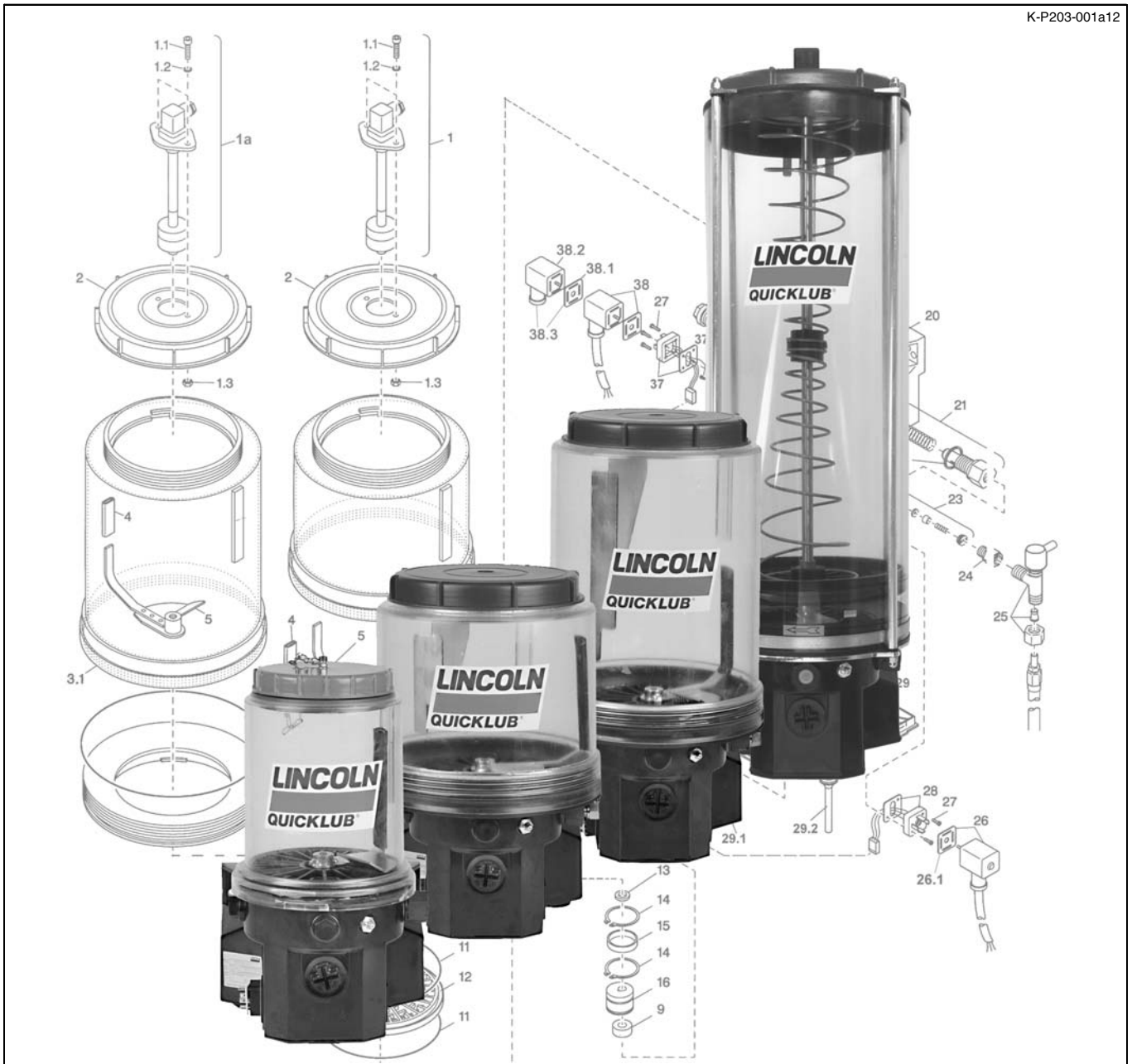


Components of the Quicklub Centralized Lubrication Pumps 203



Subject to modifications

This User Manual was compiled on behalf of the manufacturer

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Identification Code - Pump Models 203



6001a02

NOTE

Any pump combinations other than the above standard pumps can be composed and ordered in accordance with the valid model identification code.

Code examples:

P203 - 2 X N - 1 K6 - 24 - 1A 1. 01 - V10
 P203 - 4 X B F - 1 KR - AC - 1A 1. 01 - V12
 P203 - 2 X N - 1 K6 - 12 - 1A 2. 00
 P203 - 8 X L - 1 K6 - 24 - 2A 1. 10 - V10
 P203 - 4 Y N BO - 2 K5 - 24 - 1A 1. 01
 P203 - 2 X L - 1 K6 - AC - 3A 6. 15 - M08

P203 – Basic pump model for grease or oil with 1-3 outlets and 12 or 24 VDC motor

Reservoir size
 2 = 2 l transparent plastic reservoir
 4 = 4 l transparent plastic reservoir
 8 = 8 l transparent plastic reservoir
 11 = 11 l transparent plastic reservoir
 15 = 15 l transparent plastic reservoir

Reservoir design						Decoding		
Code	Litres							
I	II	III	2	4	8	11	15	
X N	x	x	x					I X = Reservoir for grease Y = Reservoir for oil
X N FL	x							
X N BO	x	x	x				x	II N = Standard design L = Low - level control B = High - & low - level control
X L	x	x	x					
X L BO	x	x	x				x	
X L F			x	x			x	III no designation = Standard BO = Filling from top FL = Flat-type reservoir F ¹⁾ = with follower plate
X B F			x	x	x	x	x	
Y N								
Y N BO			x	x			x	
Y L BO			x	x				

¹⁾ The high- and low-level control cannot be combined with the integrated control p.c.b.

Pump elements 1-3 = Number of the used elements

K 5 = Piston diameter = 5 mm
 K 6 = Piston diameter = 6 mm
 K 7 = Piston diameter = 7 mm
 KR = Pump element adjustable, Piston diameter = 7 mm
 B 7 = Piston diameter = 7 mm (output from K5)
 S 7 = Piston diameter = 7 mm (for greases containing silicone)
 C 7 = Piston diameter = 7 mm²⁾

²⁾ C7 = Designation of pump elements for supplying of paste for chisel (C = chisel)

Supply voltage

12 = 12 VDC (square-type plug, bayonet plug or M12 plug)
 24 = 24 VDC (square-type plug, bayonet plug or M12 plug)
 AC = 120-230 VAC (square-type plug)³⁾

Number of electric connecting possibilities

1A = 1 connection DC, AC³⁾
 - 1A: for power supply (VAC only with square-type plug) left bottom
 - 1A: for power supply (VDC) left top
 2A = 2 connections³⁾
 - 1A: for supply (VAC only with square-type plug) left bottom, DC
 - 2A: for illuminated pushbutton / low-level control or piston detector (see below "3A = 3 connections")
 3A = 3 connections³⁾
 - 1A: for power supply (VAC only with square-type plug) left bottom, AC³⁾
 - 2A: for illuminated pushbutton + low-level control (bayonet plug), left top
 - 3A: piston detector (bayonet plug), right top

³⁾ Equipment described in separate documentation

⁴⁾ 1A: no connection provided for low-level control for oil & 2A: with illuminated pushbutton only

Type of connection
 1 = square-type plug (power supply, DIN 43650)
 2 = M12 plug
 5 = bayonet plug acc. to DIN 72585-1, 4/3-pole
 6 = bayonet plug, 7/5-pole, M08-M23
 7 = bayonet plug, 7/6-pole (V10-V13, V20-V23)
 8 = PG- cable gland

Connection outside the pump

00 = without socket-outlet, without cable
 01 = with socket-outlet, without cable
 10 = with 10 m cable
 11 = with 10 m ADR cable
 13 = with 10 m cable, 5-wire (microprocessor M08 - M23)
 14 = bayonet socket with 10 m cable, 4/3 core
 15 = bayonet socket with 10 m cable, 7/5 core
 16 = bayonet socket with 10 m cable, 7/6 core

Control p.c.b. 12V / 24 V

no designation = Pump without control p. c. b.
 M08-M23 = Microprocessor control with various adjustments (monitored systems)
 V10-V13 = with adjustable pause and lubricating time (V20-V23 only for USA)
 V10-V13-ADR = with adjustable pause and lubricating time⁵⁾
 H = for trailer or semitrailers
 H-ADR = for trailer or semitrailers⁵⁾

⁵⁾ For transport of hazard materials

Identification Code – Pump Models P223 & P233



6001a02

NOTE

Any pump combinations other than the following standard pumps can be composed and ordered in accordance with the valid model identification code.

Code examples:

P223 - 2 - X L - 1 K6 - AC - 3A 5. 14 - MF01
 P233 - 4 - X L BO - 1 KR - 24 - 2A 6. 15 - MDF02
 P223 - 2 - X L - 2 K5 - 12 - 2A 6. 15 - MF02
 P223 - 8 - X L BO - 1 K7 - 24 - 2A 5. 14 - MF01
 P233 - 2 - X L - 1 K6 - 24 - 2A 5. 14 - MDF01

Basic pump model for grease

with 1-3 outlets and 12 VDC or 24 VDC motor

P223 = Pump with Datalogger MF

P233 = Pump without Datalogger MDF

Reservoir design

2 = 2 l transparent plastic reservoir

4 = 4 l transparent plastic reservoir

8 = 8 l transparent plastic reservoir

15 = 15 l transparent plastic reservoir

Reservoir design:

Available combinations

Decoding

I	II	III	I	II	III
- X	N		X	=	Reservoir with grease
- X	N	FL	N	=	without low-level control
- X	N	BO	L	=	with low-level control
- X	L		III	[...]	Standard reservoir (2 litres)
- X	L	BO		FL	Flat-type reservoir
- Y	N	BO		BO	Filling from the top
- Y	L	BO			

¹⁾ The high- and low-level control is not to combine with the integrated control unit.

Pump elements

1-3 = Number of the use elements

B 7 ²⁾ = Piston diameter = 7 mm, output 2,0 ccm/min

K 5 = Piston diameter = 5 mm, output 2,0 ccm/min

K 6 = Piston diameter = 6 mm, output 2,8 ccm/min

K 7 = Piston diameter = 7 mm, output 4,0 ccm/min

K R = Piston diameter = 7 mm, output adjustable

C 7 ³⁾ = Piston diameter = 7 mm, output 4,0 ccm/min

²⁾ with bypass bore

³⁾ Designation of pump elements for dispensing chisel paste.

Connecting voltage

12 = for 12 VDC motor

24 = for 24 VDC motor

AC = 110 / 240 VAC ±10%, 50-60 Hz ±5% (for 24 VDC motor)

Number of electric connecting possibilities (on pump housing only)

2A = 2 connections:

- on the left top power supply, illuminated pushbutton (operational test & additional lubrication) and fault indication (* / **)

- on the right top piston detektor (divider monitoring) bayonet plug 4/2-pole

3A = 3 connections:

- on the left bottom power supply (square-type plug)

- on the left top illuminated pushbutton and fault indication (* / **)

- on the right top piston detektor (divider monitoring) bayonet plug 4/2-pole

Type of connection ⁴⁾

1 = Square-type plug (power supply, DIN 43650)

5 = Bayonet plug 4-pole, DIN 72585-1 (* for MF01/MDF01)

6 = Bayonet plug 7/5-pole, DIN 72585-1 (** for MF02/MDF02)

⁴⁾ other types of connection on request possible

Connection outside the pump

00 = without socket, without cable

14 ⁵⁾ = bayonet socket with 10 m cable, 4-core

15 ⁶⁾ = bayonet socket with 10 m cable, 7/5-core

⁵⁾ only with type of connection 2A5 / 3A5

⁶⁾ only with type of connection 2A6 / 3A6

Control p.c.b. 12V / 24 V

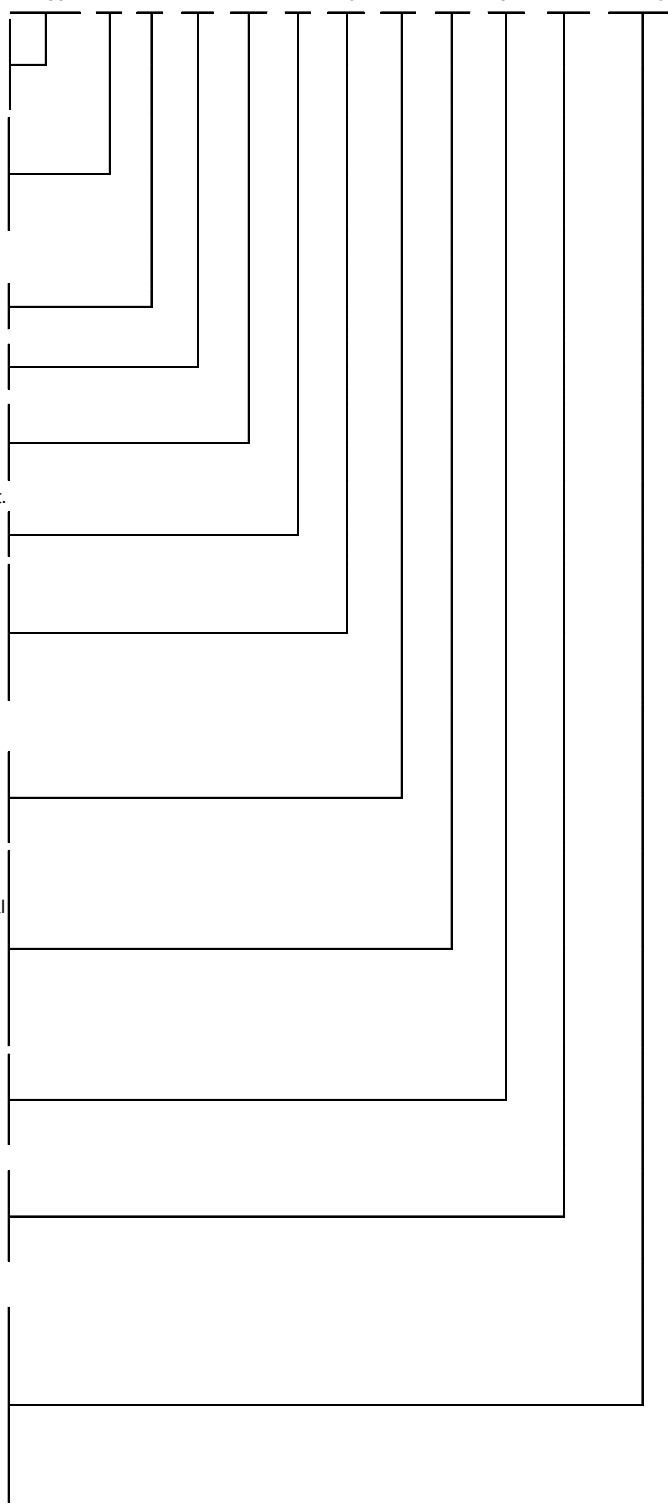
MF01 = with microprocessor control and membrane key pad (contact 15/30 bridged)

MF02 ⁷⁾ = with microprocessor control and membrane key pad (contact 15/30 not bridged)

MDF01 = with microprocessor control, datalogger and membrane key pad (contact 15/30 bridged)

MDF02 ⁷⁾ = with microprocessor control, datalogger and membrane key pad (contact 15/30 not bridged)

⁷⁾ only with type of connection 2A6



Subject to modifications

Identification Code - Pump Models P243

Code examples: P243 - 2 X L - 3 K6 - 24 - 3A 2. 01 - MD20-8

P243 4 X L BO - 3 K6 - 24 - 3A 2. 01 MD21

P243 - 2 X L - - 3 KR - AC - 4A 2. 01 - MD20-8

P243 - 8 X L - 3 K7 - 24 - 2A 7. 16 - MD20-8

P243 - 4 X L BO - 2 K5 - 24 - 3A 2. 01 - MD21

P243 - 2 X L - 3 K6 - AC - 3A 7. 16 - MD20-8



6001a02

NOTE

Any pump combinations other the above standard pumps can be composed and ordered in accordance with the valid model identification code.

