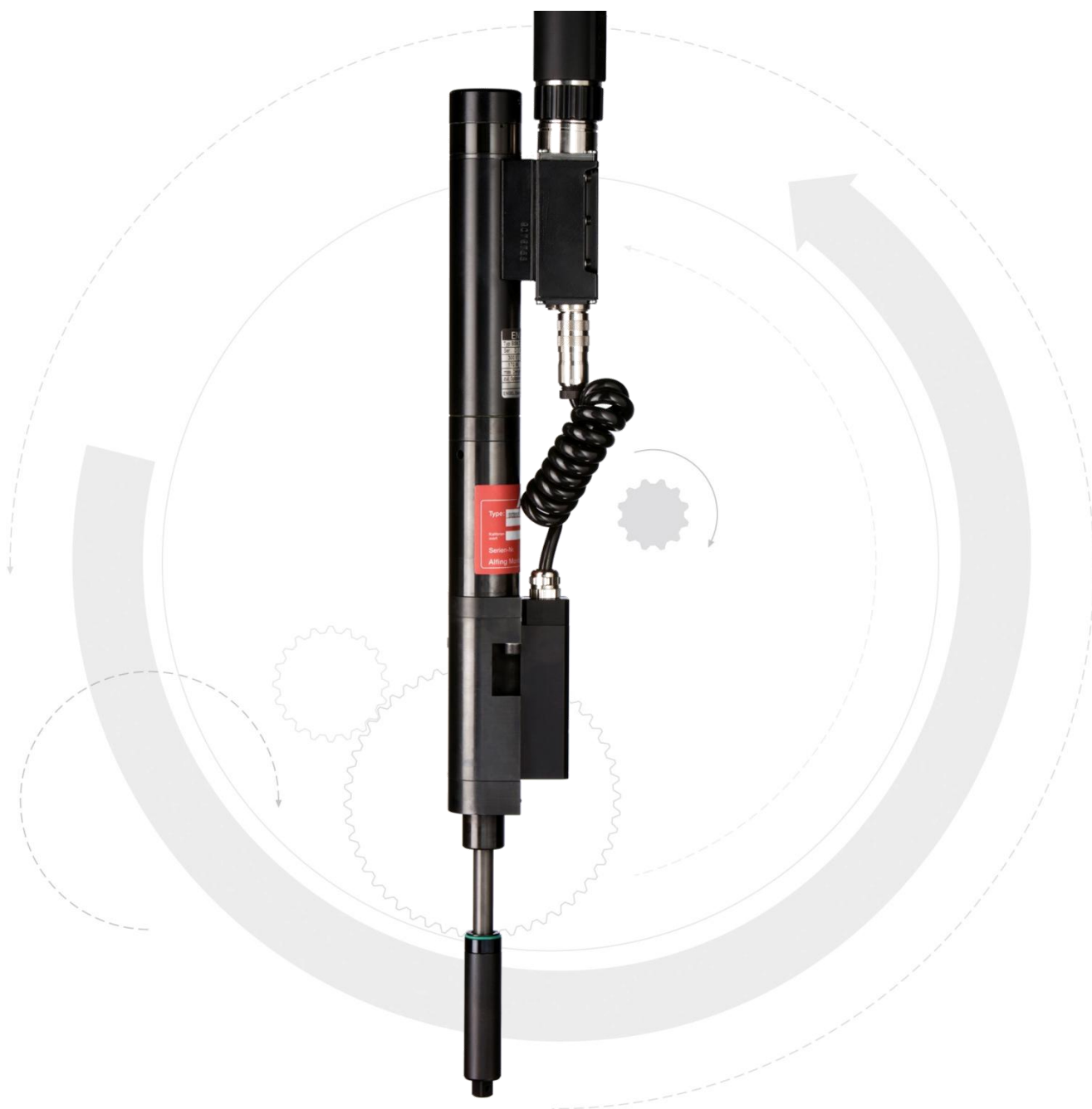


HIGH POWER Built-In Nutrunner**E 1.1****■ Built-In Nutrunner – Centric Drive**

Torque up to 1200 Nm

Speed up to 1200 rpm



Built-In Nutrunner – Centric Drive

HIGH POWER Built-In Nutrunner

Designation Code Subassemblies

E 1.1

1 Motor and gear units

Design

ECR105

ECR = Built-in tool, brushless driving motor, Resolver
1 = Size 1, 2, 3, 4
05 = Capacity x 10 in Nm



2 Torque sensors

Reaction torque sensor

DR50

D = Torque sensor
R = Reaction torque sensor
50 = Nominal torque of the torque sensor



Reaction torque sensor
with angle encoder

DWR50

D = Torque sensor
W = Angle encoder
R = Reaction torque sensor
50 = Nominal torque of the torque sensor



Action torque sensor

DA50

D = Torque sensor
A = Action torque sensor
50 = Nominal torque of the torque sensor



Action torque sensor
with angle encoder

DWA50

D = Torque sensor
W = Angle encoder
A = Action torque sensor
50 = Nominal torque of the torque sensor



3 Drive units

Centric design
without torque sensor

AZ125

A = Drive
Z = Centric drive
1 = Size 1, 2, 3, 4
25 = Spring travel 25 mm; 50 mm; 80 mm



4 Socket adapter designation

SK1-1/2-50

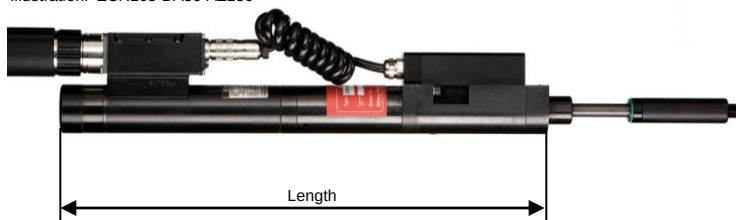
SK = Socket adapter
1 = Size 1, 2, 3
1/2 = Size of the square drive in inches
50 = Spring travel 25 mm; 50 mm, 80 mm



