



ECL3

ELECTRIC CYLINDERS NORMAL DUTY

SERIES 10

ISO 15552

DESCRIPTION

- A - Rod guide
- B - Rod
- C - Piston
- D - Nut
- E - Bearing
- F - Coupling
- G - Coupling carter
- H - Screw
- L - Magnetic ring
- M - Barrel
- N - Front cap

- Electric cylinder made with mounting interfaces in compliance with ISO 15552.
- The linear motion transmission is realized by means of precise and with high efficiency ball screws. Screw and nut are made in high resistance hardened steel and have high load capacity, in order to guarantee long life even in demanding applications.
- The cylinder design is made to minimize vibrations: the piston is precisely guided in the barrel with double zero-backlash sliding guide; the shaft end of the screw is supported by a bearing; the rod is guided into the front head with a long linear bushing
- The cylinder can be equipped with a robust integrated anti-rotation device
- The piston is equipped with a magnetic ring and the barrel is equipped with external slots to accommodate any sensors. The rod has an increased external diameter and thickness to maximize rigidity and resistance to radial and buckling loads. The screw is supported by high capacity bearings to allow the transmission of high loads in both directions.
- A high-strength timing belt is used to connect the motor in parallel, in order to have reliability and strength of the torque transmission chain
- Many pneumatic accessories can be used to fix and mount the electric cylinder, including intermediate trunnions

PERFORMANCES

Size		32	40	50	63	80	100	125
Maximum axial force	N	2100	3400	6400	9500	12700	53500	88300
Maximum speed	mm/s	1111	1333	1422	1333	1333	702	533
Maximum acceleration	m/s ²	6	8	10	13	16	13	13
Standard stroke up to	mm	800	1000	1200	1400	1800	2400	3000
Maximum average axial force for 2500 km life	N	832	1375	2277	2453	3635	12442	19744
Ambient temperature range	°C	-20 / +100						
Max air humidity allowed for IP65 (without condensation)	%	90						
Protection degree		IP44 or IP65						

1 - IDENTIFICATION CODE

ECL3	-		/		-		/	10	-		/		-		/	M
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Size: _____

32 = ISO 32
40 = ISO 40
50 = ISO 50
63 = ISO 63
80 = ISO 80
100 = ISO 100
125 = ISO 125

Mounting type: _____

T = front threaded holes
(standard)
A = front flange (MF1)
B = rear flange (MF2)
N = double flange (MF1+MF2)
C = rear clevis (MP2)
D = rear eye (MP4)
G = feet (MS1)
L = intermediate trunnions (MT4)

Rod end: _____

M = male thread **(standard)**
F = female thread
C = clevis cap
S = spherical cap
L = self-centreing coupler cap
X = special

Stroke: _____

max 800 mm for size 32
max 1000 mm for size 40
max 1200 mm for size 50
max 1400 mm for size 63
max 1800 mm for size 80
max 2400 mm for size 100
max 3000 mm for size 125
For longer strokes contact our technical office.

Screw type: _____

B = ball screw
L = lead screw (only available for sizes 32-50-63)
R = roller screw (upon request)

Screw lead: _____
(see overall dimension tables of each size for availability and matches)

for ball screw	for lead screw (see par. 11)
05 = 5 mm	04 = 4 mm
10 = 10 mm	
12 = 12 mm	
12,7 = 12.7 mm	
16 = 16 mm	
20 = 20 mm	
25 = 25 mm	

Series number _____

Project No.
assigned by
Diplomatic

Motor flange:
S = stepper
B = brushless
A = AC motor
D = DC motor
V = stepper with feedback
G = gearbox

Motor position:
0 = 12 o'clock
3 = 3 o'clock
6 = 6 o'clock
9 = 9 o'clock

Motor mounting type **(NOTE)**:
(omit if not required)
L = in line
P = parallel (ratio 1 + 1) **(standard)**
Q = parallel (ratio 2 + 1)
X = parallel (custom ratio)

Limit switch:
N = none
A = single
D = double
T = triple
Q = quadruple

Lubrication:
N = none
F0 = centered 12 o'clock
F3 = centered 3 o'clock
F6 = centered 6 o'clock
F9 = centered 9 o'clock

Protection class:
N = IP44
S = IP65

Rotation stopper
N = none
P = present

NOTE: The size of the belt transmission box may change for types Q and X; contact the technical department to verify sizing.

2 - COMMON TECHNICAL CHARACTERISTICS

ACCURACY		mm	± 0.035
ENVIRONMENT	Ambient temperature range	°C	-20 / +100 (cylinder without motor)
	Protection class		IP44 or IP65
	Humidity	%	0 ÷ 90
MECHANICAL	Reference standard		ISO 15552
	Duty cycle	%	100
	Internal antirotation		available on all sizes
	Rod end		male or female
	Rod material		chromium-plated (standard) stainless steel upon request
	Mounting		on front cap or with accessories
	End stroke sensor		available on all sizes

3 - FEATURES OF USE

The electric cylinder ECL3 is suitable for:

- In normal handling systems with ball screws in the field of automation; to replace normal cylinders when speed and acceleration ramps are required or controlled and constant deceleration even under load.
- On all occasions where handling with considerable traction / thrust forces is required without having to use hydraulic cylinders..
- In handling systems where absence of pollution and / or extreme silence is required.

3.1 - Applications

ISO 15552 ECL3 electric cylinders are the right solution for all those applications that require accurate and controlled positioning. They offer the opportunity to use pre-set solutions to solve the design and commissioning of automation systems quickly and simply.

The installation simplicity and the different construction types make the ECL3 cylinder a reference point in this kind of product.

The wide possibility of choice among different types allows the use of the ECL3 even in demanding and critical applications, as they offer force capabilities and dynamic load ratings decisively heavier than standard market proposals.

The possibility to use most of standard pneumatic ISO 15552 accessories for the same size is an additional practical and cost advantage in mounting the cylinders.

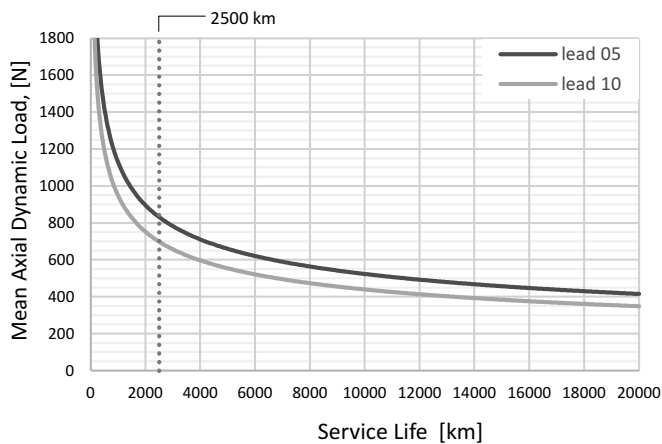
4 - ECL3- 32

4.1 - Technical Characteristics

MECHANICAL	Rod diameter	mm	20	
	Rod end		M10x1.25	
BALL SCREW	Nominal diameter	mm	12	12
	Lead	mm	5	10
	Dynamic load	N	6600	4400
FORCE	Max force - in line	N	2100	2100
	Max torque - in line	Nm	2.0	3.9
	Max force - parallel	N	2100	2100
	Max torque - parallel	Nm	2.2	4.4
	Dynamic axial force at 2500 km lifetime	N	832	698
SPEED	Max speed	rpm	6667	6667
		mm/s	556	1111
ACCELERATION	Max acceleration	m/s ²	3.2	6.4
EFFICIENCY	In line	%	86	88
	Parallel	%	77	79

4.2 - Service Life

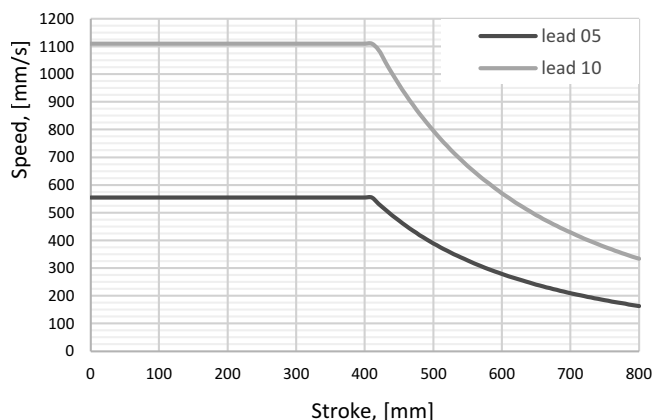
The service life depends on average dynamic axial load.



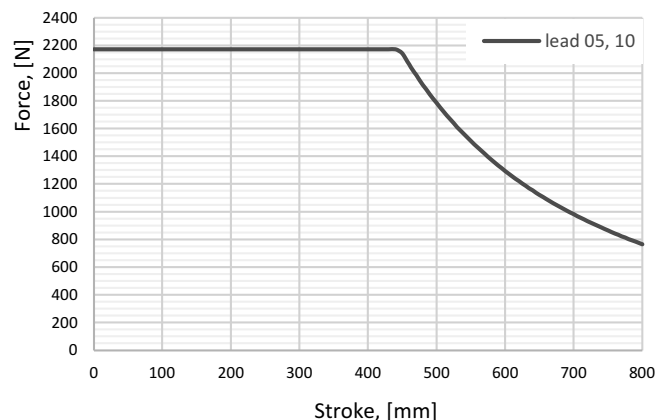
NOTES

- Service life is a statistical value and refers to 90% reliability.
- Correct working conditions: i.e. no lateral-load, no overload, right lubrication, no over-temperature, no short-stroke application..
- The permissible axial force is calculated considering a pushing condition with free rod end and fixed barrel constraint. Contact us for different loading applications and for any questions