Basic pump model for grease

Reservoir size

- 2 = 2 l transparent plastic reservoir
- 4 = 4 l transparent plastic reservoir
- 8 = 8 l transparent plastic reservoir
- 15 = 15 l transparent plastic reservoir

Reservoir design:

Available combinations

I II III

- X L

- X L BO

- X L F¹⁾

- X B F¹⁾

- Y L BO

Decoding

I X = Reservoir for grease
Y = Reservoir for oil

II L = with low-level control
B = with high - & low - level control

III [...] = Standard reservoir (2 litres)
BO = Filling from the top
F¹⁾ = Reservoir with follower plate

¹⁾ Filling from the bottom.

Pump elements

0-3 = Number of the used pump elements

0 0 = without pump elements

B 7 = ²⁾ Piston diameter = 7 mm, output 2.0 ccm/min

K 5 = Piston diameter = 5 mm, output 2.0 ccm/min

K 6 = Piston diameter = 6 mm, output 2.0 ccm/min

K 7 = Piston diameter = 7 mm, output 4.0 ccm/min

K R = Piston diameter = 7 mm, output adjustable

C 7 = ³⁾ Piston diameter = 7 mm

²⁾ with bypass bore

³⁾ Designation of pump elements for supplying of paste for chisel (C = chisel)

Supply voltage

12 = for 12 VDC motor

24 = for 24 VDC motor

AC = 110-240 VAC ±10%, 50-60 Hz ±5% (with 24 VDC motor)

Number of electric connecting possibilities

2A = 2 connections (DC with bayonet plug)

- left: power supply pump + low-level control

- right: piston detector

3A = 3 connections (AC with square-type plug & DC with M12 or bayonet plug)

- left: power supply Pumpe AC & low-level control

- right: piston detector

4A = 4 connections (AC with square-type plug & DC with M12 plug

+ with square-type plug, top)

- left: power supply Pumpe, control p.c.b., low-level control,

illuminated push button

- right: piston detector

- top: low-level control for follower plate or oil reservoir

Type of connection

1 = Square-type plug (power supply, DIN 43650)

2 = M12 plug

5 = Bayonet plug 4-pole, DIN 72585-1

7 = ⁴⁾ Bayonet plug 7/7-pole, DIN 72585-1

⁴⁾ only non-floating adaptive

Connection outside the pump

00 = Connecting plug, protective cap (Type of connetion 1)

01 = Connecting plug, socket (Type of connetion 1 and 2)

10 = Connecting plug, socket +10m cable (Type of connetion 1 and 2)

14 = Connecting plug, socket +10m cable (Type of connetion 5)

16 = Connecting plug, socket +10m cable (Type of connetion 7)

Control p.c.b.

MD21 = floating (without jumper configuration)

MD	20-1	20-2	20-3	20-4	20-5	20-6	20-7	20-8 ⁵⁾
- Relay 1 ⁶⁾	-	-	-	-	+	+	+	+
- Relay 2 ⁷⁾	-	-	+	+	-	-	+	+
- Relay 3 ⁸⁾	-	+	-	+	-	+	-	+

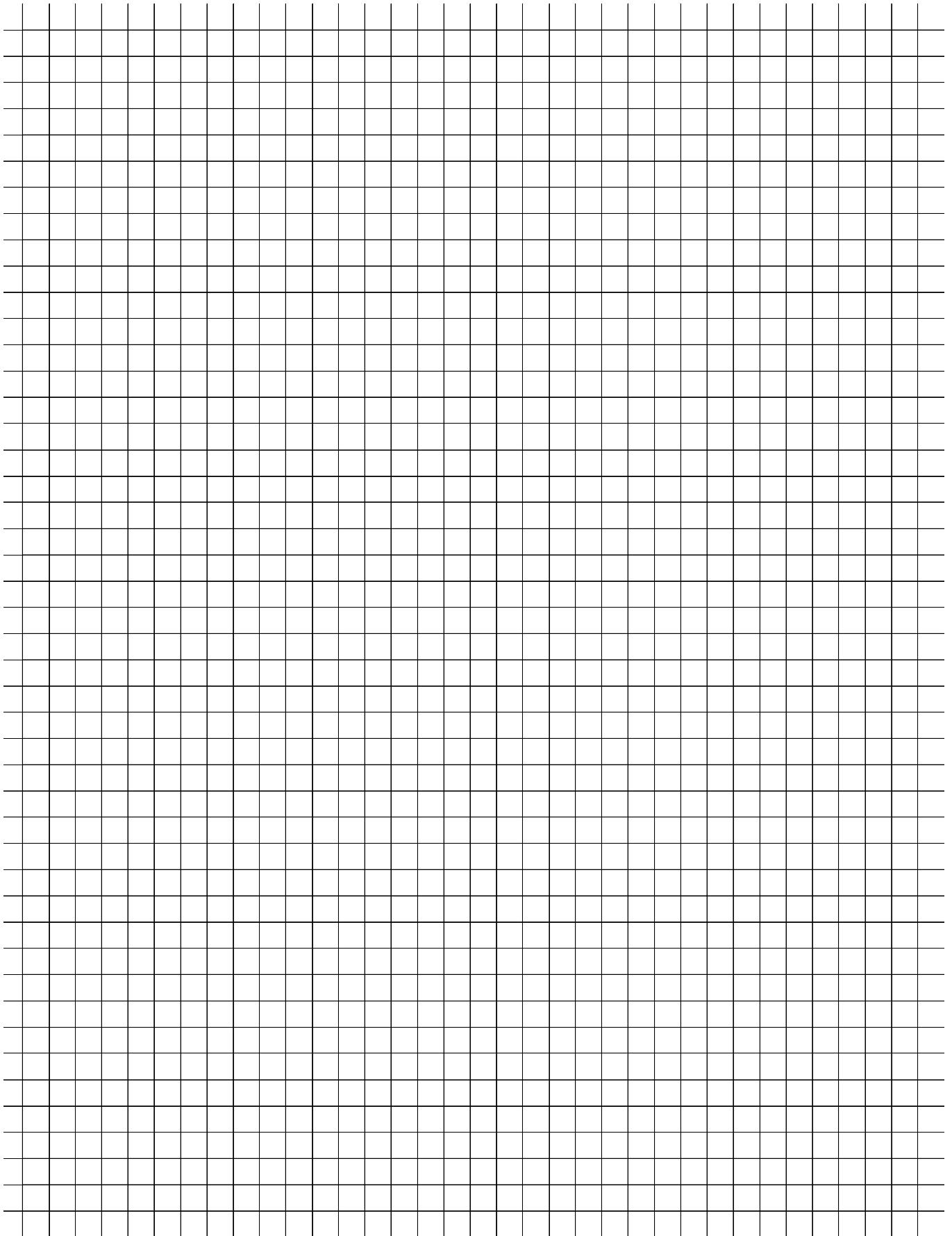
⁵⁾ Factory setting

⁶⁾ Error

⁷⁾ High-level control and motor feedback

⁸⁾ Low-level control

Notes:



Subject to modifications

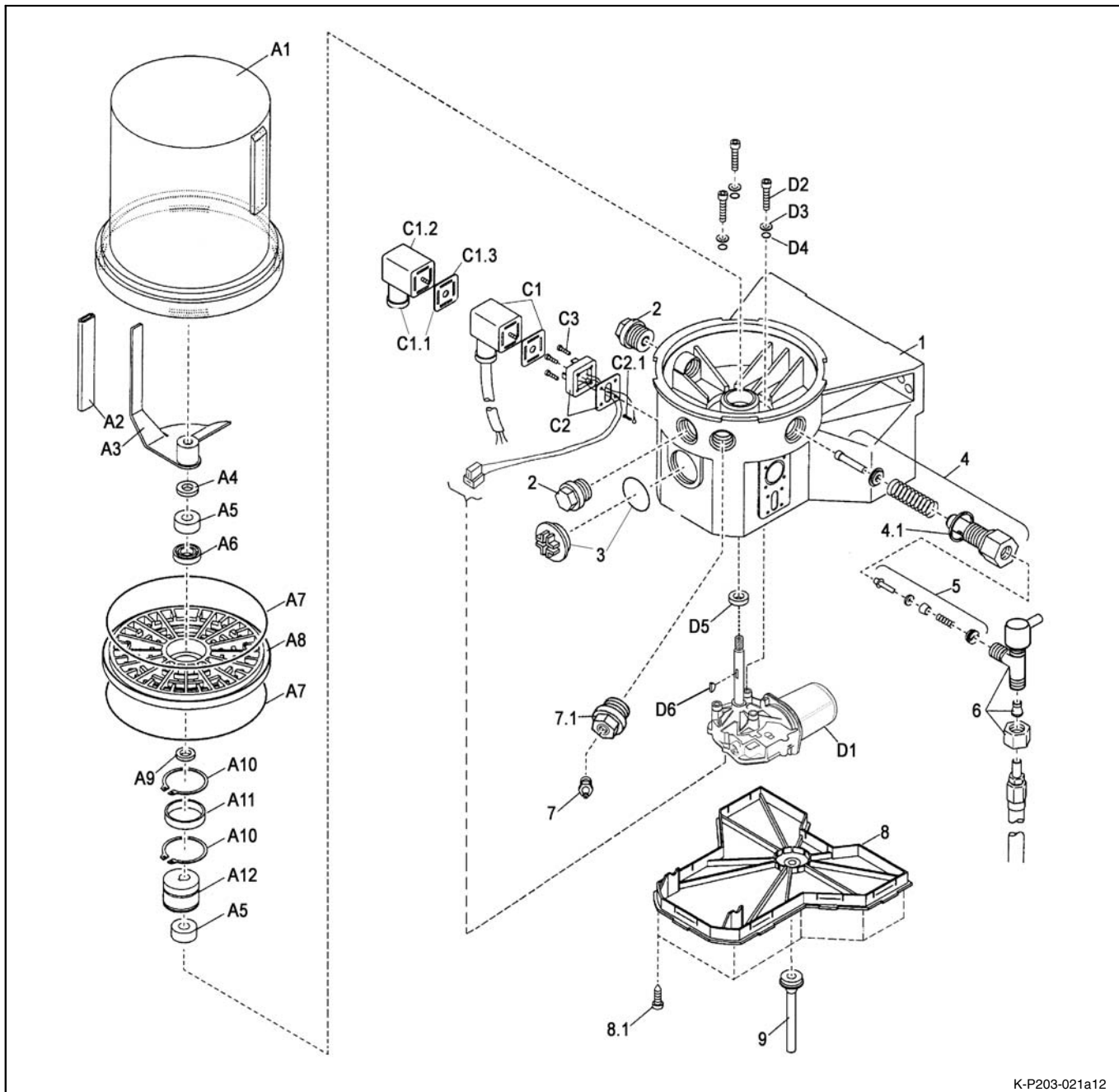
Pumps 203 – basic model

Explosion view P203-2XN-K-12/24-1A1.01/10

- 2 l reservoir for grease
- 1-3 pump element(s) (see parts list)
- with stirring paddle

... without low-level control

- without control unit
- power supply: direct current
- Type of connection with square-type plug 1A1.01/10



K-P203-021a12

Parts List
P203-2XN-K-12/24-1A1.01/10

Pos.	Designation	Qty.	Part no.
1	Housing incl. pos. 8 / 8.1 / 9	1	544-32191-1
	Housing	1	444-72427-1
	UL Housing	1	444-72428-1
2	Closure plug M22 x 1.5 x 12	0-2	303-19285-1
3	Sealing plug with O-ring	1	544-32851-1
4	Pump element incl. Pos. 4.1	1-3	
	* - K5 with piston Ø 5 mm		600-26875-2
	** - K6 with piston Ø 6 mm		600-26876-2
	*** - K7 with piston Ø 7 mm		600-26877-2
	*** - C7 with piston Ø 7 mm		600-28750-1
	*** - B7 with piston Ø 7 mm		600-29185-1
	- KR adjustable		655-28716-1
4.1	Sealing ring Ø 22,2 x 27 x 1.5	1-3	306-17813-1
5	Check valve	1-3	
	* - Ø 5 mm for K5		504-36071-8
	** - Ø 6 mm for K6		504-36071-4
	*** - Ø 7 mm for K7, C7, B7		504-36071-9
6	Pressure relief valve ¹⁾	1-3	
	- SVTE-350-1/4-D6		624-28894-1
	- SVTE-270-1/4-D6		624-28892-1
	- SVTE-200-1/4-D6		624-28891-1
7	Hydraulic lub. Fitting AR 1/4 Z	1	251-14109-2
7.1	Adapter ²⁾ M22 x 1.5 x 12	1	304-19619-1
8	Housing cover since 1996	1	544-32217-1
	UL Housing cover	1	444-70128-1
8.1	Screw 3 x 25	10	206-13796-7
9	Drain hose	1	444-24310-1

