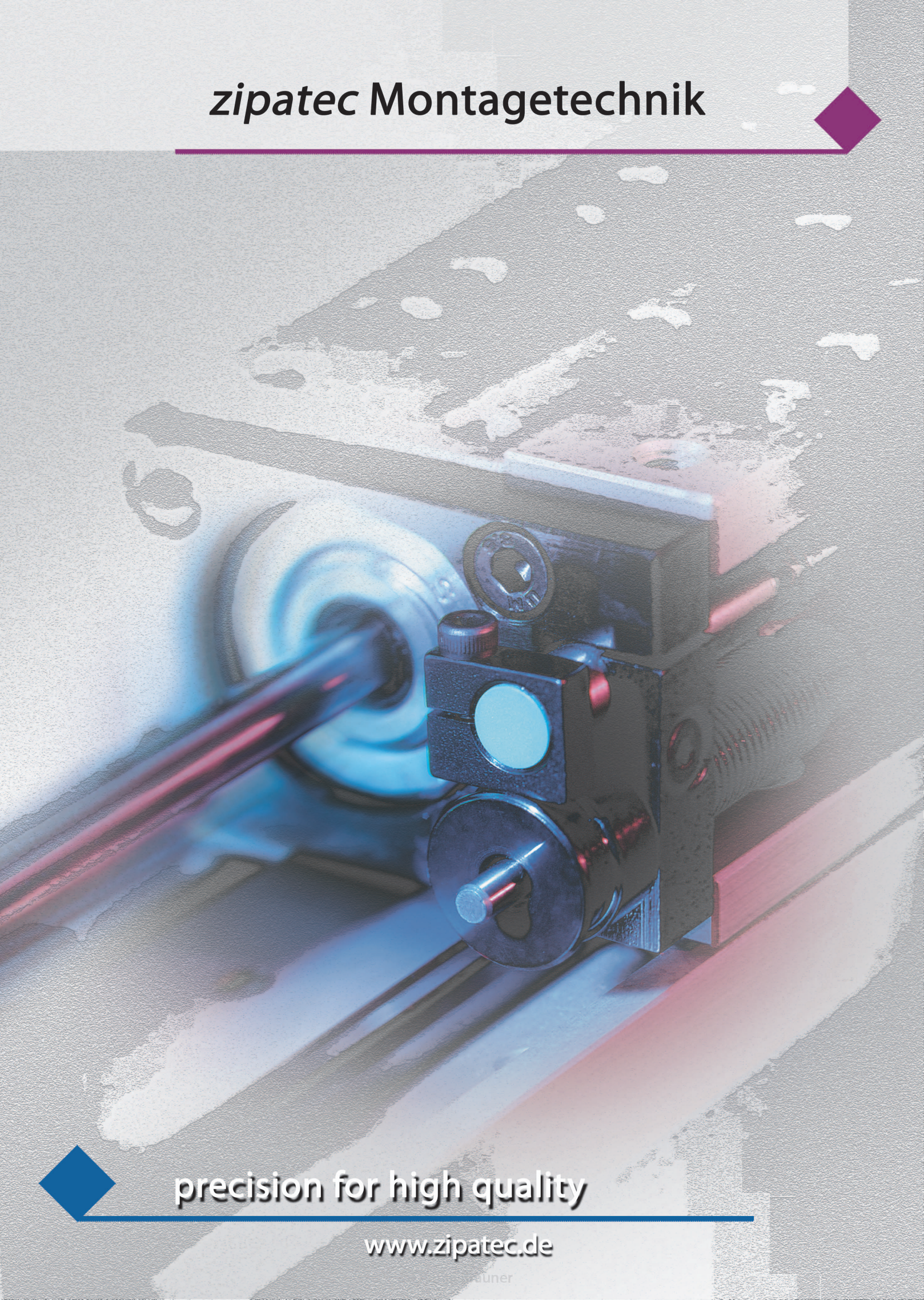


zipatec Montagetechnik

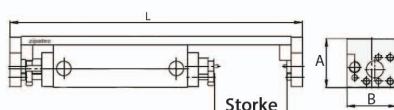
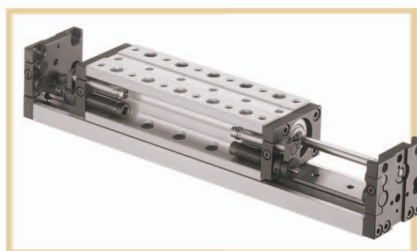


precision for high quality

www.zipatec.de

Partner

Linear modules



Are these characteristics crucial for you when using linear modules?