4.3 - Permissible Speed



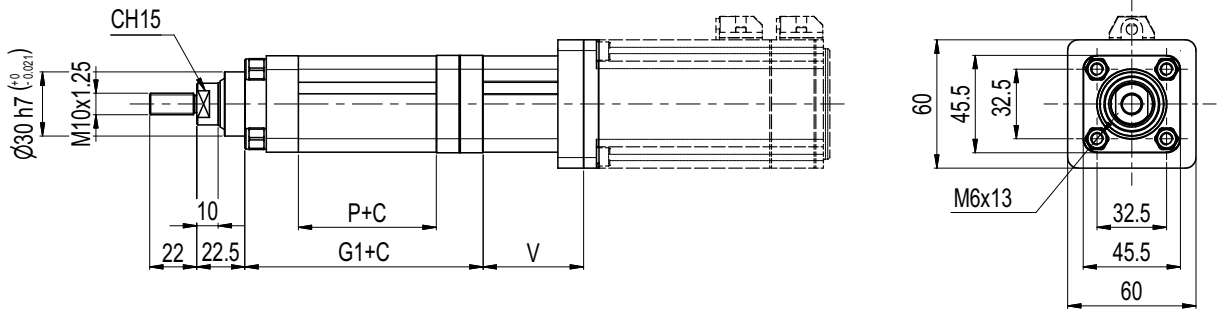
4.4 - Permissible Axial Force



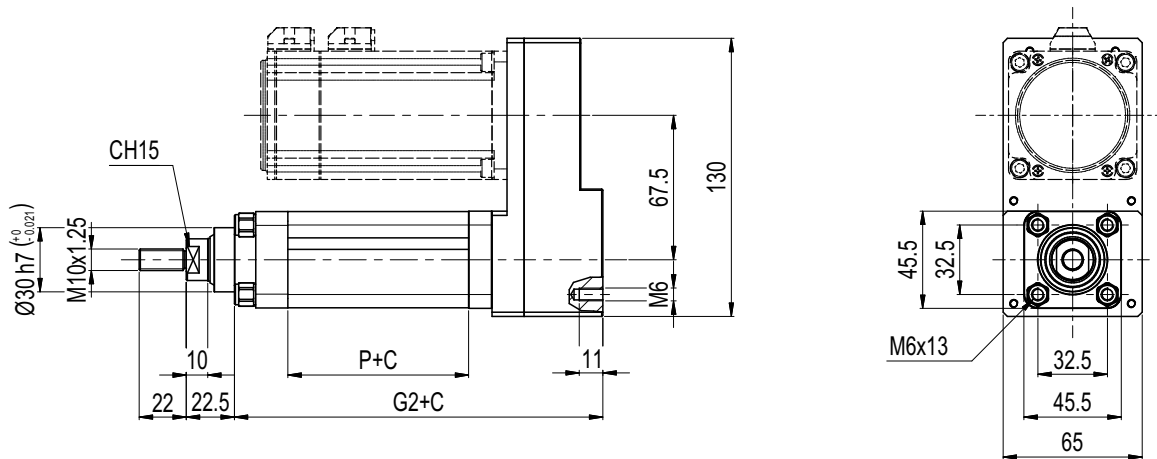
4.5 - ECL3-32 Overall Mounting Dimensions

dimensions in mm

In-line motor mounting



Parallel motor mounting



Ball Screw	P	G1	G2
12X05	73.5	120.4	161.25
12X10	73.5	120.4	161.25

Lead Screw	P	G1	G2
14X04	64.5	111.4	152.25

C = Stroke value
V = Depending on motor dimensions

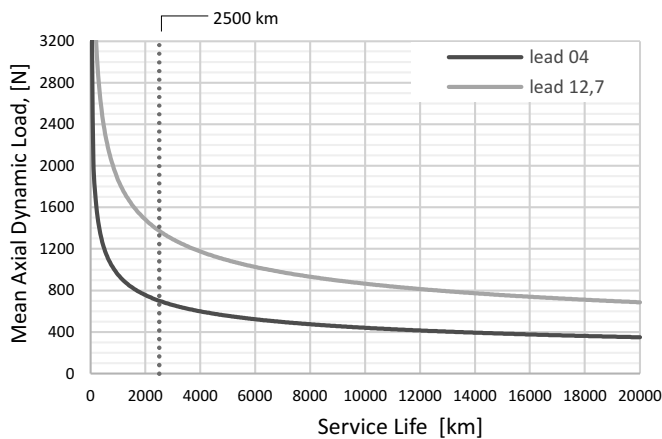
5 - ECL3-40

5.1 - Technical Characteristics

MECHANICAL	Rod diameter	mm	25	
	Rod end		M12x1.25	
BALL SCREW	Nominal diameter	mm	14	12.7
	Lead	mm	4	12.7
	Dynamic load	N	6000	8000
FORCE	Max force - in line	N	3000	2400
	Max torque - in line	Nm	2.3	5.5
	Max force - parallel	N	3000	3400
	Max torque - parallel	Nm	2.5	8.7
	Dynamic axial force at 2500 km lifetime	N	702	1375
SPEED	Max speed	rpm	5714	6299
		mm/s	381	1333
ACCELERATION	Max acceleration	m/s ²	2.5	8.1
EFFICIENCY	In line	%	84	88
	Parallel	%	76	80

5.2 - Service Life

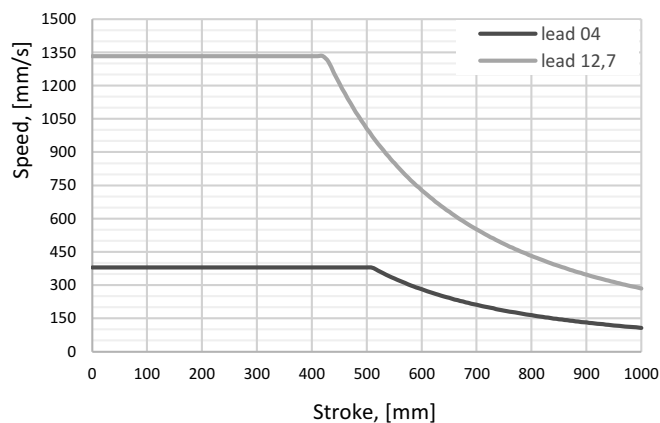
The service life depends on average dynamic axial load.



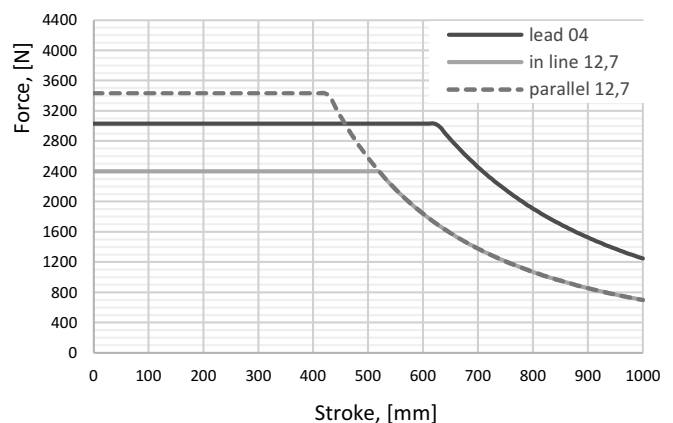
NOTES

- Service life is a statistical value and refers to 90% reliability.
- Correct working conditions: i.e. no lateral-load, no overload, right lubrication, no over-temperature, no short-stroke application..
- The permissible axial force is calculated considering a pushing condition with free rod end and fixed barrel constraint. Contact us for different loading applications and for any questions

5.3 - Permissible Speed



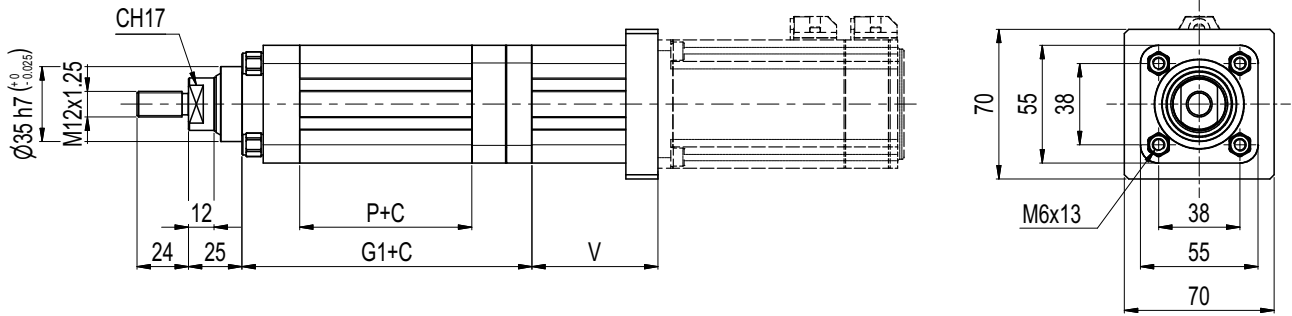
5.4 - Permissible Axial Force



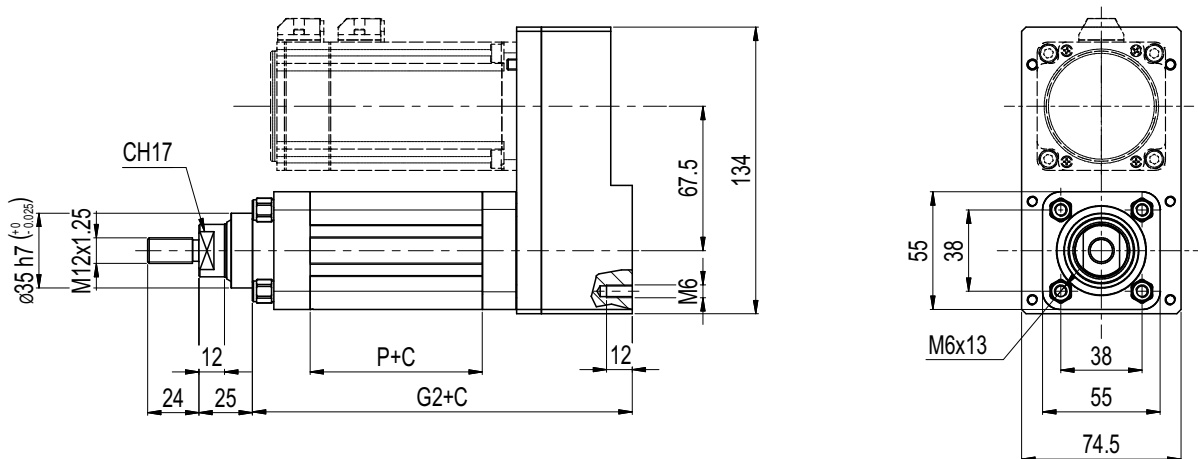
5.5 - ECL3-40 Overall Mounting Dimensions

dimensions in mm

In-line motor mounting



Parallel motor mounting



Ball Screw	P	G1	G2
12.7X12.7	80.5	135.6	177.6
14X04	64.5	119.6	161.1

C = Stroke value

V = Depending on motor dimensions

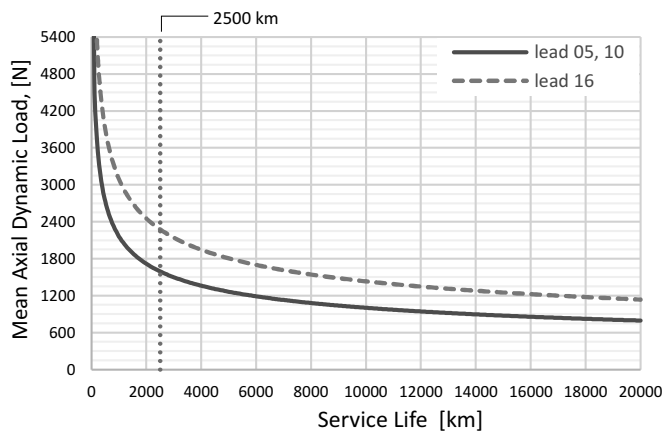
6 - ECL3- 50

6.1 - Technical Characteristics

MECHANICAL	Rod diameter	mm	25		
	Rod end		M16x1.5		
BALL SCREW	Nominal diameter	mm	16	16	16
	Lead	mm	5	10	16
	Dynamic load	N	12655	9908	12263
FORCE	Max force - in line	N	6300	3200	2050
	Max torque - in line	Nm	5.9	5.9	5.9
	Max force - parallel	N	6400	5400	6400
	Max torque - parallel	Nm	6.7	11.0	20.5
	Dynamic axial force at 2500 km lifetime	N	1594	1573	2276
SPEED	Max speed	rpm	5333	5333	5333
		mm/s	444	889	1422
ACCELERATION	Max acceleration	m/s ²	3.2	6.4	10.2
EFFICIENCY	In line	%	85	88	88
	Parallel	%	77	79	80

