

Series 6E

Electromechanical cylinder ISO 15552

Size 32, 40, 50 and 63



The **Series 6E** cylinders are mechanical linear actuators with rod, in which the rotary movement, generated by a motor, is converted into a linear movement by means of a recirculating ball screw. Available in 4 sizes: 32, 40, 50 and 63, the **Series 6E** has dimensions based on the ISO 15552 standard and it is therefore possible to use the mounting accessories of the pneumatic cylinders. The cylinders are equipped with

a magnet that makes it possible to use external magnetic proximity switches (Series CSH), allowing operations like homing or extra-stroke readings to be performed. The **Series 6E** is supplied with specific interface kits, which make it possible to connect the motor, both in line and parallel. High precision and easy mounting make the **Series 6E** the ideal solution for different applications, especially for multi-position systems.

- > CONFORM TO ISO 15552 STANDARD
- > MULTI-POSITION SYSTEM WITH TRANSMISSION OF THE MOVEMENT BY MEANS OF A RECIRCULATING BALL SCREW
- > POSSIBILITY TO CONNECT THE MOTOR IN LINE OR PARALLEL
- > LARGE RANGE OF MOTOR INTERFACES
- > PERMANENT PRE-LUBRICATION (MAINTENANCE FREE)
- > HIGH POSITIONING REPEATABILITY
- > REDUCED AXIAL BACKLASH
- > POSSIBILITY TO USE MAGNETIC SENSORS
- > NO STICK-SLIP EFFECTS
- > INTEGRATED ANTI-ROTATION SYSTEM OF THE ROD
- > IP 40
- > LARGE RANGE OF FIXING ACCESSORIES



DETAIL OF THE REAR OF THE CYLINDER

General data

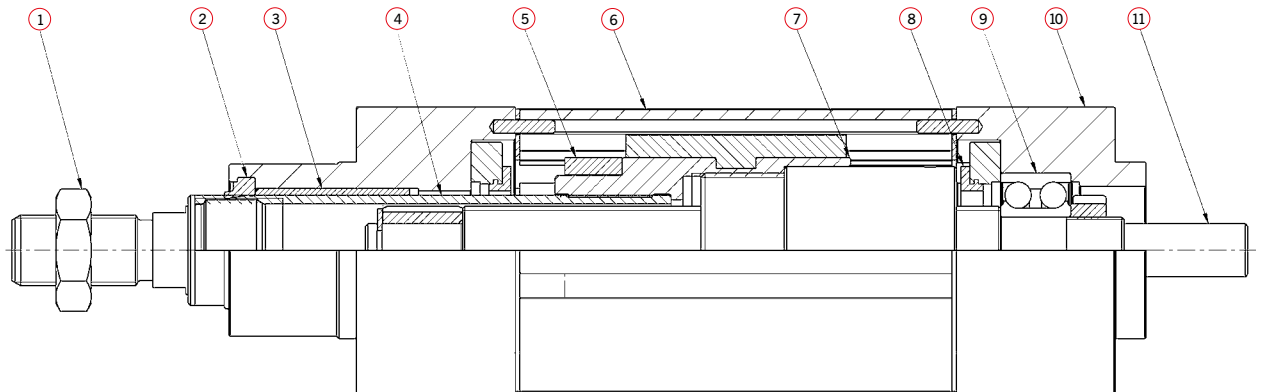
Type of construction	electromechanical cylinder with recirculating ball screw
Design	Profile with thread rolling screws according to ISO 15552
Operation	multi-position actuator with high precision linear driving
Sizes	32, 40, 50, 63
Strokes (min - max)	100 ÷ 1200 mm
Anti-rotation function	with anti-friction pads in technopolymer
Mounting	front / rear flange, with feet, with front / rear / swivel / intermediate trunnion
Mounting motor	in line and parallel
Operating temperature	0°C ÷ 50°C
Storage temperature	-20°C ÷ 80°C
Protection class	IP 40
Lubrication	Not necessary. A prelubrication is performed on the cylinder.
Max. Reversing backlash	0.02 mm
Repeatability	+/- 0.02 mm
Duty cycle	100%
Max rotation play	+/- 0.4°
Use with external sensors	slots on three sides for sensor model CSH