- 1) for further pressure relief valves see Parts catalog 2.0-20001
 2) alternatively: closure plug pos. 2 instead of pos. 7 & 7.1
 3) fix Motor housing only with pos. D2 because in delivery state motor housings have no fastening threads
 4) Variants:
 - for further reservoirs see chapter **A**
 - for magnetic switches see chapter **B**
 - for further types of connection see chapter **C**
 - for motor connection see chapter **D**
 - for control units see chapter **E**

Pos.	Designation	Qty.	Part no.
A ⁴⁾ Reservoir assembly			
A1	Reservoir 2XN	1	544-31996-1
A2	Hose 12.5 cm	1	111-35089-2
A3	Stirring paddle incl. Pos. A2	1	544-33569-1
A4	Washer 8.4	1	209-13072-6
A5	Inner ring	2	444-24168-1
A6	Grooved ball bearing D 10/26 x 8	1	250-14009-7
A7	O-ring Ø 142 x 4	2	219-13730-7
A8	Intermediate bottom	1	444-24167-1
A9	Shim 10 x 16 x 0.5	1	209-13047-5
A10	Snap ring SW 32	2	211-14100-1
A11	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A12	Eccentric	1	444-24170-2
B ⁴⁾ Magnetic switch			
		/	none
C ⁴⁾ Type of connection			
C1	Socket 1A1 incl. pos. C1.3 and 10 m cable	1	664-36078-7
C1.1	Socket 1A1 incl. pos. C1.3	1	544-32850-1
C1.2	Socket 1A1	1	236-10834-5
C1.3	Flat packing	1	236-13294-3
C2	Square-type plug 1A1 with cable	1	664-34195-5
C2.1	Self-tapping screw 3.9 x 6.5 C	1	206-13725-7
C3	Screw BZ 3 x 10 C	4	206-13796-6
D ⁴⁾ Motor assembly			
D1	Motor incl. pos. A7, D2, D4, D5, D7	1	
	12 VDC		544-36913-3
	24 VDC		544-36913-4
D2	Hexagon socket head screw ³⁾ M6 x 25, self-tapping	3	206-13710-8
D3	Washer	3	444-24169-1
D4	O-ring Ø 6 x 2	3	219-13084-2
D5	Rotary shaft seal BA 10x22x7	1	220-12231-3
D6	Woodruff key 3 x 5	1	214-13123-1
E ⁴⁾ Control unit			
		/	ohne

Pumps 223/233 – basic model

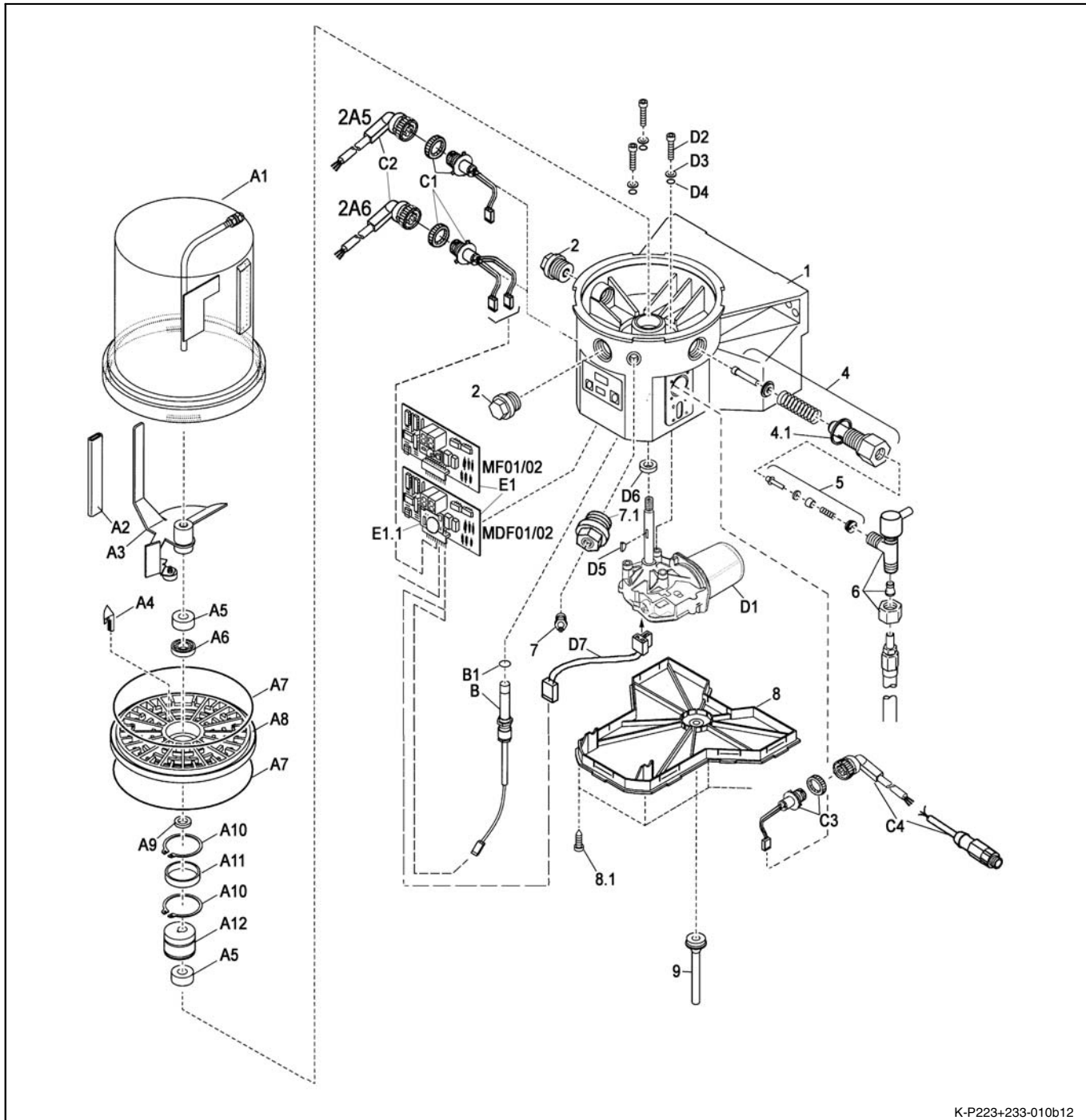
Explosion view

P223-2XL-K-12/24-2A5.14 & 2A6.15-M...

- 2 l reservoir for grease
- 1-3 pump element(s) (see parts list)
- with stirring paddle

... with low-level control

- with control unit MF01, MF02, MDF01 or MDF02
- power supply: direct current
- Type of connection with bayonet plug 2A5.14 or 2A6.15



K-P223+233-010b12

Parts List
P223-2XL-K-12/24-2A5.14 & 2A6.15-M...

Pos.	Designation	Qty.	Part no.
1	Housing incl. membrane keypad	1	
	- P223		544-32733-1
	- P233		544-32641-1
2	Closure plug M22 x 1.5 x 12	0-2	303-19285-1
4	Pump element incl. pos. 4.1	1-3	
*	- K5 with piston Ø 5 mm		600-26875-2
**	- K6 with piston Ø 6 mm		600-26876-2
***	- K7 with piston Ø 7 mm		600-26877-2
***	- C7 with piston Ø 7 mm		600-28750-1
***	- B7 with piston Ø 7 mm		600-29185-1
	- KR adjustable		655-28716-1
4.1	Sealing ring Ø 22.2 x 27 x 1.5	1-3	306-17813-1
5	Check valve	1-3	
	* - Ø 5 mm for K5		504-36071-8
	** - Ø 6 mm for K6		504-36071-4
	*** - Ø 7 mm for K7, C7, B7		504-36071-9
6	Pressure relief valve ¹⁾	1-3	
	- SVTE-350-1/4-D6		624-28894-1
	- SVTE-270-1/4-D6		624-28892-1
	- SVTE-200-1/4-D6		624-28891-1
7	Hydraulic lub. Fitting AR 1/4 Z	1	251-14109-2
7.1	Adapter ²⁾ M22 x 1.5 x 12	1	304-19619-1
8	Housing cover since 1996	1	544-32217-1
8.1	Screw 3 x 25	10	206-13796-7
9	Drain hose	1	444-24310-1
¹⁾ for further pressure relief valves see Parts catalog 2.0-20001 ²⁾ alternatively: closure plug pos. 2 instead of pos. 7 & 7.1 ³⁾ fix Motor housing only with pos. D2 because in delivery state motor housings have no fastening threads ⁴⁾ Variants: - for further reservoirs see chapter A - for magnetic switches see chapter B - for motor connection see chapter D - for control units see chapter E ⁵⁾ AC power connection see chapter C ⁶⁾ externally only with control lamp for low-level and fault indication ⁷⁾ for control unit MF01 and MDF01 ⁸⁾ for control unit MF02 and MDF02			
E	Control unit	1	
	- MF01 (terminal 15 + 30 bridged)		236-10097-7
	- MDF01 (MF01 + E1.1)		236-10111-3
	- MF02 (15 + 30 not bridged)		236-10097-4
	- MDF02 (MF02 + E1.1)		236-10111-4
E1.1	Datalogger	1	236-10096-2

Pos.	Designation	Qty.	Part no.
A ⁴⁾ Reservoir assembly			
A1	Reservoir 2XL	1	544-32028-1
A2	Hose 12.5 cm	1	111-35089-2
A3	Stirring paddle incl. Pos. A2	1	544-33568-1
A4	Control cam	1	444-24212-1
A5	Inner ring	2	444-24168-1
A6	Grooved ball bearing D 10/26 x 8	1	250-14009-7
A7	O-ring Ø 142 x 4	2	219-13730-7
A8	Intermediate bottom	1	444-24167-1
A9	Shim 10 x 16 x 0.5	1	209-13047-5
A10	Snap ring SW 32	2	211-14100-1
A11	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A12	Eccentric	1	444-24170-2
B Magnetic switch incl. O-ring		1	234-10423-6
C ⁵⁾ Type of connection			
C1	Bayonet plug:	1	
	⁶⁾ 2A5: - 4/4-pole		664-34045-2
	⁷⁾ 2A6: - 7/5-pole		664-34167-1
	⁸⁾ 2A6: - 7/6-pole		664-34167-3
C2	Socket:	1	
	⁶⁾ 2A5: 4/4-core with 10 m cable		664-34045-1
	⁷⁾ 2A6: 7/5-core with 10 m cable		664-34167-2
	⁸⁾ 2A6: 7/6-core with 10 m cable		664-34167-5
C3	Bayonet plug 4/4-pole	1	664-34041-9
C4	Cable with piston detector	1	
	- 3 m		519-34339-3
	- 7 m		519-34339-4
	- 10 m		664-34167-1
D ⁴⁾ Motor assembly			
D1	Motor incl. pos. A7, D2, D4, D5, D7	1	
	12 VDC		544-36913-3
	24 VDC		544-36913-4
D2	Hexagon socket head screw ³⁾ M6 x 25, self-tapping	3	206-13710-8
D3	Washer	3	444-24169-1
D4	O-ring Ø 6 x 2	3	219-13084-2
D5	Rotary shaft seal BA 10x22x7	1	220-12231-3
D6	Woodruff key 3 x 5	1	214-13123-1
D7	Connecting cable	1	664-34195-2

Subject to modifications

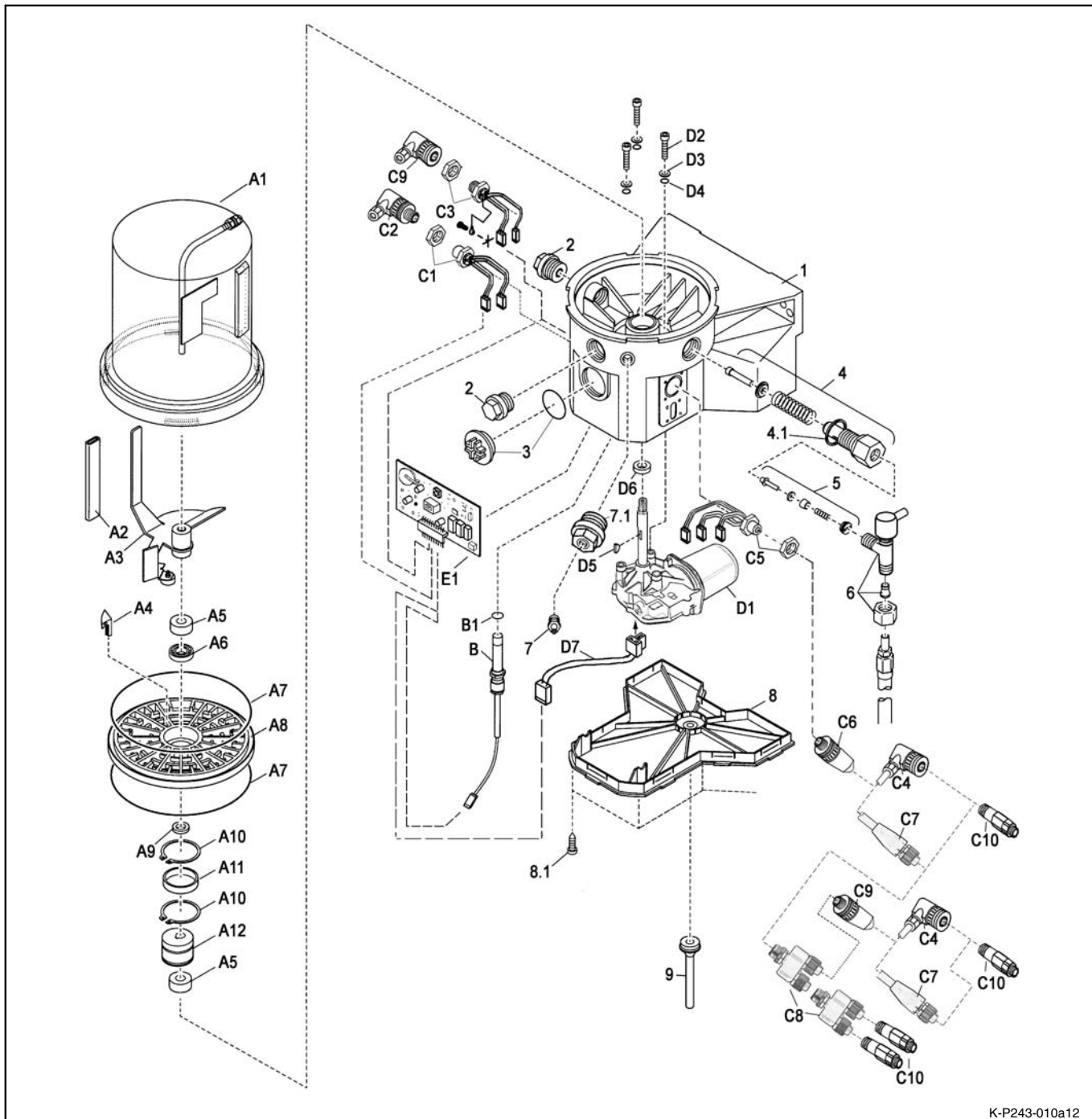
Pumps 243 – basic model

Explosion view P243-2XL-K-12/24-3A2.01-MD...