6.2 - Service Life

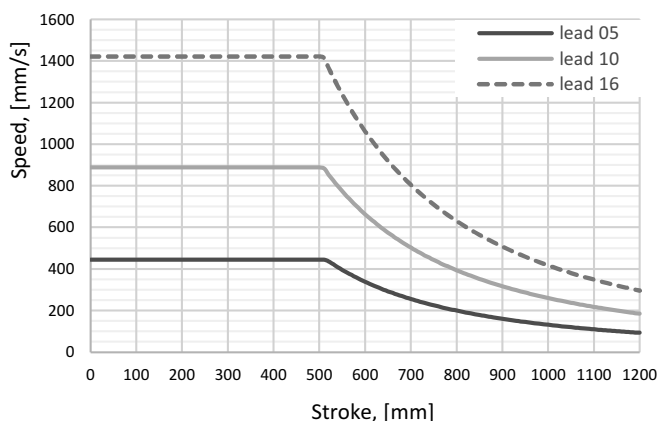
The service life depends on average dynamic axial load.



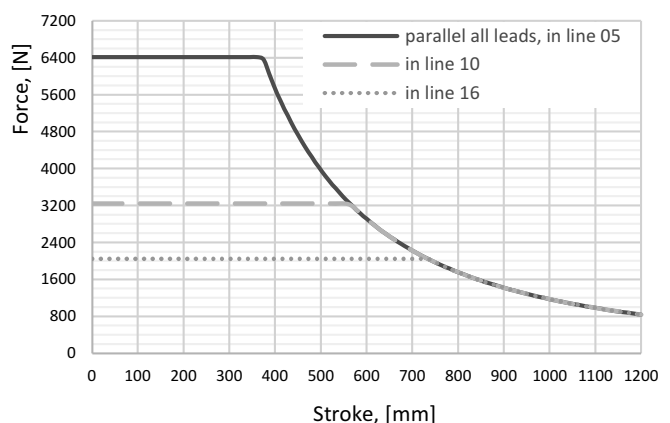
NOTES

- Service life is a statistical value and refers to 90% reliability.
- Correct working conditions: i.e. no lateral-load, no overload, right lubrication, no over-temperature, no short-stroke application..
- The permissible axial force is calculated considering a pushing condition with free rod end and fixed barrel constraint. Contact us for different loading applications and for any questions

6.3 - Permissible Speed



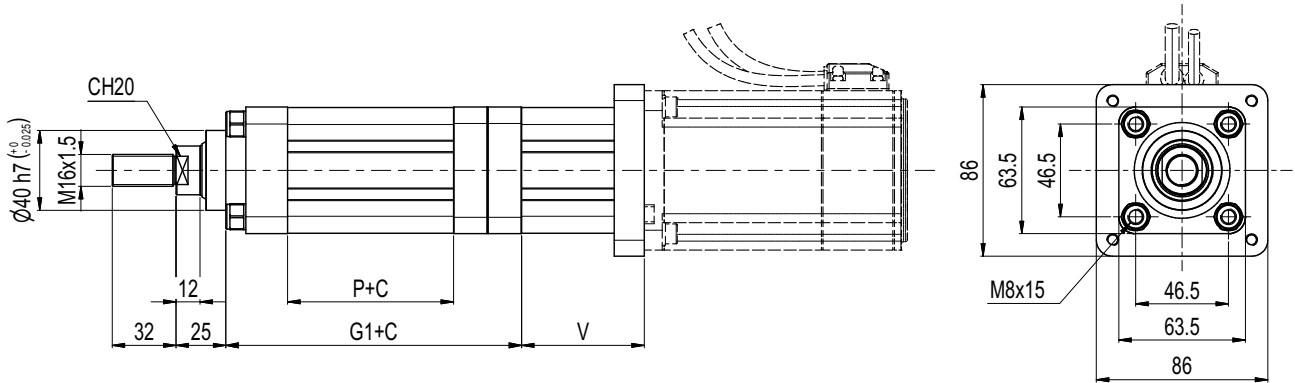
6.4 - Permissible Axial Force



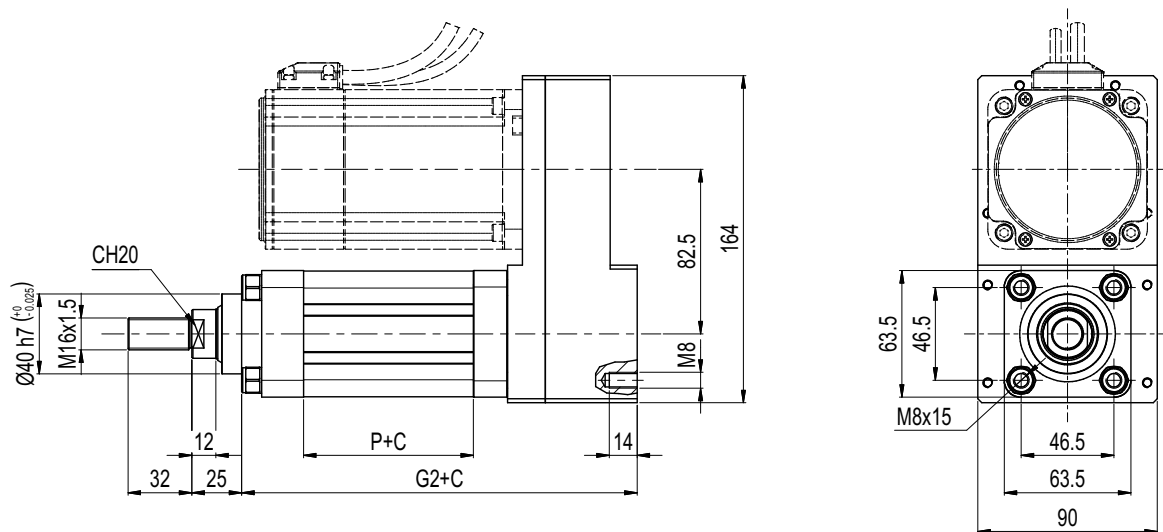
6.5 - ECL3-50 Overall Mounting Dimensions

dimensions in mm

In-line motor mounting



Parallel motor mounting



Ball Screw	P	G1	G2
16X05	83.2	148.3	196.3
16X10	83.2	148.3	196.3
16X16	85.2	150.3	198.3

Lead Screw	P	G1	G2
16X04	75.5	140.6	188.6

C = Stroke value

V = Depending on motor dimensions

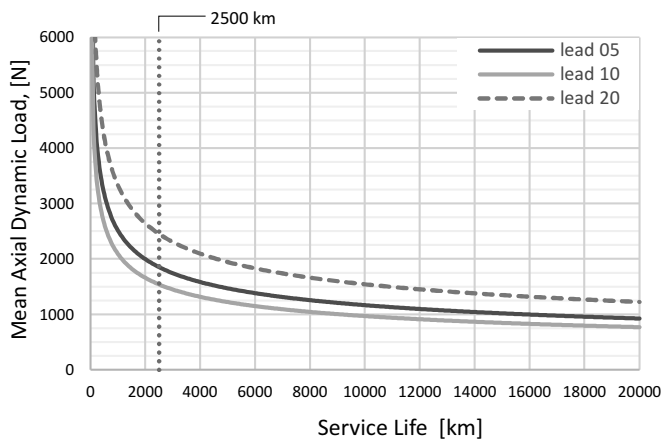
7 - ECL3-63

7.1 - Technical Characteristics

MECHANICAL	Rod diameter	mm	30		
	Rod end		M16x1.5		
BALL SCREW	Nominal diameter	mm	20	20	20
	Lead	mm	5	10	20
	Dynamic load	N	14715	9712	12262
FORCE	Max force - in line	N	9500	7300	7300
	Max torque - in line	Nm	9.1	13.6	26.5
	Max force - parallel	N	9500	7300	7300
	Max torque - parallel	Nm	10.1	15.1	29.5
	Dynamic axial force at 2500 km lifetime	N	1854	1542	2453
SPEED	Max speed	rpm	4000	4000	4000
		mm/s	333	667	1333
ACCELERATION	Max acceleration	m/s ²	3.2	6.4	12.7
EFFICIENCY	In line	%	84	87	88
	Parallel	%	75	78	80

7.2 - Service Life

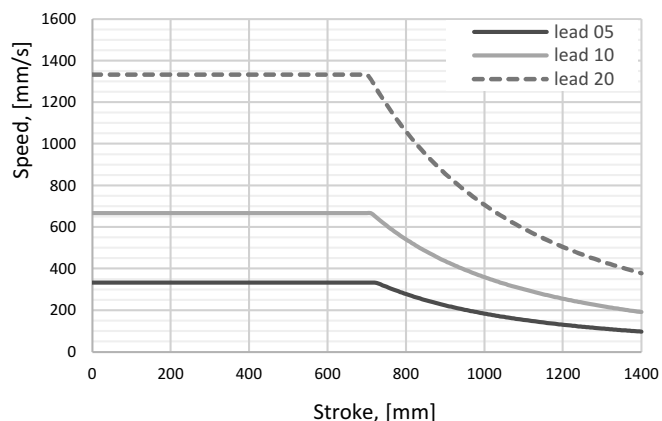
The service life depends on average dynamic axial load.