Mechanical features

SIZE	UN.	32		40			50			63		
RDS screw diameter	mm	12		16			20			25		
RDS screw pitch	mm	5	10	5	10	16	5	10	20	5	10	25
Dynamic load coefficient	N	6600	4400	12000	8500	9150	13700	21000	14600	17500	21000	20000
Static Load coefficient	N	12000	7700	25000	12500	18750	29900	51000	35000	42400	54000	48000
Max applicable torque	Nm	5.6		10			17.3			33.9		
Max linear speed	m/s	0.56	1.11	0.42	0.83	1.33	0.33	0.67	1.33	0.27	0.53	1.33
Max rotational speed	rpm	6670		5000			4000			3200		
Max acceleration	m/s ²	25		25			25			25		

Standard strokes

SIZE	100	200	300	400	500	600	700	800	900	1000	1100	1200
32	X	X	X	X	X							
40	X	X	X	X	X	X	X					
50	X	X	X	X	X	X		X		X		
63	X	X	X	X	X			X		X		X



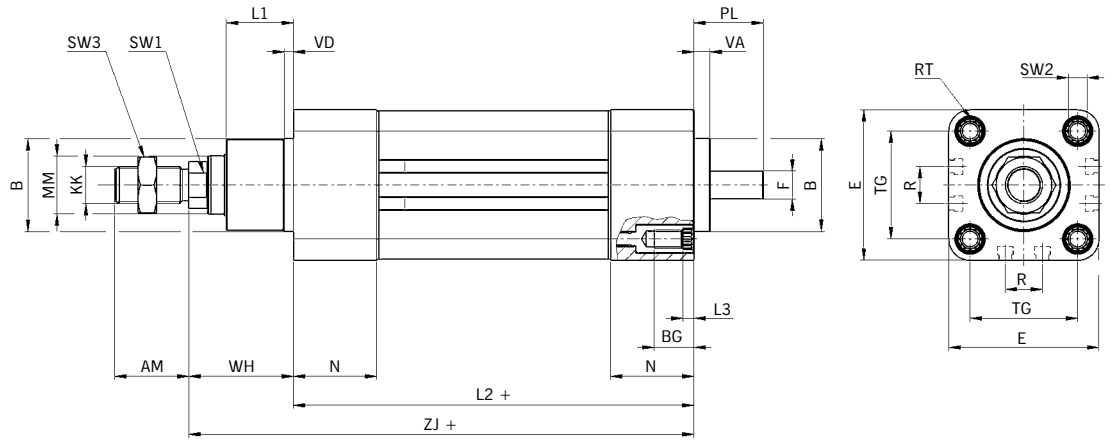
Materials

PARTS	MATERIAL
1 Rod nut	Galvanized steel
2 Rod seal	Polyurethane
3 Bushing	Technopolymer
4 Rod	Stainless steel
5 Magnet	Plastoferrite
6 Profile	Anodized aluminum
7 Guiding element RDS screw	Aluminum
8 Seal	NBR
9 Bearing	Steel
10 Rear end cap	Anodized aluminum
11 Ball screw	Steel

