

PNEUMATIC ACTUATORS

Static and Dynamic Tests



LTM-AA PNEUMATIC ACTUATOR

The pneumatic actuators of the LTM-AA series are built according to the ISO 15552 standard, with IP67 protection rating and are provided with an integrated position transducer with magnetostrictive technology. With this sensor it is possible to continuously detect the position of the piston during the movements with extreme accuracy. The actuator is provided with an M12 4-pole connector which returns the signal in voltage (0-10V).



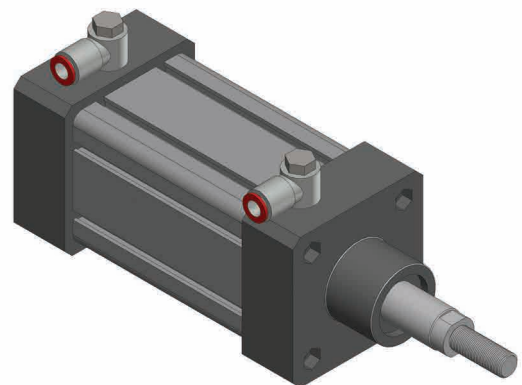
CUSTOMIZABLE

Al fine di migliorare le prestazioni tecniche del prodotto, la società si riserva di apportare variazioni senza preavviso.
In order to improve the technical performances of the product, the company reserves the right to make any change without notice.

Actuator technical data

Technical data	Bore [mm]				
	50	63	80	100	125
Static force* [kN]	1.2	1.8	3	4.5	7.2
Dynamic force* [kN]	1	1.5	2.5	4	6
Operating pressure	6 bar				
Sensor	Internal integrated contactless				
Air In-Out	Banjo Coupling, Ext.D. 10mm, Int.D. 8mm				

(*)The force values were measured with a 5-bar pressure



Technical Data	LiTeM Pneumatic actuators										
Bore [mm]	50-63-80-100-125										
Nominal Stroke* [mm]	50	100	150	200	250	300	500	1000	1500	2000	
Independent linearity [+/- mm]	0.03 % F.S. (Max 0.05mm)										
Repeatability [mm]	0.001% F.S.										
Hysteresis [mm]	< 0.01										
Maximum error** [mm]	0.03		0.05					0.06			
Sampling time	1 ms							1.5 ms			
Resolution	infinite (limited by noise)										
Power supply voltage	18 ... 30 Vdc										
Analogical output	0.1 / 9.9 Vdc										
Fluid type	Filtered air 40 µm										
Fluid - room temperature	-10 / + 50°C										
Operating pressure	1 / 10 bar (0.1 - 1 Mpa)										
Maximum speed	1 m/s										
Electrical protection	IP 67										
Protection against polarity inversion	Yes										
Protection against power over-voltage	Yes										

(*) Actuators with different and customised strokes are also available.

(**) The measurement error only refers to the actuator with integrated transducer; for a correct assessment of the error, the whole measurement chain needs to be measured.

Actuator Kit Coding

HOW TO ORDER _ Example:
LTM-AA-80-100 Actuator
Actuator bore 80 stroke 100mm

LTM-AA

A

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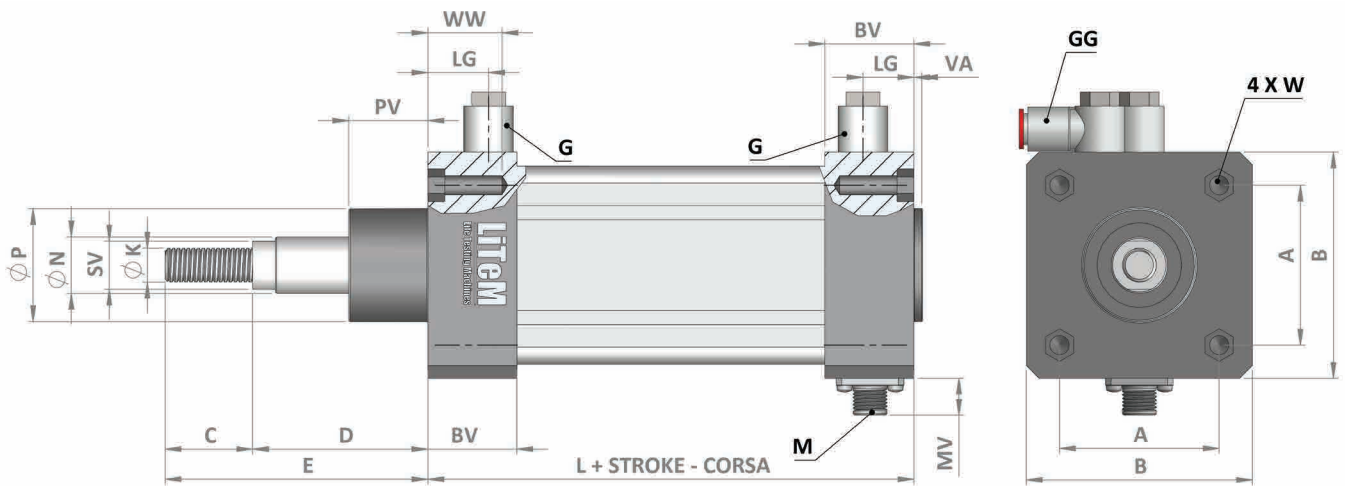
S

