

ELECTRIC CYLINDER SERIES ELEKTRO MINI DC

The ELEKTRO MINI DC cylinder features space-saving and lightweight design, as well as easy and immediate operation.

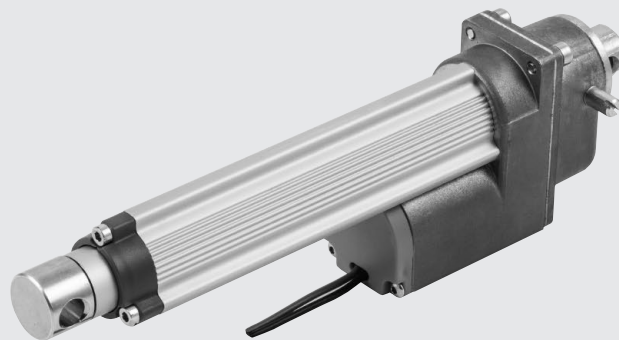
The piston rod is driven by a trapezoidal screw with a self-lubricating techno-polymer nut. The construction characteristics make the movement of the piston rod irreversible, thereby preventing it from rotating.

The piston comes with a magnet that can be detected by dedicated sensors to be fitted to the liner edging.

The system's 24VDC driving motor comes with a resettable overload protection fuse; a version with an encoder is also available to locate the piston rod position.

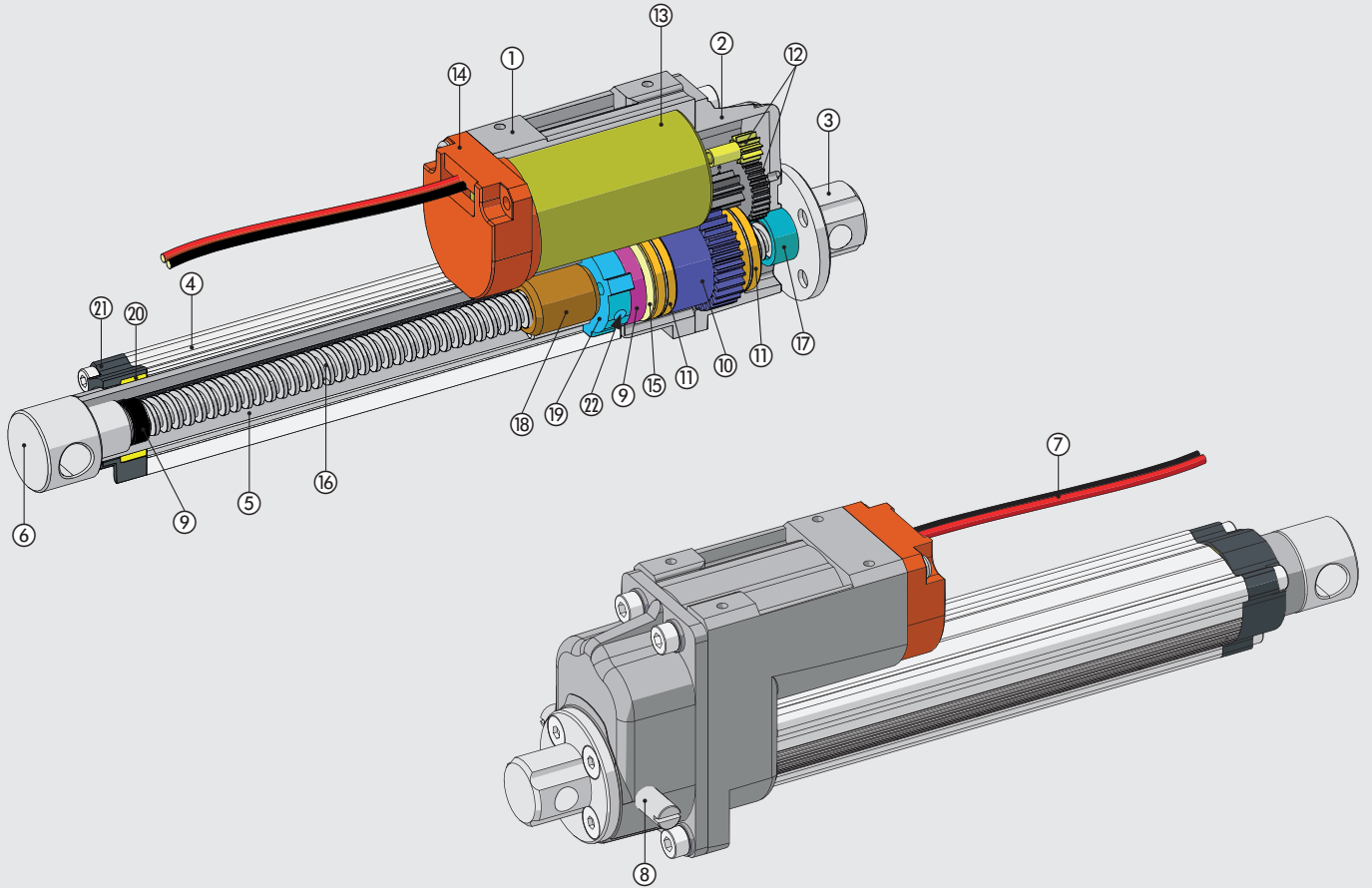
The actuator is in a gear-driven version, with different gear ratios (1/12, 1/27, 1/48 and 1/108) and IP40 degree of protection.