Built-In Nutrunner Size 1 – Centric Drive

E 1.1.1

Illustration: ECR105 DA50 AZ150



Size 1

4 Nm up to 51 Nm

■ Technical Data

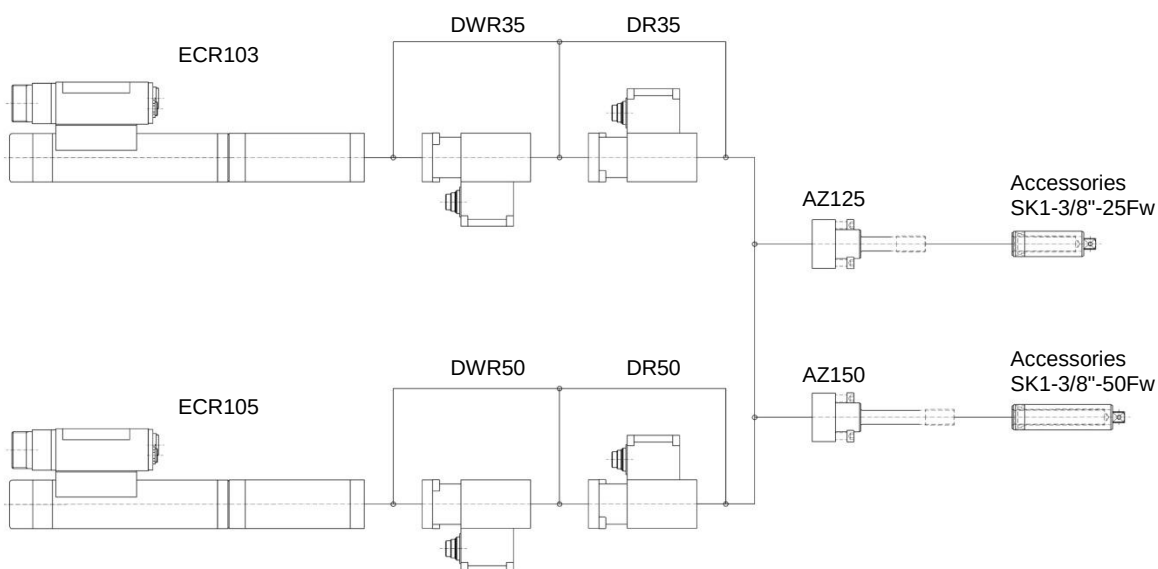
	Max. torque capacity in Nm	Torque range Nm	Type	Max. idle speed rpm	Length mm	Weight kg	Sound Level db (A)	Ident-No.
	Built-in nutrunner without torque sensor							
A	34	11 - 30	ECR103 AZ125	990	327	3,1	67	792 0000
	34	11 - 30	ECR103 AZ150	990	327	3,1	67	792 0001
	51	16 - 45	ECR105 AZ125	661	327	3,1	67	792 0002
	51	16 - 45	ECR105 AZ150	661	327	3,1	67	792 0003
	Built-in nutrunner with reaction torque sensor for calibration							
B	34	11 - 30	ECR103 DWR35 AZ125	990	421	3,5	67	792 0004
	34	11 - 30	ECR103 DWR35 AZ150	990	421	3,5	67	792 0005
	51	16 - 45	ECR105 DWR50 AZ125	661	421	3,5	67	792 0006
	51	16 - 45	ECR105 DWR50 AZ150	661	421	3,5	67	792 0007
	Built-in nutrunner with reaction torque sensor							
C	34	11 - 30	ECR103 DR35 AZ125	990	421	3,4	67	792 0384
	34	11 - 30	ECR103 DR35 AZ150	990	421	3,4	67	792 0385
	51	16 - 45	ECR105 DR50 AZ125	661	421	3,4	67	792 0386
	51	16 - 45	ECR105 DR50 AZ150	661	421	3,4	67	792 0387
	Built-in nutrunner with two reaction torque sensors							
D	34	11 - 30	ECR103 DWR35 DR35 AZ125	990	515	4,9	67	792 0402
	34	11 - 30	ECR103 DWR35 DR35 AZ150	990	515	4,9	67	792 0403
	51	16 - 45	ECR105 DWR50 DR50 AZ125	661	515	4,9	67	792 0404
	51	16 - 45	ECR105 DWR50 DR50 AZ150	661	515	4,9	67	792 0405

Built-In Nutrunner – Centric Drive

E 1.1.1

■ Combinations

Design with reaction torque sensor



Note:

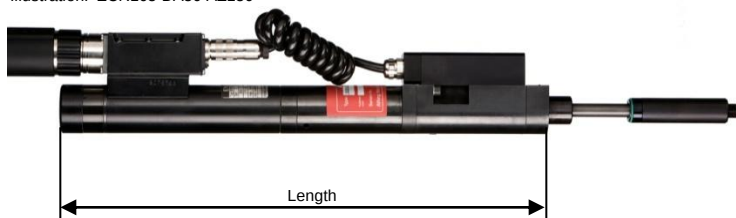
When using two torque sensors,
the cable connections are on opposite sides.

Depending on the bolt pattern,
an additional adapter may have to be provided.