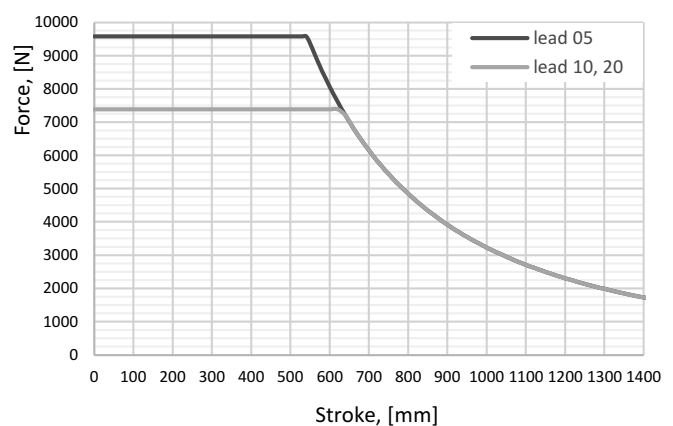
NOTES

- Service life is a statistical value and refers to 90% reliability.
- Correct working conditions: i.e. no lateral-load, no overload, right lubrication, no over-temperature, no short-stroke application..
- The permissible axial force is calculated considering a pushing condition with free rod end and fixed barrel constraint. Contact us for different loading applications and for any questions

7.3 - Permissible Speed



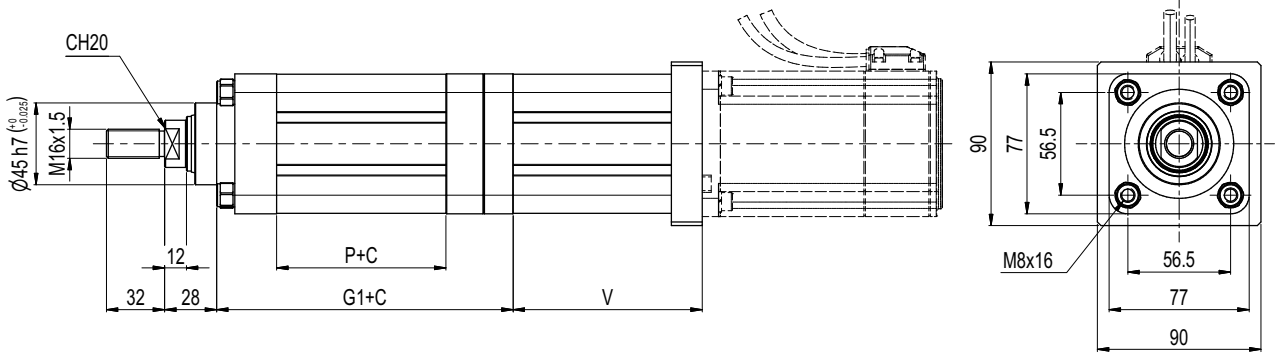
7.4 - Permissible Axial Force



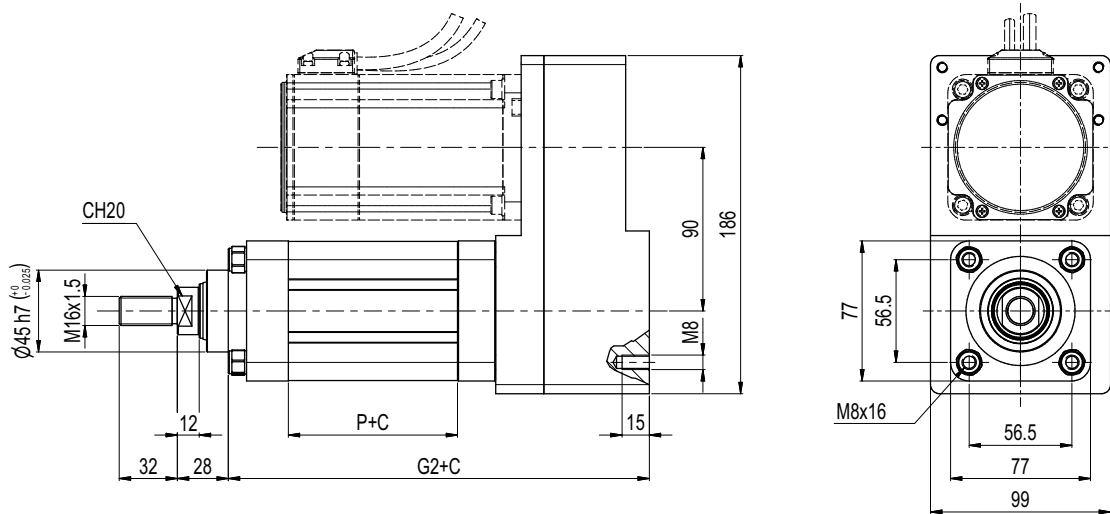
7.5 - ECL3-63 Overall Mounting Dimensions

dimensions in mm

In-line motor mounting



Parallel motor mounting



Ball Screw	P	G1	G2
20X05	93.1	163.1	231.6
20X10	93.1	163.1	231.6
20X20	95.1	165.1	233.6

Lead Screw	P	G1	G2
20X04	93	163	231.5

C = Stroke value
V = Depending on motor dimensions

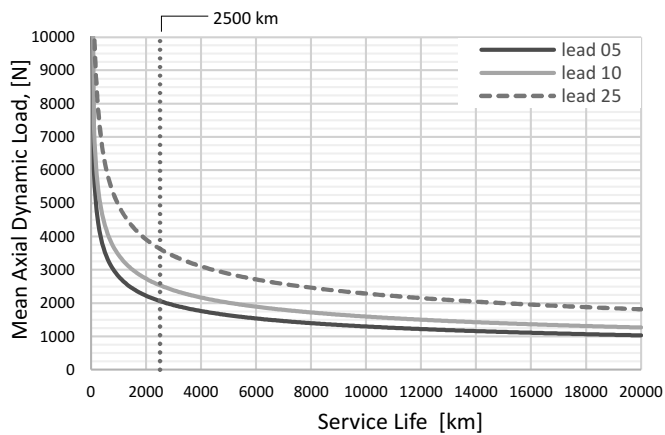
8 - ECL3-80

8.1 - Technical Characteristics

MECHANICAL	Rod diameter	mm	45		
	Rod end		M20x1.5		
BALL SCREW	Nominal diameter	mm	25	25	25
	Lead	mm	5	10	25
	Dynamic load	N	16383	15990	16873
FORCE	Max force - in line	N	12100	11500	9900
	Max torque - in line	Nm	11.7	21.3	45
	Max force - parallel	N	12100	11500	12700
	Max torque - parallel	Nm	13	23.7	63.8
	Dynamic axial force at 2500 km lifetime	N	2064	2538	3635
SPEED	Max speed	rpm	3200	3200	3200
		mm/s	267	533	1333
ACCELERATION	Max acceleration	m/s ²	3.2	6.4	15.9
EFFICIENCY	In line	%	82	86	88
	Parallel	%	74	77	80

8.2 - Service Life

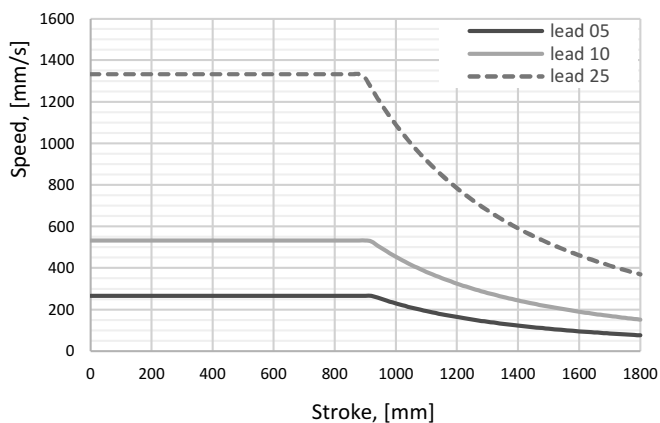
The service life depends on average dynamic axial load.



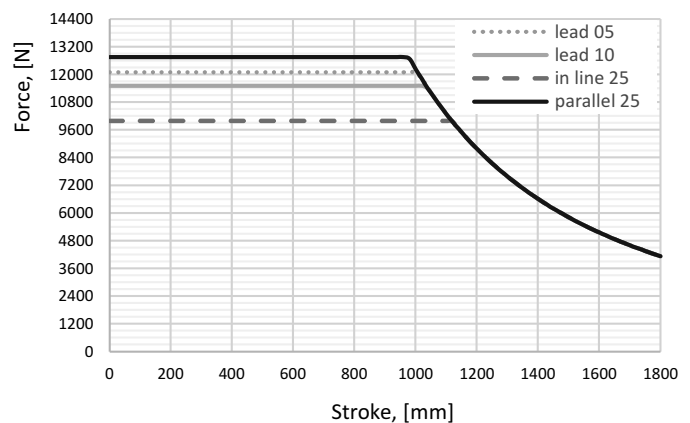
NOTES

- Service life is a statistical value and refers to 90% reliability.
- Correct working conditions: i.e. no lateral-load, no overload, right lubrication, no over-temperature, no short-stroke application..
- The permissible axial force is calculated considering a pushing condition with free rod end and fixed barrel constraint. Contact us for different loading applications and for any questions

