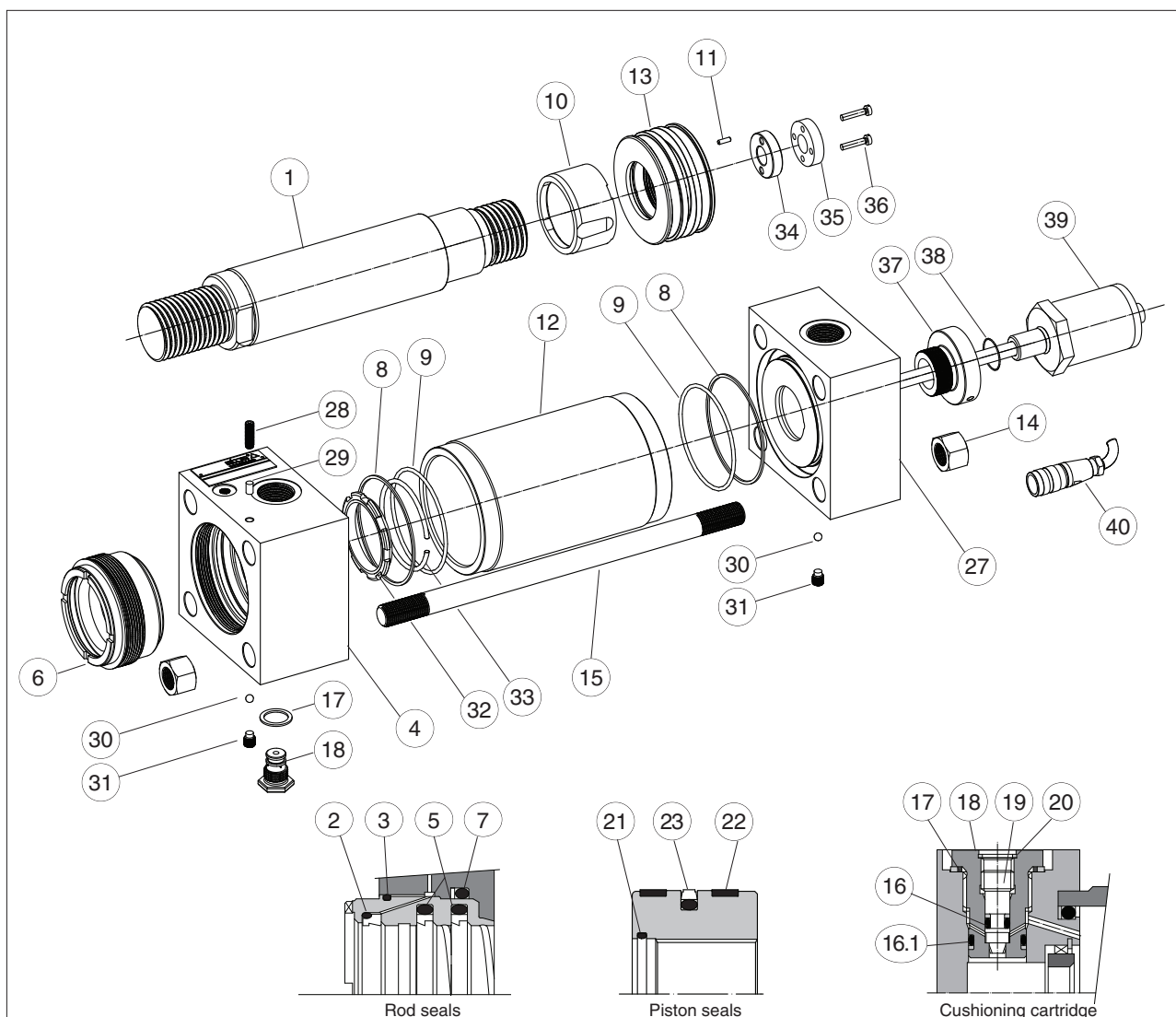


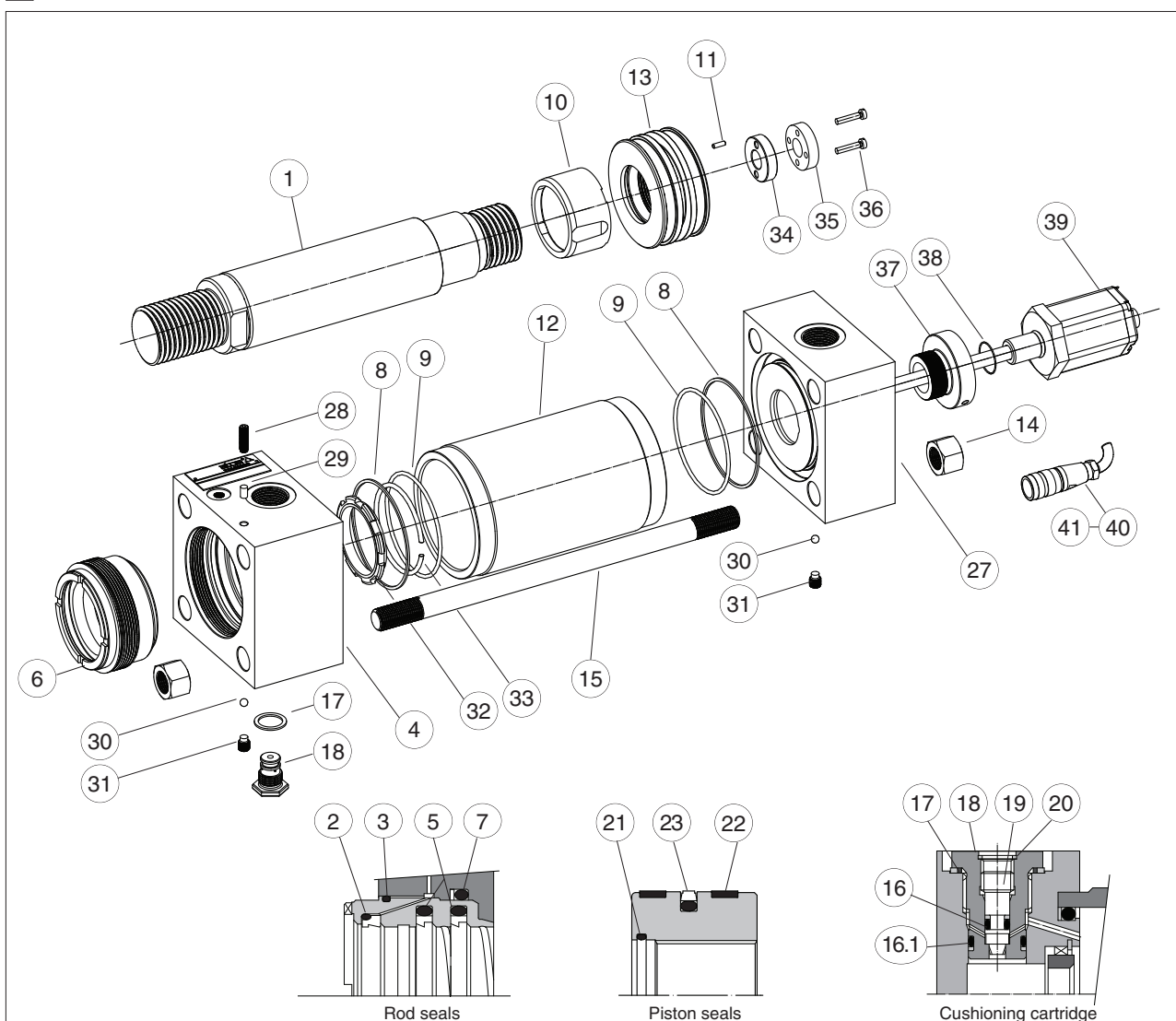
Spare parts for CK* Servocylinders

1 EXPLODED VIEW OF THE CYLINDER CKF



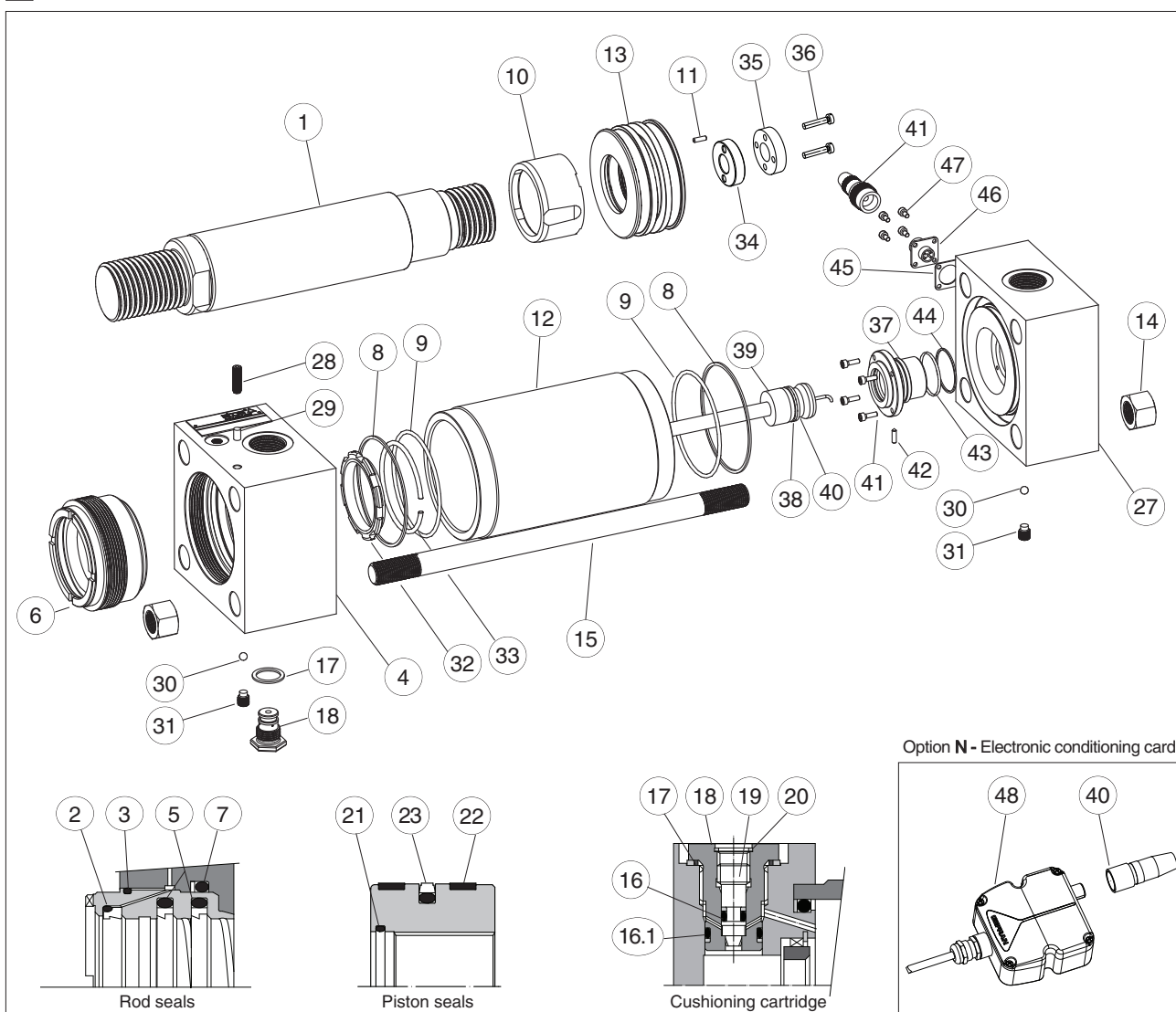
POS	DESCRIPTION	POS	DESCRIPTION
1	Rod	19	Cushioning adjustment screw
2	Wiper	20	Seeger
3	O-ring + Antiextrusion ring - rod bearing	21	O-ring - piston
4	Front head	22	Piston wear rings
5	Rod seal	23	Piston seal
6	Rod bearing - bronze	27	Rear head
7	O-Ring + Antiextrusion ring - Rod bearing	28	Grub screw - rod bearing locking
8	Antiextrusion ring - cylinder housing	29	Teflon pad - rod bearing locking
9	O-ring - cylinder housing	30	Steel sphere - air bleed
10	Front cushioning piston	31	Grub screw - air bleed
11	Locking pin - piston/rod	32	Cushioning sleeve - front
12	Cylinder housing	33	Toroidal ring - front
13	Piston	34	no magnetic spacer
14	Nut	35	Magnet
15	Tie-rod	36	No magnetic screw
16	O-ring + Antiextrusion ring - cushioning screw	37	Threaded sleeve for transducer assembling
16.1	O-ring + Antiextrusion ring - cushioning cartridge	38	O-ring - transducer
17	Bonded seal	39	Position magnetostrictive transducer
18	Cushioning adjustment cartridge	40	Straight Connector