- 100% backlash-free due to prestressed crossed roller guides
- Very high stiffness – even for long strokes
- Fast and simple stroke adjustment
- All mounting surfaces are CNC-machined
- All guiding elements are screwed in hardened steel
- Delivery ex stock
- Customized solutions on request
- Planning- and engineering support

LM 35 Linear Actuators

Technical Datas	
Stroke	13...100 mm
Operating pressure	3...7 bar
Piston/Rod diameter	12/4 mm
Loading capacity	max. 450 N
Piston force (6 bar)	forward stroke 68 N backward stroke 51 N

Typ	Order No.	Stroke [mm]	Mass [kg]	L	A	B
LM35-H013	041.000	13	0.54	153	36	35
LM35-H025	041.001	25	0.54	153	36	35
LM35-H038	041.002	38	0.68	203	36	35
LM35-H050	041.003	50	0.68	203	36	35
LM35-H063	041.004	63	0.82	253	36	35
LM35-H075	041.005	75	0.82	253	36	35
LM35-H088	041.245	88	0.96	303	36	35
LM35-H100	041.246	100	0.96	303	36	35

LM 49 Linear Actuators

Technical Datas	
Stroke	13...175 mm
Operating pressure	3...7 bar
Piston/Rod diameter	16/6 mm
Loading capacity	max. 2100 N
Piston force (6 bar)	forward stroke 115 N backward stroke 100 N

Typ	Order No.	Stroke [mm]	Mass [kg]	L	A	B
LM49-H013	049.013	13	1.12	170	49	49
LM49-H025	049.025	25	1.12	170	49	49
LM49-H038	049.038	38	1.33	220	49	49
LM49-H050	049.050	50	1.33	220	49	49
LM49-H063	049.063	63	1.55	270	49	49
LM49-H075	049.075	75	1.55	270	49	49
LM49-H088	049.088	88	1.78	320	49	49
LM49-H100	049.100	100	1.78	320	49	49
LM49-H113	049.113	113	2.00	370	49	49
LM49-H125	049.125	125	2.00	370	49	49
LM49-H150	049.150	150	2.45	470	49	49
LM49-H175	049.175	175	2.45	470	49	49

LM 70 Linear Actuators

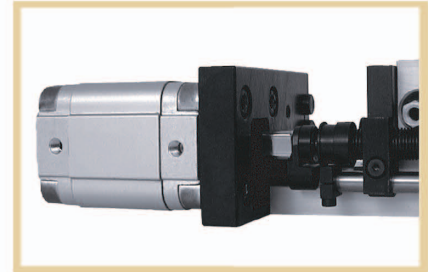
Technical Datas	
Stroke	25...300 mm
Operating pressure	3...7 bar
Piston/Rod diameter	32/12 mm
Loading capacity	max. 6000 N
Piston force (6 bar)	forward stroke 470 N backward stroke 404 N

Typ	Order No.	Stroke [mm]	Mass [kg]	L	A	B
LM70-H025	070.025	25	3.45	248	70	70
LM70-H050	070.050	50	3.45	248	70	70
LM70-H075	070.075	75	4.40	348	70	70
LM70-H100	070.100	100	4.40	348	70	70
LM70-H125	070.125	125	5.35	448	70	70
LM70-H150	070.150	150	5.35	448	70	70
LM70-H175	070.175	175	6.30	548	70	70
LM70-H200	070.200	200	6.30	548	70	70
LM70-H250	070.250	250	8.20	748	70	70
LM70-H275	070.275	275	8.20	748	70	70
LM70-H300	070.300	300	8.20	748	70	70

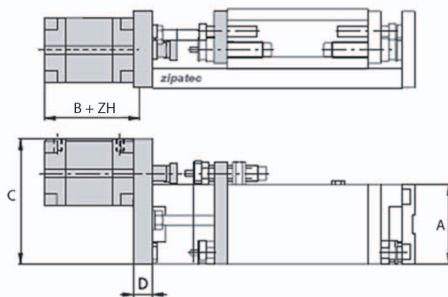
Option Intermediate stop ZA

All zipatec linear modules can be fitted as an option with up to two ZA intermediate stops. The intermediate positions can be approached from both sides and departed from again. The end positions are in any case reached without a repeat stroke. Intermediate stops can be fitted at the piston end (ZAK), piston rod end (ZAS) or From both sides (ZAB).

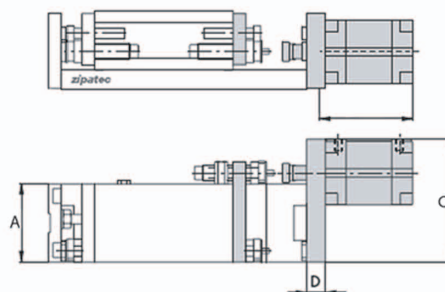
- For all Intermediate stops, standardized shock absorbers and proximity switches are available for direct mounting.
- End position repeatability +/- 0,05mm
- Intermediate stroke adjustment +/- 1,5mm
- Simple retrofit or replace the intermediate stop