- 2 l reservoir for grease
- 1-3 Pump element(s) (see parts list)
- 1-3 piston detectors (see parts list)
- with stirring paddle

... with low-level control

- with control unit MD20-x or MD21
- power supply: direct current
- type of connection with M12 plugs



K-P243-010a12

Parts List
P243-2XL-K-12/24-3A2.01-MD...

Pos.	Designation	Qty.	Part no.
1	Housing incl. pos. 8 / 8.1 / 9	1	544-32191-1
	Housing	1	444-72427-1
2	Closure plug M22 x 1.5 x 12	0-2	303-19285-1
3	Sealing plug with O-ring	1	544-32851-1
4	Pump element incl. Pos. 4.1	1-3	
*	- K5 with piston Ø 5 mm		600-26875-2
**	- K6 with piston Ø 6 mm		600-26876-2
***	- K7 with piston Ø 7 mm		600-26877-2
***	- C7 with piston Ø 7 mm		600-28750-1
***	- B7 with piston Ø 7 mm		600-29185-1
	- KR adjustable		655-28716-1
4.1	Sealing ring Ø 22,2 x 27 x 1.5	0-3	306-17813-1
5	Check valve	0-3	
*	- Ø 5 mm for K5		504-36071-8
**	- Ø 6 mm for K6		504-36071-4
***	- Ø 7 mm for K7, C7, B7		504-36071-9
6	Pressure relief valve ¹⁾	0-3	
	- SVTE-350-1/4-D6		624-28894-1
	- SVTE-270-1/4-D6		624-28892-1
	- SVTE-200-1/4-D6		624-28891-1
7	Hydraulic lub. Fitting AR 1/4 Z	1	251-14109-2
7.1	Adapter ²⁾ M22 x 1.5 x 12	1	304-19619-1
8	Housing cover since 1996	1	544-32217-1
8.1	Screw 3 x 25	10	206-13796-7
9	Drain hose	1	444-24310-1
D ⁴⁾	Motor assembly		
D1	Motor incl. pos. A7, D2, D4, D5, D7		
	12 VDC		544-36913-3
	24 VDC		544-36913-4
D2	Hexagon socket head screw ³⁾ M6 x 25, self-tapping	3	206-13710-8
D3	Washer	3	444-24169-1
D4	O-ring Ø 6 x 2	3	219-13084-2
D5	Rotary shaft seal BA 10x22x7	1	220-12231-3
D6	Woodruff key 3 x 5	1	214-13123-1
D7	Connecting cable	1	664-34195-2
E	Control unit		
E1	Contro. p.c.b. MD20 / MD21	1	236-10947-1

Pos.	Designation	Qty.	Part no.
A ⁴⁾	Reservoir assembly		
A1	Reservoir 2XL	1	544-32028-1
A2	Hose 12.5 cm	1	111-35089-2
A3	Stirring paddle incl. pos. A2	1	544-33568-1
A4	Control cam	1	444-24212-1
A5	Inner ring	2	444-24168-1
A6	Grooved ball bearing D 10/26 x 8	1	250-14009-7
A7	O-ring Ø 142 x 4	2	219-13730-7
A8	Intermediate bottom	1	444-24167-1
A9	Shim 10 x 16 x 0.5	1	209-13047-5
A10	Snap ring SW 32	2	211-14100-1
A11	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A12	Eccentric	1	444-24170-2
B	Magnetic switch incl. O-ring	1	234-10423-6
C ⁵⁾	Type of conneciton		
C1 ⁶⁾	M12 socket, encoding A	1	
	- non floating		664-34775-2
	- floating		664-34775-3
C2 ⁶⁾	M12 plug, 5-pole, encod. A, 90°	1	236-11003-8
C3 ⁶⁾	M12 connecting plug, encod. A	1	664-34775-5
C4 ⁶⁾	M12 socket, encoding A		
	- 90°, 5 m cable	1-3	237-13442-6
C5 ⁶⁾	M12 socket, encoding B	1	664-34775-4
C6 ⁶⁾	M12 plug, encoding B, 90°	1	236-11003-8
	- straight		236-11087-4
C7	M12 socket, encoding A	1-3	237-10319-5
	- straight, 10 m cable	1-3	237-10319-5
C8	M12 T-piece	1-2	236-13888-8
C9	M12 plug, encoding A, 90°	1-3	236-10022-6
	- straight		236-10518-7
C10	Piston detector NP	1-3	519-34339-5

- ¹⁾ for further pressure relief valves see Parts catalog 2.0-20001
²⁾ alternatively: closure plug pos. 2 instead of pos. 7 & 7.1
³⁾ fix Motor housing only with pos. D2 because in delivery state motor housings have no fastening threads
⁴⁾ Variants:
- for further reservoirs see chapter A
- for magnetic switches see chapter B
- for motor connection see chapter D
- for control units see chapter E
⁵⁾ AC power connection see chapter C
⁶⁾ Bayonet connection see chapter C

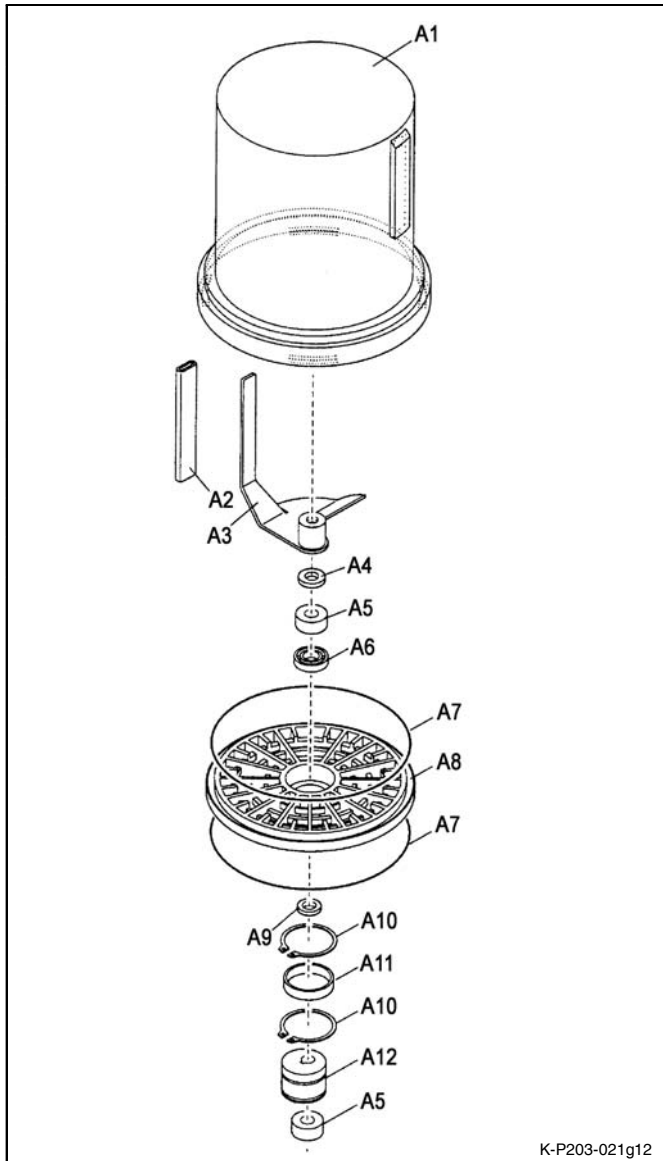
Subject to modifications

A ... with 2 l reservoir for grease

A

P203-2XN¹⁾-... without low-level control

- 2 l reservoir, closed
- with stirring paddle
- Control: without, V10-13, V20-23, H, V10-13 ADR²⁾, H ADR²⁾
- Type of connection: 1A1.01/10/11 (ADR), 2A1.01/10/11 (ADR), 1A5.14/17 (ADR), 1A7.16



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	2 l reservoir	1	544-31996-1
A2	Hose 12.5 cm	1	111-35089-2
A3	Stirring paddle incl. Pos. A2	1	544-33569-1
A4	Washer 8.4	1	209-13072-6
A5	Inner ring	2	444-24168-1
A6	Grooved ball bearing D 10/26 x 8	1	250-14009-7
A7	O-ring Ø 142 x 4	2	219-13730-7
A8	Intermediate bottom	1	444-24167-1
A9	Shim 10 x 16 x 0.5	1	209-13047-5
A10	Snap ring SW 32	2	211-14100-1
A11	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A12	Eccentric	1	444-24170-2

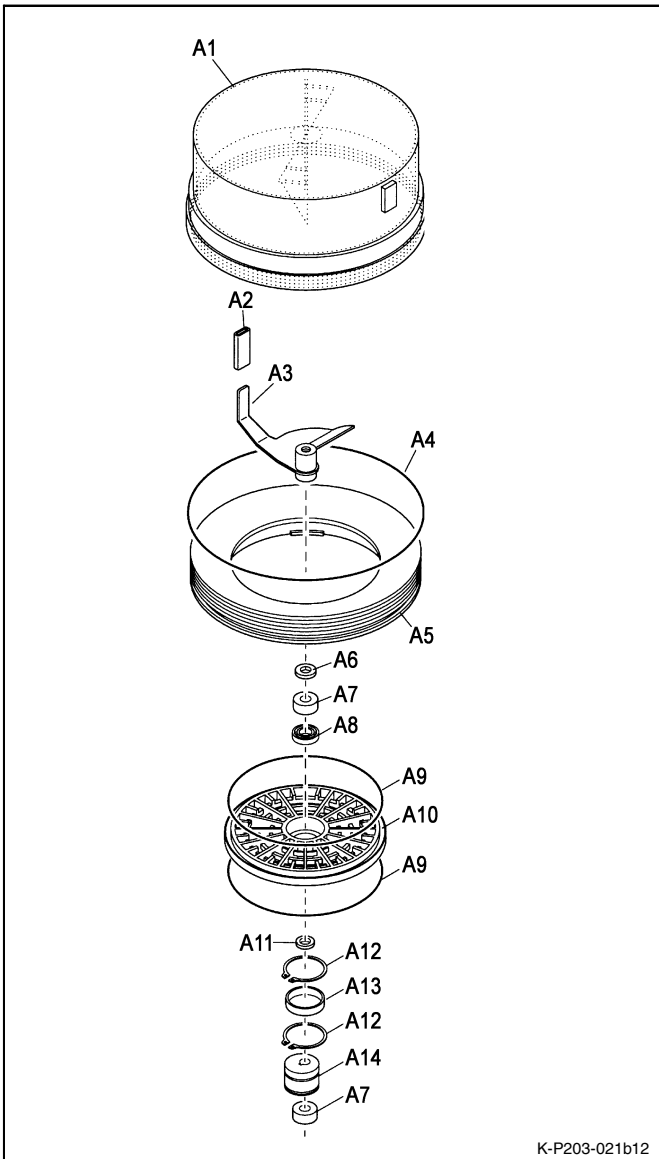
¹⁾ see „Pump 203 – Standard“

²⁾ ADR design only with type of connection 1A1.11, 2A1.11 or 1A5.17 (see Identification Code „P203 ... V10-13, H ... ADR“)

A ... with 2 l flat-type reservoir for grease A

P203- & P223 /233-2XNFL-... (low-level control not possible)

- 2 l flat-type reservoir, closed
- with stirring paddle
- Control: V10-13¹⁾, V20-23¹⁾, H¹⁾, V10-13 ADR²⁾, H ADR³⁾, MF/MDF01⁴⁾, MF/MDF02⁵⁾
- Type of connection: 1A1.01/10¹⁾, 2A1.01/10¹⁾, 1A5.14¹⁾, 1A7.16¹⁾, 1A5.17 (ADR)¹⁾, 2A5.14⁴⁾, 2A6.15⁵⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	2 l flat-type reservoir	1	544-31997-1
A2	Hose 3 cm	1	111-35089-2
A3	Stirring paddle incl. pos. A2	1	544-31929-1
A4	O-ring Ø 210 x 5	1	219-13730-9
A5	Adapter ring	1	444-24235-1
A6	Washer 8.4	1	209-13072-6
A7	Inner ring	2	444-24168-1
A8	Grooved ball bearing D 10 / 26 x 8	1	250-14009-7
A9	O-ring Ø 142 x 4	2	219-13730-7
A10	Intermediate bottom	1	444-24167-1
A11	Shim 10 x 16 x 0.5	1	209-13047-5
A12	Snap ring SW 32	2	211-14100-1
A13	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A14	Eccentric	1	444-24170-2

- 1) for P203
- 2) for P203, V10-13 ADR with type of connection 2A1 or 1A5.17
- 3) for P203, H ADR only with type of connection 2A1
- 4) for P223/233, PCB terminals 15 + 30 bridged
- 5) for P223/233, PCB terminals 15 + 30 not bridged