2 EXPLODED VIEW OF THE CYLINDER CKM



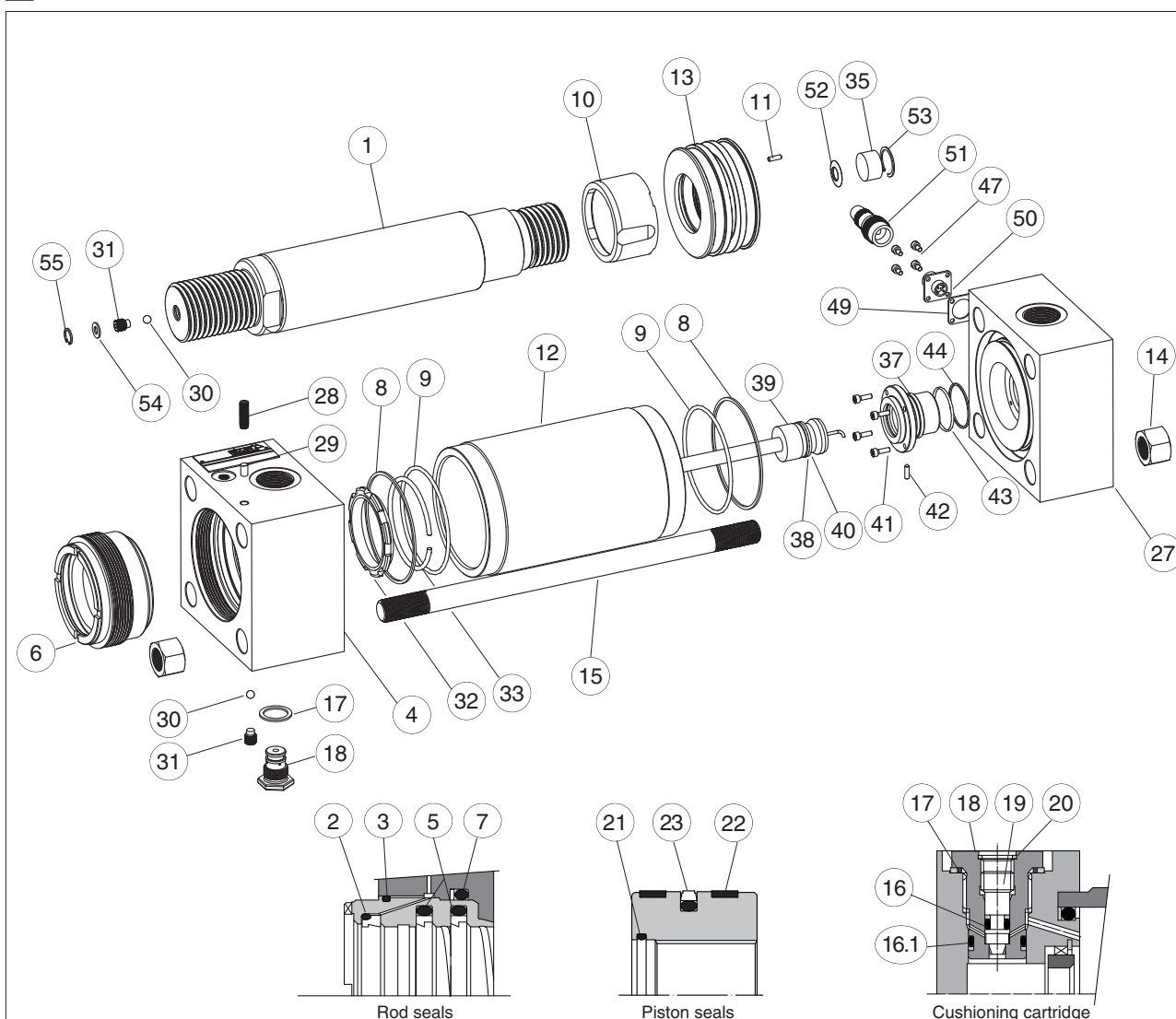
POS	DESCRIPTION	POS	DESCRIPTION
1	Rod	20	Seeger
2	Wiper	21	O-ring - piston
3	O-ring + Antiextrusion ring - rod bearing	22	Piston wear rings
4	Front head	23	Piston seal
5	Rod seal	27	Rear head
6	Rod bearing - bronze	28	Grub screw - rod bearing locking
7	O-Ring + Antiextrusion ring - Rod bearing	29	Teflon pad - rod bearing locking
8	Antiextrusion ring - cylinder housing	30	Steel sphere - air bleed
9	O-ring - cylinder housing	31	Grub screw - air bleed
10	Front cushioning piston	32	Cushioning sleeve - front
11	Locking pin - piston/rod	33	Toroidal ring - front
12	Cylinder housing	34	No magnetic spacer
13	Piston	35	Magnet
14	Nut	36	No magnetic screw
15	Tie-rod	37	Threaded sleeve for transducer assembling
16	O-ring + Antiextrusion ring - cushioning screw	38	O-ring - transducer
16.1	O-ring + Antiextrusion ring - cushioning cartridge	39	Position magnetostrictive transducer
17	Bonded seal	40	Straight Connector
18	Cushioning adjustment cartridge	41	Straight Connector (according to the selected output)
19	Cushioning adjustment screw	-	-

