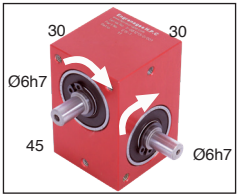
Right angle helical gearbox

Size XS 1 2 3 ★★★

E15

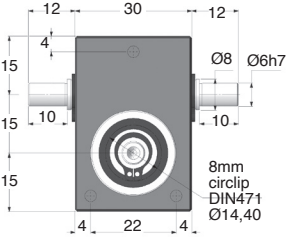
Torque up to 2.53Nm

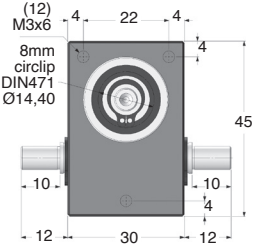
- **Ratios from 1 :1 to 40:1**
- Single piece construction
- Output backlash : ≤ 45' (0,75°)
- Max input speed : up to 4000rpm
- Materials :
  Casing: anodised aluminium
  Gears/worms : high carbon steel
- Ratios 1:1 to 5:1, Input and output: high carbon steel
- Ratios ≥ 8:1, Input :high carbon steel, Output : bronze
- Weight: 0.255 kg



Option

- Can be modified to your specifications





OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
	3000	0,40	0,40	0,40	0,40	0,40	-	-	-	-
	2000	0,46	0,46	0,46	0,46	0,46	0,69	0,79	0,90	1,00
	1000	0,66	0,66	0,66	0,66	0,86	0,86	0,97	1,08	1,19
INPUT	500	0,92	0,92	0,92	0,92	0,92	1,27	1,37	1,47	1,56
SPEED	100	1,19	1,19	1,19	1,19	1,19	1,72	1,78	1,87	1,95
(RPM)	50	1,25	1,25	1,25	1,25	1,25	1,95	2,07	2,18	2,24
	10	1,32	1,32	1,32	1,32	1,32	2,39	2,44	2,51	2,53

DISCOUNTS

Qty	1+	2+	4+	10+
Disc.	List	-10%	-15%	On request

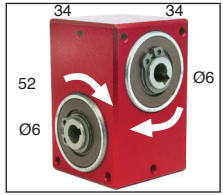
Part number	Ratio	Type	Input	Efficiency at 1000 rpm	Max input speed (rpm)	Reflected inertia at input ($kg.m^2$)	Static self-locking output	Price each
E15-1	1:1	Helical	A	88%	4000	$3,762 \times 10^{-6}$	NO	483,30 €
E15-2	2:1	Helical	A	86%	4000	$2,349 \times 10^{-6}$	NO	483,30 €
E15-3	3:1	Helical	A	85%	4000	$2,011 \times 10^{-6}$	NO	483,30 €
E15-4	4:1	Helical	A	84%	4000	$1,986 \times 10^{-6}$	NO	483,30 €
E15-5	5:1	Helical	A	80%	4000	$1,544 \times 10^{-6}$	NO	483,30 €
E15-8	8:1	Worm+wheel	A	80%	2000	$1,622 \times 10^{-6}$	NO	483,30 €
E15-10	10:1	Worm+wheel	A	73%	2000	$1,609 \times 10^{-6}$	NO	483,30 €
E15-20	20:1	Worm+wheel	A	67%	2000	$1,593 \times 10^{-6}$	YES	483,30 €
E15-40	40:1	Worm+wheel	A	60%	2000	$1,589 \times 10^{-6}$	YES	483,30 €
E15-SP	1:1 - 40:1	**Ratio from 1:1 to 40:1**						On request
E15-SPA	1:1 - 40:1	**Reduced output backlash ≤ 30'**						On request
E15-SPLH	1:1 - 40:1	**Left handed**						On request

Dimensions in mm

Right angle helical gearbox

Torque up to 3.84Nm

- **Ratios from 1:1 to 40:1**
- Single piece construction
- Output backlash ≤ 45' (0,75°)
- Max. input speed up to 4000 rpm
- Materials:
  Casing: anodised aluminium
  gears and worms: case-hardened steel
- Ratios 1:1 to 5:1, input and output: case-hardened steel
- Ratios ≥ 8:1,
  input: case-hardened steel
  output: bronze
- Weight: 0.255 kg