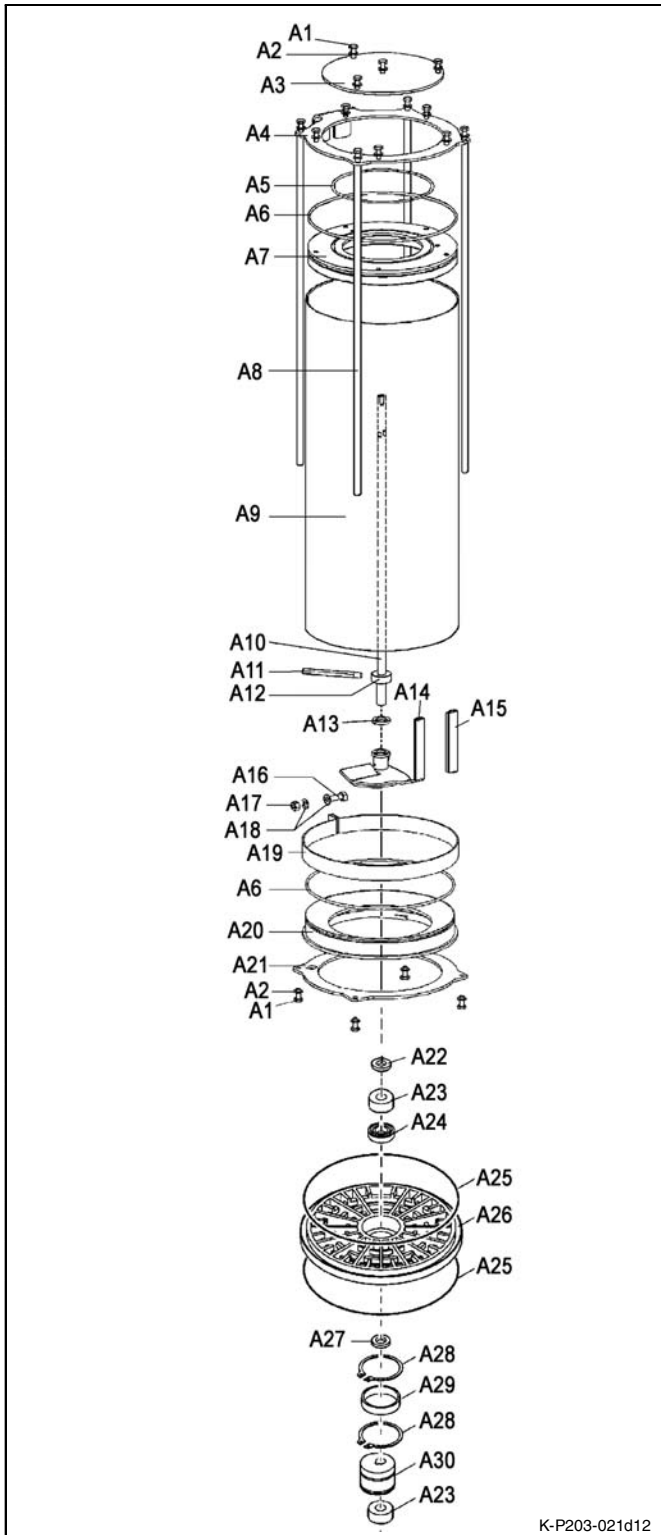
A

... with 15 l reservoir for grease

A

P203- & P223/233-15XN ... without low-level control

- 15 l reservoir, closed
- with stirring paddle
- Control: without ¹⁾, V10-13 ¹⁾, V20-23 ¹⁾, MF/MDF01 ²⁾, MF/MDF02 ³⁾
- Type of connection: 1A1.01/10 ¹⁾, 2A1.01/10 ¹⁾, 1A5.14 ¹⁾, 1A7.16 ¹⁾, 2A5.14 ²⁾, 2A6.15 ³⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Hexagon head screw M6 x 16	17	200-13022-4
A2	Washer A 6.4 C	17	209-13011-5
A3	Lid	1	444-71032-1
A4	Mounting plate	1	444-70999-1
A5	O-ring 135 x 3	1	219-10390-8
A6	O-ring 200 x 4	2	219-10390-4
A7	Center bushing	1	444-71003-1
A8	Support collar	4	444-71002-1
A9	15 l tube	1	544-32832-1
A10	Axis	1	444-71006-1
A11	Pin for fixed paddle	1	444-71001-1
A12	Regulating ring	1	444-71000-1
A13	O-ring 12.3 x 2.4	1	219-13730-9
A14	Stirring paddle incl. pos. A15	1	544-32578-1
A15	Hose 10 cm	1	111-35089-2
A16	Hexagon head screw M8 x 20	1	200-14245-6
A17	Nut M8	1	207-12516-5
A18	Washer 8.4	2	209-13072-8
A19	Clamp	1	444-70948-1
A20	Adapter ring	1	444-70941-1
A21	Fixing ring	1	444-70950-1
A22	Washer 8.4	1	209-13072-6
A23	Inner ring	2	444-24168-1
A24	Grooved ball bearing D 10 / 26 x 8	1	250-14009-7
A25	O-ring Ø 142 x 4	2	219-13730-7
A26	Intermediate bottom	1	444-24167-1
A27	Shim 10 x 16 x 0.5	1	209-13047-5
A28	Snap ring SW 32	2	211-14100-1
A29	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A30	Eccentric	1	444-24170-2

¹⁾ for P203
²⁾ for P223/233, PCB terminals 15 + 30 bridged
³⁾ for P223/233, PCB terminals 15 + 30 not bridged

Subject to modifications

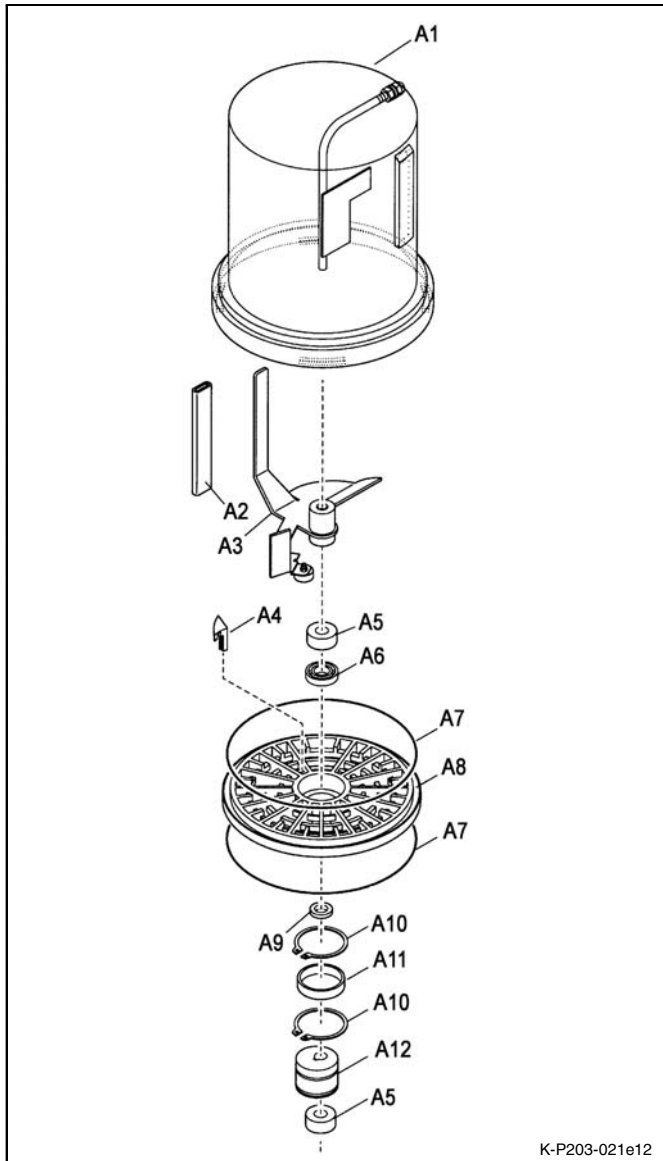
K-P203-021d12

A ... with 2 l reservoir for grease

A

P203- & P223/233- & P243-2XL ... with low-level control ¹⁾

- 2 l reservoir, closed
- with stirring paddle
- Control: without ²⁾, V10-13 ²⁾, V20-23 ²⁾, V10-13 ADR ³⁾
MF/MDF01 ⁴⁾, MF/MDF02 ⁵⁾, MD20/21 ⁶⁾ ⁷⁾
- Type of connection: 2A1.01/10/11 (ADR) ²⁾, 1A7.16 ²⁾
2A5.14 ⁴⁾, 2A6.15 ⁵⁾, 2A2.01 ⁶⁾, 2A7.16 ⁷⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	2 l reservoir	1	544-32028-1
A2	Hose 12.5 cm	1	111-35089-2
A3	Stirring paddle incl. Pos. A2	1	544-33568-1
A4	Control cam	1	444-24212-1
A5	Inner ring	2	444-24168-1
A6	Grooved ball bearing D 10/26 x 8	1	250-14009-7
A7	O-ring Ø 142 x 4	2	219-13730-7
A8	Intermediate bottom	1	444-24167-1
A9	Shim 10 x 16 x 0.5	1	209-13047-5
A10	Snap ring SW 32	2	211-14100-1
A11	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A12	Eccentric	1	444-24170-2

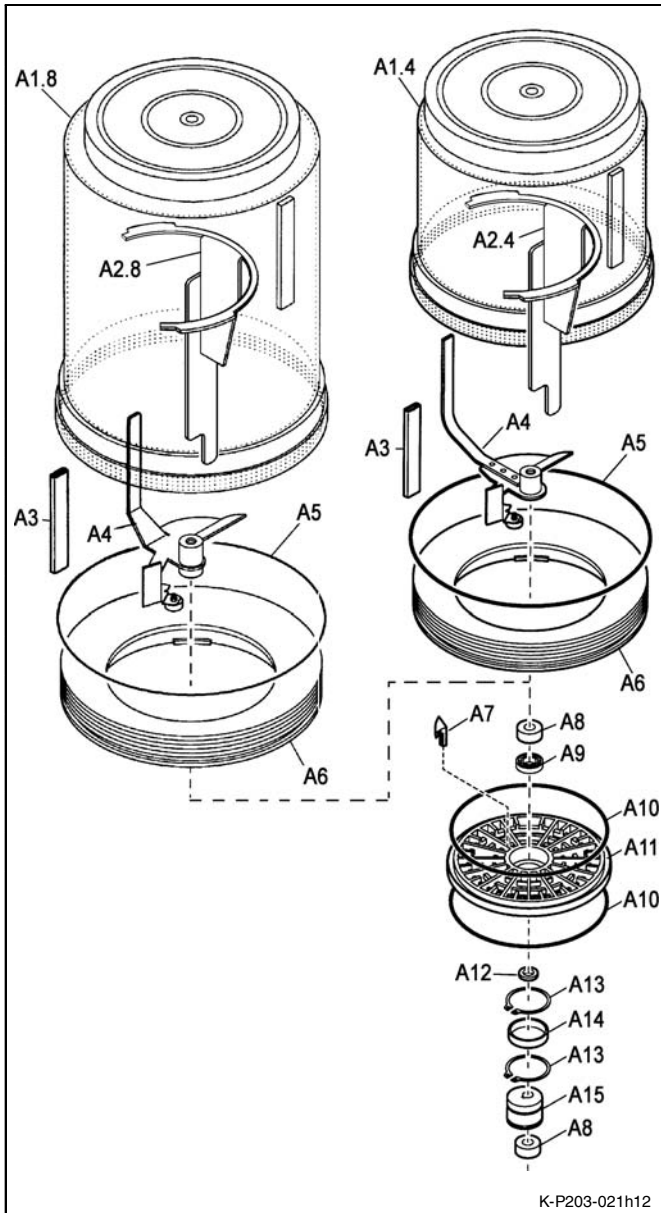
- ¹⁾ for P203, Low-level control only with magnetic switch (pos. B)
- ²⁾ for P203
- ³⁾ for P203, ADR design only with type of connection 2A1.11
(see Identification Code „P203 ... V10-13 ADR“)
- ⁴⁾ for P223/233, PCB terminals 15 + 30 bridged
- ⁵⁾ for P223/233, PCB terminals 15 + 30 not bridged
- ⁶⁾ for P243 with M12 plug
- ⁷⁾ for P243 with bayonet plug

A ... with 4 l or 8 l reservoir for grease

A

P203- & P223/233- & P243-4XL or -8XL ... with low-level control ¹⁾

- 4 l or 8 l reservoir, closed
- with stirring paddle
- Control: without ²⁾, V10-13 ²⁾, V20-23 ²⁾, MF/MDF01 ³⁾, MF/MDF02 ⁴⁾, MD20/21 ^{5) 6)}
- Type of connection: 2A1.01/10 ²⁾, 1A7.16 ²⁾, 2A5.14 ³⁾, 2A6.15 ⁴⁾, 2A2.01 ⁵⁾, 2A7.16 ⁶⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Reservoir	1	
A1.4	- 4 litres		544-32695-1
A1.8	- 8 litres		544-32696-1
A2	Fixed paddle	1	
A2.4	- for 4 l reservoir		444-70490-1
A2.8	- for 8 l reservoir		444-70491-1
A3	Hose 10 cm	1	111-35089-2
A4	Stirring paddle incl. pos. A3	1	544-33314-1
A5	O-ring Ø 210 x 5	1	219-13730-9
A6	Adapter ring	1	444-24235-1
A7	Control cam	1	444-24212-1
A8	Inner ring	2	444-24168-1
A9	Grooved ball bearing D 10 / 26 x 8	1	250-14009-7
A10	O-ring Ø 142 x 4	2	219-13730-7
A11	Intermediate bottom	1	444-24167-1
A12	Shim 10 x 16 x 0.5	1	209-13047-5
A13	Snap ring SW 32	2	211-14100-1
A14	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A15	Eccentric	1	444-24170-2

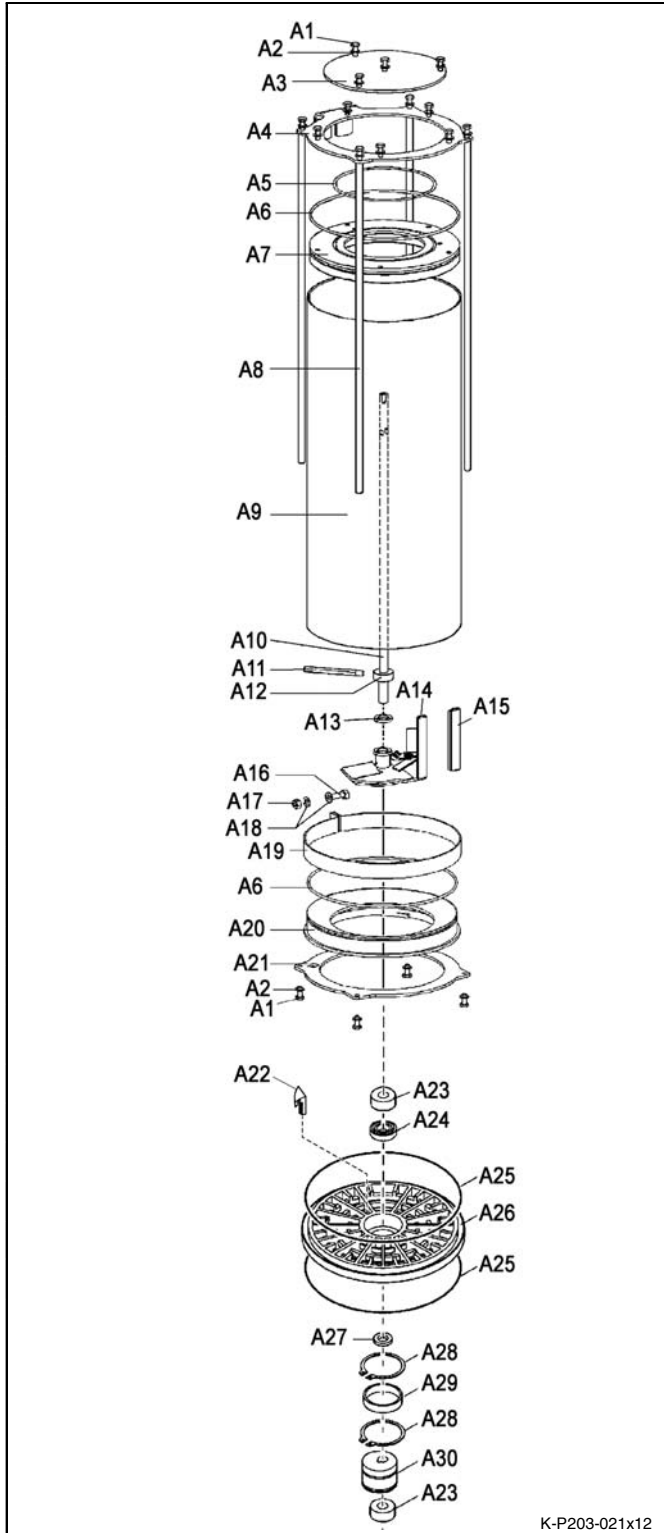
- ¹⁾ Low-level control only with magnetic switch (pos. B)
²⁾ for P203
³⁾ for P223/233, PCB terminals 15 + 30 bridged
⁴⁾ for P223/233, PCB terminals 15 + 30 not bridged
⁵⁾ for P243 with M12 plug
⁶⁾ for P243 with bayonet plug