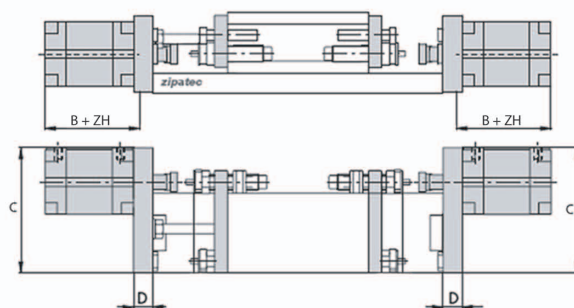
Intermediate stop ZAS



Intermediate stop ZAK



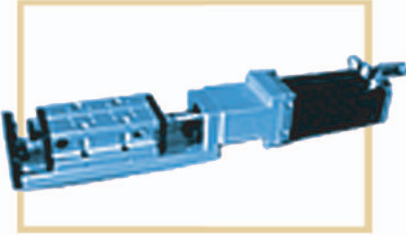
Intermediate stop ZAB



Typ	Order No.	A	B	C	D	air connection	Piston force at 6 bar [N]
ZAK35, piston end	041.006	35	45	54.5	12	M5	109
ZAS35, piston rod end	041.007	35	45	54.5	12	M5	109
ZAB35, both sides	041.008	35	45	54.5	12	M5	109
ZAK49, piston end	049.910	49	46.5	77	12	M5	265
ZAS49, piston rod end	049.911	49	46.5	77	12	M5	265
ZAB49, both sides	049.913	49	46.5	77	12	M5	265
ZAK70, piston end	070.910	70	53.5	114	15	G1/8	1060
ZAS70, piston rod end	070.911	70	53.5	114	15	G1/8	1060
ZAB70, both sides	070.913	70	53.5	114	15	G1/8	1060

Scope of delivery: The shock Absorber Stop or the Stop Screw and the Proximity Switch for the intermediate stroke position must be ordered separately. The intermediate stroke must be added as a suffix to the order number. Example: Intermediate stop for LM49-H050 with intermediate stroke (ZAK) 15mm, LM49-H050-ZAK-H015

NC-Linear Actuators LM35 / LM49 / LM70 with servo or step motor



The Zipatec linear modules are now available as NC modules with servo or step motor:

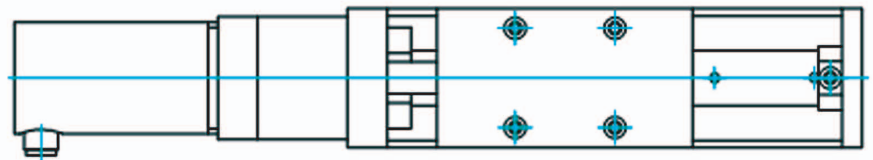
- Recirculating balls screws with a pitch accuracy of 0.05mm to 300mm
- Directional change play of the recirculating ball screw is less than 0.05mm
- Spindless are provided with a wiper

The module is characterized by smaller construction dimensions for larger strokes, greater precision, greater efficiency and a maintenance free design.

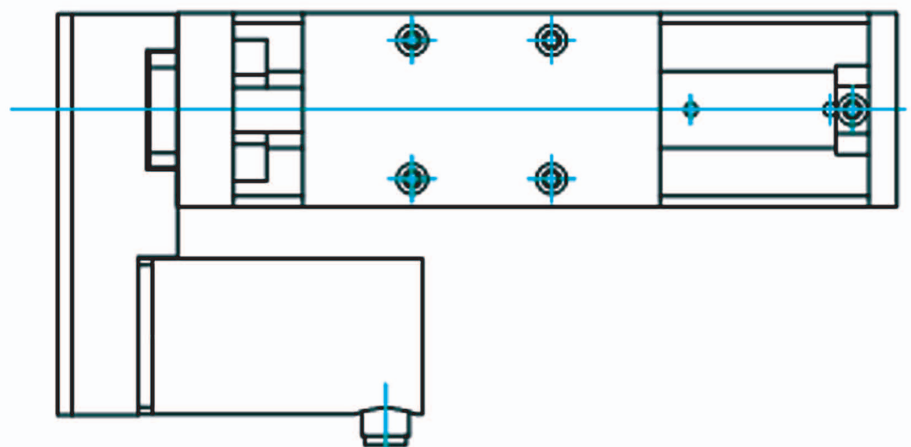
Options:

- Simple attachment to cross or XYZ devices is possible
- Spindles with greater accuracy
- Attachment of servomotors with CAN or Profibus
- Attachment of 2/3 phase step motors
- Modules designed complete with positioning controls for the individual application

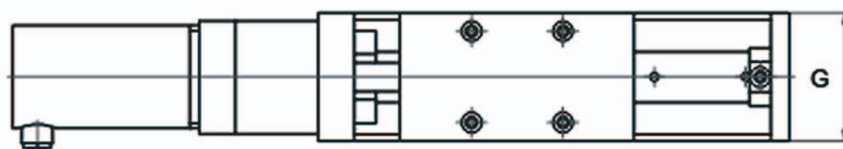
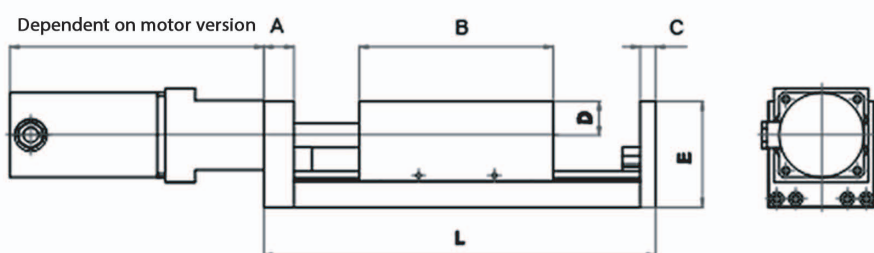
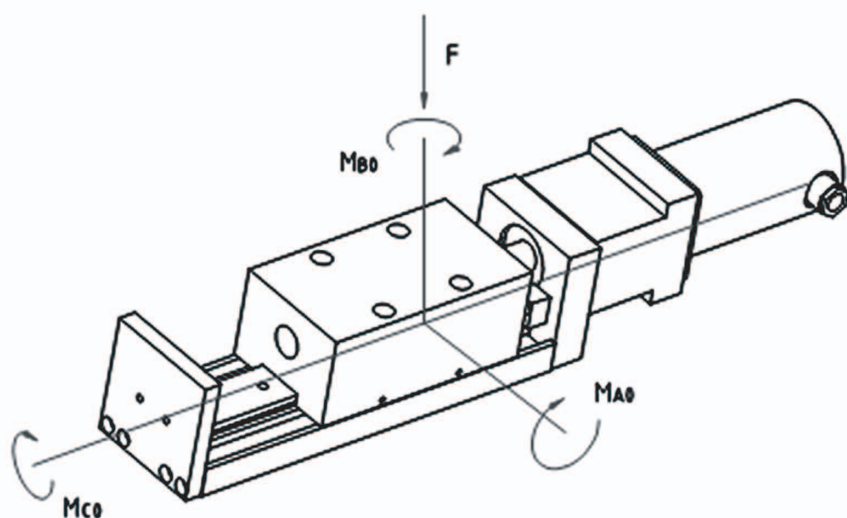
Motor mounted directly to flange