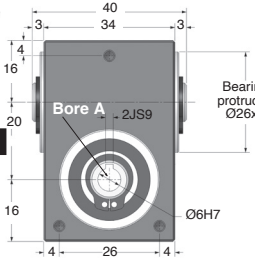


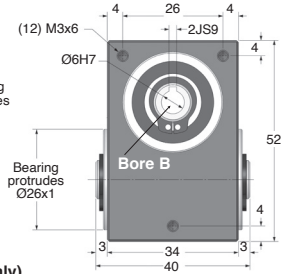
Options

- Can be modified to your specifications

Accessories

- Input or output shafts
  E-X and **E-DX**
  (tome 2 p.183)





OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
INPUT SPEED (RPM)	3000	0,60	0,60	0,60	0,60	0,60	-	-	-	-
	2000	0,70	0,70	0,70	0,70	0,70	1,05	1,20	1,36	1,52
	1000	1,00	1,00	1,00	1,00	1,00	1,31	1,47	1,63	1,80
	500	1,40	1,40	1,40	1,40	1,40	1,93	2,08	2,22	2,37
	100	1,80	1,80	1,80	1,80	1,80	2,60	2,70	2,83	2,95
	50	1,90	1,90	1,90	1,90	1,90	2,95	3,13	3,31	3,40
	10	2,00	2,00	2,00	2,00	2,00	3,62	3,70	3,80	3,84

DISCOUNTS

Qty	1+	2+	4+	10+
Disc.	List	-10%	-15%	On request

Part number	Ratio	Type	Input	Effeciency at 1000 rpm	Max. input speed (rpm)	Reflected inertia at input (kg.m²)	Static self-locking output	Stock*	Price each
E20-1	1:1	Helical	A	88%	4000	3,762 x 10^{-6}	NO	✔	535,64 €
E20-2	2:1	Helical	A	86%	4000	2,349 x 10^{-6}	NO	-	535,64 €
E20-3	3:1	Helical	A	85%	4000	2,011 x 10^{-6}	NO	-	535,64 €
E20-4	4:1	Helical	A	84%	4000	1,986 x 10^{-6}	NO	-	535,64 €
E20-5	5:1	Helical	A	80%	4000	1,544 x 10^{-6}	NO	-	535,64 €
E20-8	8:1	Worm+wheel	A	80%	2000	1,622 x 10^{-6}	NO	-	535,64 €
E20-10	10:1	Worm+wheel	A	73%	2000	1,609 x 10^{-6}	NO	-	535,64 €
E20-20	20:1	Worm+wheel	A	67%	2000	1,593 x 10^{-6}	YES	✔	535,64 €
E20-40	40:1	Worm+wheel	A	60%	2000	1,589 x 10^{-6}	YES	✔	535,64 €
E20-SP	1:1 - 40:1	**Ratio from 1:1 to 40:1**						-	On request
E20-SPA	1:1 - 40:1	**Reduced output backlash ≤ 30'**							On request
E20-SPLH	1:1 - 40:1	**Left handed**							On request

*Depending on availability - Dimensions in mm

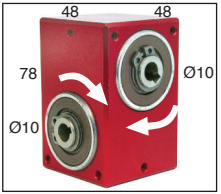
Right angle helical gearbox

Size XS 1 2 3 ★★★

E30

Torque up to 9Nm

- ***Ratios from 1:1 to 40:1***
- *Single piece construction*
- *Output backlash ≤ 45' (0,75°)*
- *Max. input speed up to 3000 rpm*
- *Materials:*
  Casing: anodised aluminium
  gears and worms: case-hardened steel
- *Ratios 1:1 to 5:1, input and output: case-hardened steel*
- *Ratios ≥ 8:1,*
  input: case-hardened steel
  output: bronze
- *Weight: 0.72 kg*