Built-In Nutrunner Size 1 – Centric Drive

E 1.1.1

Illustration: ECR105 DA50 AZ150



Size 1

4 Nm up to 51 Nm

■ Technical Data

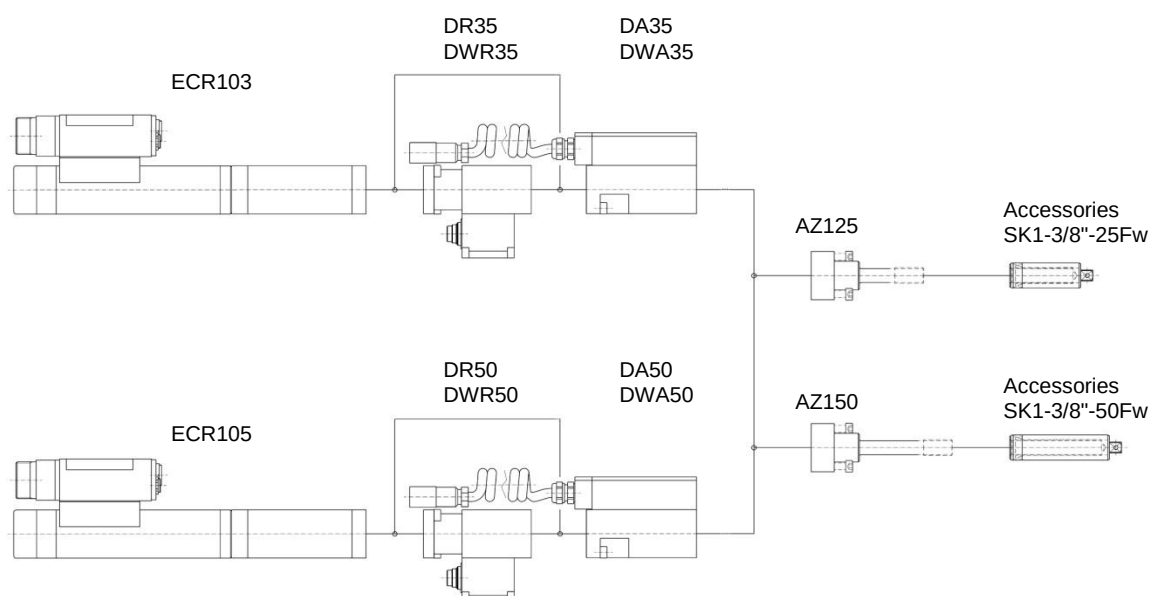
	Max. torque capacity in Nm	Torque range Nm	Type	Max. idle speed rpm	Length mm	Weight kg	Sound Level db (A)	Ident-No.
	Built-in nutrunner with action torque sensor							
E	34	4 - 30	ECR103 DA35 AZ125	990	423	4,1	67	792 0012
	34	4 - 30	ECR103 DA35 AZ150	990	423	4,1	67	792 0013
	51	5 - 45	ECR105 DA50 AZ125	661	423	4,1	67	792 0014
	51	5 - 45	ECR105 DA50 AZ150	661	423	4,1	67	792 0015
	Built-in nutrunner with action torque sensor and angle encoder							
F	34	4 - 30	ECR103 DWA35 AZ125	990	423	4,1	67	792 0016
	34	4 - 30	ECR103 DWA35 AZ150	990	423	4,1	67	792 0017
	51	5 - 45	ECR105 DWA50 AZ125	661	423	4,1	67	792 0018
	51	5 - 45	ECR105 DWA50 AZ150	661	423	4,1	67	792 0019
	Built-in nutrunner with torque sensor for calibration (action torque sensor and reaction torque sensor)							
G	34	4 - 30	ECR103 DWR35 DA35 AZ125	990	517	5,0	67	792 0020
	34	4 - 30	ECR103 DWR35 DA35 AZ150	990	517	5,0	67	792 0021
	51	5 - 45	ECR105 DWR50 DA50 AZ125	661	517	5,0	67	792 0022
	51	5 - 45	ECR105 DWR50 DA50 AZ150	661	517	5,0	67	792 0023
	Built-in nutrunner with redundant design							
H	34	4 - 30	ECR103 DR35 DWA35 AZ125	990	517	5,0	67	792 0420
	34	4 - 30	ECR103 DR35 DWA35 AZ150	990	517	5,0	67	792 0421
	51	5 - 45	ECR105 DR50 DWA50 AZ125	661	517	5,0	67	792 0422
	51	5 - 45	ECR105 DR50 DWA50 AZ150	661	517	5,0	67	792 0423
	Built-in nutrunner with torque sensor for calibration (action torque sensor and reaction torque sensor)							
I	34	4 - 30	ECR103 DWR35 DWA35 AZ125	990	517	5,0	67	792 0024
	34	4 - 30	ECR103 DWR35 DWA35 AZ150	990	517	5,0	67	792 0025
	51	5 - 45	ECR105 DWR50 DWA50 AZ125	661	517	5,0	67	792 0026
	51	5 - 45	ECR105 DWR50 DWA50 AZ150	661	517	5,0	67	792 0027

Built-In Nutrunner – Centric Drive

E 1.1.1

■ Combinations

Design with action torque sensor



Note:

When using two torque sensors, the cable connections are on opposite sides.

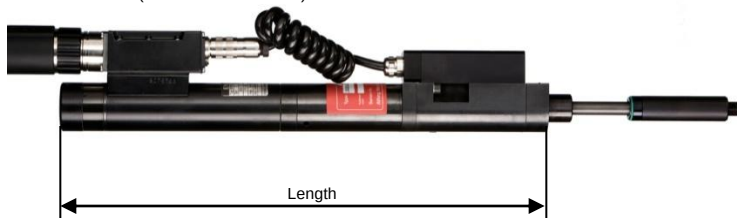
Depending on the bolt pattern, an additional adapter may have to be provided.

The combination of reaction torque sensor DR and action torque sensor DA is not available.

Built-In Nutrunner Size 2 – Centric Drive

E 1.1.2

Illustration similar (ECR105 DA50 AZ150)