A ... with 15 l reservoir for grease

A

P203- & P223/233- & P243-15XL ... with low-level control ¹⁾

- 15 l reservoir, closed
- with stirring paddle
- Control: without ²⁾, V10-13 ²⁾, V20-23 ²⁾, MF/MDF01 ³⁾, MF/MDF02 ⁴⁾, MD20/21 ^{5) 6)}
- Type of connection: 2A1.01/10 ²⁾, 1A7.16 ²⁾, 2A5.14 ³⁾, 2A6.15 ⁴⁾, 2A2.01 ⁵⁾, 2A7.16 ⁶⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Hexagon head screw M6 x 16	17	200-13022-4
A2	Washer A 6.4 C	17	209-13011-5
A3	Lid	1	444-71032-1
A4	Mounting plate	1	444-70999-1
A5	O-ring 135 x 3	1	219-10390-8
A6	O-ring 200 x 4	2	219-10390-4
A7	Center bushing	1	444-71003-1
A8	Support collar	4	444-71002-1
A9	15 l tube	1	544-32832-1
A10	Axis	1	444-71006-1
A11	Pin for fixed paddle	1	444-71001-1
A12	Regulating ring	1	444-71000-1
A13	O-ring 12.3 x 2.4	1	219-13730-9
A14	Stirring paddle incl. pos. A15	1	544-32821-1
A15	Hose 10 cm	1	111-35089-2
A16	Hexagon head screw M8 x 20	1	200-14245-6
A17	Nut M8	1	207-12516-5
A18	Washer 8.4	2	209-13072-8
A19	Clamp	1	444-70948-1
A20	Adapter ring	1	444-70941-1
A21	Fixing ring	1	444-70950-1
A22	Control cam	1	444-24212-1
A23	Inner ring	2	444-24168-1
A24	Grooved ball bearing D 10 / 26 x 8	1	250-14009-7
A25	O-ring Ø 142 x 4	2	219-13730-7
A26	Intermediate bottom	1	444-24167-1
A27	Shim 10 x 16 x 0.5	1	209-13047-5
A28	Snap ring SW 32	2	211-14100-1
A29	Pressure ring Ø33 x 37 x 13	1	444-24439-1
A30	Eccentric	1	444-24170-2

¹⁾ Low-level control only with magnetic switch (pos. B)
²⁾ for P203
³⁾ for P223/233, PCB terminals 15 + 30 bridged
⁴⁾ for P223/233, PCB terminals 15 + 30 not bridged
⁵⁾ for P243 with M12 plug
⁶⁾ for P243 with bayonet plug

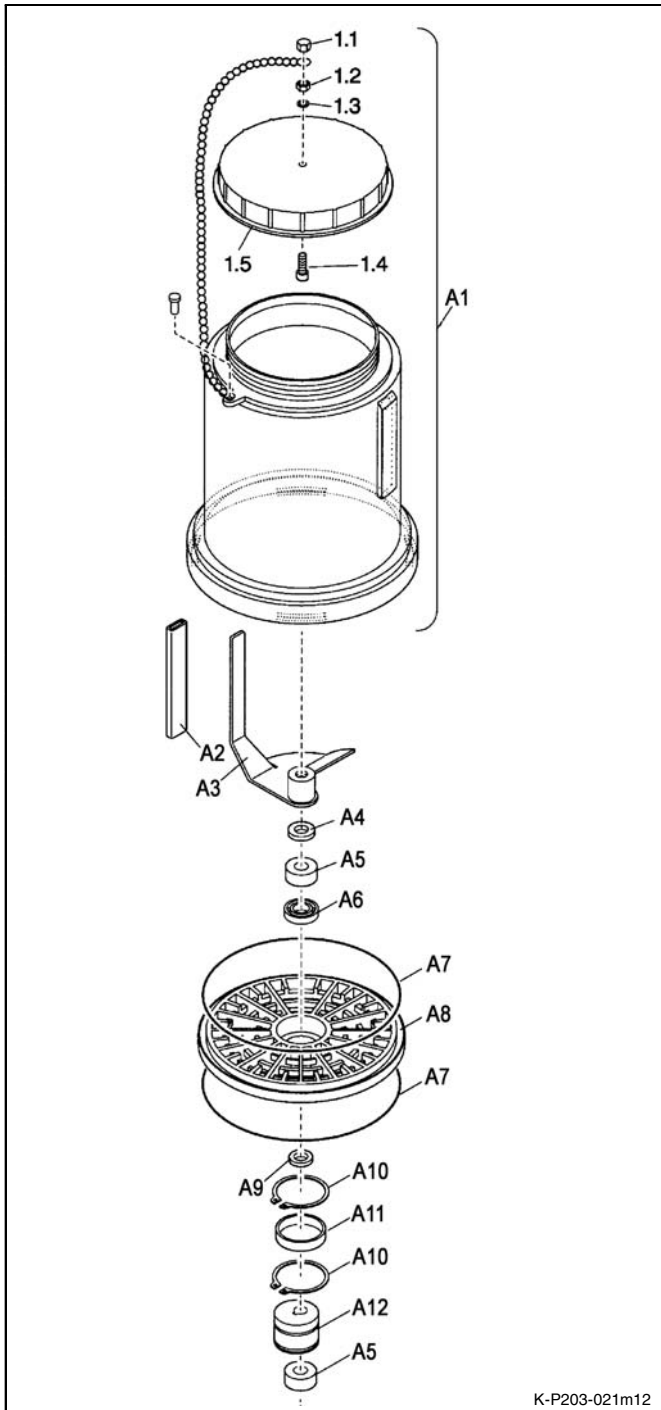
Subject to modifications

K-P203-021x12

A ... with 2 l reservoir for grease or oil A

P203-2XYNBO & P223/233-2XNBO-... without low-level control

- 2 l reservoir with lid
- with stirring paddle
- Control: V10-13¹⁾, V20-23¹⁾, MF/MDF01²⁾, MF/MDF02³⁾
- Type of connection: 1A1.01/10¹⁾, 2A1.01/10¹⁾, 1A5.14¹⁾, 1A7.16¹⁾, 2A5.14²⁾, 2A6.15³⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	2-Liter-Behälter ⁴⁾	1	544-31940-1
1.1	Acorn nut M4 C	1	207-12247-5
1.2	Nut M4 C	1	207-12135-2
1.3	Washer A 4.3 C	1	209-12146-2
1.4	Hexagonal head screw M4 x 16	1	201-12015-4
1.5	Lid	1	221-12488-5
A2	Hose 12.5 cm	1	111-35089-2
A3	Stirring paddle incl. Pos. A2	1	544-33569-1
A4	Washer 8.4	1	209-13072-6
A5	Inner ring	2	444-24168-1
A6	Grooved ball bearing D 10/26 x 8	1	250-14009-7
A7	O-ring Ø 142 x 4	2	219-13730-7
A8	Intermediate bottom	1	444-24167-1
A9	Shim 10 x 16 x 0.5	1	209-13047-5
A10	Snap ring SW 32	2	211-14100-1
A11	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A12	Eccentric	1	444-24170-2

¹⁾ for P203
²⁾ for P223/233, PCB terminals 15 + 30 bridged
³⁾ for P223/233, PCB terminals 15 + 30 not bridged
⁴⁾ or 2 l reservoir out of P203-2XLBO part no. 544-32027-1

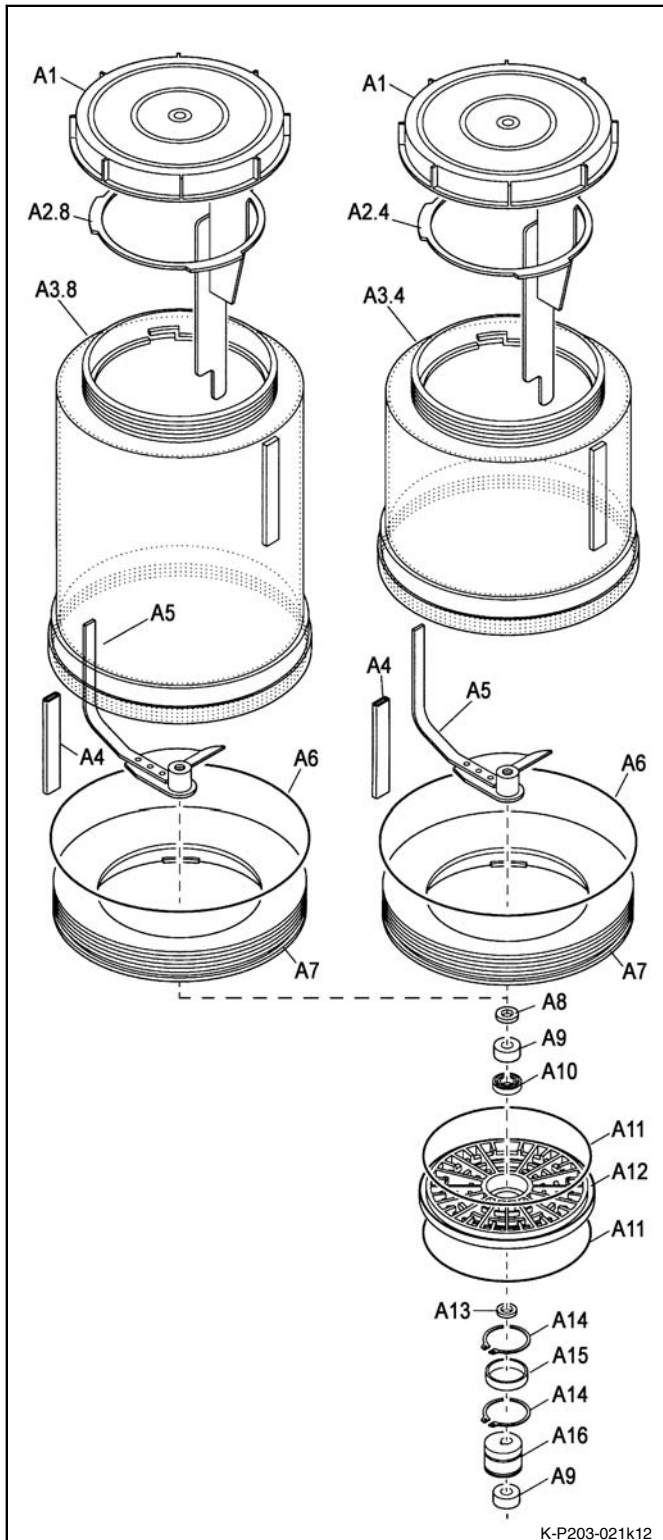
Subject to modifications

A ... with 4 l or 8 l reservoir for grease or oil

A

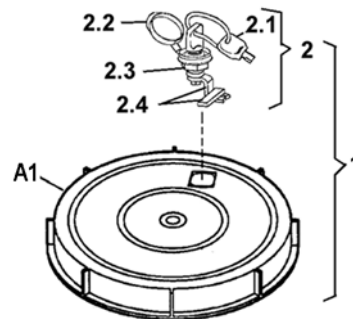
P203- & P223/233-4XNBO or -8XNBO ... without low-level control

- 4 l or 8 l reservoir with lid
- Control: without ¹⁾, V10-13 ¹⁾, V20-23 ¹⁾, MF/MDF01 ²⁾, MF/MDF02 ³⁾
- with stirring paddle
- Type of connection: 1A1.01/10 ¹⁾, 2A1.01/10 ¹⁾, 1A5.14 ¹⁾, 1A7.16 ¹⁾, 2A5.14 ²⁾, 2A6.15 ³⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Lid ⁴⁾	1	444-70641-1
A2.4	Fixed paddle for 4 l reservoir	1	444-70490-1
A2.8	Fixed paddle for 8 l reservoir		444-70491-1
A3.4	4 l reservoir	1	544-31998-1
A3.8	8 l reservoir		544-31999-1
A4	Hose 10 cm	1	111-35089-2
A5	Stirring paddle Pos. A4	1	544-33667-1
A6	O-ring Ø 210 x 5	1	219-13730-9
A7	Adapter ring	1	444-24235-1
A8	Washer 8.4	1	209-13072-6
A9	Inner ring	2	444-24168-1
A10	Grooved ball bearing D10 / 26x8	1	250-14009-7
A11	O-ring Ø 142 x 4	2	219-13730-7
A12	Intermediate bottom	1	444-24167-1
A13	Shim 10 x 16 x 0.5	1	209-13047-5
A14	Snap ring SW 32	2	211-14100-1
A15	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A16	Eccentric	1	444-24170-2

- ¹⁾ for P203
²⁾ for P223/233, PCB terminals 15 + 30 bridged
³⁾ for P223/233, PCB terminals 15 + 30 not bridged
⁴⁾ optional:



K-P203-021n12

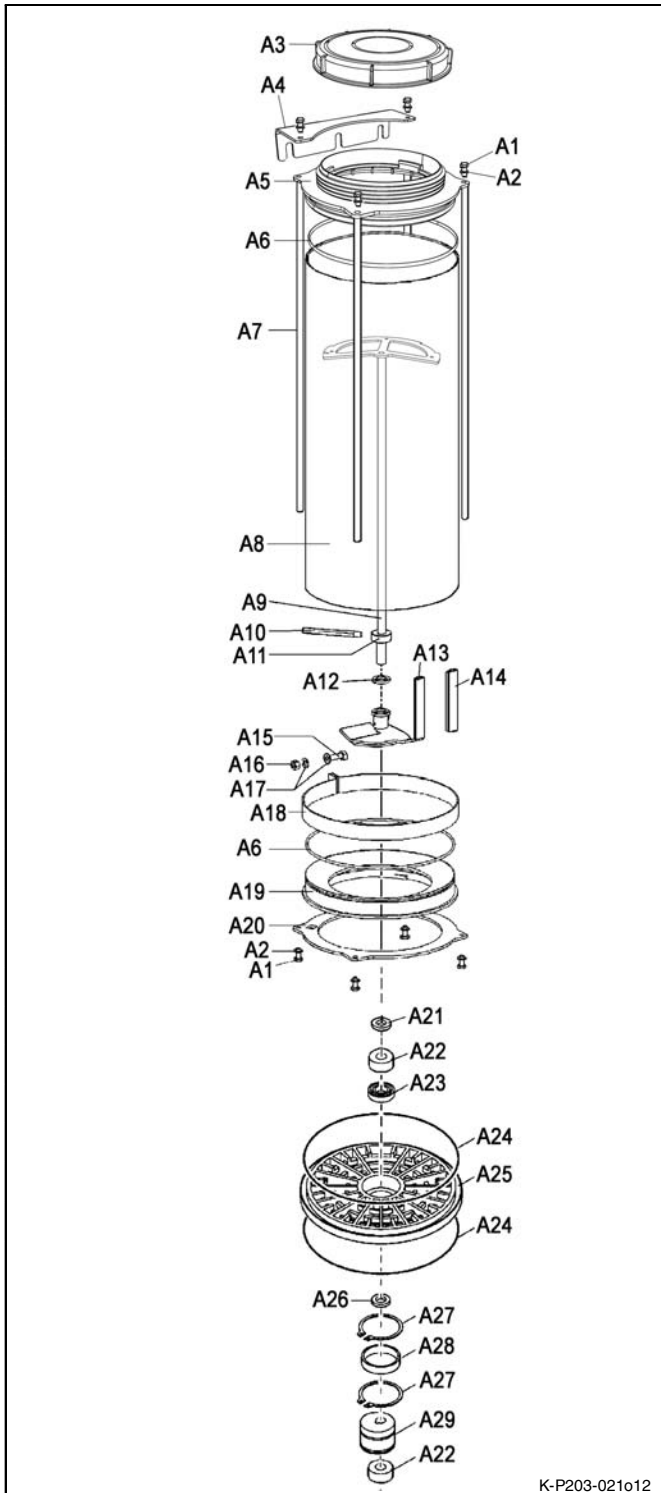
1	Lid, lockable	1	544-36963-1
2	Lock	1	
2.1	- Key	2	233-14298-2
2.2	- Dust cap	1	233-14298-3
2.3	- Spagnolet	1	233-14298-1
2.4	- Tongue	1	444-24682-1
A1	Lid with opening for lock	1	444-24663-1

A ... with 15 l reservoir for grease

A

P203- & P223/233-15XNBO ... without low-level control

- 15 l reservoir with lid
- with stirring paddle
- Control: without ohne ¹⁾, V10-13 ¹⁾, V20-23 ¹⁾, MF/MDF01 ²⁾, MF/MDF02 ³⁾
- Type of connection: 1A1.01/10 ¹⁾, 2A1.01/10 ¹⁾, 1A5.14 ¹⁾, 1A7.16 ¹⁾, 2A5.14 ²⁾, 2A6.15 ³⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Hexagon head screw M6 x 16	17	200-13022-4
A2	Washer A 6.4 C	17	209-13011-5
A3	Lid ⁴⁾	1	444-70641-1
A4	Bracket	1	444-71796-1
A5	Closure insert	1	445-71532-1
A6	O-ring 180 x 4	2	219-10684-6
A7	Support collar	4	444-71002-1
A8	15 l tube	1	544-32832-1
A9	Axis	1	445-71626-1
A10	Pin for fixed paddle	1	444-71001-1
A11	Regulating ring	1	444-71000-1
A12	O-ring 12.3 x 2.4	1	219-12451-1
A13	Stirring paddle incl. pos. A14	1	544-32578-1
A14	Hose 10 cm	1	111-35089-2
A15	Hexagon head screw M8 x 20	1	200-14245-6
A16	Nut M8	1	207-12516-5
A17	Washer 8.4	2	209-13072-8
A18	Clamp	1	444-70948-1
A19	Adapter ring	1	444-70941-1
A20	Fixing ring	1	444-70950-1
A21	Washer 8.4	1	209-13072-6
A22	Inner ring	2	444-24168-1
A23	Grooved ball bearing D 10 / 26 x 8	1	250-14009-7
A24	O-ring Ø142 x 4	2	219-13730-7
A25	Intermediate bottom	1	444-24167-1
A26	Shim 10 x 16 x 0.5	1	209-13047-5
A27	Snap ring SW 32	2	211-14100-1
A28	Pressure ring Ø33 x 37 x 13	1	444-24439-1
A29	Eccentric	1	444-24170-2

¹⁾ for P203
²⁾ for P223/233, PCB terminals 15 + 30 bridged
³⁾ for P223/233, PCB terminals 15 + 30 not bridged
⁴⁾ optional: Lid for reservoir, lockable (same as 4XNBO)
 part no. 544-36963-1

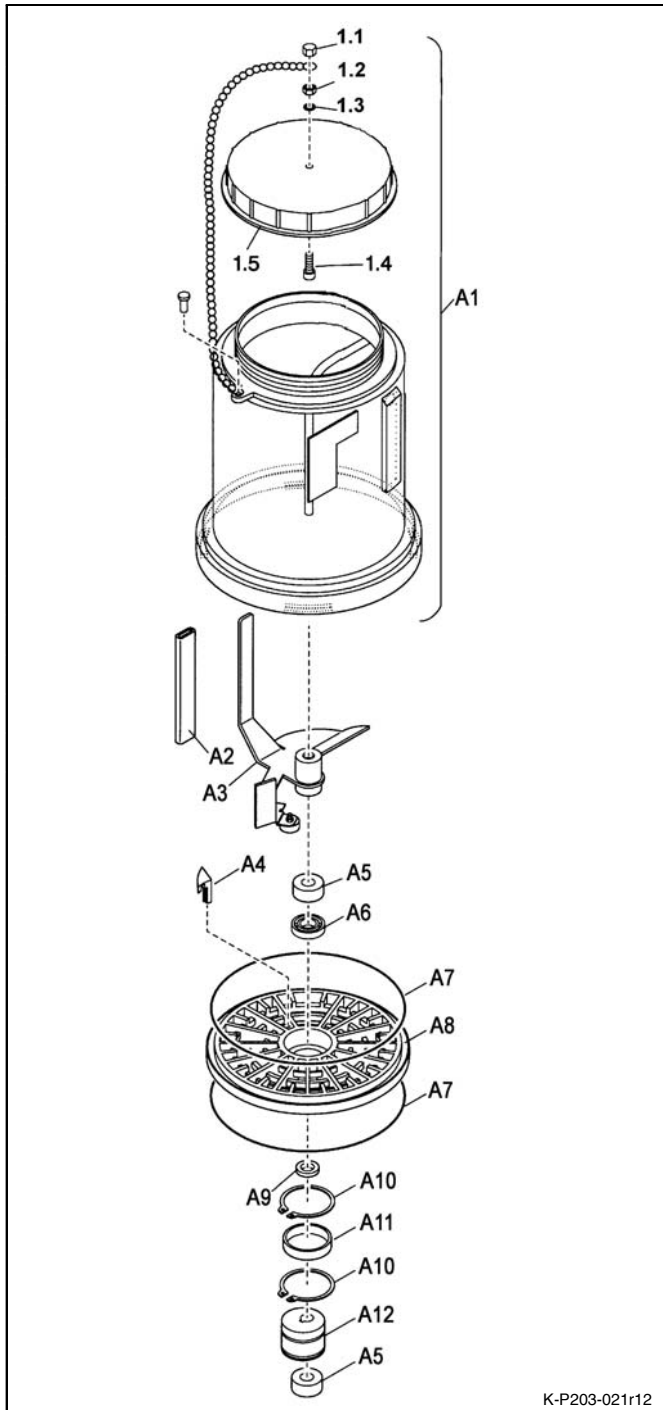
Subject to modifications

A ... with 2 l reservoir for grease

A

P203- & P223/233- & P243-2XLBO-... with low-level control ¹⁾

- 2 l reservoir with lid
- with stirring paddle
- Control: V10-13 ²⁾, V20-23 ²⁾, MF/MDF01 ³⁾, MF/MDF02 ⁴⁾, MD20/21 ^{5) 6)}
- Type of connection: 2A1.01/10 ²⁾, 1A7.16 ²⁾, 2A5.14 ³⁾, 2A6.15 ⁴⁾, 2A2.01 ⁵⁾, 2A7.16 ⁶⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	2-Liter-Behälter	1	544-31940-1
1.1	Acorn nut M4 C	1	207-12247-5
1.2	Nut M4 C	1	207-12135-2
1.3	Washer A 4.3 C	1	209-12146-2
1.4	Hexagonal head screw M4 x 16	1	201-12015-4
1.5	Lid ¹⁾	1	221-12488-5
A2	Hose 12.5 cm	1	111-35089-2
A3	Stirring paddle incl. Pos. A2	1	544-33568-1
A4	Control cam	1	444-24212-1
A5	Inner ring	2	444-24168-1
A6	Grooved ball bearing D 10/26 x 8	1	250-14009-7
A7	O-ring Ø142 x 4	2	219-13730-7
A8	Intermediate bottom	1	444-24167-1
A9	Shim 10 x 16 x 0.5	1	209-13047-5
A10	Snap ring SW 32	2	211-14100-1
A11	Pressure ring Ø33 x 37 x 13	1	444-24439-1
A12	Eccentric	1	444-24170-2

- ¹⁾ Low-level control only with magnetic switch (pos. B)
- ²⁾ for P203
- ³⁾ for P223/233, PCB terminals 15 + 30 bridged
- ⁴⁾ for P223/233, PCB terminals 15 + 30 not bridged
- ⁵⁾ for P243 with M12 plug
- ⁶⁾ for P243 with bayonet plug

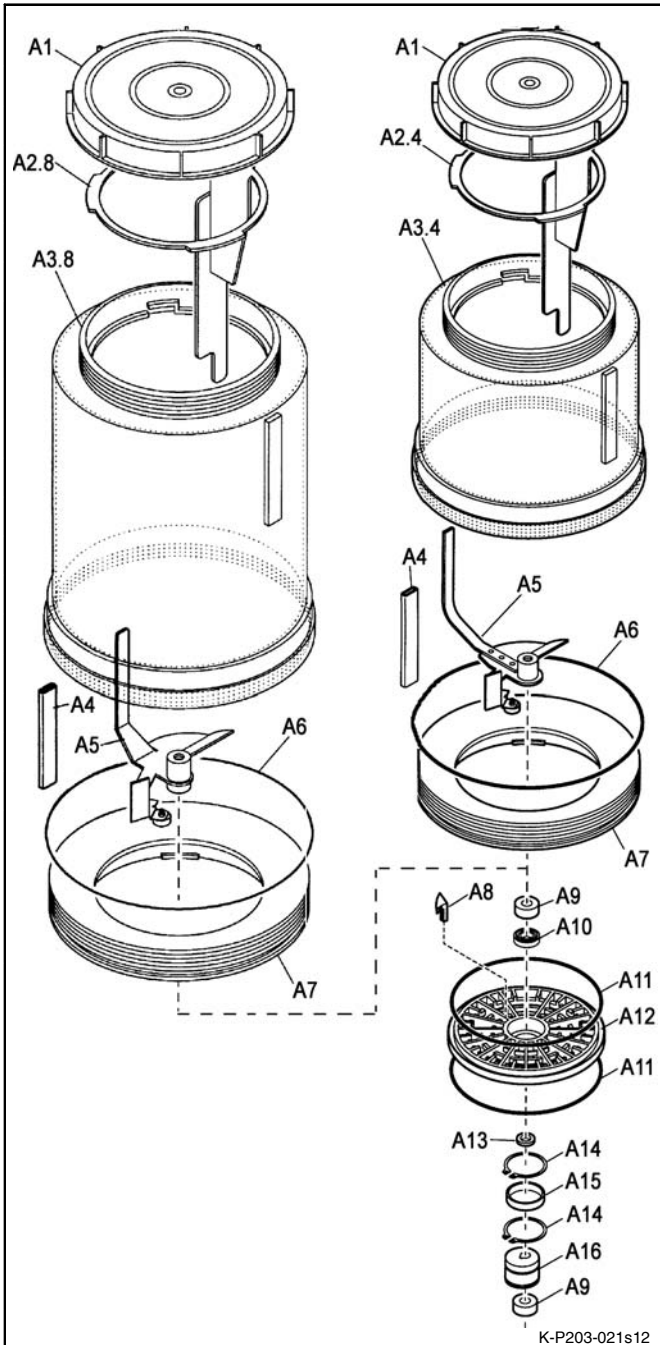
A

... with 4 l or 8 l reservoir for grease

A

P203- & P223/233- & P243-4XLBO oder -8XLBO ... with low-level control ¹⁾

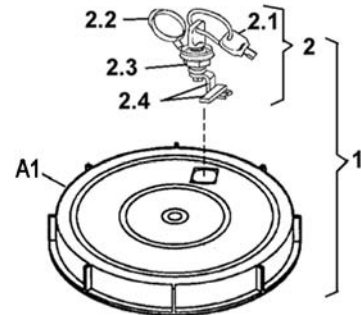
- 4 l or 8 l reservoir with lid
- with stirring paddle
- Control: without ²⁾, V10-13 ²⁾, V20-23 ²⁾, MF/MDF01 ³⁾, MF/MDF02 ⁴⁾, MD20/21 ^{5) 6)}
- Type of connection: 2A1.01/10 ²⁾, 1A7.16 ²⁾, 2A5.14 ³⁾, 2A6.15 ⁴⁾, 2A2.01 ⁵⁾, 2A7.16 ⁶⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Lid ⁷⁾	1	444-70641-1
A2.4	Fixed paddle for 4 l reservoir	1	444-70490-1
A2.8	Fixed paddle for 8 l reservoir		444-70491-1
A3.4	4 l reservoir	1	544-31998-1
A3.8	8 l reservoir		544-31999-1
A4	Hose 10 cm	1	111-35089-2
A5	Stirring paddle incl. Pos. A4	1	544-33314-1
A6	O-ring Ø 210 x 5	1	219-13730-9
A7	Adapter ring	1	444-24235-1
A8	Control cam	1	444-24212-1
A9	Inner ring	2	444-24168-1
A10	Grooved ball bearing D10/26x8	1	250-14009-7
A11	O-ring Ø 142 x 4	2	219-13730-7
A12	Intermediate bottom	1	444-24167-1
A13	Shim 10 x 16 x 0,5	1	209-13047-5
A14	Snap ring SW 32	2	211-14100-1
A15	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A16	Eccentric	1	444-24170-2