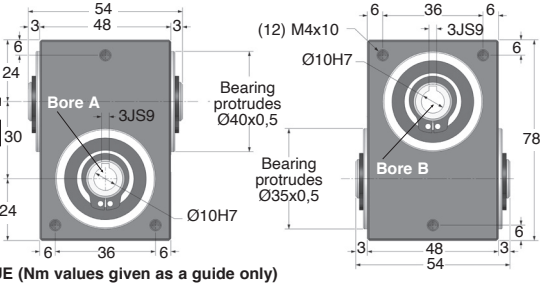


Options

- *Can be modified your specification*

Accessories

- *Input or output shafts*
  E-X** and **E-DX
  (tome 2 p.183)



OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
	3000	1,5	1,5	1,5	1,5	1,5	-	-	-	-
	2000	2,0	2,0	2,0	2,0	2,0	-	-	-	-
	1000	2,5	2,5	2,5	2,5	2,5	3,6	4,2	4,7	5,0
INPUT	500	3,0	3,0	3,0	3,0	3,0	4,9	5,3	5,6	6,0
SPEED	100	4,0	4,0	4,0	4,0	4,0	6,5	7,0	7,1	7,3
(RPM)	50	4,5	4,5	4,5	4,5	4,5	7,9	8,4	8,5	8,6
	10	5,0	5,0	5,0	5,0	5,0	8,5	8,7	8,9	9,0

DISCOUNTS

Qty	1+	2+	4+	10+
Disc.	List	-10%	-15%	On request

Part number	Ratio	Type	Input	Effeciency at 1000 rpm	Max. input speed (rpm)	Reflected inertia at input (kg.m²)	Static self-locking output	Stock*	Price each
E30-1	1:1	Helical	B	90%	3000	2,867 x 10^{-6}	NO	✔	614,84 €
E30-2	2:1	Helical	A	88%	3000	1,362 x 10^{-6}	NO	✔	614,84 €
E30-3	3:1	Helical	A	87%	3000	1,071 x 10^{-6}	NO	✔	614,84 €
E30-4	4:1	Helical	A	86%	3000	1,032 x 10^{-6}	NO	✔	469,34 €
E30-5	5:1	Helical	A	80%	3000	9,372 x 10^{-6}	NO	✔	614,84 €
E30-8	8:1	Worm+wheel	A	80%	1000	1,115 x 10^{-6}	NO	-	614,84 €
E30-10	10:1	Worm+wheel	A	73%	1000	1,106 x 10^{-6}	NO	✔	614,84 €
E30-20	20:1	Worm+wheel	A	67%	1000	1,094 x 10^{-6}	YES	✔	614,84 €
E30-40	40:1	Worm+wheel	A	60%	1000	1,091 x 10^{-6}	YES	-	614,84 €
E30-SP	1:1 - 40:1	**Ratio from 1:1 to 40:1**							On request
E30-SPA	1:1 - 40:1	**Reduced output backlash ≤ 30'**							On request
E30-SPLH	1:1 - 40:1	**Left handed**							On request

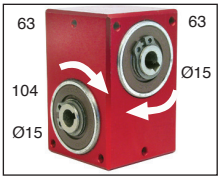
**Depending on availability - Dimensions in mm*

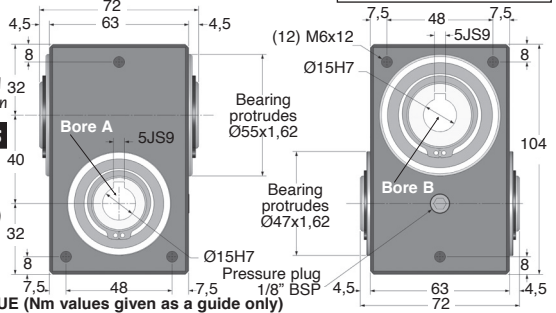
Right angle helical gearbox

Torque up to 20Nm

E40

- **Ratios from 1:1 to 40:1**
- Single piece construction
- Output backlash ≤ 45' (0,75°)
- Max. input speed up to 3000 rpm
- Materials:
  Casing: anodised aluminium
  gears and worms: case-hardened steel
- Ratios 1:1 to 5:1, input and output: case-hardened steel
- Ratios ≥ 8:1, input: case-hardened steel
  output: bronze
- Weight: 1.67 kg