Coding example

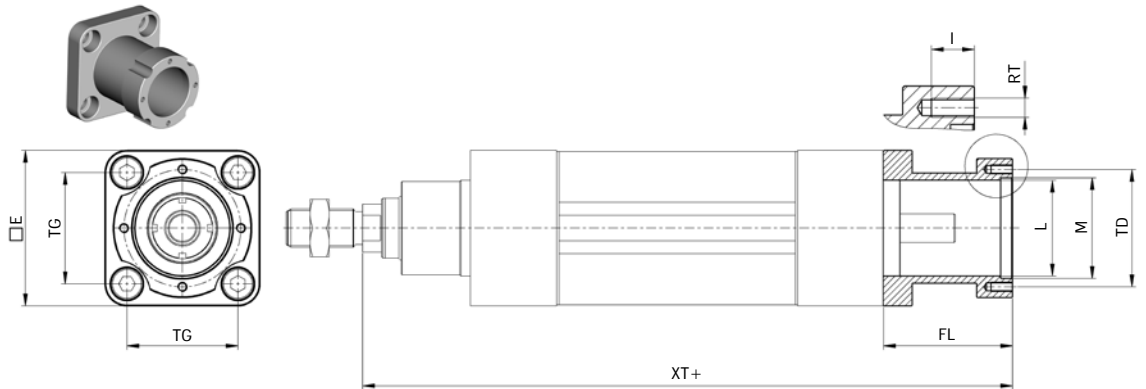
6E	032	BS	0200	P05	A
6E	SERIES				
032	FRAME SIZE: 032 = 32 mm 040 = 40 mm 050 = 50 mm 063 = 63 mm				
BS	VERSION: BS = Ball Screw				
0200	STROKE: 100 ÷ 1200 mm				
P05	SPINDLE PITCH: P05 = 5 mm P10 = 10 mm P16 = 16 mm (for frame size 40 mm only) P20 = 20 mm (for frame size 50 mm only) P25 = 25 mm (for frame size 63 mm only)				
A	CONSTRUCTION: A = standard with rod nut F = Centre trunnion				
	= standard (_ _ _) = extended piston rod _ _ _ mm				

Cylinders dimensions



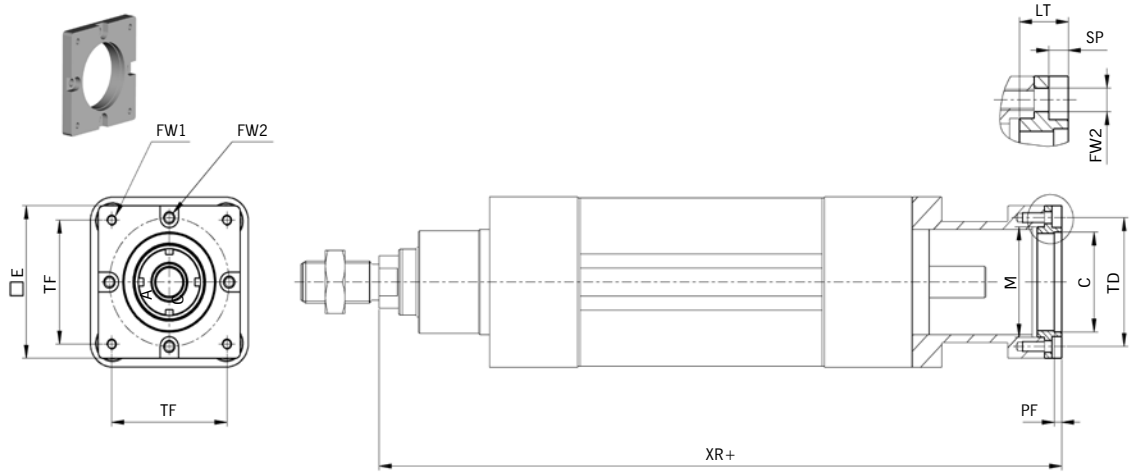
MOD.	Ø	AM	B	BG	E	F	KK	L1	L2+	L3	MM	N	R	RT	PL	SW1	SW2	SW3	TG	VA	VD	WH	ZJ+
6E032...	32	22	30	16	46.5	8	M10x1.25	20	125	5	18	26	13	M6	21	10	6	17	32.5	6	4	30	155
6E040...	40	24	35	16	55.4	10	M12x1.25	22	142	5	22	27	13.5	M6	24	13	6	19	38	6	4	33	175
6E050...	50	32	40	17	64.9	12	M16x1.5	26	173	5	25	36	16	M8	30	17	8	24	46.5	7	4	38	211
6E063...	63	32	45	17	75	15	M16x1.5	29	201	5	30	36	28	M8	37.5	17	8	24	56.5	7	4	41.5	242.5

Housing dimensions



MOD.	Ø	HOUSING	E	FL	L	M [H7]	TD	TG	I	RT	XT+
6E032...	32	CM32	46.5	46	26	24	30.5	32.5	9	M3	201
6E040...	40	CM40S	55.4	49	27.8	28	32.5	38	9	M3	224
6E040...	40	CM40	55.4	57	36	33	40.5	38	9	M3	232
6E050...	50	CM50	64.9	54	40	42	49	46.5	9	M4	265
6E063...	63	CM63S	75	64	36	33	43.5	56.5	9	M4	306.5
6E063...	63	CM63	75	76.5	47	43	54.5	56.5	9	M4	319