8.3 - Permissible Speed



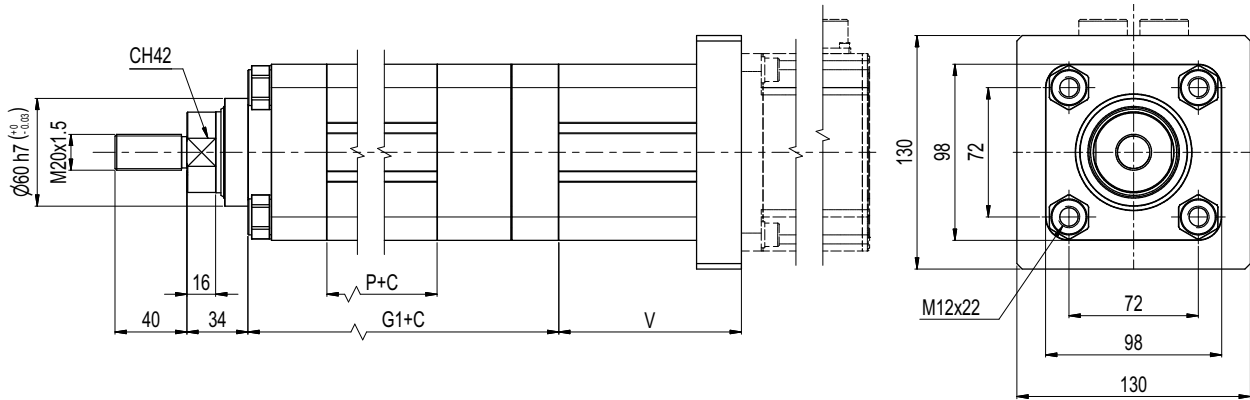
8.4 - Permissible Axial Force



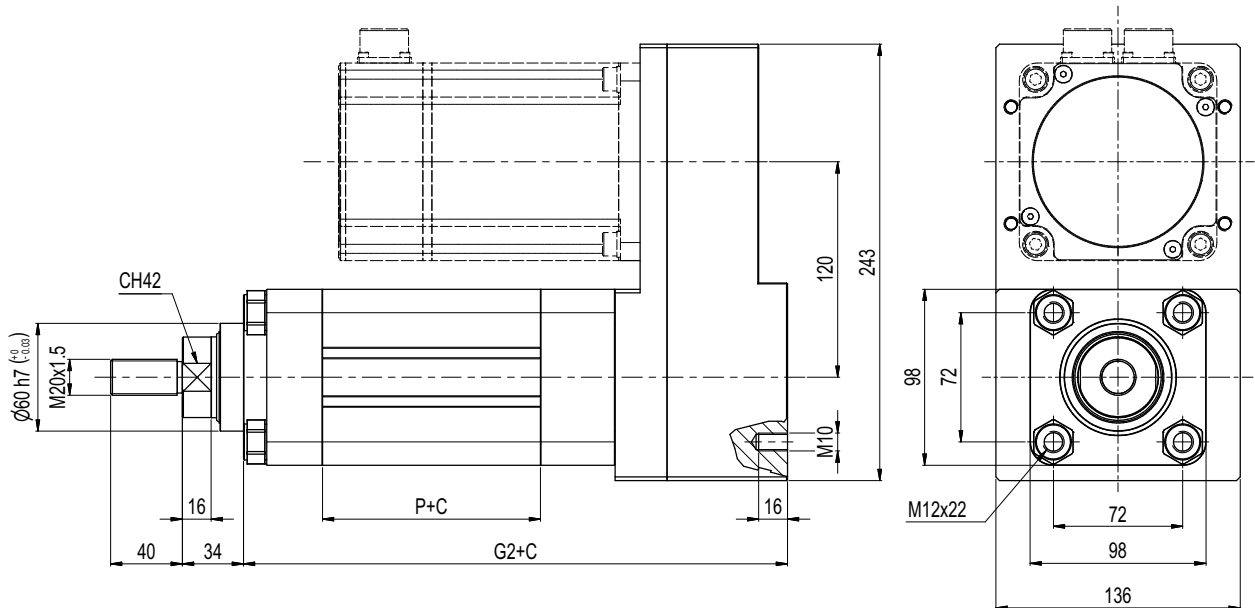
8.5 - ECL3-80 Overall Mounting Dimensions

dimensions in mm

In-line motor mounting



Parallel motor mounting



Ball Screw	P	G1	G2
25X05	121.4	233.2	302.9
25X10	121.4	233.2	302.9
25X25	121.4	233.2	302.9

C = Stroke value

V = Depending on motor dimensions

9 - ECL3-100

9.1 - Technical Characteristics

MECHANICAL	Rod diameter	mm	70	
	Rod end		M42x2	
BALL SCREW	Nominal diameter	mm	38	38
	Lead	mm	10	20
	Dynamic load	N	78382	61509
FORCE	Max force - in line	N	53500	53500
	Max torque - in line	Nm	101.5	196.1
	Max force - parallel	N	53500	53500
	Max torque - parallel	Nm	107.9	208.6
	Dynamic axial force at 2500 km lifetime	N	12442	12302
SPEED	Max speed	rpm	2105	2105
		mm/s	351	702
ACCELERATION	Max acceleration	m/s ²	6.4	12.7
EFFICIENCY	In line	%	84	87
	Parallel	%	79	82

9.2 - Service Life

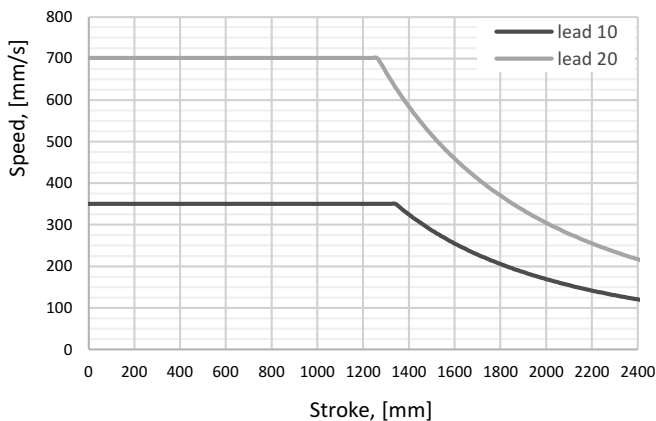
The service life depends on average dynamic axial load.



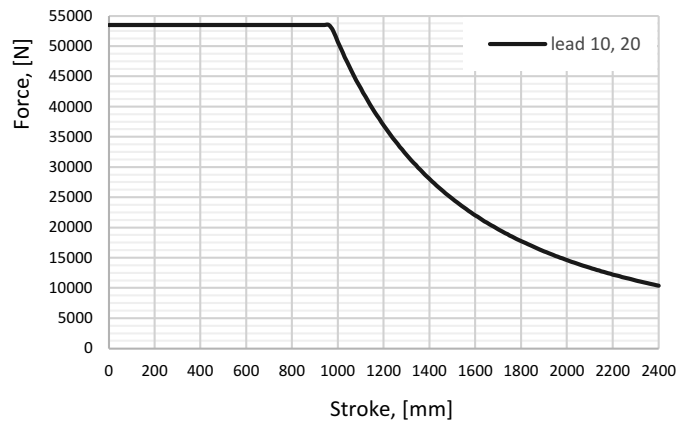
NOTES

- Service life is a statistical value and refers to 90% reliability.
- Correct working conditions: i.e. no lateral-load, no overload, right lubrication, no over-temperature, no short-stroke application..
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9.3 - Permissible Speed



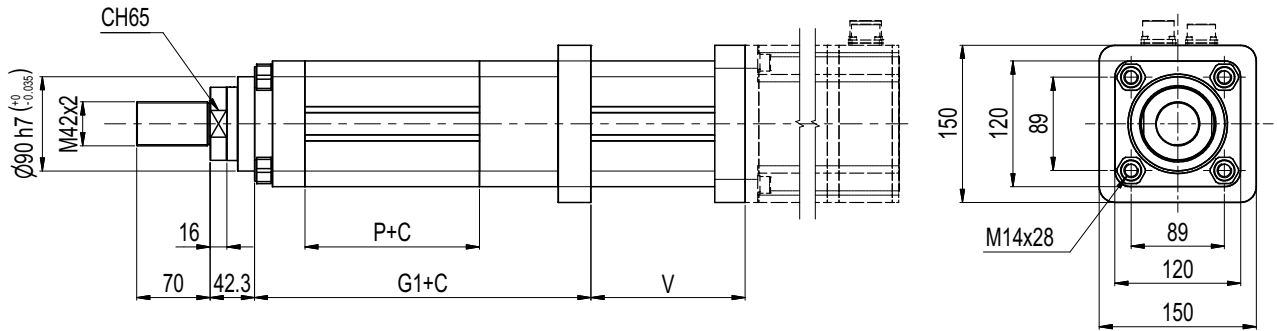
9.4 - Permissible Axial Force



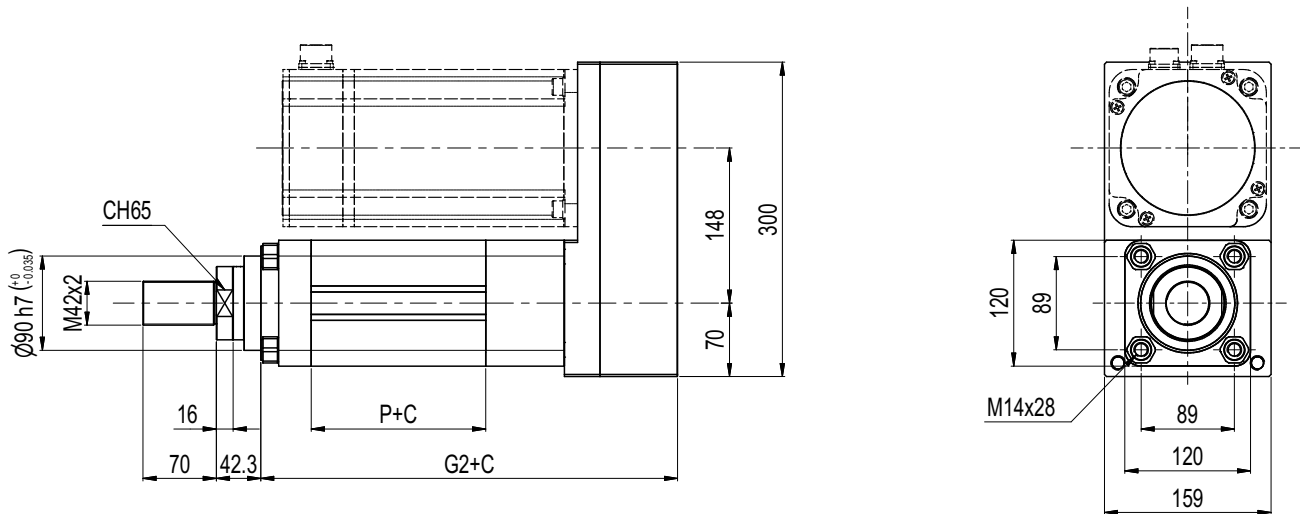
9.5 - ECL3-100 Overall Mounting Dimensions

dimensions in mm

In-line motor mounting



Parallel motor mounting



Ball Screw	P	G1	G2
38X10	166.5	321.1	397.8
38X20	166.5	321.1	397.8

C = Stroke value
V = Depending on motor dimensions

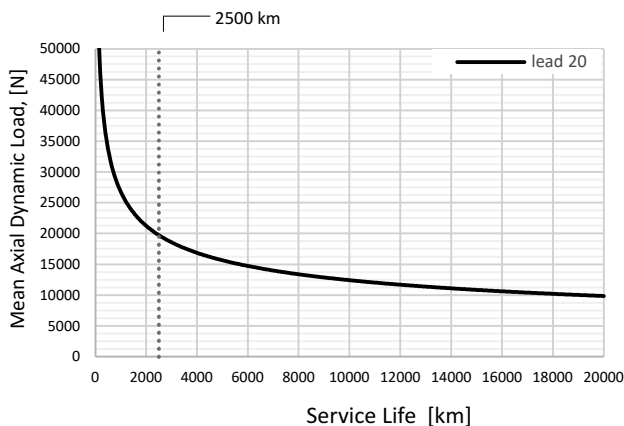
10 - ECL3-125

10.1 - Technical Characteristics

MECHANICAL	Rod diameter	mm	85
	Rod end		M48x2
BALL SCREW	Nominal diameter	mm	50
	Lead	mm	20
	Dynamic load	N	98718
FORCE	Max force - in line	N	88300
	Max torque - in line	Nm	327.1
	Max force - parallel	N	88300
	Max torque - parallel	Nm	348.0
	Dynamic axial force at 2500 km lifetime	N	19744
SPEED	Max speed	rpm	1600
		mm/s	533
ACCELERATION	Max acceleration	m/s ²	12.7
EFFICIENCY	In line	%	86
	Parallel	%	81

10.2 - Service Life

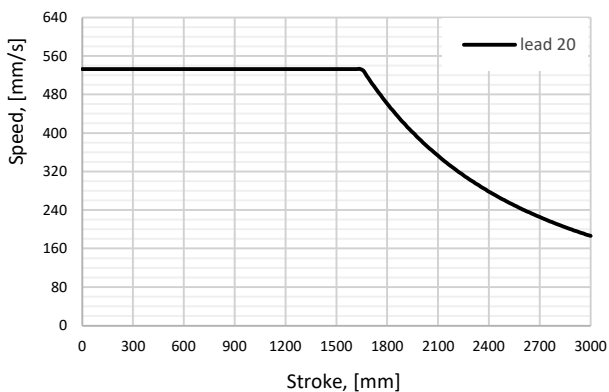
The service life depends on average dynamic axial load.