Motor with belt gear rotated 90°

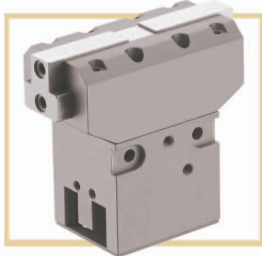


NC-Linear Actuators LM35 / LM49 / LM70 with servo or step motor



Typ	Order No.	A	B	C	D	E	L	G	MA0 MB0	MC0	F
LM35-NC-H025	041.270	15	68	8	13	35	160	35	4	4	300
LM35-NC-H050	041.271	15	93	8	13	35	210	35	5	6	350
LM35-NC-H075	041.272	15	118	8	13	35	260	35	8	6	400
LM35-NC-H100	041.273	15	143	8	13	35	310	35	10	7	450
LM49-NC-H025	041.274	15	87	8	16	49	177	49	9	10	700
LM49-NC-H050	041.275	15	112	8	16	49	227	49	12	12	800
LM49-NC-H075	041.276	15	137	8	16	49	277	49	18	15	1000
LM49-NC-H100	041.277	15	162	8	16	49	327	49	22	16	1200
LM49-NC-H125	041.278	15	187	8	16	49	377	49	30	19	1500
LM49-NC-H175	041.279	15	237	8	16	49	477	49	45	24	2100
LM70-NC-H050	041.280	20	128	10	22.5	70	258	70	41	45	2000
LM70-NC-H100	041.281	20	178	10	22.5	70	358	70	70	65	2500
LM70-NC-H150	041.282	20	228	10	22.5	70	458	70	95	90	3000
LM70-NC-H200	041.283	20	278	10	22.5	70	558	70	120	110	4000
LM70-NC-H300	041.284	20	378	10	22.5	70	758	70	170	141	5000

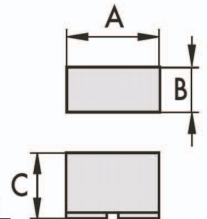
Gripper Actuators



Short Parallel Stroke Gripper GM 25P - GM 42P

- 2-jaw, parallel stroke
- Uniform clamping force over entire stroke range for opening and closing.
- Internal or external gripping action.

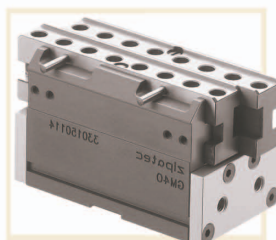
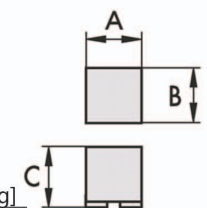
Typ	Hub pro Backe [mm]	F [N]	Overall dimension AxBxC [mm]	Gewicht [kg]
GM25P	25	50	41 x 25 x 51.5	0.14
GM31P	30	90	49 x 31 x 56.5	0.20
GM36P	50	150	63 x 36 x 66	0.34
GM42P	80	280	79 x 42 x 82.5	0.62



Angled Gripper Actuators GM 25W - GM 42W

- 2-jaw, angled stroke
- Uniform clamping force over entire stroke range for opening and closing.
- Internal or external gripping action.

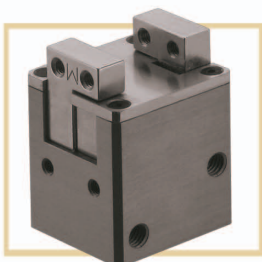
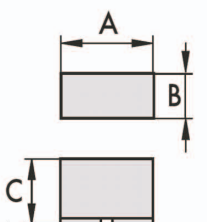
Typ	Hub pro Backe [degree]	F [N]	Overall dimension AxBxC [mm]	Gewicht [kg]
GM25W	16°	0.60	35 x 25 x 61.5	0.14
GM31W	14°	0.90	41 x 31 x 69	0.20
GM36W	16°	1.70	44 x 36 x 80.5	0.30
GM42W	16°	4.00	52 x 42 x 98	0.52



Large Parallel Stroke Gripper GM 40 - GM 52

- 2-jaw, parallel stroke
- Uniform clamping force over entire stroke range for opening and closing.
- Internal or external gripping action.