Bore

50 | 63 | 80 | 100 | 125

Stroke S [mm]

50 | 100 | 150 | 200 | 250 | 300 | 500 | 1000 | 1500 | 2000

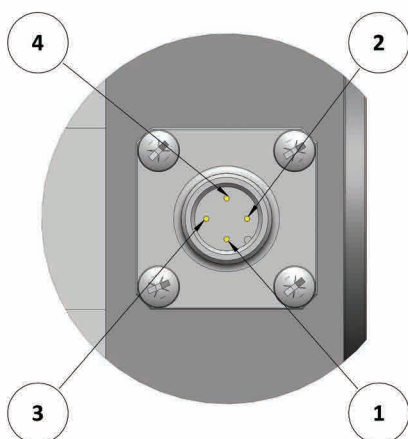


The cylinder is provided with a rod nut

SPECIFICATIONS AND DIMENSIONS OF ACTUATORS

Bore	A	B	C	D	E	G	L	M	N	P	K	W	SV	PV	LG	WW	BV	VA	MV
50	46.5	65	32	37	69	G1/4	122	M12	20	40	M12	M8	17	28	19	16	31.5	4	12
63	56.5	80	32	37	69	G3/8	121		20	45	M12	M8	17	28	21	16	35	4	
80	72	95	40	46	86	G3/8	128		25	45	M12	M10	21	34	23	16	36	4	
100	89	115	40	51	91	G1/2	138		25	55	M20X1.5	M10	21	37	22	16	41	4	
125	110	140	54	65	119	G1/2	160		32	60	M27X2	M12	27	50	30	20	45	5	

Electrical connections

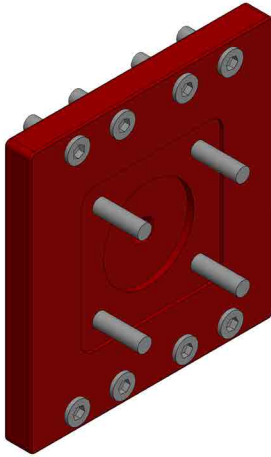


Pin	Description
1	Transducer power supply (+)
2	Analogue signal output (0.1-9.9 V DC)
3	Transducer power supply negative pole (-)
4	Negative analogue signal output (-)

The actuator is provided with a shielded, 5-metre PUR cable and M12 connector.

Accessories

Flat actuator plate



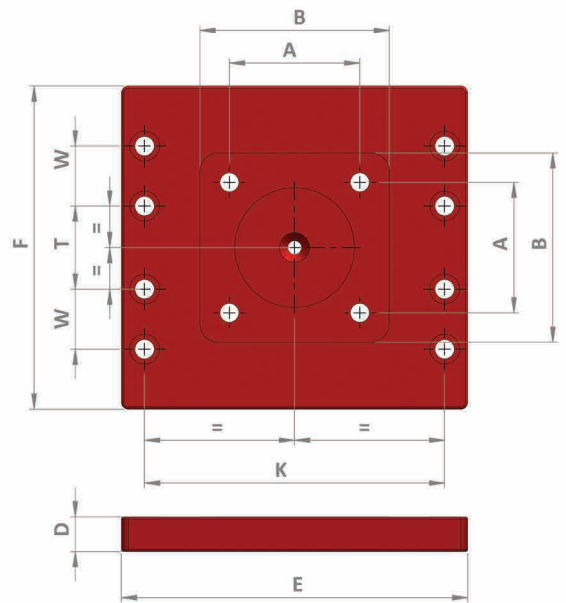
Code	Description
A-PP-50	Rear actuator mounting plate A50
A-PP-63	Rear actuator mounting plate A63
A-PP-80	Rear actuator mounting plate A80
A-PP-100	Rear actuator mounting plate A100
A-PP-125	Rear actuator mounting plate A125