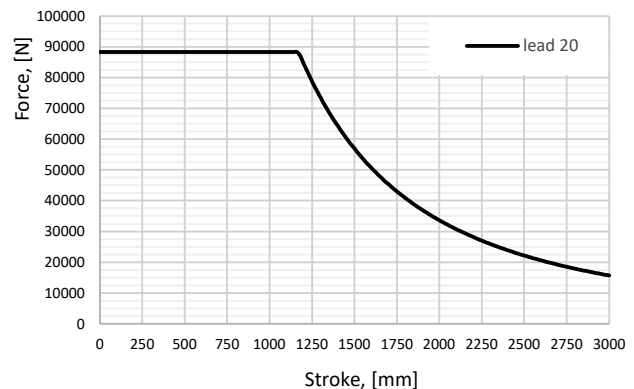
NOTES

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- Correct working conditions: i.e. no lateral-load, no overload, right lubrication, no over-temperature, no short-stroke application..
- The permissible axial force is calculated considering a pushing condition with free rod end and fixed barrel constraint. Contact us for different loading applications and for any questions

10.3 - Permissible Speed



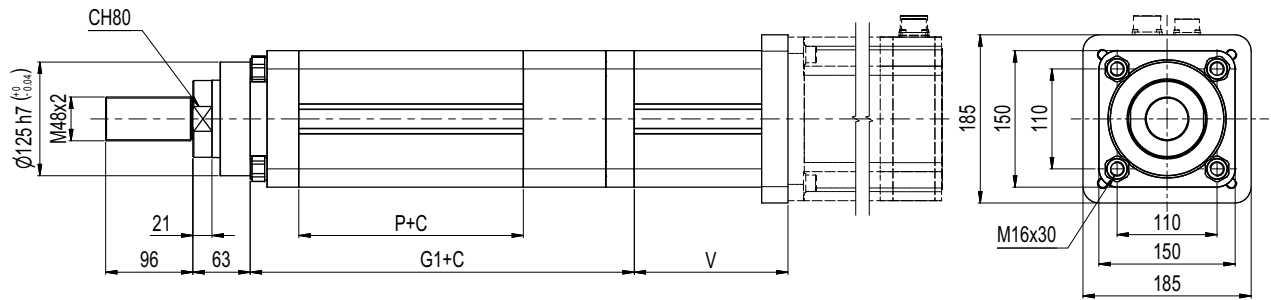
10.4 - Permissible Axial Force



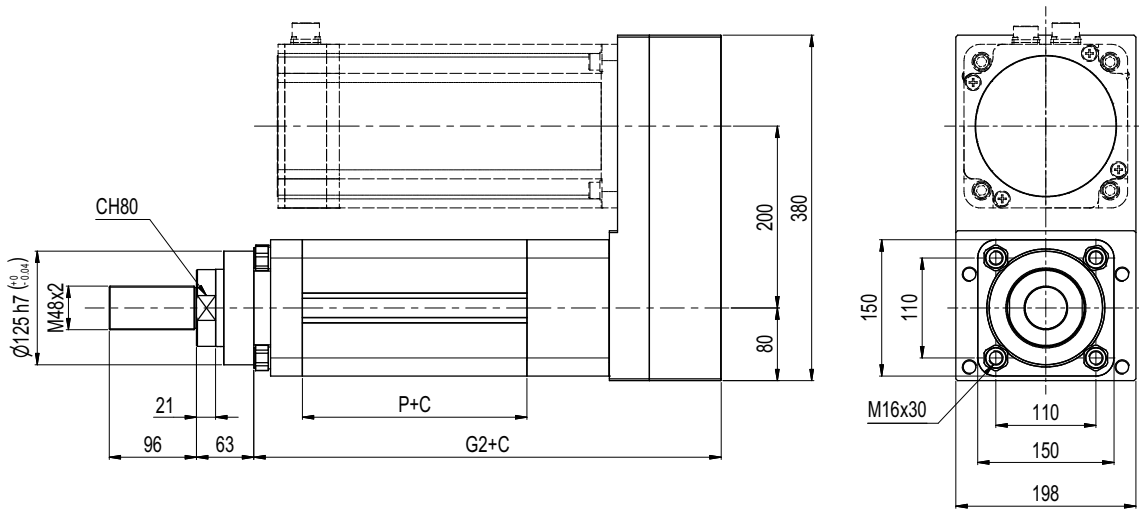
10.5 - ECL3-125 Overall Mounting Dimensions

dimensions in mm

In-line motor mounting



Parallel motor mounting



Ball Screw	P	G1	G2
50X20	247	422.5	514.2

C = Stroke value
V = Depending on motor dimensions

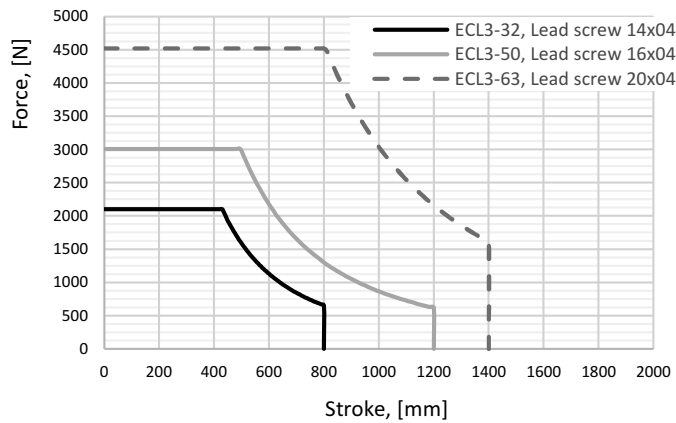
11 - LEAD SCREW TYPES

This crew type is available is available only for actuators in size 32, 50 and 63.

11.1 - Technical Characteristics

CYLINDER SIZE			32	50	63
MECHANICAL	Rod diameter		20	25	30
	Rod end		M10x1.25	M16x1.5	M16x1.5
LEAD SCREWS	Nominal diameter	mm	14	16	20
	Lead	mm	4	4	4
FORCE/TORQUE	Max force - in line	N	2104	3008	4520
	Max torque - in line	Nm	3.3	5.1	9.1
	Max force - parallel	N	2104	3008	4520
	Max torque - parallel	Nm	3.7	5.7	10.1
EFFICIENCY	In line	%	41	37	32
	Parallel	%	37	34	29

11.2 - Permissible Axial Force



NOTES: Correct working conditions: i.e. no lateral-load, no over-load, right lubrication, no over-temperature, no short-stroke application.

The permissible force is calculated considering pushing condition with free rod-end and fixed barrel. Contact us for different load applications.

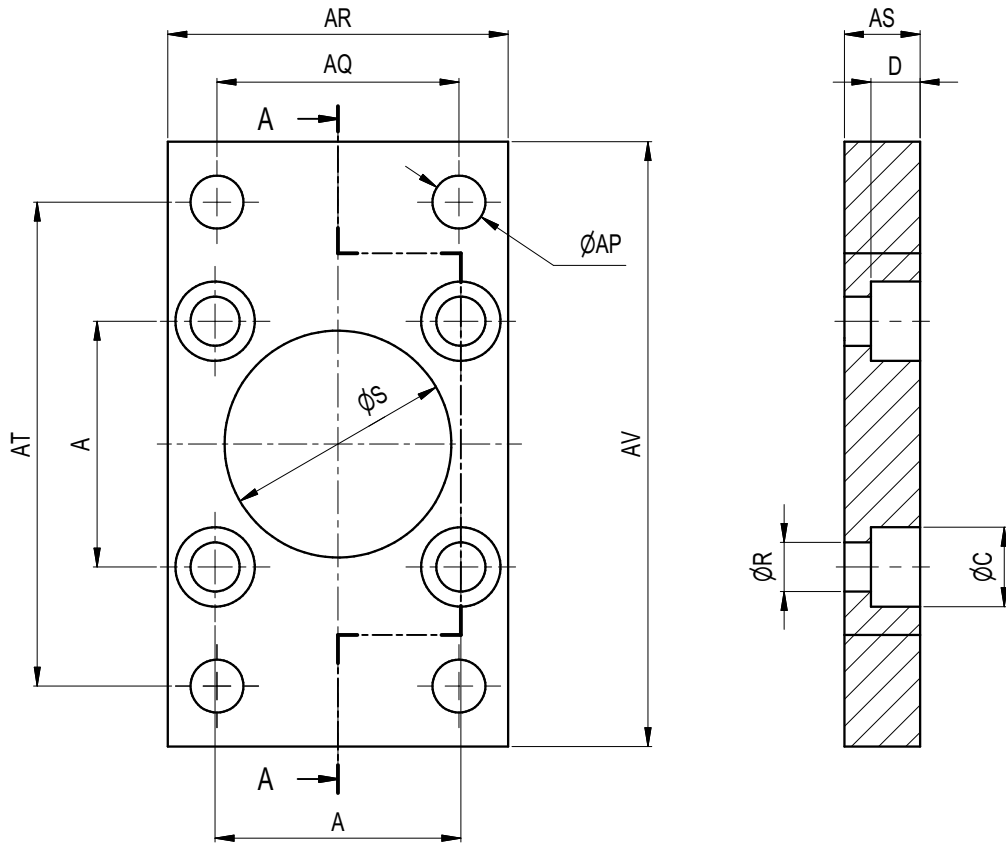
Contact us for any doubt.