3 EXPLODED VIEW OF THE CYLINDER CKN



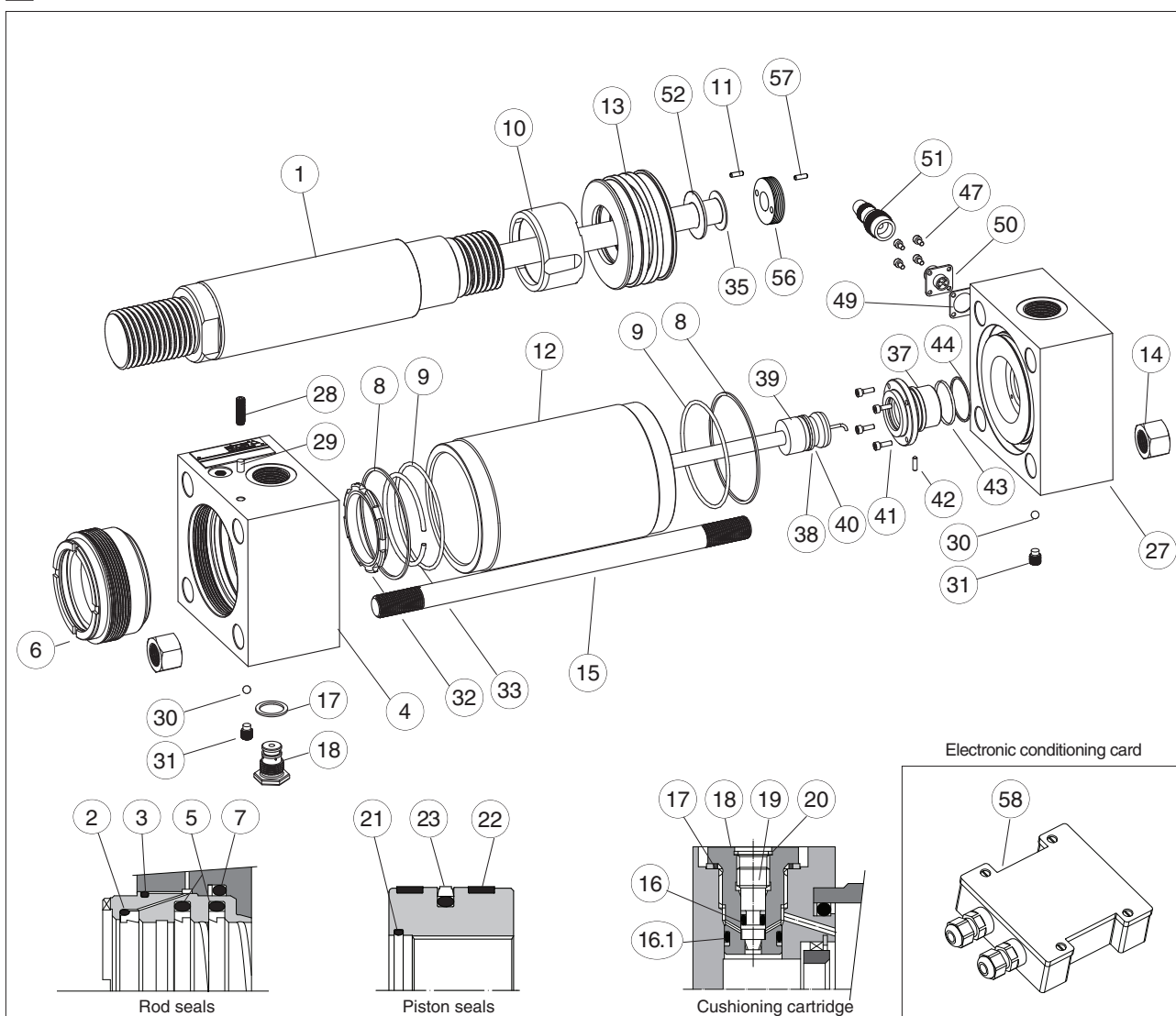
POS	DESCRIPTION	POS	DESCRIPTION
1	Rod	23	Piston seal
2	Wiper	27	Rear head
3	O-ring + Antiextrusion ring - rod bearing	28	Grub screw - rod bearing locking
4	Front head	29	Teflon pad - rod bearing locking
5	Rod seal	30	Steel sphere - air bleed
6	Rod bearing - bronze	31	Grub screw - air bleed
7	O-Ring + Antiextrusion ring - Rod bearing	32	Cushioning sleeve - front
8	Antiextrusion ring - cylinder housing	33	Toroidal ring - front
9	O-ring - cylinder housing	34	no magnetic spacer
10	Front cushioning piston	35	Magnet
11	Locking pin - piston/rod	36	No magnetic screw
12	Cylinder housing	37	Transducer sleeve
13	Piston	38	O-ring
14	Nut	39	Transducer
15	Tie-rod	40	Straight Connector
16	O-ring + Antiextrusion ring - cushioning screw	41	Straight Connector
16.1	O-ring + Antiextrusion ring - cushioning cartridge	42	Grub screw
17	Bonded seal	43	O-ring
18	Cushioning adjustment cartridge	44	Antiextrusion ring
19	Cushioning adjustment screw	45	Wall connector seal
20	Seeger	46	Wall connector
21	O-ring - piston	47	Wall connector screw
22	Piston wear rings	48	Electronic conditioning card