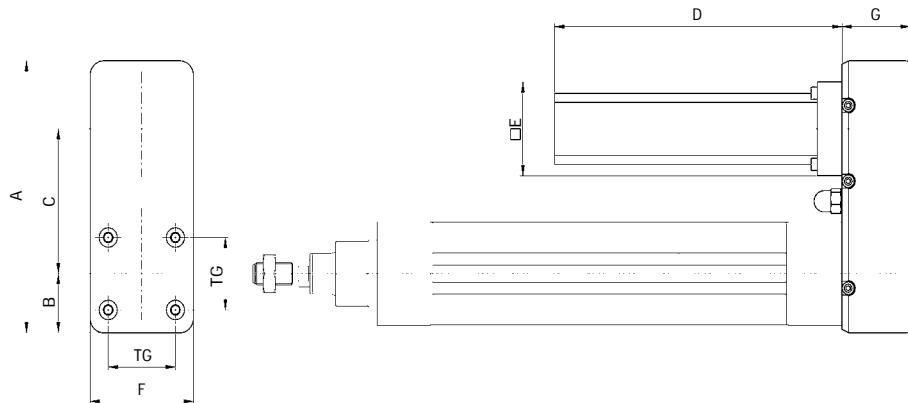
Flange dimensions



The supply includes:
 N°1 motor flange
 N°1 flexible star coupling
 * size referred to the dimensions of the flexible coupling

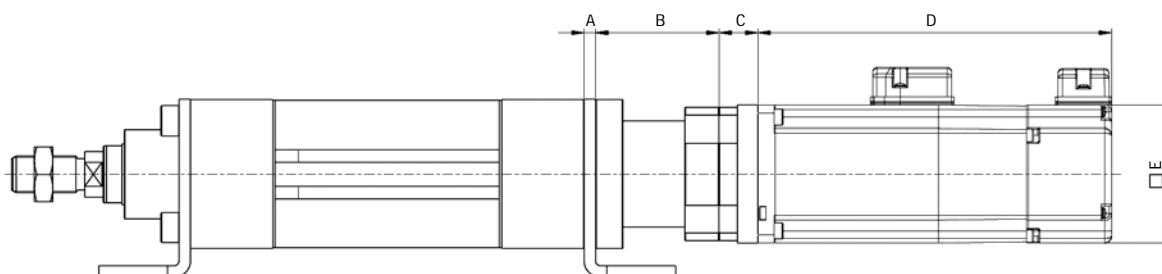
MOD.	HOUSING	MOTOR FLANGE	MOTOR TYPE	C [H7]	E	FW1	FW2	LT	M	PF	SP	TD	TF	XR	D1	D2	D3	P
6E032...	CM32	MF0014	Stepper NEMA 14	22	35.3	Ø3.5	Ø3.5	7	24	3	3.5	30.5	26	206	8	5	20	30
6E032...	CM32	MF0017	Stepper NEMA 17	22	38.3	Ø3.5	Ø3.5	7	24	3.5	3.5	30.5	31	206	8	5	20	30
6E032...	CM32	MF0100	Brushless 100 W	30	42	M3	Ø3.5	10	24	6	3	30.5	31.82	209	8	8	20	30
6E040...	CM40S	MF0017	Stepper NEMA 17	22	38.3	Ø3.5	Ø3.5	7	28	3	3	30.5	31	229	10	5	25	31.25
6E040...	CM40S	MF0023	Stepper NEMA 23	38	52.4	M4	Ø3.5	9	28	5	5	32.5	47.14	231	10	6.35	25	31.25
6E040...	CM40	MF0400	Brushless 400 W	50	60	M5	Ø3.5	10	33	3.5	3.5	40.5	49.498	240	10	14	30	35.3
6E050...	CM50	MF0023	Stepper NEMA 23	38	64.9	M4	Ø4.5	10	42	3	4	49	47.14	272	12	6.35	30	35.3
6E050...	CM50	MF0400	Brushless 400 W	50	60	M5	Ø4.5	21	42	6	8	49	49.498	282	12	15	40	55
6E063...	CM63S	MF0024	Stepper NEMA 24	38.1	60.5	M4	Ø4.5	9	33	5	5	43.5	47.14	313.5	15	8	30	35.3
6E063...	CM63	MF0750	Brushless 750 W	70	80	M6	Ø4.5	14	43	6	6	54.5	63.64	331	15	19	40	55