12 - MOUNTING TYPE A AND B

A FRONT FLANGE (MF1)

B REAR FLANGE (MF2)

dimensions in mm



NOTE: Can bear same permissible forces allowed on the cylinders

Size	S H11	A ±0.2	AP H13	R	AS ±0.2	AR	AQ JS14	AT JS14	AV	C	D
FFP-32	30	32.5	7	6.5	10	45	32	64	80	10.5	6.5
FFP-40	35	38	9	6.5	10	52	36	72	90	10.5	6.5
FFP-50	40	46.5	9	8.5	12	65	45	90	110	13.5	8.5
FFP-63	45	56.5	9	8.5	12	75	50	100	120	13.5	8.5
FFP-80	60	72	12	12.5	18	95	63	126	150	19	13
FFP-100	90	89	14.5	14.5	20	115	75	150	170	22	15
FFP-125	125	110	16.5	16.5	25	140	90	180	205	25	18

13 - MOUNTING TYPE C

C REAR CLEVIS (MP2) dimensions in mm

NOTE: Contact DMS if higher load are needed

Size	G H9	A ±0.2	L	D H13	R H13	N ±0.5	B	S H11	F	Z ±0.2	G H9	M	CM H14	T h14	Max Load
RPC-32	10	32.5	45	6.6	11	5.5	9	30	5	22	10	10	26	45	1760
RPC-40	12	38	55	6.6	11	5.5	10	35	5	25	12	12	28	52	3230
RPC-50	12	46.5	65	9	15	6.5	11	40	5	27	12	12	32	60	5150
RPC-63	16	56.5	75	9	15	6.5	12	45	5	32	16	16	40	70	7010
RPC-80	16	72	95	11	18	10	14	45	5	36	16	16	50	90	12060
RPC-100	25	110	140	14	20	10	20	60	7	50	25	25	70	130	20220
RPC-125	30	140	180	18	26	10	20	65	7	55	30	25	90	170	32730

13.1 - Rear Square Bracket

13.1 - Rear Square Bracket dimensions in mm

NOTE: Contact DMS if higher load are needed

Type	Size	G H9	Q H13	M H13	BG JS14	BH max	BI JS14	BL	BM JS15	BN JS14	BO max	BS max	BR max	T max	S +0.5 0	F +0.5 0	BQ -0.2 -0.6	Max Load
SBP-32	32	10	6.6	11	18	31	21	8	32	38	51	10	20	1.6	10.5	3	26	1440
SBP-40	40	12	6.6	11	22	35	24	10	36	41	54	10	22	8.5	20	3	28	1960
SBP-50	50	12	9	15	30	45	33	12	45	50	65	16	26	1.6	10.5	3	32	5520
SBP-63	63	16	16	15	35	50	37	12	50	52	67	14	30	10.5	20	3	40	5110
SBP-80	80	16	11	18	40	60	47	14	63	66	86	20	30	2.5	10.5	3	50	11310
SBP-100	100	25	14	20	60	90	70	20	90	94	124	30	45	3.2	10.5	3	70 (*)	18180
SBP-125	125	30	14	20	88	12.6	97	25	115	118	156	36	63	4	-	-	90 (*)	30920

(*) Tolerance values $\begin{matrix} -0.5 \\ -1.2 \end{matrix}$

13.2 - Pin for Rear Clevis

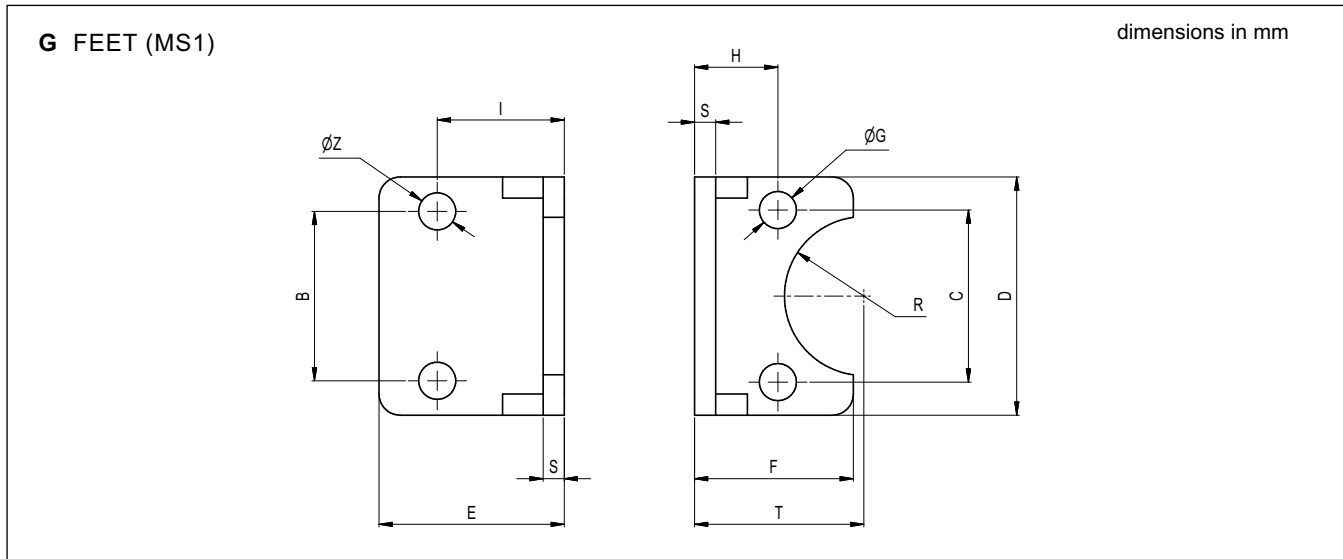
<p>NOTE: Can bear same permissible forces allowed on related accessories</p>	Type	Size	G _{e8}	BT _{+0.3 0}	CG	CH _{H13}	BU
	PNP-32	32	10	46	9.6	1.1	53
	PNP-40	40	12	53	11.5	1.1	60
	PNP-50	50	12	61	11.5	1.1	68
	PNP-63	63	16	71	15.2	1.1	78
	PNP-80	80	16	91	15.2	1.1	98
	PNP-100	100	25	132	23.9	1.1	98
	PNP-125	125	30	171.5	28.6	1.6	178

14 - MOUNTING TYPE D

D REAR EYE (MP4)		dimensions in mm											
NOTE: Contact DMS if higher load are needed													

Type	G _{H9}	A _{±0.2}	L	D _{H13}	R _{H13}	N _{±0.5}	H	S _{H11}	F	C _{±0.2}	T _{max}	B _{-0.2 -0.6}	Max Load
REP-32	10	32.5	45	6.6	11	5.5	9	30	5	22	10	26	2410
REP-40	12	38	52	6.6	11	5.5	9	35	5	25	12	28	3770
REP-50	12	46.5	65	9	15	6.5	11	40	5	27	12	32	5890
REP-63	16	56.5	75	9	15	6.5	11	45	5	32	16	40	9550
REP-80	16	72	95	11	18	10	14	45	5	36	16	50	15080
REP-100	25	110	140	14	20	10	20	60	7	50	25	70	23560
REP-125	30	140	180	18	26	10	26	65	7	55	25	90	36820

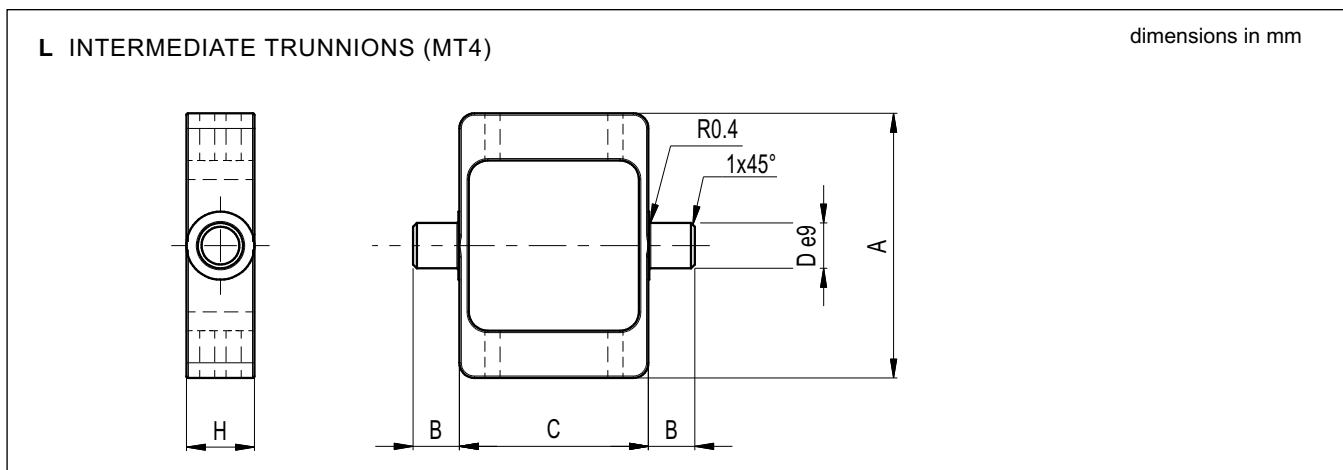
15 - MOUNTING TYPE G



NOTE: Do not use to bear load. If force of the application is applied on this accessory, please contact DMS for technical analysis

Type	Size	C ±0.2	B JS14	D 0 -0.2	E	F +2 0	G H14	H ±0.2	I ±0.2	S ±0.5	T JS15	R H15	U	Z H14
FTP-32	32	32.5	32	45	35	30	7	15.75	24	4	32	15	11	7
FTP-40	40	38	36	52	36	30	7	17	28	4	36	17.5	15	9
FTP-50	50	46.5	45	65	47	36	9	21.75	32	5	45	20	16	9
FTP-63	63	56.5	50	75	45	35	9	21.75	32	5	50	22.5	18	9
FTP-80	80	72	63	95	55	47	11	27	41	6	63	30	17	12
FTP-100	100	89	75	115	57	53	11	26.3	41	6	71	45	24	14.5
FTP-125	125	110	90	140	70	70	14	35	45	8	90	62.5	-	16.5

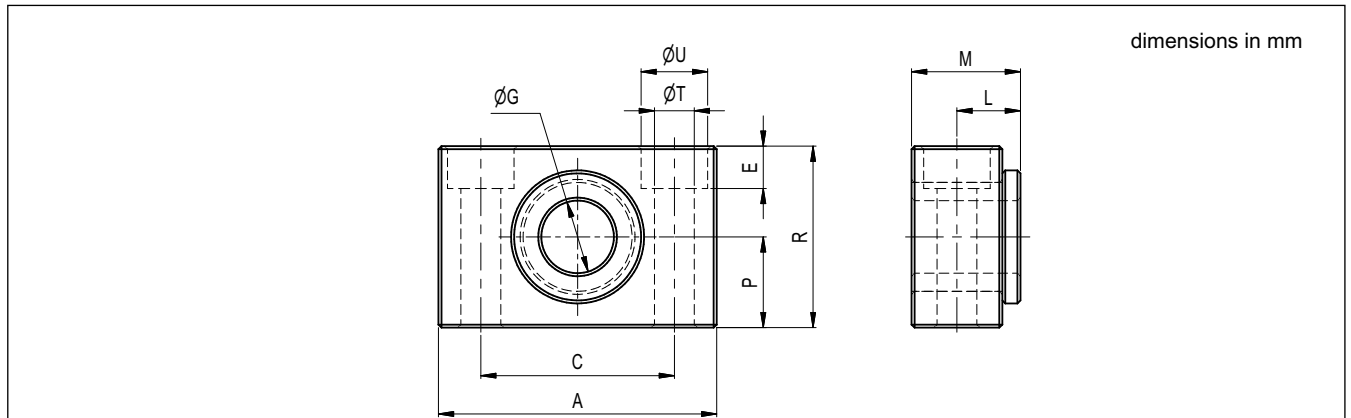
16 - MOUNTING TYPE L



NOTE: Do not use to bear load. If force of the application is applied on this accessory, please contact DMS for technical analysis