4 EXPLODED VIEW OF THE CYLINDER CKP



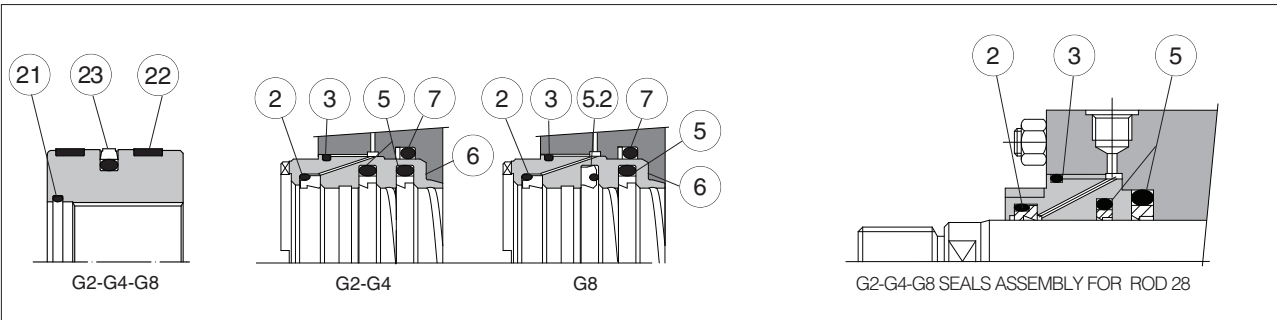
POS	DESCRIPTION	POS	DESCRIPTION
1	Rod	27	Rear head
2	Wiper	28	Grub screw - rod bearing locking
3	O-ring + Antiextrusion ring - rod bearing	29	Teflon pad - rod bearing locking
4	Front head	30	Steel sphere - air bleed
5	Rod seal	31	Grub screw - air bleed
6	Rod bearing - bronze	32	Cushioning sleeve - front
7	O-Ring + Antiextrusion ring - Rod bearing	33	Toroidal ring - front
8	Antiextrusion ring - cylinder housing	35	Wiper
9	O-ring - cylinder housing	37	Transducer sleeve
10	Front cushioning piston	38	O-ring
11	Locking pin - piston/rod	39	Transducer
12	Cylinder housing	40	Antiextrusion ring
13	Piston	41	Screw
14	Nut	42	Grub screw
15	Tie-rod	43	O-ring
16	O-ring + Antiextrusion ring - cushioning screw	44	Antiextrusion ring
16.1	O-ring + Antiextrusion ring - cushioning cartridge	47	Wall connector screw
17	Bonded seal	49	Wall connector seal
18	Cushioning adjustment cartridge	50	Wall connector
19	Cushioning adjustment screw	51	Straight Connector
20	Seeger	52	Washer
21	O-ring - piston	53	Seeger
22	Piston wear rings	54	Washer - air bleed
23	Piston seal	55	Seeger - air bleed