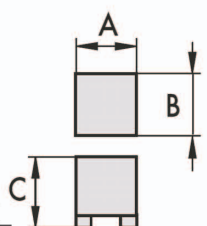
Typ	Hub pro Backe [mm]	F [N]	Overall dimension AxBxC [mm]	Gewicht [kg]
GM40	16	120	94 x 40 x 45	0.48
GM52	22	250	126 x 52 x 60	1.08



Parallel Gripper "Mini" RP-5M - RP-10M

- 2-jaw, parallel stroke
- Precision of performance
- Operated by cams

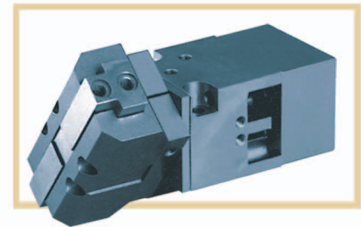
Typ	Hub pro Backe [mm]	F [N]	Overall dimension AxBxC [mm]	Gewicht [kg]
RP-5M	4.1	156	28.6 x 25.4 x 36.5	0.08
RP-10M	6.4	308	38.1 x 31.7 x 37.3	0.13



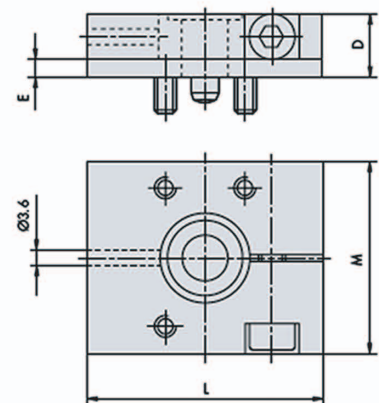
Option

Rotary Adapter GMD

Rotation of the gripper head GM25P-GM42P and GM25W-GM42W
In relation to the drive unit GMA or the flange of the rotary actuator.

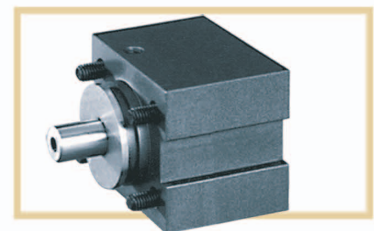


Typ	Order No.	Fills	D	E	L	M
GMD25	041.079	GM25P/W	10	2.8	35	25
GMD31	041.080	GM31P/W	10	2.8	41	31
GMD36	041.081	GM36P/W	12	3.3	44	36
GMD42	041.082	GM42P/W	12	3.3	52	42

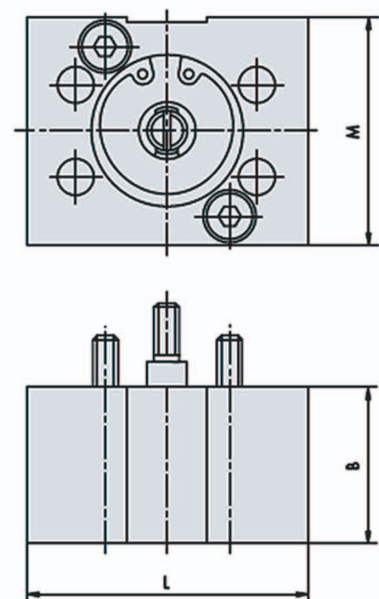


Grip Force Safety Devices GKS

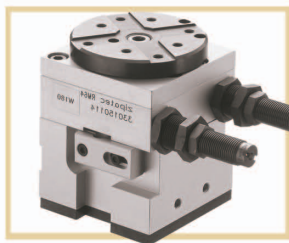
For all modular gripper actuators of series GM .. P and GM .. P a grip force safety device operating in a clamping or expanding direction is available as an additional module. This ensures functioning even if the energy source is lost.



Typ	Order No.	Fills	B	L	M
GKS25	041.083	GM25P/W	20	34	24
GKS31	041.084	GM31P/W	20	40	30
GKS36	041.085	GM36P/W	24	43	30
GKS42	041.086	GM42P/W	34.5	51	41



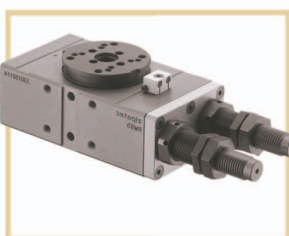
Rotary Actuators



Rotary Actuators RM 51-W - RM 64-W

- Angle cylinder
- Precise adjustment of the rotation angle
- Integral shock absorbers
- Adjustable shock absorber reference curve

Typ	Order No.	Rotations and angle [degree]	Torque [Nm]	L x B x H [mm]	Weight [kg]
RM51-W	041.087	0...180°	0.70	52 x 52 x 67	0.65
RM64-W	041.088	0...180°	1.95	65 x 65 x 85	1.12

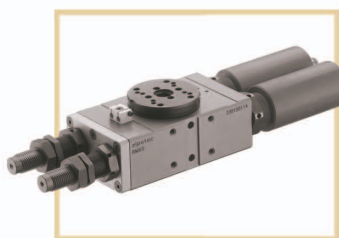


Rotary Actuators RM 35 - RM 65

Typ	Order No.	Rotations and angle [degree]	Torque [Nm]	L x B x H [mm]	Weight [kg]
RM35	041.089	0...190°	0.38	76 x 43 x 35	0.36
RM45	041.090	0...190°	0.76	91 x 52 x 38	0.58
RM65	041.091	0...190°	1.90	117 x 85 x 48	1.16

Due to their modular desing and central passageway, these elements can be used to construct gripper/indexing actuators without co-rotating power cables. For interrogation of the end positions, standardised interrogation sets can be fitted.