Size 2

6 Nm up to 207 Nm

■ Technical Data

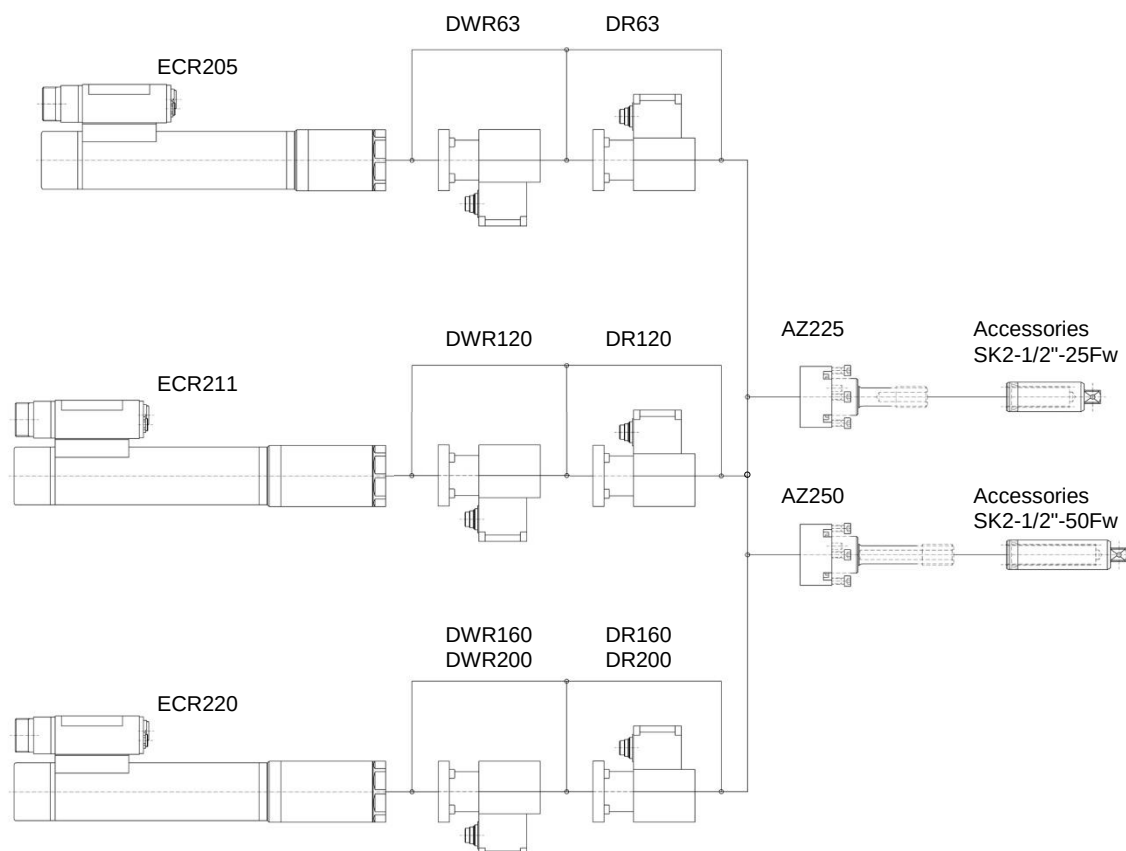
	Max. torque capacity in Nm	Torque range Nm	Type	Max. idle speed rpm	Length mm	Weight kg	Sound Level db (A)	Ident-No.
Built-in nutrunner without torque sensor								
A	55	17 - 49	ECR205 AZ225	1200	357	5,1	67	792 0028
	55	17 - 49	ECR205 AZ250	1200	357	5,2	67	792 0029
	114	35 - 102	ECR211 AZ225	577	383	5,6	67	792 0030
	114	35 - 102	ECR211 AZ250	577	383	5,7	67	792 0031
	207	63 - 186	ECR220 AZ225	319	383	5,6	67	792 0032
	207	63 - 186	ECR220 AZ250	319	383	5,7	67	792 0033
Built-in nutrunner with reaction torque sensor for calibration								
B	55	17 - 49	ECR205 DWR63 AZ225	1200	454	6,6	67	792 0034
	55	17 - 49	ECR205 DWR63 AZ250	1200	454	6,7	67	792 0035
	114	35 - 102	ECR211 DWR120 AZ225	577	480	7,1	67	792 0036
	114	35 - 102	ECR211 DWR120 AZ250	577	480	7,2	67	792 0037
	207	63 - 186	ECR220 DWR200 AZ225	319	480	7,1	67	792 0040
	207	63 - 186	ECR220 DWR200 AZ250	319	480	7,2	67	792 0041
Built-in nutrunner with reaction torque sensor								
C	55	9 - 49	ECR205 DR63 AZ225	1200	454	6,5	67	792 0388
	55	9 - 49	ECR205 DR63 AZ250	1200	454	6,6	67	792 0389
	114	18 - 102	ECR211 DR120 AZ225	577	480	7,0	67	792 0390
	114	18 - 102	ECR211 DR120 AZ250	577	480	7,1	67	792 0391
	207	24 - 144	ECR220 DR160 AZ225	319	480	7,0	67	792 0392
	207	24 - 144	ECR220 DR160 AZ250	319	480	7,1	67	792 0393
	207	30 - 180	ECR220 DR200 AZ225	319	480	7,0	67	792 0394
	207	30 - 180	ECR220 DR200 AZ250	319	480	7,1	67	792 0395
Built-in nutrunner with two reaction torque sensors								
D	55	9 - 49	ECR205 DWR63 DR63 AZ225	1200	551	7,9	67	792 0406
	55	9 - 49	ECR205 DWR63 DR63 AZ250	1200	551	8,0	67	792 0407
	114	18 - 102	ECR211 DWR120 DR120 AZ225	577	577	8,4	67	792 0408
	114	18 - 102	ECR211 DWR120 DR120 AZ250	577	577	8,5	67	792 0409
	207	24 - 144	ECR220 DWR160 DR160 AZ225	319	577	8,4	67	792 0410
	207	24 - 144	ECR220 DWR160 DR160 AZ250	319	577	8,5	67	792 0411
	207	30 - 180	ECR220 DWR200 DR200 AZ225	319	577	8,4	67	792 0412
	207	30 - 180	ECR220 DWR200 DR200 AZ250	319	577	8,5	67	792 0413

Built-In Nutrunner – Centric Drive

E 1.1.2

■ Combinations

Design with reaction torque sensor



Note:

When using two torque sensors, the cable connections are on opposite sides.

Depending on the bolt pattern, an additional adapter may have to be provided.

Built-In Nutrunner Size 2 – Centric Drive

E 1.1.2

Illustration similar (ECR105 DA50 AZ150)