5 EXPLODED VIEW OF THE CYLINDER CKV

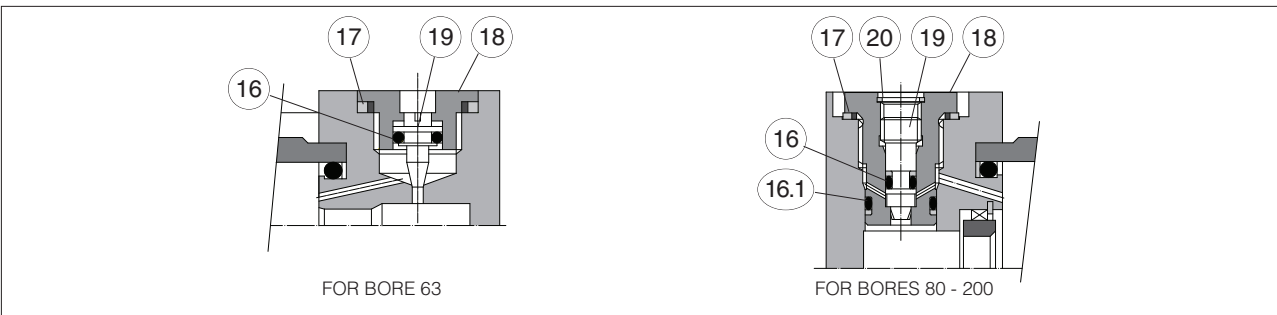


POS	DESCRIPTION	POS	DESCRIPTION
1	Rod	27	Rear head
2	Wiper	28	Grub screw - rod bearing locking
3	O-ring + Antiextrusion ring - rod bearing	29	Teflon pad - rod bearing locking
4	Front head	30	Steel sphere - air bleed
5	Rod seal	31	Grub screw - air bleed
6	Rod bearing - bronze	32	Cushioning sleeve - front
7	O-Ring + Antiextrusion ring - Rod bearing	33	Toroidal ring - front
8	Antiextrusion ring - cylinder housing	35	Ferromagnetic core
9	O-ring - cylinder housing	37	Transducer sleeve
10	Front cushioning piston	38	O-ring
11	Locking pin - piston/rod	39	Transducer (coil-winding)
12	Cylinder housing	40	Antiextrusion ring
13	Piston	41	O-ring - transducer body
14	Nut	42	Grub screw
15	Tie-rod	43	O-ring
16	O-ring + Antiextrusion ring - cushioning screw	44	Antiextrusion ring
16.1	O-ring + Antiextrusion ring - cushioning cartridge	47	Wall connector screw
17	Bonded seal	49	Wall connector seal
18	Cushioning adjustment cartridge	50	Wall connector
19	Cushioning adjustment screw	51	Straight Connector
20	Seeger	52	Washer
21	O-ring - piston	56	Threaded ring
22	Piston wear rings	57	Locking pin
23	Piston seal	58	Electronic conditioning card

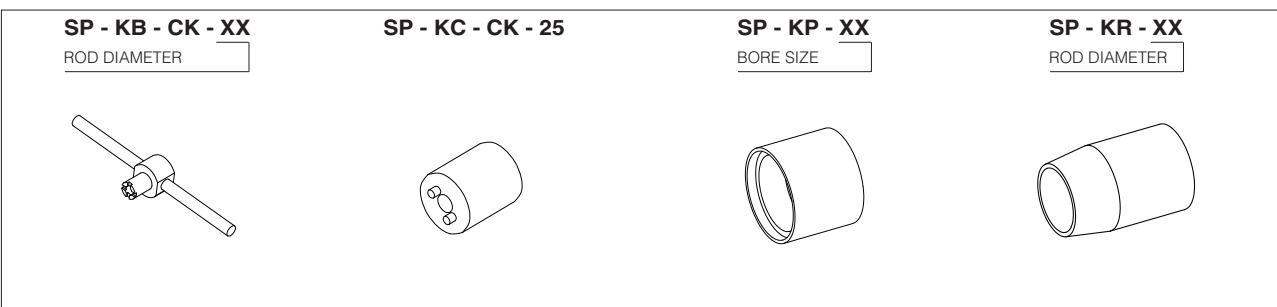
6 ROD AND PISTON SEALS



7 CUSHIONING CARTRIDGES



8 ASSEMBLING TOOLS



ASSEMBLING OPERATION	CYLINDER SIZE	TOOL	TOOL DIMENSION	TORQUE [Nm]
Rod bearing (pos. 6) assembling	Bores 40 - 200	SP - KB - CK - XX	According to the rod diameter	see table TB010, section 1
Cushioning adjustment cartridge (pos.18) assembling	Bore 63	SP - KC - CK - 25	-	6,9
	Bores 80 - 200	Hexagonal wrench	22	19,6
Nuts (pos. 14) for tie-rods assembling	Bores 40 - 200	Hexagonal wrench	see table B137, section 8	see table B137, section 8
Grub screw (pos. 28) for rod bearing locking	Bore 80	Allen key	3	5
	Bores 100 - 160		4	6
	Bore 200		6	7
Grub screw (pos. 31) for air bleed screwing	Bore 40	Allen key	2,5	4
	Bores 50 - 200		4	6
Calibration of piston seal	Bores 40 - 200	SP - KP - XX	According to the bore size	-
Calibration of rod seals	Bores 40 - 200	SP - KR - XX	According to the rod diameter	-
Transducer screwing (pos. 39) (only CKF)	Bores 40 - 200	Hexagonal wrench	34	50
Transducer screwing (pos. 39) (only CKM)	Bores 40 - 200	Hexagonal wrench	46	50
Threaded ring screwing (pos. 54) (only CKV)	Bores 40 - 200	Round pin wrench	N°2 pin ø 3	6,9
Grub screw (pos. 42) for transducer locking (CKN - CKP - CKV)	Bores 40 - 200	Allen key	2,5	8

9 SPARE PARTS CODES

9.1 Connectors

ORDER CODE	POS	DESCRIPTION	CKF	CKM				CKN		CKP	CKV
				A-V	Q-R-S-U	P	C	A-V	N		
SP-CON031	40	Straight female connector M12 5 pin	•						•		
SP-ST-CO-9131-D	41	Straight female connector M16 6 pin		•				•	•		
SP-ST-CO-9131-D06-PG9	41.1	Straight female connector M16 6 pin					•				
SP-ST-CO-9131-D07-PG9	41.2	Straight female connector M16 7 pin			•						
SP-560884	41.3	Straight male connector M12 5 pin				•					
SP-560885	41.4	Straight female connector M12 5 pin				•					
SP-560886	41.5	Straight female connector M8 4pin				•					
SP-560888	41.6	Bus terminator M12 5 pin				•					
SP-PT-06W-8-4S	51	Straight connector Mil-C-26482 4 pin								•	•
SP-PT-02E-8-4P	50	Wall connector Mil-C-26482 4 pin								•	•
SP-ST-CO-9131-S06	46	Wall connector M16 6 pin						•	•		