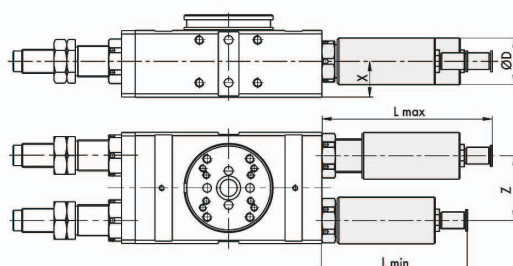
- Rack and pinion drive
- Steplessly adjustable rotation angle
- Integral shock absorbers
- Adjustable damping characteristics
- Completely free from backlash at end position



RM option Intermediate position

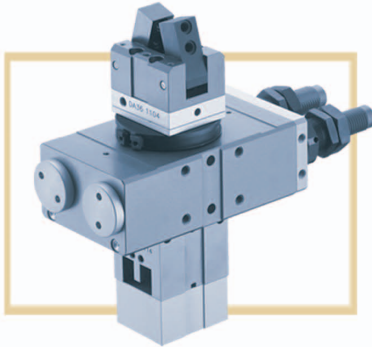
- Intermediate position steplessly adjustable over entire swivel range
- Continued movement possible in either direction without repeat stroke
- Intermediate position in either direction with hydraulic damping
- Shock absorber reference curve adjustable by adapting storke
- Intermediate position can be confirmed by proximity switsch

Typ	Order No.	Ø D	L _{min}	L _{max}	X	Z
RZ35	041.092	20.8	72	83	15.6	21.2
RZ45	041.093	25	77.5	91	17.5	27
RZ65	041.094	35	92	111	21	38



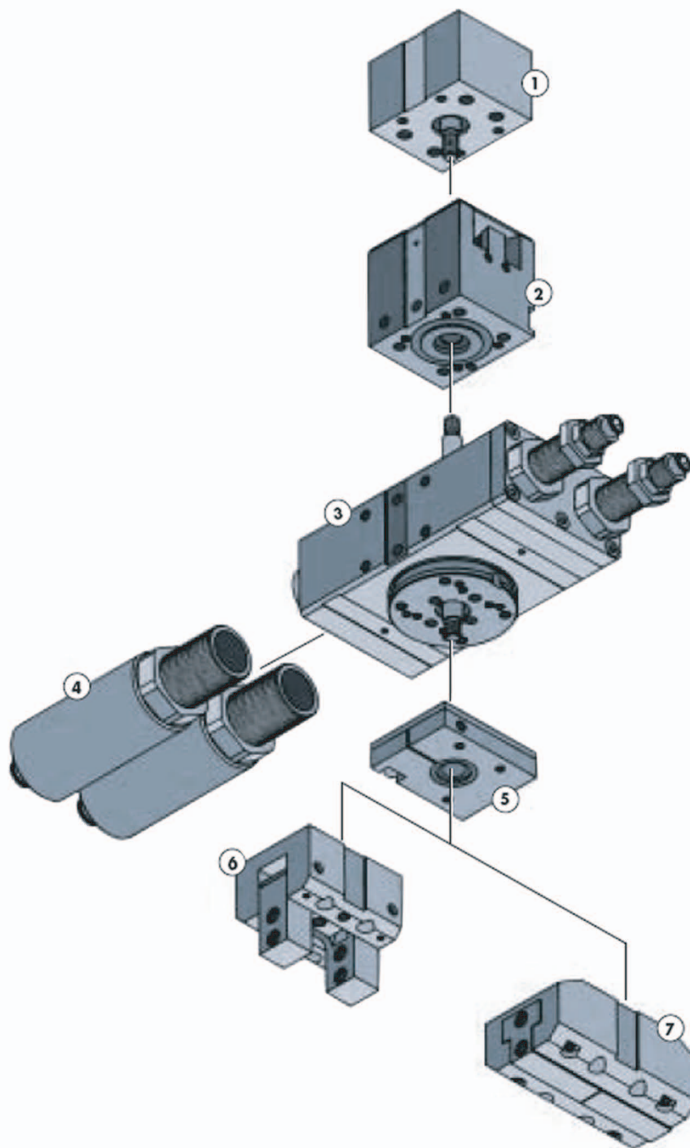
Gripper – Indexing Actuators

P25R35 – P42 R65



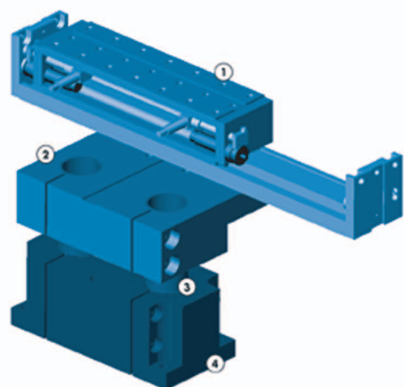
These gripper actuators are designed such that they can be used for internal or external gripping and for single or double action operation. The springs in the grip force is maintained if pressure loss occurs. By means of the rotary adapter GMD, the gripper sets can be steplessly rotated in relation to the drive unit or rotary actuator. These rotary actuators can optionally be fitted with a steplessly adjustable intermediate position device.