Options

- Can be modified your specification

Accessories

- Input or output shafts
  E-X and **E-DX**
  (tome 2 p.183)

OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
INPUT SPEED (RPM)	3000	2,3	2,3	2,3	2,3	2,3	-	-	-	-
	2000	2,8	2,8	2,8	2,8	2,8	-	-	-	-
	1000	3,8	3,8	3,8	3,8	3,8	7,3	8,0	8,8	9,7
	500	5,0	5,0	5,0	5,0	5,0	10,7	11,3	12,2	13,1
	100	8,0	8,0	8,0	8,0	8,0	14,2	15,0	15,8	16,7
	50	9,0	9,0	9,0	9,0	9,0	17,1	17,3	17,7	18,2
	10	10,0	10,0	10,0	10,0	10,0	19,5	19,6	19,8	20,0

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Type	Input	Effeciency at 1000 rpm	Max. input speed (rpm)	Reflected inertia at input (kg.m²)	Static self-locking output	Stock*	Price each
E40-1	1:1	Helical	B	92%	3000	1,471 x 10^{-4}	NO	✔	785,23 €
E40-2	2:1	Helical	A	90%	3000	6,738 x 10^{-5}	NO	✔	785,23 €
E40-3	3:1	Helical	A	89%	3000	5,193 x 10^{-5}	NO	-	785,23 €
E40-4	4:1	Helical	A	88%	3000	5,038 x 10^{-5}	NO	✔	785,23 €
E40-5	5:1	Helical	A	80%	3000	5,095 x 10^{-5}	NO	-	785,23 €
E40-8	8:1	Worm+wheel	A	80%	1000	5,213 x 10^{-5}	NO	-	785,11 €
E40-10	10:1	Worm+wheel	A	73%	1000	5,198 x 10^{-5}	NO	✔	785,11 €
E40-20	20:1	Worm+wheel	A	67%	1000	5,110 x 10^{-5}	YES	✔	785,23 €
E40-40	40:1	Worm+wheel	A	60%	1000	5,090 x 10^{-5}	YES	-	785,11 €
E40-SP	1:1 - 40:1	**Ratio from 1:1 to 40:1**							On request
E40-SPA	1:1 - 40:1	**Reduced output backlash ≤ 30'**							On request
E40-SPLH	1:1 - 40:1	**Left handed**							On request

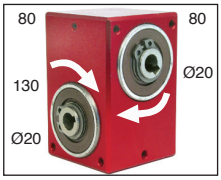
*Depending on availability - Dimensions in mm

Right angle helical gearbox

E50

Torque up to 41Nm

- ***Ratios from 1:1 to 40:1***
- *Single piece construction*
- *Output backlash ≤ 45' (0,75°)*
- *Max. input speed up to 3000 rpm*
- *Materials:*
  Casing: anodised aluminium
  gears and worms: case-hardened steel
- *Ratios 1:1 to 5:1, input and output: case-hardened steel*
- *Ratios ≥ 8:1, input: case-hardened steel, output: bronze*
- *Weight: 3.18 kg*

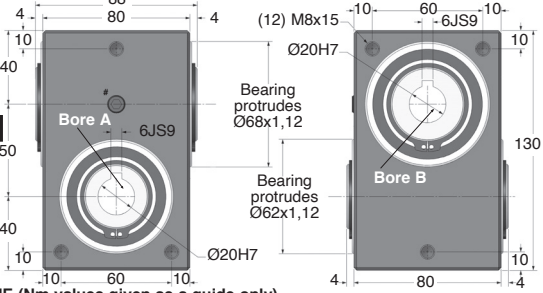


Options

- *Can be modified to your specifications*

Accessories

- *Input or output shafts*
  E-X *and* **E-DX**
  (tome 2 p.183)



OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
INPUT SPEED (RPM)	3000	3,0	3,0	3,0	3,0	3,0	-	-	-	-
	2000	4,0	4,0	4,0	4,0	4,0	-	-	-	-
	1000	6,0	6,0	6,0	6,0	6,0	11,3	13,0	15,0	17,0
	500	8,0	8,0	8,0	8,0	8,0	18,0	20,0	21,0	23,0
	100	12,0	12,0	12,0	12,0	12,0	25,0	26,0	28,0	30,0
	50	14,0	14,0	14,0	14,0	14,0	31,0	31,0	32,0	33,0
	10	16,0	16,0	16,0	16,0	16,0	40,0	40,0	41,0	41,0

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Type	Input	Effeciency at 1000 rpm	Max. input speed (rpm)	Reflected inertia at input (kg.m²)	Static self-locking output	Stock*	Price each
E50-1	1:1	Helical	B	93%	3000	4,585 x 10⁻⁴	NO	✔	998,67 €
E50-2	2:1	Helical	A	91%	3000	2,240 x 10⁻⁴	NO	✔	998,67 €
E50-3	3:1	Helical	A	90%	3000	1,759 x 10⁻⁴	NO	✔	998,67 €
E50-4	4:1	Helical	A	89%	3000	1,924 x 10⁻⁴	NO	✔	998,67 €
E50-5	5:1	Helical	A	80%	3000	1,920 x 10⁻⁴	NO	✔	998,67 €
E50-8	8:1	Worm+wheel	A	80%	1000	1,489 x 10⁻⁴	NO	✔	998,67 €
E50-10	10:1	Worm+wheel	A	73%	1000	1,496 x 10⁻⁴	NO	-	998,67 €
E50-20	20:1	Worm+wheel	A	67%	1000	1,463 x 10⁻⁴	YES	✔	998,67 €
E50-40	40:1	Worm+wheel	A	60%	1000	1,455 x 10⁻⁴	YES	✔	998,67 €
E50-SP	1:1 - 40:1	**Ratio from 1:1 to 40:1**							On request
E50-SPA	1:1 - 40:1	**Reduced output backlash ≤ 30'**							On request
E50-SPLH	1:1 - 40:1	**Left handed**							On request

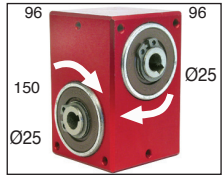
**Depending on availability - Dimensions in mm*

Right angle helical gearbox

E60

Torque up to 62Nm

- **Ratios from 1:1 to 40:1**
- Single piece construction
- Output backlash ≤ 45' (0,75°)
- Max. input speed up to 3000 rpm
- Materials:
  casing: anodised aluminium
  gears and worms: case-hardened steel
- Ratios 1:1 to 5:1, input and output: case-hardened steel
- Ratios ≥ 8:1, input: case-hardened steel, output: bronze
- Weight: 5.50 kg

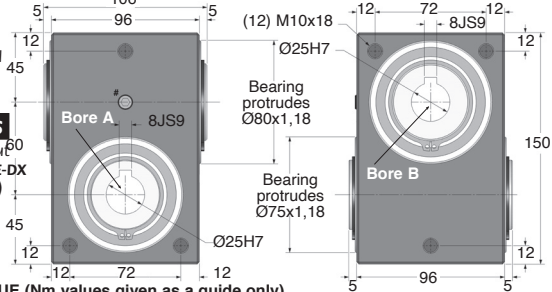


Options

- Can be modified to your specifications

Accessories

- Input and output shafts **E-X** and **E-DX** (tome 2 p.183)



OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
INPUT SPEED (RPM)	3000	4,5	4,5	4,5	4,5	4,5	-	-	-	-
	2000	5,5	5,5	5,5	5,5	5,5	-	-	-	-
	1000	8,0	8,0	8,0	8,0	8,0	17,8	21,3	22,0	24,0
	500	10,0	10,0	10,0	10,0	10,0	27,0	29,0	31,0	34,0
	100	16,0	16,0	16,0	16,0	16,0	37,0	40,2	42,0	44,0
	50	20,0	20,0	20,0	20,0	20,0	48,0	49,0	50,0	51,0
	10	24,0	24,0	24,0	24,0	24,0	60,0	60,0	61,0	62,0

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Type	Input	Effeciency at 1000 rpm	Max. input speed (rpm)	Reflected inertia at input (kg.m²)	Static self-locking output	Stock*	Price each
E60-1	1:1	Helical	B	94%	3000	1,319 x 10^{-3}	NO	✔	1 203,93 €
E60-2	2:1	Helical	A	92%	3000	6,507 x 10^{-4}	NO	-	1 203,93 €
E60-3	3:1	Helical	A	91%	3000	5,111 x 10^{-4}	NO	-	1 203,93 €
E60-4	4:1	Helical	A	90%	3000	5,543 x 10^{-4}	NO	✔	1 203,93 €
E60-5	5:1	Helical	A	80%	3000	5,489 x 10^{-4}	NO	-	1 203,93 €
E60-8	8:1	Worm+wheel	A	80%	1000	4,951 x 10^{-4}	NO	✔	1 203,93 €
E60-10	10:1	Worm+wheel	A	73%	1000	4,911 x 10^{-4}	NO	✔	1 203,93 €
E60-20	20:1	Worm+wheel	A	67%	1000	4,859 x 10^{-4}	YES	✔	1 203,93 €
E60-40	40:1	Worm+wheel	A	60%	1000	4,846 x 10^{-4}	YES	✔	1 203,93 €
E60-SP	1:1 - 40:1	**Ratio from 1:1 to 40:1**							On request
E60-SPA	1:1 - 40:1	**Reduced output backlash ≤ 30'**							On request
E60-SPLH	1:1 - 40:1	**Left handed**							On request

*Depending on availability - Dimensions in mm

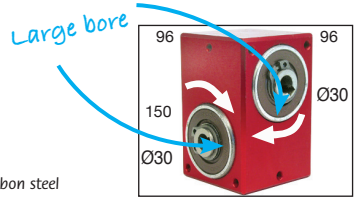
Right angle helical gearbox

Stock 1 2 3 ★★★

E60B

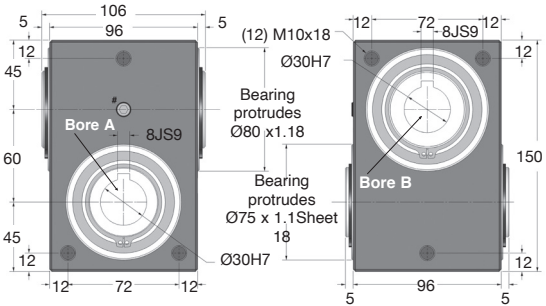
Torque up to 24Nm

- **Ratios from 1 :1 to 4:1**
- Large bore
- Single block construction
- Output backlash : ≤ 45' (0,75°)
- Max input speed : up to 3000rpm
- Materials :
  - Casing: anodised aluminium
  - Gears : high carbon steel
  - Ratios 1: to 4:1, Input and output: high carbon steel
- Weight: 5.5 kg



Option

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1	3:1
INPUT SPEED (RPM)	3000	4,5	4,5	4,5
	2000	5,5	5,5	5,5
	1000	8,0	8,0	8,0
	500	10,0	10,0	10,0
	200	16,0	16,0	16,0
	100	20,0	20,0	20,0
	50	24,0	24,0	24,0