Parallel kit dimensions



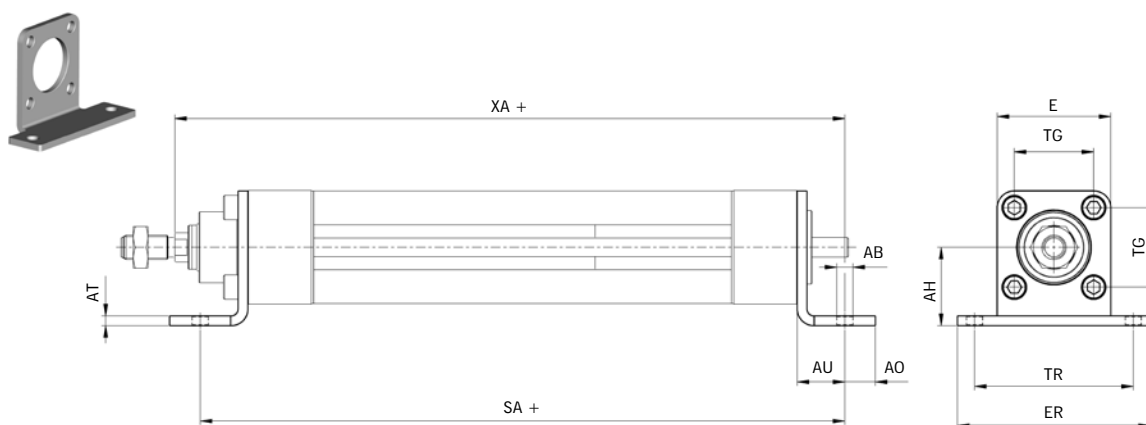
MOD.	Ø	PARALLEL KIT	MOTOR TYPE	A	B	C	D	E	F	G	TG	I
6E032...	32	RP32	Brushless 100 W	122	26.5	65	173	60	50	33	32.5	1
6E040...	40	RP40	Brushless 400 W	154	30	90	159	60	67	37	38	1
6E050...	50	RP50	Brushless 400 W	174	37	100	159	60	77	45	46.5	1
6E063...	63	RP63	Brushless 750 W	192	41	107	176	80	87	50	56.5	1

Motor in line dimensions



MOD.	MOTOR TYPE	A	B	C	D		E
					WITH BRAKE	WITHOUT BRAKE	
6E032...	Stepper NEMA 14	4	46	5		40	35
6E032...	Stepper NEMA 17	4	46	5		47	42
6E032...	Brushless 100 W	4	46	8	139	173	60
6E040...	Stepper NEMA 17	4	49	5		40	42
6E040...	Stepper NEMA 23	4	49	5		76	56.4
6E040...	Brushless 400 W	4	57	8	121.5	159	60
6E050...	Stepper NEMA 23	5	54	7		76	56.4
6E050...	Brushless 400 W	5	54	17	121.5	159	60
6E063...	Stepper NEMA 24	5	64	7		85	60.5
6E063...	Brushless 750 W	5	76.5	12	140	176	80

Foot dimensions



MOD.	∅	AB	AH	AO	AT	AU	E	ER	SA +	TG	TR	XA +
6E032...	32	6.6	32	12.5	4	19.5	46.5	79	164	32.5	65	174.5
6E040...	40	6.6	36	12.5	4	19.5	55.4	90	181	38	75	194.5
6E050...	50	9	45	15	5	25	64.9	110	223	46.5	90	236
6E063...	63	9	50	15	5	25	75	120	251	56.5	100	267.5