Solutions with a trapezoidal screw are generally suitable for applications where the number of operations in a unit of time is relatively low (due to overheating of the screw/lead screw-nut assembly), the required precision is not particularly high, wear over time is minimized and high strengths and high speeds are not required all at the same time.



TECHNICAL DATA		Ø 25 pitch 3					
Temperature range	°C	from -20 to +60					
Degree of protection		IP40					
Gearing ratio		1/12 - 1/27 - 1/48 - 1/108					
Standard strokes (special execution on request)	mm	50	100	150	200	250	300
Weight	g	650	700	750	800	850	900
Piston rod diameter	mm	19					
Maximum thrust	N	See graphs on page A5.72					
Maximum speed	mm/s	See graphs on page A5.72					
Maximum load in vertical position and motor powered off (reversibility)	N	Irreversible (max recommended 2300)					
Work cycle at 25°C (duty cycle)	%	20					
Overall radial oscillation of the piston rod (without load) for 100 mm of stroke	mm	0.4					
Versions		Geared					
Uncontrolled impact at the end of stroke		NOT ALLOWED (it provides an extra-stroke minimum 20 mm)					
Sensor magnet		YES (see specifications and assembly on page A5.74)					
Work position		Any					
Motor		Direct current DC					
Supply voltage	VDC	24					
Input power with MAX torque	W	72					
Input current with MAX torque	A	3 (24VDC)					
Direction of rotation		According to polarity (concordant 1/12 - 1/48 - 1/108 discordant for 1/27)					
Encoder (optional)		Effetto Hall, two-channel, two motor pulses/revolution per channel, NPN					
Motor protection		Overload and short-circuiting protection using resettable fuse					
Power cable		Standard free wire length 230 mm					