Type	Size	A	B	C	D	H
TRP-32	70	12	50	12	18	18
TRP-40	78	16	63	16	20	20
TRP-50	91	16	75	16	20	20
TRP-63	94	20	90	20	25	25
TRP-80	130	20	110	20	25	25
TRP-100	145	25	132	25	30	30
TRP-125	154	25	160	25	32	32

16.1 - Lateral Bracket

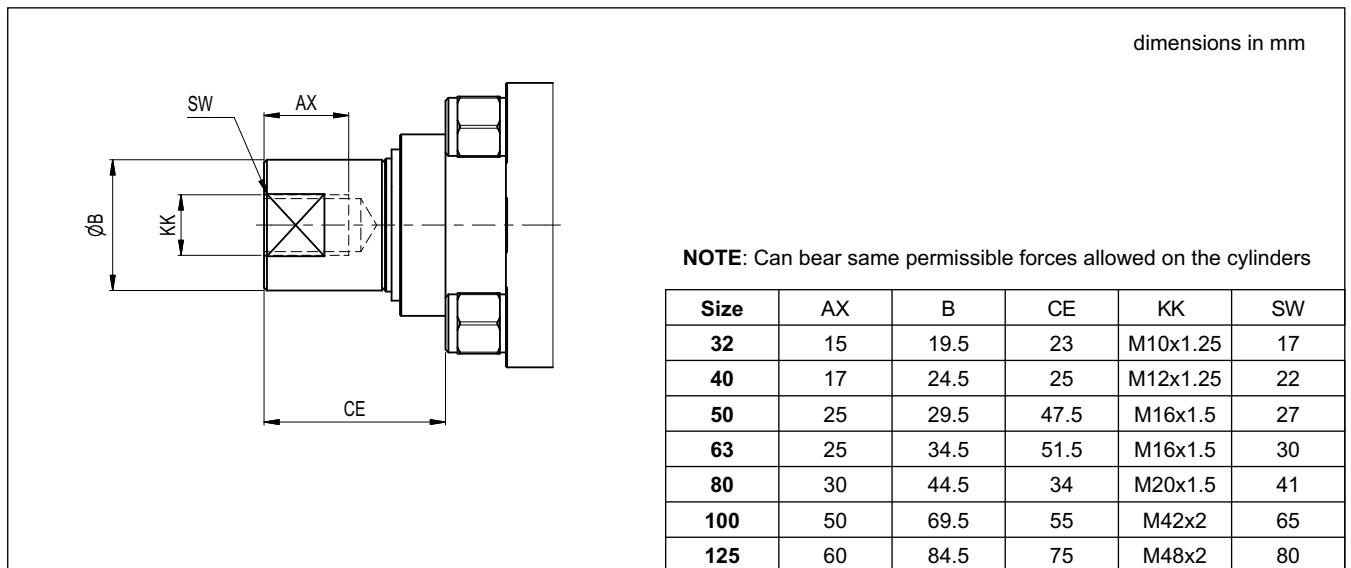


NOTE: Do not use to bear load. If force of the application is applied on this accessory, please contact DMS for technical analysis

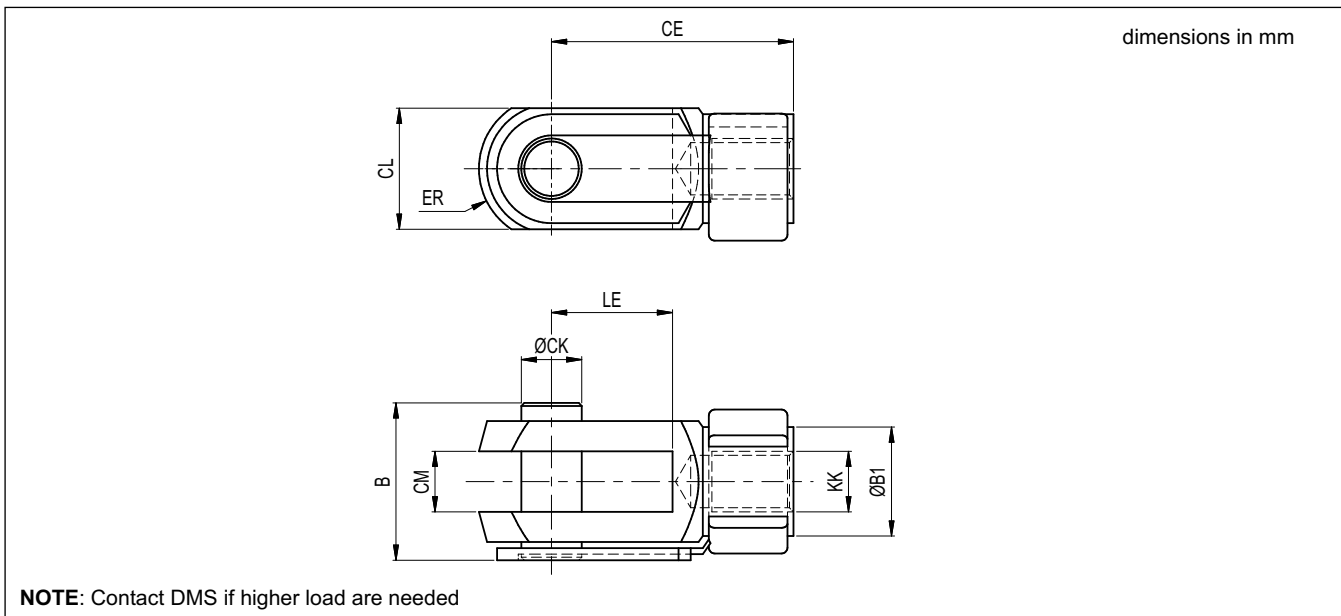
Type	Size	G F7	A	M	R	P ±0.1	C ±0.2	L	U H13	T H13	E ±0.5
BRP-12	32	12	46	18	30	15	32	10.5	11	6.6	7
BRP-16	40	16	55	21	36	18	36	12	15	9	9
	50	16	55	21	36	18	36	12	15	9	9
BRP-20	63	20	65	23	40	20	42	13	18	11	11
	80	20	65	23	40	20	42	13	18	11	11
BRP-25	100	25	75	28.5	50	25	50	16	20	14	13
	125	25	75	28.5	50	25	50	16	20	14	13

17 - OVERALL MOUNTING DIMENSIONS FOR ROD END

17.1 - Female Thread

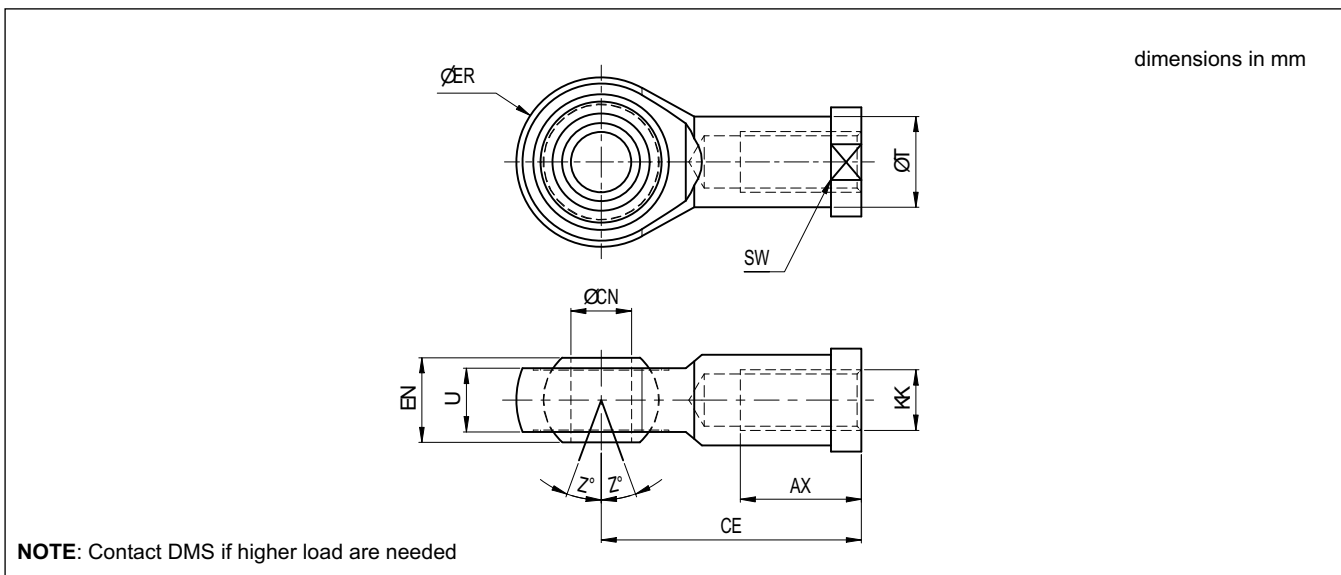


17.2 - Clevis Cap (ISO 8140)



Type	Size	KK	CK	LE	CM	CL	ER	CE	B	B1	Max Load
CLP-M10	32	M10x1.25	10	20	10	20	12	40	26	18	5000
CLP-M12	40	M12x1.25	12	24	12	24	14	48	32	20	7200
CLP-M16	50	M16x1.5	16	32	16	32	19	64	40	26	12800
CLP-M16	63	M16x1.5	16	32	16	32	19	64	40	26	12800
CLP-M20	80	M20x1.5	20	40	20	40	25	80	48	34	20000
CLP-M42	100	M42x2	40	84	40	85	64	168	104.3	70	88750
CLP-M48	125	M48x2	50	96	50	96	73	192	117.3	82	102500

17.3 - Spherical Cap (ISO 8139)



Type	Size	KK	CN	U	EN	ER	AX	CE	T	Z	SW	Max Load
SPP-M10	32	M10x1.25	10	10.5	14	28	20	43	15	6.5	17	3500
SPP-M12	40	M12x1.25	12	12	16	32	22	50	17.5	6.5	19	4750
SPP-M16	50	M16x1.5	16	15	21	42	28	64	22	7.5	22	12000
SPP-M16	63	M16x1.5	16	15	21	42	28	64	22	7.5	22	12000
SPP-M20	80	M20x1.5	20	18	25	50	33	77	27.5	7	30	13000
SPP-M42	100	M42x2	40	33	49	91	60	142	53	8	55	65000
SPP-M48	125	M48x2	50	45	60	117	65	162	65	7	65	77000