Size 2

6 Nm up to 207 Nm

■ Technical Data

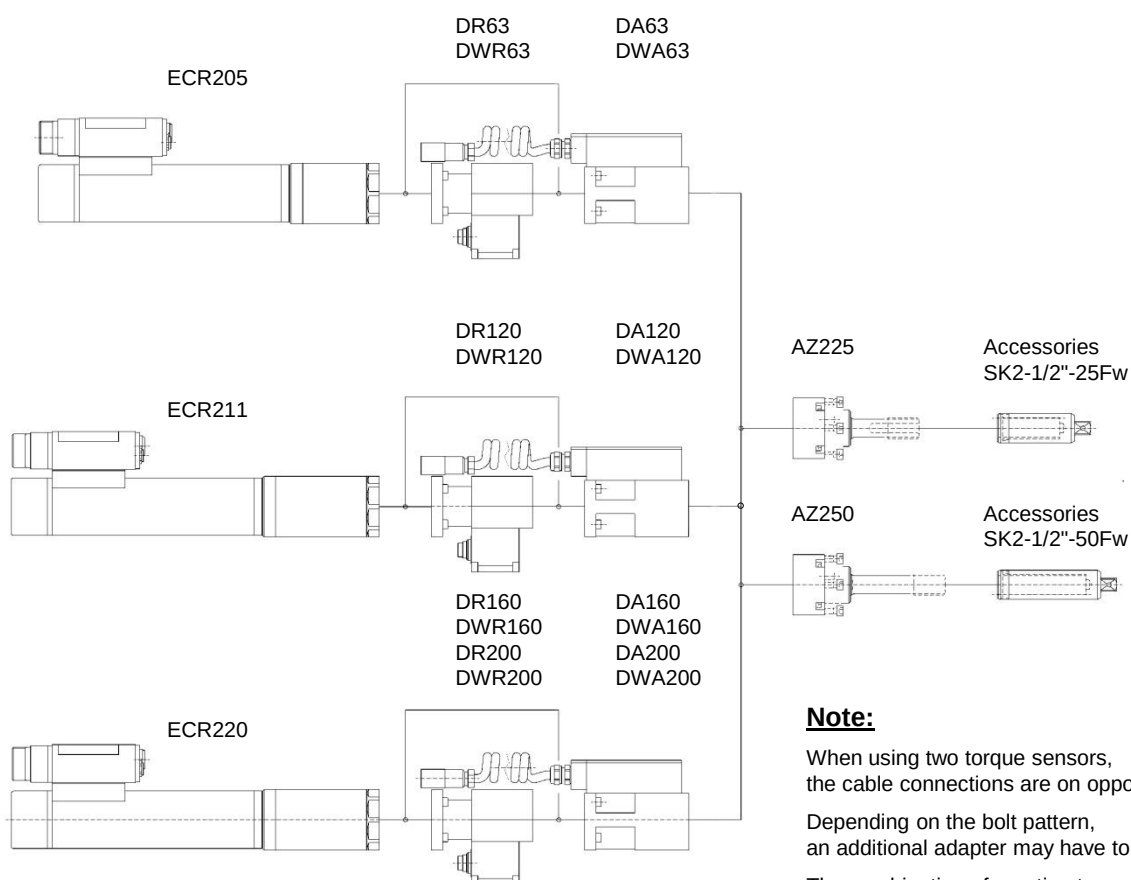
	Max. torque capacity in Nm	Torque range Nm	Type	Max. idle speed rpm	Length mm	Weight kg	Sound Level db (A)	Ident-No.
Built-in nutrunner with action torque sensor								
E	55	6 - 49	ECR205 DA63 AZ225	1200	457	6,7	67	792 0050
	55	6 - 49	ECR205 DA63 AZ250	1200	457	6,8	67	792 0051
	114	12 - 102	ECR211 DA120 AZ225	577	483	7,2	67	792 0052
	114	12 - 102	ECR211 DA120 AZ250	577	483	7,3	67	792 0053
	207	16 - 144	ECR220 DA160 AZ225	319	483	7,2	67	792 0054
	207	16 - 144	ECR220 DA160 AZ250	319	483	7,3	67	792 0055
	207	20 - 180	ECR220 DA200 AZ225	319	483	7,2	67	792 0056
	207	20 - 180	ECR220 DA200 AZ250	319	483	7,3	67	792 0057
Built-in nutrunner with action torque sensor and angle encoder								
F	55	6 - 49	ECR205 DWA63 AZ225	1200	457	6,7	67	792 0058
	55	6 - 49	ECR205 DWA63 AZ250	1200	457	6,8	67	792 0059
	114	12 - 102	ECR211 DWA120 AZ225	577	483	7,2	67	792 0060
	114	12 - 102	ECR211 DWA120 AZ250	577	483	7,3	67	792 0061
	207	20 - 180	ECR220 DWA200 AZ225	319	483	7,2	67	792 0062
	207	20 - 180	ECR220 DWA200 AZ250	319	483	7,3	67	792 0063
Built-in nutrunner with torque sensor for calibration (action torque sensor and reaction torque sensor)								
G	55	6 - 49	ECR205 DWR63 DA63 AZ225	1200	554	8,0	67	792 0064
	55	6 - 49	ECR205 DWR63 DA63 AZ250	1200	554	8,1	67	792 0065
	114	12 - 102	ECR211 DWR120 DA120 AZ225	577	580	8,5	67	792 0066
	114	12 - 102	ECR211 DWR120 DA120 AZ250	577	580	8,6	67	792 0067
	207	16 - 144	ECR220 DWR160 DA160 AZ225	319	580	8,5	67	792 0068
	207	16 - 144	ECR220 DWR160 DA160 AZ250	319	580	8,6	67	792 0069
	207	20 - 180	ECR220 DWR200 DA200 AZ225	319	580	8,5	67	792 0070
	207	20 - 180	ECR220 DWR200 DA200 AZ250	319	580	8,6	67	792 0071
Built-in nutrunner with redundant design								
H	55	6 - 49	ECR205 DR63 DWA63 AZ225	1200	554	8,0	67	792 0424
	55	6 - 49	ECR205 DR63 DWA63 AZ250	1200	554	8,1	67	792 0425
	114	12 - 102	ECR211 DR120 DWA120 AZ225	577	580	8,5	67	792 0426
	114	12 - 102	ECR211 DR120 DWA120 AZ250	577	580	8,6	67	792 0427
	207	20 - 180	ECR220 DR200 DWA200 AZ225	319	580	8,5	67	792 0430
	207	20 - 180	ECR220 DR200 DWA200 AZ250	319	580	8,6	67	792 0431
Built-in nutrunner with torque sensor for calibration (action torque sensor and reaction torque sensor)								
I	55	6 - 49	ECR205 DWR63 DWA63 AZ225	1200	554	8,0	67	792 0072
	55	6 - 49	ECR205 DWR63 DWA63 AZ250	1200	554	8,1	67	792 0073
	114	12 - 102	ECR211 DWR120 DWA120 AZ225	577	580	8,5	67	792 0074
	114	12 - 102	ECR211 DWR120 DWA120 AZ250	577	580	8,6	67	792 0075
	207	20 - 180	ECR220 DWR200 DWA200 AZ225	319	580	8,5	67	792 0076
	207	20 - 180	ECR220 DWR200 DWA200 AZ250	319	580	8,6	67	792 0077

Built-In Nutrunner – Centric Drive

E 1.1.2

■ Combinations

Design with action torque sensor



Built-In Nutrunner Size 3 – Centric Drive

E 1.1.3

Illustration similar (ECR105 DA50 AZ150)