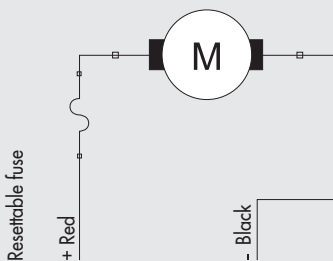
COMPONENTS



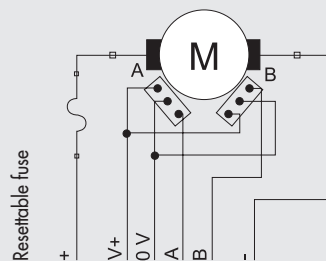
- ① TRANSMISSION PLATE: die-cast zamak
- ② COVER: die-cast zamak
- ③ REAR FLANGE: zinc-plated steel
- ④ BARREL: anodized aluminium
- ⑤ PISTON ROD: anodized aluminium
- ⑥ NIPPLE: zinc-plated steel
- ⑦ POWER CABLE (+ ENCODER)
- ⑧ PIN: zinc-plated steel
- ⑨ BUFFER: polyurethane
- ⑩ LEAD SCREW NUT ASSEMBLY
- ⑪ THRUST BEARING RING: technopolymer - steel
- ⑫ GEAR: sintered steel
- ⑬ MOTOR
- ⑭ MOTOR COVER: technopolymer
- ⑮ BELLEVILLE WASHER: steel
- ⑯ SCREW: stainless steel
- ⑰ BUSHING: sintered steel
- ⑱ BALL SCREW: technopolymer
- ⑲ NON-ROTATING: technopolymer
- ⑳ FRONT BUSHING: technopolymer
- ㉑ FRONT CYLINDER HEAD: technopolymer
- ㉒ MAGNET: neodymium

CYLINDER CONNECTION AND WIRING DIAGRAM

WITHOUT ENCODER

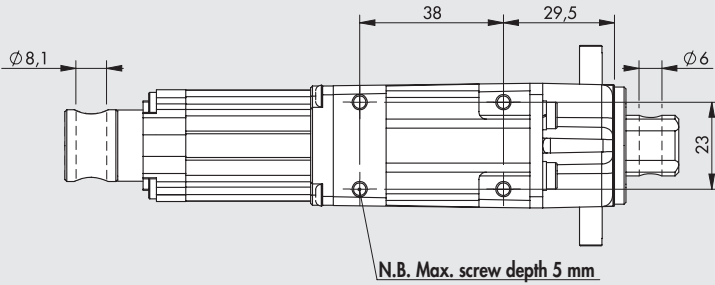


WITH ENCODER



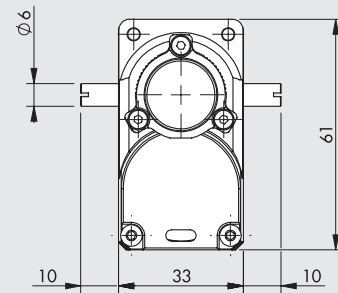
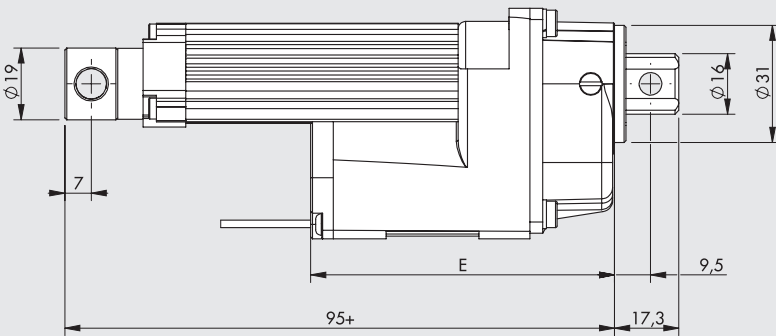
Function	Corresponding wire colour
Motor power supply +	Red
Motor power supply -	Black
Encoder V+ 5-24 VDC supply	Brown
Encoder 0 V supply	Yellow
Encoder channel A (NPN)	Violet
Encoder channel B (NPN)	Blue

