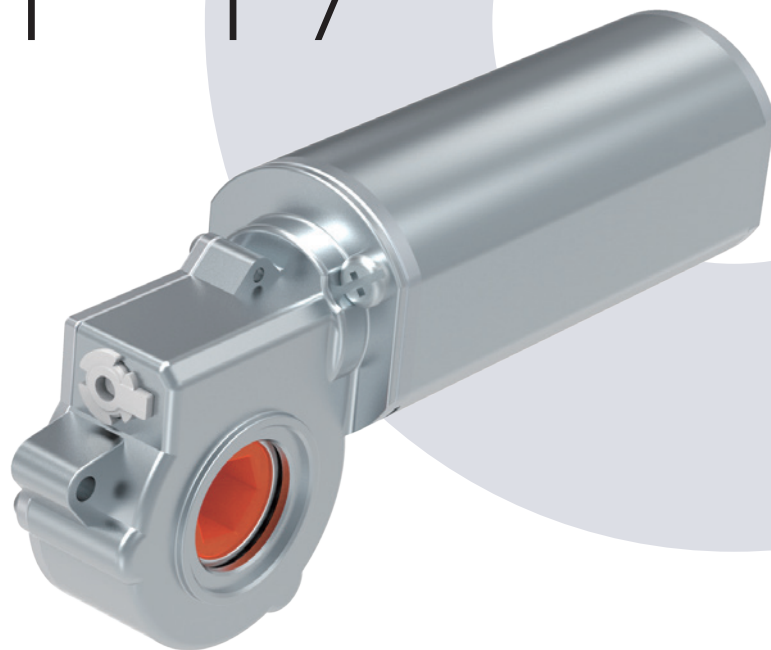
Voltage	24V DC
Operational temperature range at full performance	+5°C~+45°C

Hexagon hole for the shaft by 9mm diameter

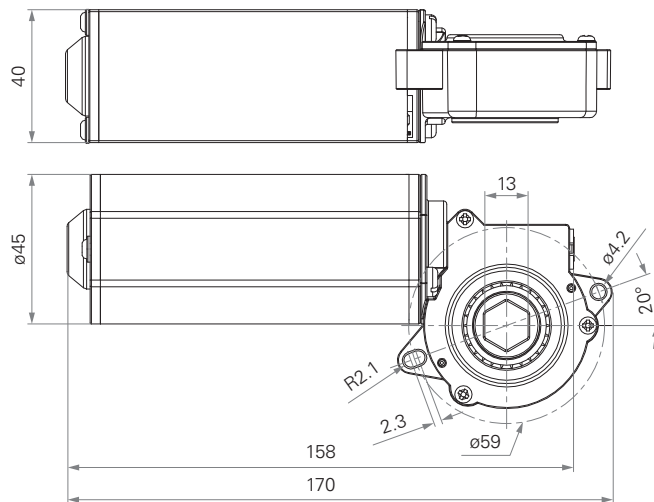
Low noise

TGM7

series



(mm)

**Max. rated torque**

7.2Nm

Max. speed at max. load

78RPM ($\pm 5\%$)

Max. speed at no load

355RPM ($\pm 5\%$)