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Type	Input	Effeciency at 1000 rpm	Max. input speed (rpm)	Reflected inertia at input (kg.m²)	Self-locking output	Stock*	Price each
E60B-1	1:1	Helical	B	94%	3000	$1,237 \times 10^{-3}$	NO	-	1 203,93 €
E60B-2	2:1	Helical	A	92%	3000	$6,023 \times 10^{-4}$	NO	-	1 203,93 €
E60B-3	3:1	Helical	A	91%	3000	$4,651 \times 10^{-4}$	NO	-	1 203,93 €
E60B-4	4:1	Helical	A	90%	3000	$5,026 \times 10^{-4}$	NO	-	1 203,93 €
E60B-SP	1:1 - 40:1	**Ratio from 1:1 to 40:1**						-	On request
E60B-SPA	1:1 - 40:1	**Reduced output backlash ≤ 30'**						-	On request
E60B-SPLH	1:1 - 40:1	**Left handed**						-	On request

*Depending on availability - Dimensions in mm

For E gearboxes

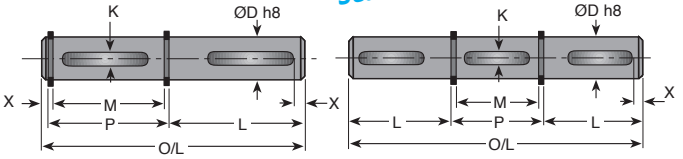
EX
EDX

- *Optional accessory for adding outputs shafts to E series gearboxes*

Composition

- *Single sided shaft kit E-X: shaft in stainless steel 303, 2 steel keys and 2 steel circlips*
- *Double shaft kit E-DX: stainless steel 303 shaft, 3 steel keys and 2 steel circlips*





Single sided shaft E-X — **Double sided shaft E-DX**



Single sided — **Double sided**

Assembly examples

DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

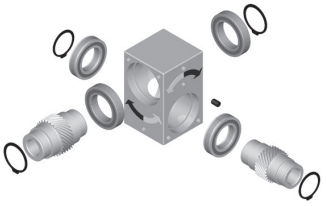
Part number	For gearbox	ØD	O/L	M	P	X	L	K	Price each 1 to 5
Single sided									
E20-X	E20	6	68,80	40	41,60	3,00	25	K2 x 22	34,21 €
E30-X	E30	10	98,60	54	56,20	3,50	40	K3 x 20	40,48 €
E40-X	E40	15	127,10	72	74,20	4,00	50	K5 x 30	49,24 €
E50-X	E50	20	153,80	88	90,60	4,50	60	K6 x 32	57,24 €
E60-X	E60	25	182,30	106	108,60	5,00	70	K8 x 40	59,29 €
Double sided									
E20-DX	E20	6	91,60	40	41,60	3,00	25	K2 x 22	44,14 €
E30-DX	E30	10	136,20	54	56,20	3,50	40	K3 x 20	50,81 €
E40-DX	E40	15	174,20	72	74,20	4,00	50	K5 x 30	59,11 €
E50-DX	E50	20	210,60	88	90,60	4,50	60	K6 x 32	68,69 €
E60-DX	E60	25	248,60	106	108,60	5,00	70	K8 x 40	80,09 €

Dimensions in mm

- ***Speed ratio: from 1:1 to 40:1***
- *Materials :*
  casing anodised aluminium
  gears in case hardened
  (ratio >8 : output aluminium bronze)
- *Max. speed: 3000 to 4000 rpm at input depending on model*
- *Backlash(output): ≤ 45' (0,75°)*
  (≤ 0°30' optional)
- *Lubrification: greased for life*
  (Shell Gadus S2 V220AD 2)
- *Guarantee: 13 months*
- *Steel bearing with single ball*
- *Lubrication temperature :*
  max operating 60°C
- *Cooling may be needed dependent on application*

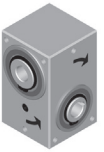


Typical application





Left handed teeth (LH)



Right handed teeth (RH)

ADMISSIBLE LOADS

Part number	Distance 'X' (mm)	Radial load (N)	Axial load (N)
E15	6	150	100
E20	6	150	100
E30	10	200	150
E40	12	400	300
E50	20	600	400
E60	25	800	500
E60B	25	800	500

Data given based on input speed of 1,000 rpm.
Values given as an indication only.