DIMENSIONS



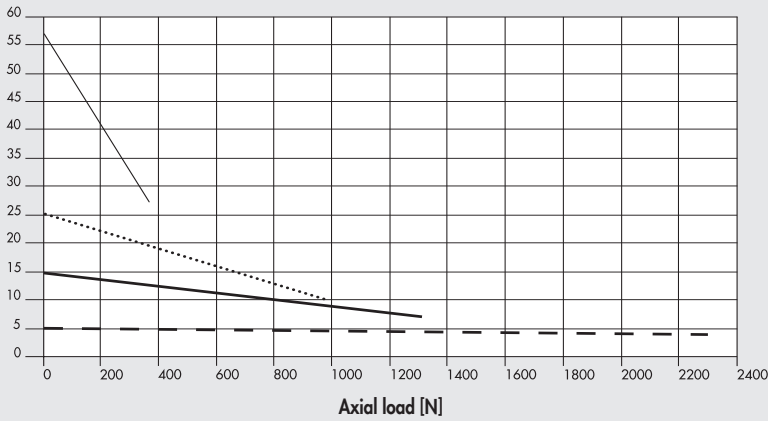
+ = ADD THE STROKE

Version	Code	E
Motor 24VDC	372025__36_5	80.5
Motor 24VDC + Encoder	372025__38_5	85



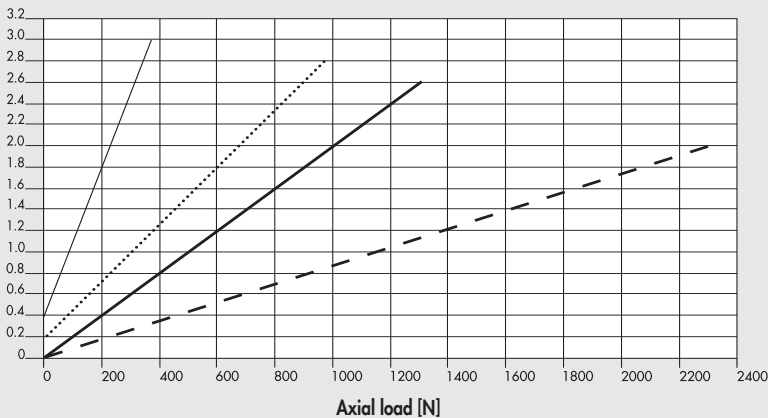
AXIAL LOAD CURVES AS A FUNCTION OF SPEED

Speed [mm/s]



- _____ 372025__363_25 (1/12 gear ratio)
- 372025__363_35 (1/27 gear ratio)
- _____ 372025__363_45 (1/48 gear ratio)
- - - - 372025__363_55 (1/108 gear ratio)

Current [A]



- _____ 372025__363_25 (1/12 gear ratio)
- 372025__363_35 (1/27 gear ratio)
- _____ 372025__363_45 (1/48 gear ratio)
- - - - 372025__363_55 (1/108 gear ratio)

ACTUATOR-DRIVE COUPLING

ACTUATOR		DRIVE	
Code	Description	Code	Description
3720250_363_5	ELECTRIC CYLINDER SERIES ELEKTRO MINI DC	37D3112000	E.DIRECT DRIVE FOR DIRECT CURRENT MOTORS

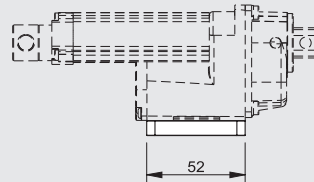
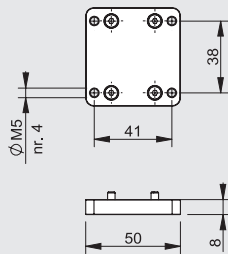
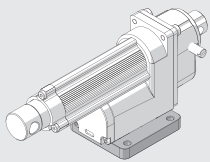
N.B.: The Mini DC cylinder needs no drive for "basic" operation.