Size 3

27 Nm up to 439 Nm

■ Technical Data

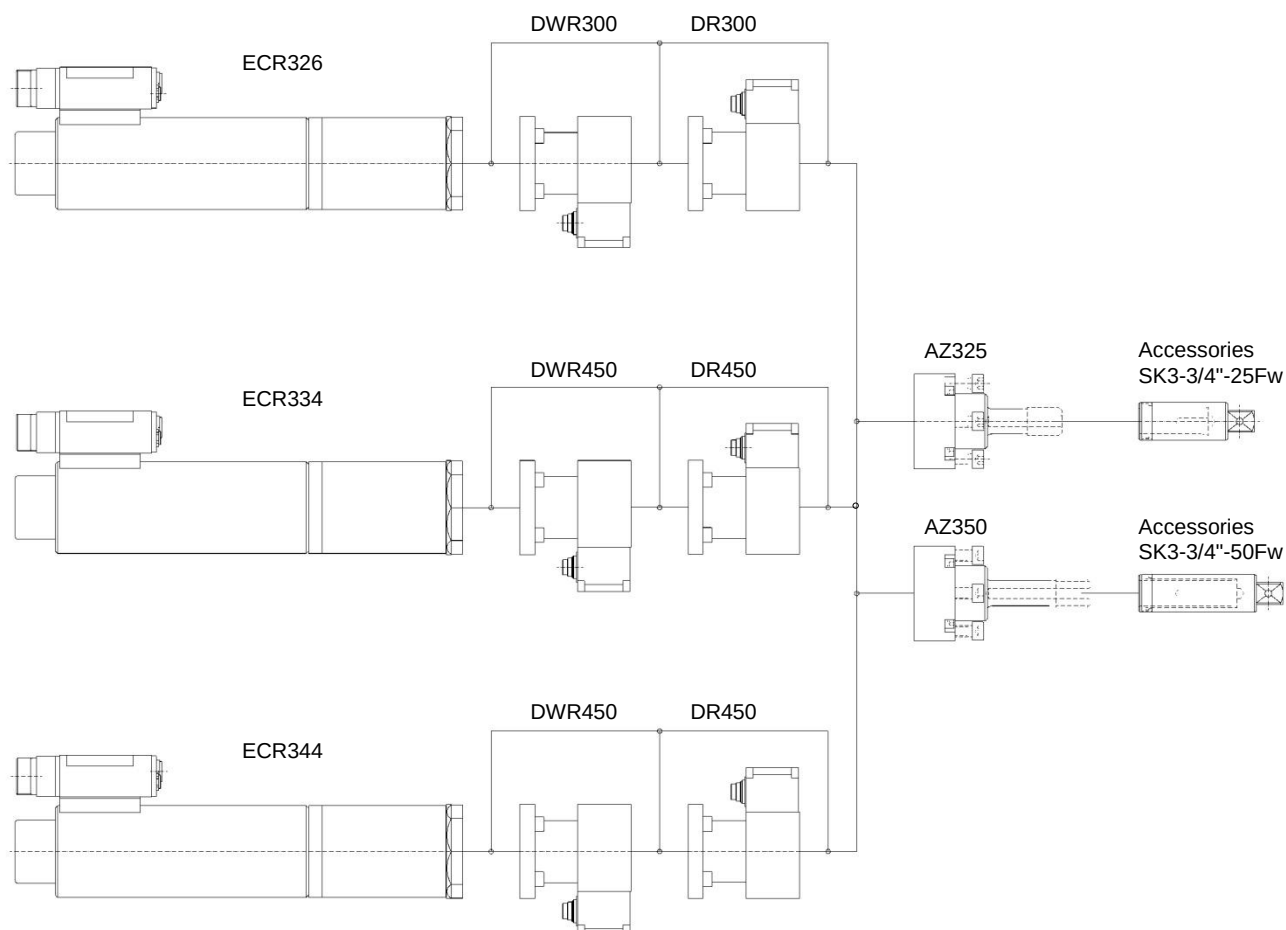
	Max. torque capacity in Nm	Torque range Nm	Type	Max. idle speed rpm	Length mm	Weight kg	Sound Level db (A)	Ident-No.
Built-in nutrunner without torque sensor								
A	261	79 - 234	ECR326 AZ325	470	426	8,6	65	792 0078
	261	79 - 234	ECR326 AZ350	470	426	8,7	65	792 0079
	338	102 - 304	ECR334 AZ325	362	426	11,8	65	792 0080
	338	102 - 304	ECR334 AZ350	362	426	11,9	65	792 0081
	439	132 - 395	ECR344 AZ325	280	426	11,8	65	792 0082
	439	132 - 395	ECR344 AZ350	280	426	11,9	65	792 0083
Built-in nutrunner with reaction torque sensor for calibration								
B	261	79 - 234	ECR326 DWR300 AZ325	470	523	11,3	65	792 0084
	261	79 - 234	ECR326 DWR300 AZ350	470	523	11,4	65	792 0085
	338	102 - 304	ECR334 DWR450 AZ325	362	523	14,6	65	792 0086
	338	102 - 304	ECR334 DWR450 AZ350	362	523	14,7	65	792 0087
	439	132 - 395	ECR344 DWR450 AZ325	280	523	14,6	65	792 0088
	439	132 - 395	ECR344 DWR450 AZ350	280	523	14,7	65	792 0089
Built-in nutrunner with reaction torque sensor								
C	261	40 - 234	ECR326 DR300 AZ325	470	523	11,2	65	792 0396
	261	40 - 234	ECR326 DR300 AZ350	470	523	11,3	65	792 0397
	338	51 - 304	ECR334 DR450 AZ325	362	523	14,5	65	792 0398
	338	51 - 304	ECR334 DR450 AZ350	362	523	14,6	65	792 0399
	439	66 - 395	ECR344 DR450 AZ325	280	523	14,5	65	792 0400
	439	66 - 395	ECR344 DR450 AZ350	280	523	14,6	65	792 0401
Built-in nutrunner with two reaction torque sensors								
D	261	40 - 234	ECR326 DWR300 DR300 AZ325	470	620	13,8	65	792 0414
	261	40 - 234	ECR326 DWR300 DR300 AZ350	470	620	13,9	65	792 0415
	338	51 - 304	ECR334 DWR450 DR450 AZ325	362	620	17,1	65	792 0416
	338	51 - 304	ECR334 DWR450 DR450 AZ350	362	620	17,2	65	792 0417
	439	66 - 395	ECR344 DWR450 DR450 AZ325	280	620	17,1	65	792 0418
	439	66 - 395	ECR344 DWR450 DR450 AZ350	280	620	17,2	65	792 0419

Built-In Nutrunner – Centric Drive

E 1.1.3

■ Combinations

Design with reaction torque sensor



Note:

When using two torque sensors, the cable connections are on opposite sides.