- Absolutely modular gripper-indexing system
- No co-rotating power lines
- Internal or external gripping action
- Grip force safety device in case of pressure loss
- Step less adjustment of rotation angle



1. Grip force safety device GKS
2. Drive unit
3. Rotary actuator RM
4. Intermediate stop RZ
5. Rotary adapter GMD
6. Angled gripper
7. Parallel gripper

Mounting Accessories

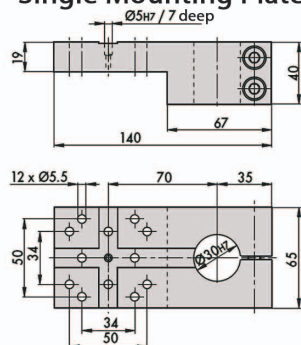


1. LM Linear Actuators
2. Double Mounting Plate ALZ
3. Hollow Column
4. Double Base DFS

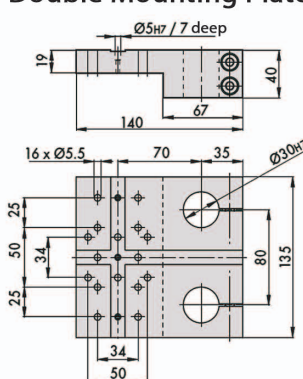
The mounting accessories consist of two series. System 30 diameters with 30mm column are intended for installation of linear modules LM 35 and LM 49. System 50 diameter with 50mm column is intended for installation of linear modules LM 50. Robust single and double column stands resistant to vibration are available which allow the excellent dynamic characteristics and repeat accuracies of the individual elements to be exploited. On the basis of a small number of standard elements, a wide range of mounting arrangements can be configured. Machined locating surfaces with integral mounting and centring holes ensure precise angular mounting of the elements. Of course we offer in addition to our standard also individual, customized solutions.