The rear flat plate is supplied complete with:

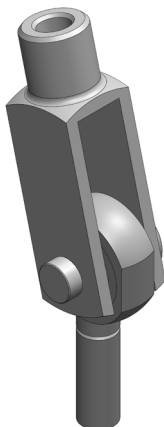
- Oxidised flat plate
- 4 screws for securing the actuator to the plate
- 8 M8x30 screws for mounting on rear structure

Plate size

Plate Code	A	B	D	E	F	K	W	T
A-PP-50	46.5	65	15	150	140	135	26	36
A-PP-63	56.5	80		150	140			
A-PP-80	72	95		150	140			
A-PP-100	89	110		200	160			
A-PP-125	110	140		200	160			



Front ball coupling

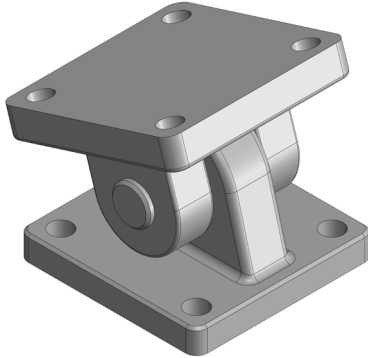


Code	Description
A-SS-12M	Ball coupling kit M12 Male - Fork M12 Female
A-SS-12F	Ball coupling kit M12 Female - Fork M12 Female
A-SS-16M	Ball coupling kit M16 Male - Fork M16 Female
A-SS-16F	Ball coupling kit M16 Female - Fork M16 Female

The ball coupling with fork is supplied complete with:

- Male or female ball coupling M12 or M16
- Fork for ball coupling with M12 or M16 female thread
- Rotation pin with lock
- 2 M12 or M16 lock nuts

Actuator body ball coupling

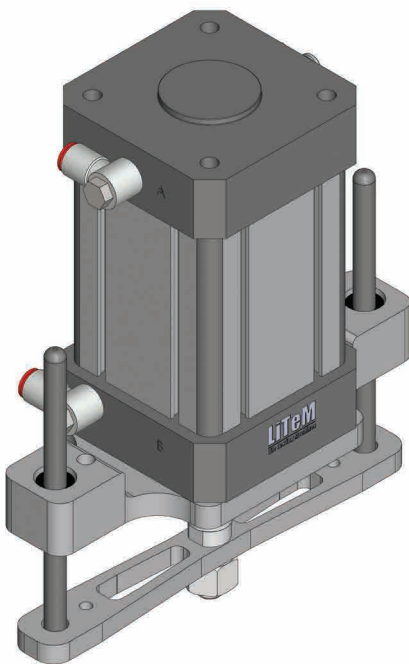


Code	Description
A-SC50	A50 bore actuator ball coupling
A-SC63	A63 bore actuator ball coupling
A-SC80	A80 bore actuator ball coupling
A-SC100	A100 bore actuator ball coupling
A-SC125	A125 bore actuator ball coupling

The rear ball coupling for the actuator body is supplied complete with:

- Ball coupling
- Rear fork plate for coupling
- Rotation pin with lock
- 8 securing screws

Actuator anti-rotation system



Code	Description
A-AR-50/S*	Actuator anti-rotation system - bore A50 / S*[stroke]
A-AR-63/S*	Actuator anti-rotation system - bore A63 / S*[stroke]
A-AR-80/S*	Actuator anti-rotation system - bore A80 / S*[stroke]
A-AR-100/S*	Actuator anti-rotation system - bore A100 / S*[stroke]
A-AR-125/S*	Actuator anti-rotation system - bore A125 / S*[stroke]

The anti-rotation system kit for the actuator rod is supplied complete with:

- Top support for actuator complete with ball sleeves
- Bottom mobile support for actuator complete with guides

For further information view the component technical sheet:

www.litem.info/accessories

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