9.2 Transducer

ORDER CODE	POS	DESCRIPTION	CKF	CKM	CKN	CKP	CKV
SP - TR - CKF - 50 / 22 x 500... COMPLETE CYLINDER CODE + SERIES NUMBER	35	Wiper / ferromagnetic core				•	•
	38	O-ring	•	•	•	•	•
	39	Transducer / coil-winding	•	•	•	•	•
	40	Antiextrusion ring			•	•	•
	52	Washer				• [2]	•
	53	Seeger				•	
	57	Locking pin					•

9.3 Electronic conditioning card

ORDER CODE	POS	DESCRIPTION	CKN	CKV
SP - EC - CKV - A CYLINDER TYPE TRANSDUCER OUTPUT	48	Electronic conditioning card	•	
	58	Electronic conditioning card		•

9.4 Seals

ORDER CODE	POS	DESCRIPTION	G8	G2-G4
SP - G2 - CKF - 50 / 36 G2 - v > 1 m/s up to 120°C G4 - v > 1 m/s G8 - v < 0,5 m/s CYLINDER TYPE BORE ROD DIAMETER	2	Wiper - PTFE	•	•
	3	O-ring + Antiextrusion ring - rod bearing	•	•
	5	Rod seal - PTFE (ISO 7425)	•	• [2]
	5.2	Rod seal - polyurethane (ISO 7425)	•	
	7	O-Ring + Antiextrusion ring - rod bearing	•	•
	8	Antiextrusion ring - cylinder housing	• [2]	• [2]
	9	O-ring - cylinder housing	• [2]	• [2]
	11	Locking pin - piston/rod	•	•
	16	O-ring + Antiextrusion ring - cushioning screw	•	•
	16.1	O-ring + Antiextrusion ring - cushioning cartridge	•	•
	17	Bonded seal	•	•
	21	O-ring - piston	•	•
	22	Piston wear rings - PTFE	• [2]	• [2]
	23	Piston seal - PTFE (ISO 7425)	•	•

9.5 Rod bearings

ORDER CODE	POS	DESCRIPTION	G8	G2-G4
SP - B2 - CK - 50 / 36 B2 - G2 B4 - G4 B8 - G8 BORE SIZE ROD DIAMETER	2	Wiper - PTFE	•	•
	3	O-ring + Antiextrusion ring - rod bearing	•	•
	5	Rod seal - PTFE (ISO 7425)	•	• [2]
	5.2	Rod seal - polyurethane (ISO 7425)	•	
	6	Rod bearing	•	•
	7	O-ring + Antiextrusion ring - rod bearing	•	•

Note: Rod bearing is supplied with all seals assembled

9.6 Piston rod

ORDER CODE	POS	DESCRIPTION	CKF	CKM	CKN	CKP	CKV
SP - U - CKF - 50 / 36 x 500... COMPLETE CYLINDER CODE + SERIES NUMBER	1	Rod	•	•	•	•	•
	10	Cushioning piston - front (if selected)	•	•	•	•	•
	11	Locking pin - piston/rod	•	•	•	•	•
	13	Piston	•	•	•	•	•
	21	O-ring - piston	•	•	•	•	•
	22	Piston wear rings - PTFE	• [2]	• [2]	• [2]	• [2]	• [2]
	23	Piston seal - PTFE (ISO 7425)	•	•	•	•	•
	34	No magnetic spacer	•	•	•		
	35	Magnet	•	•	•		
	36	No magnetic screw	• [2]	• [2]	• [2]		
	30	Steel sphere - air bleed				•	
	31	Grub screw - air bleed				•	
	52	Washer - ferromagnetic core					•
	54	Washer - air bleed				•	
	55	Seeger - air bleed				•	
	56	Threaded ring					•
	57	Locking pin - threaded ring/rod					•

9.7 Cushioning

ORDER CODE	POS	DESCRIPTION	Front F2
SP - F2 - CK - 50 / 36 - 32 F2 - front cushioning fast BORE SIZE ROD DIAMETER SERIES NUMBER	10	Front cushioning piston	•
	16	O-ring + Antiextrusion ring - cushioning screw	•
	16.1	O-ring + Antiextrusion ring - cushioning cartridge	•
	17	Bonded seal	•
	18	Cushioning adjustment cartridge	•
	19	Cushioning adjustment screw	•
	20	Seeger	•
	32	Cushioning sleeve - front	•
	33	Toroidal ring - front	•