System 30

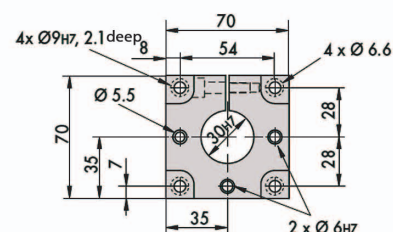
Single Mounting Plate ALE-30



Double Mounting Plate ALZ-30

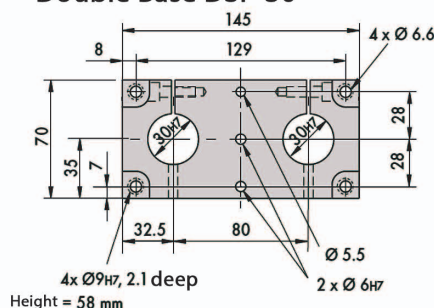


Single Base SF-30

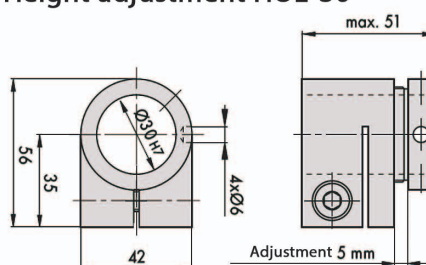


Height = 58 mm

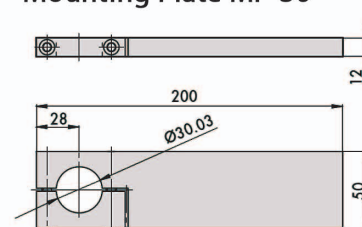
Double Base DSF-30



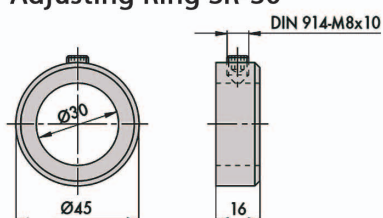
Height adjustment HOE-30



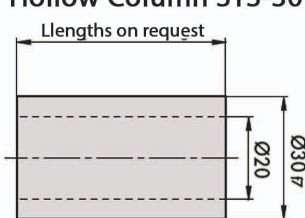
Mounting Plate MP-30



Adjusting Ring SR-30



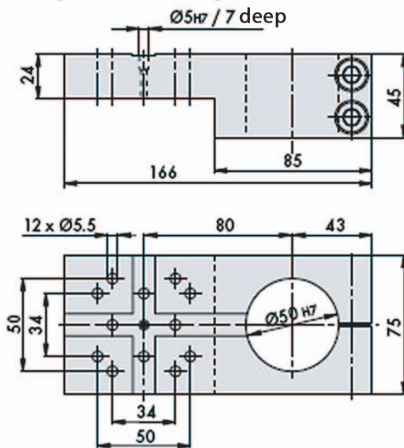
Hollow Column STS-30



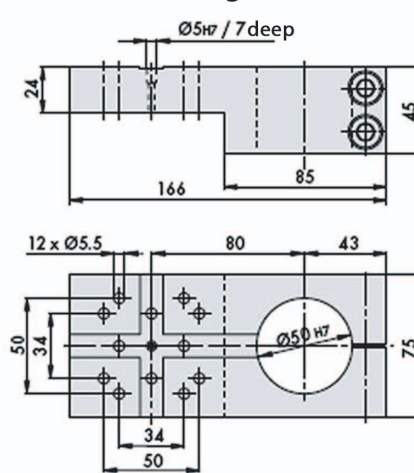
Mounting Accessories

System 50

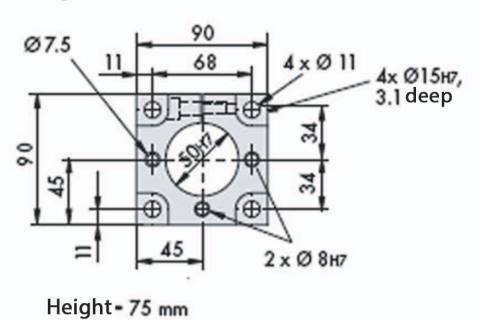
Single Mounting Plate ALE-50



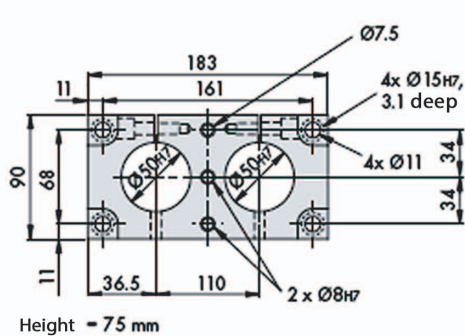
Double Mounting Plate ALZ-50



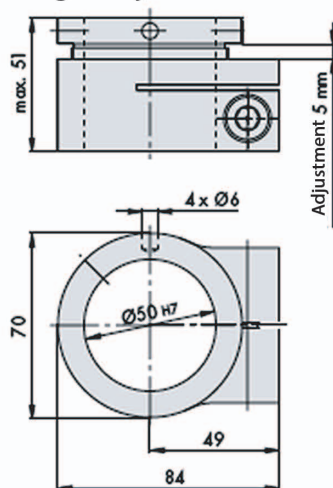
Single Base SF-50



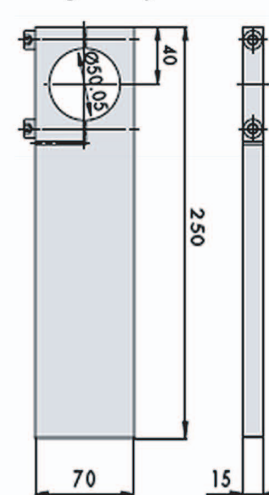
Double Base DSF-50



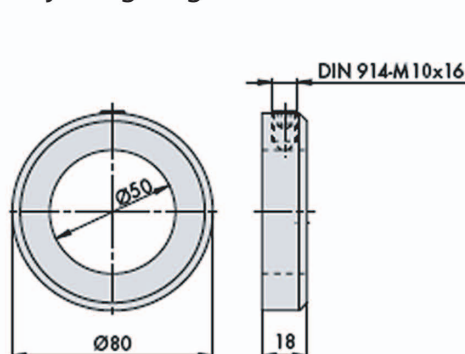
Height adjustment HOE-50



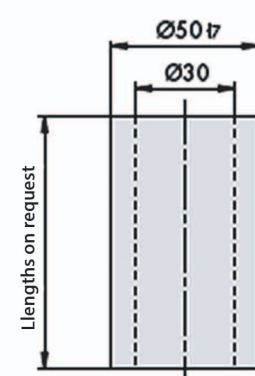
Height adjustment HOE-50

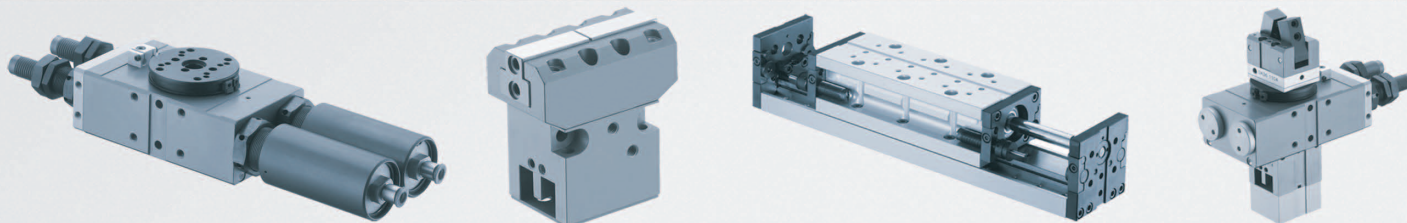


Adjusting Ring SR-50



Hollow Column STS-50





zipatec Montagetechnik GmbH & Co. KG

Kleewiesenweg 5
D-90562 Kalchreuth

info@zipatec.de
www.zipatec.de

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