KEY TO CODES

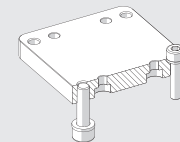
CYL	37	2	0	25	0050	3	6	3	6	2	5
	TYPE			BORE	STROKE	SCREW PITCH	VERSION	DRIVE	SUPPLY VOLTAGE	GEAR RATIO	CYLINDER END TYPES
	37 Electric actuators	2 Cylinder Elektro DC	0 STD	25	50 100 150 200 250 300	3 Screw pitch 3	6 Geared with non-rotating IP40	3 Motor direct current	6 24VDC + fuse 8 24VDC + Encoder + fuse	2 1/12 3 1/27 4 1/48 5 1/108	5 Nose piece drilled and rear hinge

ACCESSORIES: FIXINGS

FOOT



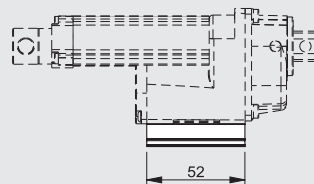
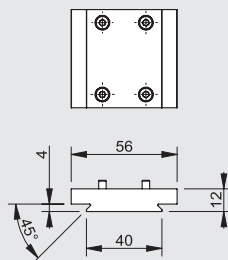
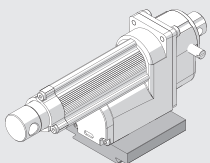
Fixing from below with M5 screw, or from above with through M4 screw.



Code	Weight [g]
095D25E042	41

Note: 1 piece per pack complete with 4 screws

V-LOCK FOOT

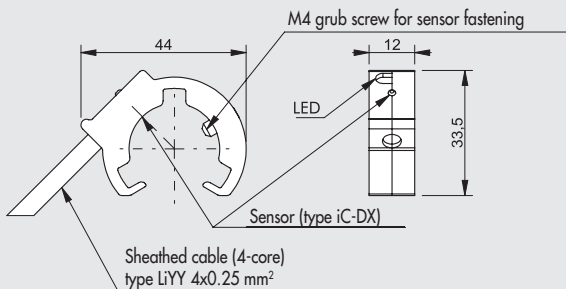


Code	Weight [g]
095D25E042K	90

Note: 1 piece per pack complete with 4 screws

ACCESSORIES: MAGNETIC SENSORS

OVERALL DIMENSIONS AND ORDERING CODES



Code	Description
W095839	PNP/NPN switching sensor, 4 wires, cable 1.8 m

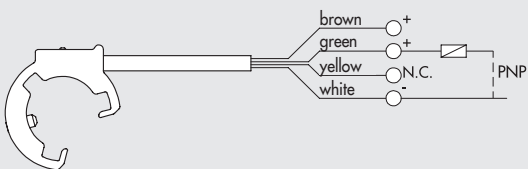
Note: Individually packed

TECHNICAL DATA

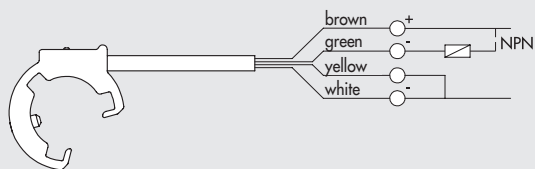
Type of contact		HALL EFFECT
Switch		N.O.
Supply voltage (U _b)	V	PNP / NPN
Output current	mA	10 to 24 DC
Connecting cable	m	≤ 100
Temperature range	°C	1.8
Degree of protection		-10 to +70
		IP40

WIRING DIAGRAM

Version PNP

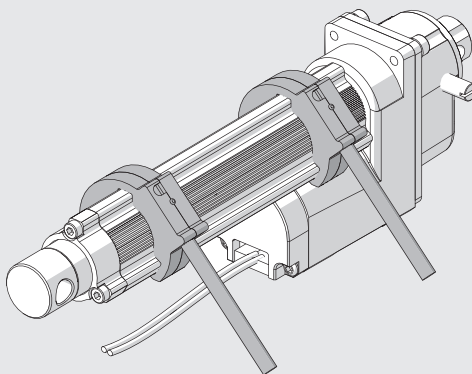


Version NPN



INSTALLATION

The figure shows the correct sensor mounting alignment, as the magnet is only present on one side of the cylinder.



NOTES