Depending on the bolt pattern, an additional adapter may have to be provided.

Built-In Nutrunner Size 3 – Centric Drive

E 1.1.3

Illustration similar (ECR105 DA50 AZ150)



Size 3

27 Nm up to 439 Nm

■ Technical Data

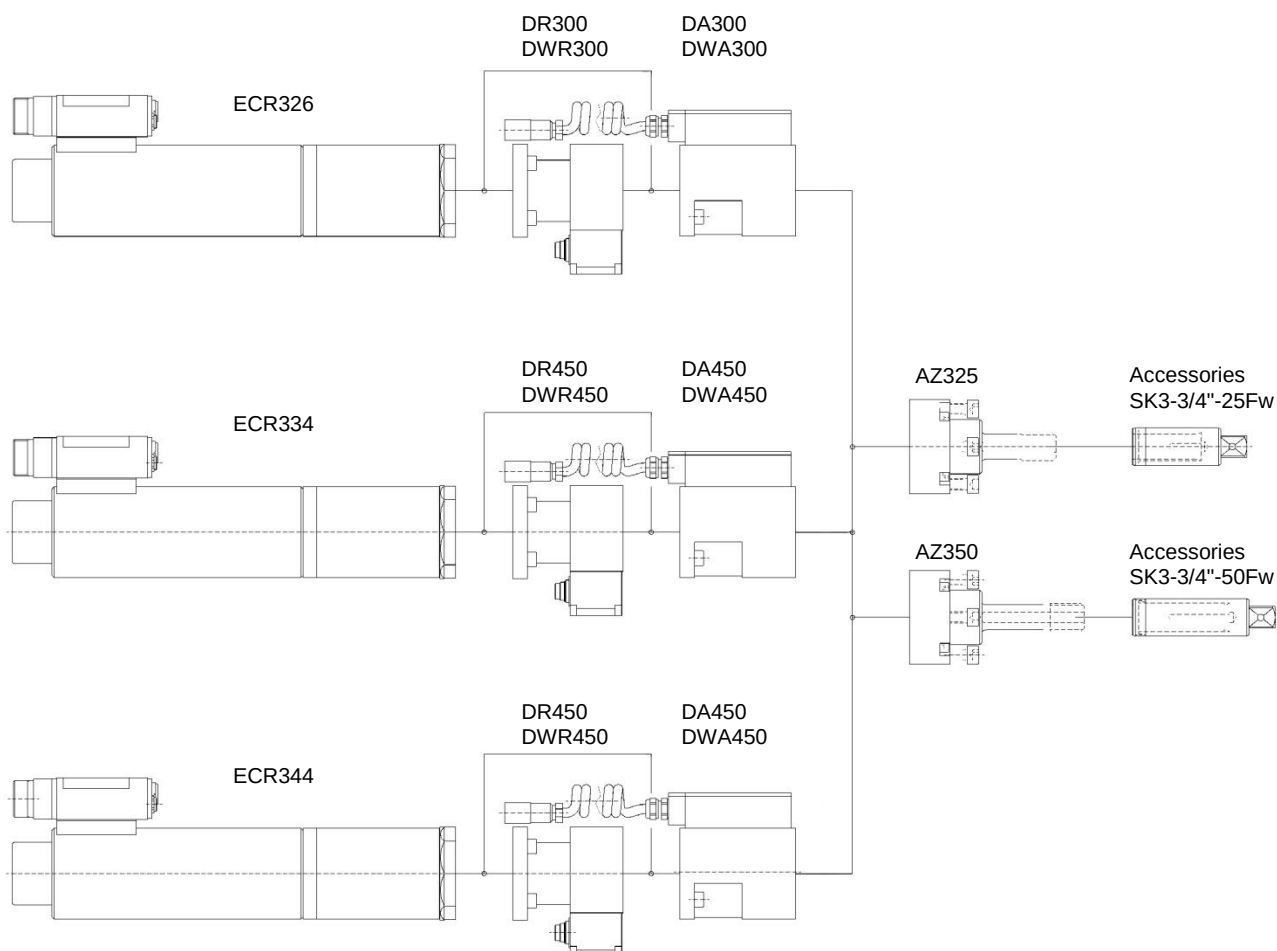
	Max. torque capacity in Nm	Torque range Nm	Type	Max. idle speed rpm	Length mm	Weight kg	Sound Level db (A)	Ident-No.
Built-in nutrunner with action torque sensor								
E	261	27 - 234	ECR326 DA300 AZ325	470	528	13,1	65	792 0096
	261	27 - 234	ECR326 DA300 AZ350	470	528	13,2	65	792 0097
	338	34 - 304	ECR334 DA450 AZ325	362	528	16,3	65	792 0098
	338	34 - 304	ECR334 DA450 AZ350	362	528	16,4	65	792 0099
	439	44 - 395	ECR344 DA450 AZ325	280	528	16,3	65	792 0100
	439	44 - 395	ECR344 DA450 AZ350	280	528	16,4	65	792 0101
Built-in nutrunner with action torque sensor and angle encoder								
F	261	27 - 234	ECR326 DWA300 AZ325	470	528	13,1	65	792 0102
	261	27 - 234	ECR326 DWA300 AZ350	470	528	13,2	65	792 0103
	338	34 - 304	ECR334 DWA450 AZ325	362	528	16,3	65	792 0104
	338	34 - 304	ECR334 DWA450 AZ350	362	528	16,4	65	792 0105
	439	44 - 395	ECR344 DWA450 AZ325	280	528	16,3	65	792 0106
	439	44 - 395	ECR344 DWA450 AZ350	280	528	16,4	65	792 0107
Built-in nutrunner with torque sensor for calibration (action torque sensor and reaction torque sensor)								
G	261	27 - 234	ECR326 DWR300 DA300 AZ325	470	625	15,7	65	792 0108
	261	27 - 234	ECR326 DWR300 DA300 AZ350	470	625	15,8	65	792 0109
	338	34 - 304	ECR334 DWR450 DA450 AZ325	362	625	19,0	65	792 0110
	338	34 - 304	ECR334 DWR450 DA450 AZ350	362	625	19,1	65	792 0111
	439	44 - 395	ECR344 DWR450 DA450 AZ325	280	625	19,0	65	792 0112
	439	44 - 395	ECR344 DWR450 DA450 AZ350	280	625	19,1	65	792 0113
Built-in nutrunner with redundant design								
H	261	27 - 234	ECR326 DR300 DWA300 AZ325	470	625	15,7	65	792 0432
	261	27 - 234	ECR326 DR300 DWA300 AZ350	470	625	15,8	65	792 0433
	338	34 - 304	ECR334 DR450 DWA450 AZ325	362	625	19,0	65	792 0434
	338	34 - 304	ECR334 DR450 DWA450 AZ350	362	625	19,1	65	792 0435
	439	44 - 395	ECR344 DR450 DWA450 AZ325	280	625	19,0	65	792 0436
	439	44 - 395	ECR344 DR450 DWA450 AZ350	280	625	19,1	65	792 0437
Built-in nutrunner with torque sensor for calibration (action torque sensor and reaction torque sensor)								
I	261	27 - 234	ECR326 DWR300 DWA300 AZ325	470	625	15,7	65	792 0114
	261	27 - 234	ECR326 DWR300 DWA300 AZ350	470	625	15,8	65	792 0115
	338	34 - 304	ECR334 DWR450 DWA450 AZ325	362	625	19,0	65	792 0116
	338	34 - 304	ECR334 DWR450 DWA450 AZ350	362	625	19,1	65	792 0117
	439	44 - 395	ECR344 DWR450 DWA450 AZ325	280	625	19,0	65	792 0118
	439	44 - 395	ECR344 DWR450 DWA450 AZ350	280	625	19,1	65	792 0119