Output signals

Hall sensor*2

Voltage

24V DC

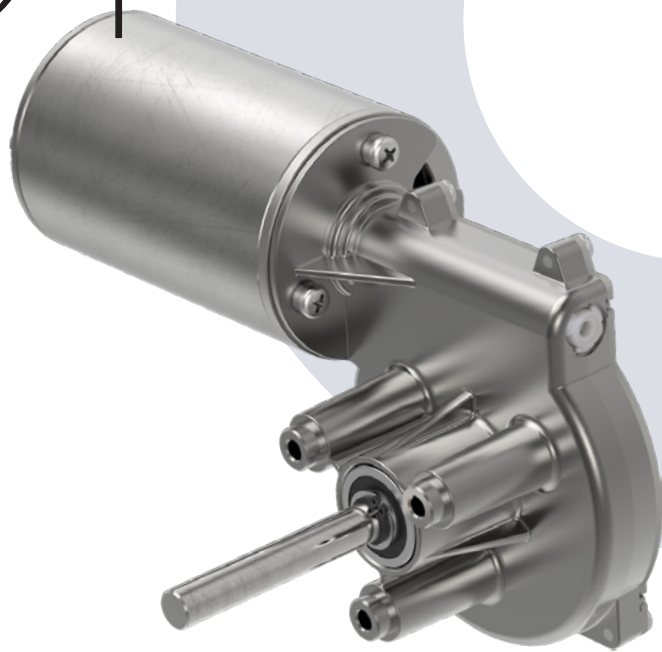
**Operational temperature range
at full performance**

+5°C~+45°C

Low noise

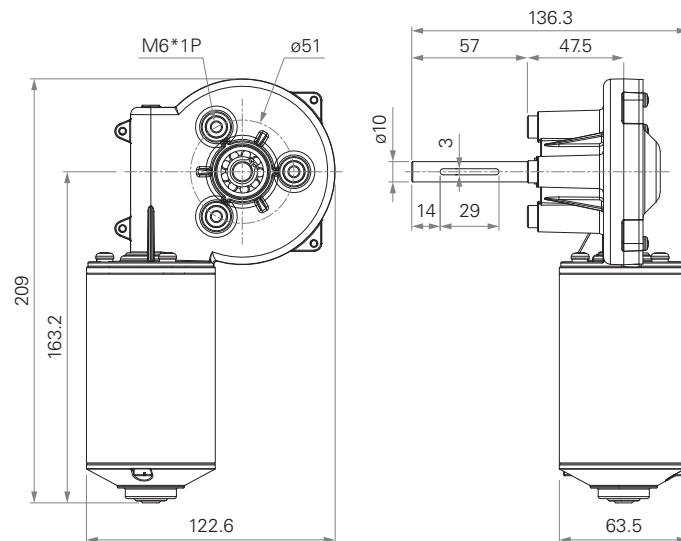
TIG1

series



Standard Dimension

(mm)



General Features

Max. rated torque	60Nm
Max. speed at max. load	24RPM
Max. speed at no load	40RPM
Output signals	Hall sensor*1 Hall sensor*2

Voltage	12/24V DC (thermal cutoff)
Operational temperature range at full performance	+5°C~+45°C

Control Boxes



TID1 Series

- Number of motors: 1~2
- Number of controls: 1
- Max. output: 12V DC, 20A (per motor); 24V DC, 10A (per motor)
- IP rating: IP69K (static)





Power Supplies



TIP1 Series

- Transformer type: SMPS
- Input voltage: 90~305V AC
- Max. output: 24V DC, 5A
- IP rating: IP67



TIP2 Series

- Transformer type: SMPS
- Input voltage: 90~305V AC
- Max. output: 24V DC, 13.34A
- IP rating: IP67



TIP3 Series

- Transformer type: SMPS
- Input voltage: 90~305V AC
- Max. output: 24V DC, 20A
- IP rating: IP67



TIP4 Series

- Transformer type: SMPS
- Input voltage: 90~305V AC
- Max. output: 24V DC, 25A
- IP rating: IP67



TIP5 Series

- Transformer type: Linear
- Input voltage: 115 or 230V AC
- Max. output: 24V DC, 15A
- IP rating: IP69K



Accessories



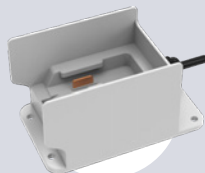
TAD1
Adapter Dongle



TSB1
Switch Box for
Industrial Applications



TWD2
Bluetooth Dongle



TSB2
Battery Holder



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TiMOTION uses FSC certified paper in order to help care for our forests, as well as the people and wildlife who call them home.



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