Built-In Nutrunner – Centric Drive

E 1.1.3

■ Combinations

Design with action torque sensor



Note:

When using two torque sensors, the cable connections are on opposite sides.

Depending on the bolt pattern, an additional adapter may have to be provided.

The combination of reaction torque sensor DR and action torque sensor DA is not available.

Built-In Nutrunner Size 3 – Centric Drive

E 1.1.4

Illustration similar (ECR105 DA50 AZ150)



Size 4

120 Nm up to 1200 Nm

■ Technical Data

	Max. torque capacity in Nm	Torque range Nm	Type	Max. idle speed rpm	Length mm	Weight kg	Sound Level db (A)	Ident-No.
			Built-in nutrunner without torque sensor					
A	1200	359 - 1076	ECR4120AZ480	100	525	22,9	65	792 0702
			Built-in nutrunner with reaction torque sensor for calibration					
B	1200	359 - 1076	ECR4120DWR1200AZ480	100	654	28,1	65	792 0703
			Built-in nutrunner with reaction torque sensor					
C	1200	180 - 1076	ECR4120DR1200AZ480	100	654	28,1	65	792 0704
			Built-in nutrunner with two reaction torque sensor					
D	1200	180 - 1076	ECR4120DWR1200DR1200AZ480	100	783	33,3	65	792 0705

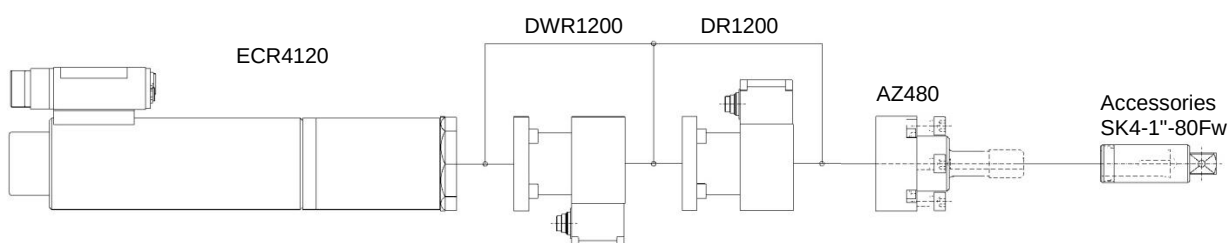
	Max. torque capacity in Nm	Torque range Nm	Type	Max. idle speed rpm	Length mm	Weight kg	Sound Level db (A)	Ident-No.
			Built-in nutrunner with action torque sensor					
E	1200	120 - 1076	ECR4120DA1200AZ480	100	672	29,2	65	792 0706
			Built-in nutrunner with action torque sensor and angle encoder					
F	1200	120 - 1076	ECR4120DWA1200AZ480	100	672	29,2	65	792 0707
			Built-in nutrunner with torque sensor for calibration (action torque sensor and reaction torque sensor)					
G	1200	120 - 1076	ECR4120DWR1200DA1200AZ480	100	801	34,4	65	792 0708
			Built-in nutrunner with redundant design					
H	1200	120 - 1076	ECR4120DR1200DWA1200AZ480	100	801	34,4	65	792 0709
			Built-in nutrunner with torque sensor for calibration (action torque sensor and reaction torque sensor)					
I	1200	120 - 1076	ECR4120DWR1200DWA1200AZ480	100	801	34,4	65	792 0710

Built-In Nutrunner – Centric Drive

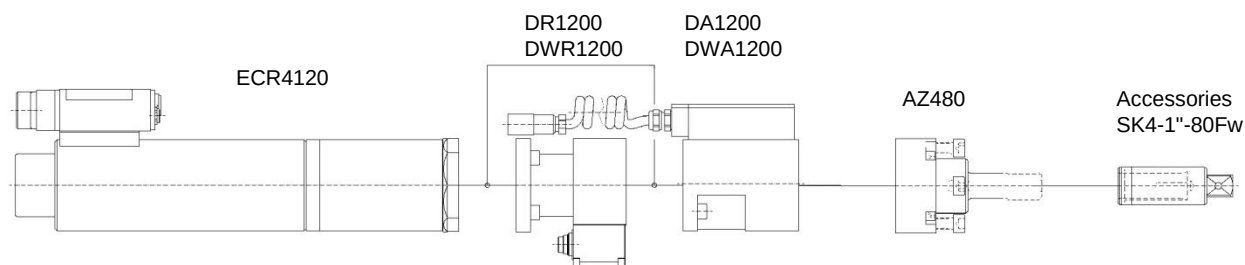
E 1.1.4

■ Combinations

Design with reaction torque sensor



Design with action torque sensor



Note:

When using two torque sensors, the cable connections are on opposite sides.

Depending on the bolt pattern, an additional adapter may have to be provided.