- ¹⁾ Low-level control only with magnetic switch (Pos. B)
²⁾ for P203
³⁾ for P223/233, PCB terminals 15 + 30 bridged
⁴⁾ for P223/233, PCB terminals 15 + 30 not bridged
⁵⁾ for P243 with M12 plug
⁶⁾ for P243 with bayonet plug

⁷⁾ optional:



K-P203-021n12

1	Lid, lockable	1	544-36963-1
2	Lock	1	
2.1	- Key	2	233-14298-2
2.2	- Dust cap	1	233-14298-3
2.3	- Spagnolet	1	233-14298-1
2.4	- Tongue	1	444-24682-1
A1	Lid with opening for lock	1	444-24663-1

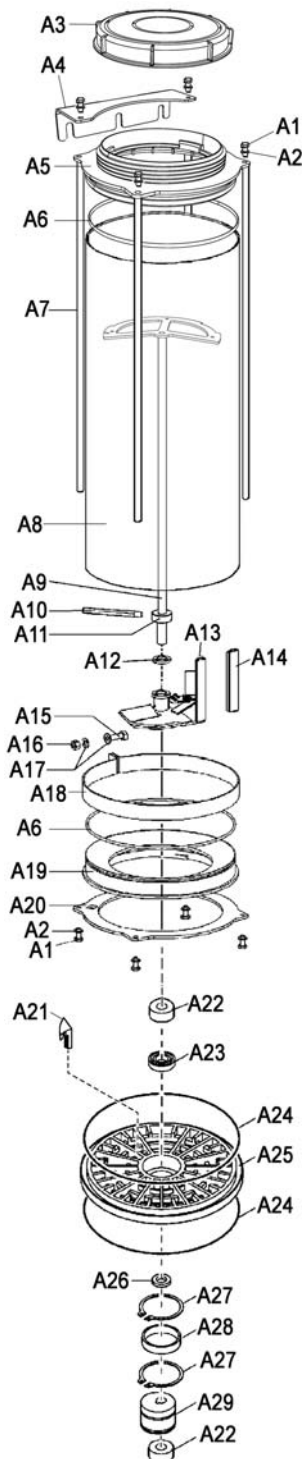
Subject to modifications

A ... with 15 l reservoir for grease

A

P203- & P223/233- & P243-15XLBO ... with low-level control ¹⁾

- 15 l reservoir with lid
- with stirring paddle
- Control: without ²⁾, V10-13 ²⁾, V20-23 ²⁾, MF/MDF01 ³⁾, MF/MDF02 ⁴⁾, MD20/21 ^{5) 6)}
- Type of connection: 2A1.01/10 ²⁾, 1A7.16 ²⁾, 2A5.14 ³⁾, 2A6.15 ⁴⁾, 2A2.01 ⁵⁾, 2A7.16 ⁶⁾



K-P203-021p12

Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Hexagon head screw M6 x 16	17	200-13022-4
A2	Washer A 6.4 C	17	209-13011-5
A3	Lid ⁷⁾	1	444-70641-1
A4	Bracket	1	444-71796-1
A5	Closure insert	1	445-71532-1
A6	O-ring 180 x 4	2	219-10684-6
A7	Support collar	4	444-71002-1
A8	15 l tube	1	544-32832-1
A9	Axis	1	445-71626-1
A10	Pin for fixed paddle	1	444-71001-1
A11	Regulating ring	1	444-71000-1
A12	O-ring 12.3 x 2.4	1	219-12451-1
A13	Stirring paddle incl. pos. A14	1	544-32831-1
A14	Hose 10 cm	1	111-35089-2
A15	Hexagon head screw M8 x 20	1	200-14245-6
A16	Nut M8	1	207-12516-5
A17	Washer 8.4	2	209-13072-8
A18	Clamp	1	444-70948-1
A19	Adapter ring	1	444-70941-1
A20	Fixing ring	1	444-70950-1
A21	Control cam	1	444-24212-1
A22	Inner ring	2	444-24168-1
A23	Grooved ball bearing D 10 / 26 x 8	1	250-14009-7
A24	O-ring Ø142 x 4	2	219-13730-7
A25	Intermediate bottom	1	444-24167-1
A26	Shim 10 x 16 x 0.5	1	209-13047-5
A27	Snap ring SW 32	2	211-14100-1
A28	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A29	Eccentric	1	444-24170-2

¹⁾ Low-level control only with magnetic switch (pos. B)
²⁾ for P203
³⁾ for P223/233, PCB terminals 15 + 30 bridged
⁴⁾ for P223/233, PCB terminals 15 + 30 not bridged
⁵⁾ for P243 with M12 plug
⁶⁾ for P243 with bayonet plug
⁷⁾ optional: Lid for reservoir, lockable (same as 4XLBO)
 part no. 544-36963-1

Subject to modifications

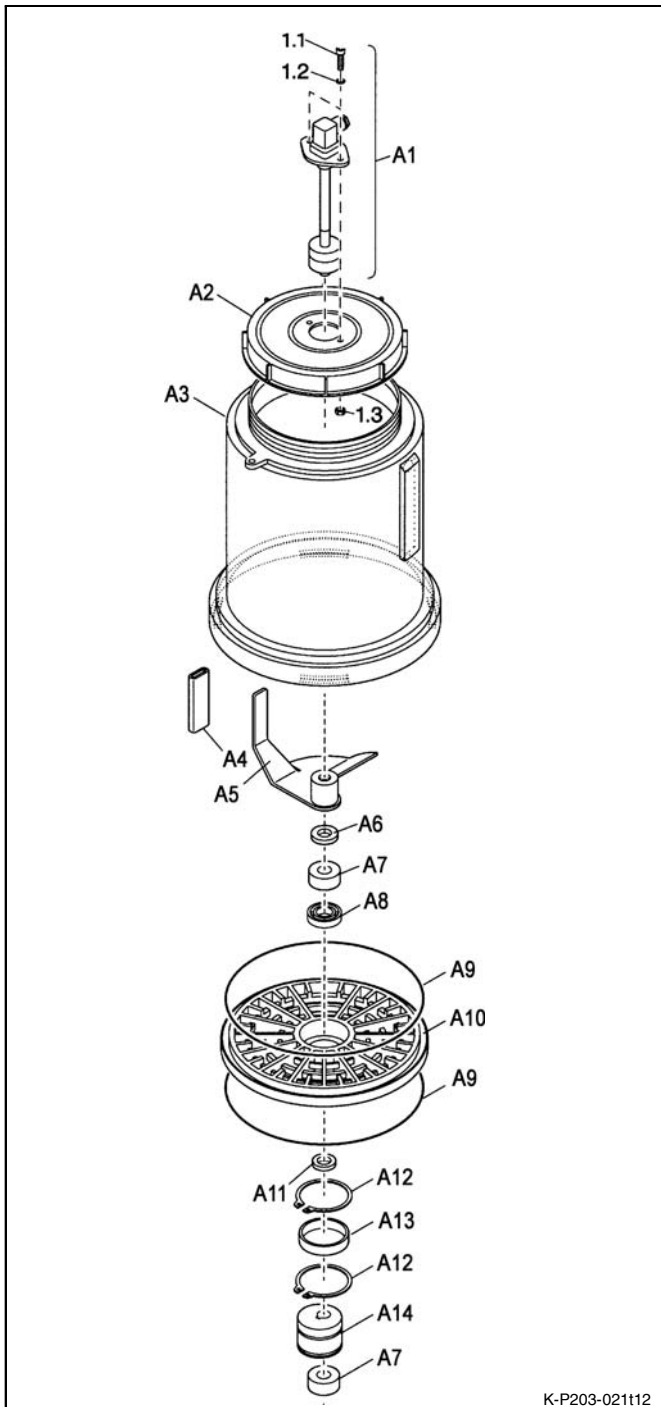
A

... with 2 l reservoir for oil

A

P203- & P243-2YLBO-... with low-level control

- 2 l reservoir with lid
- with stirring paddle
- Control: V10-13¹⁾, V20-23¹⁾, MD20/21²⁾
- Type of connection: 2A1.01/10¹⁾, 1A7.16¹⁾, 3A2.01²⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Floating magnetic switch	1	444-24284-1
1.1	Hexagonal socket screw M6 x 20 C	2	201-12018-5
1.2	Washer A6,4 C	2	209-13011-5
1.3	Nut M6	2	207-12135-5
A2	Lid	1	444-24285-1
A3	2 l reservoir	1	544-31940-1
A4	Hose 3 cm	1	111-35089-2
A5	Stirring paddle incl. pos. A4	1	544-33569-1
A6	Washer 8,4	1	209-13072-6
A7	Inner ring	2	444-24168-1
A8	Grooved ball bearing D 10/26 x 8	1	250-14009-7
A9	O-ring Ø142 x 4	2	219-13730-7
A10	Intermediate bottom	1	444-24167-1
A11	Shim 10 x 16 x 0,5	1	209-13047-5
A12	Snap ring SW 32	2	211-14100-1
A13	Pressure ring Ø33 x 37 x 13	1	444-24439-1
A4	Eccentric	1	444-24170-2

¹⁾ for P203
²⁾ for P243

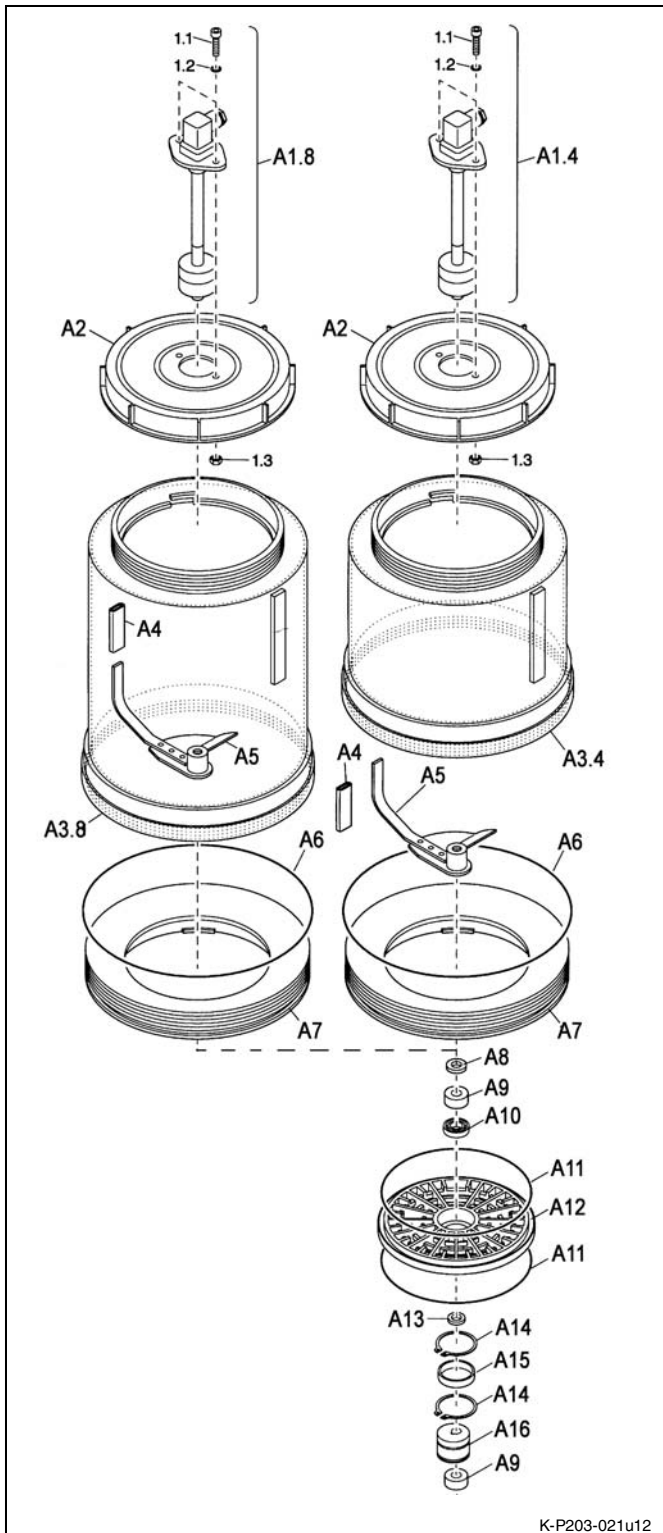
Subject to modifications

A ... with 4 l or 8 l reservoir for oil

A

P203- & P243-4YLBO or -8YLBO ... with low-level control

- 4 l or 8 l reservoir with lid
- with stirring paddle
- Control: V10-13¹⁾, V20-23¹⁾, MD20/21²⁾
- Type of connection: 2A1.01/10¹⁾, 1A7. 16¹⁾, 3A2.01²⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Floating magnetic switch	1	
A1.4	- for 4 l reservoir		444-24990-1
A1.8	- for 8 l reservoir		444-24283-1
1.1	Hexagonal socket screw M6 x 20 C	2	201-12018-5
1.2	Washer A6,4 C	2	209-13011-5
1.3	Nut M6	2	207-12135-5
A2	Lid	1	444-70113-1
A3	Reservoir	1	
A3.4	- 4 litres		544-31998-1
A3.8	- 8 litres		544-31999-1
A4	Hose 3 cm	1	111-35089-2
A5	Stirring paddle incl. pos. A4	1	544-31929-1
A6	O-ring Ø 210 x 5	1	219-13730-9
A7	Adapter ring	1	444-24235-1
A8	Washer 8,4	1	209-13072-6
A9	Inner ring	2	444-24168-1
A10	Grooved ball bearing D 10 / 26 x 8	1	250-14009-7
A11	O-ring Ø 142 x 4	2	219-13730-7
A12	Intermediate bottom	1	444-24167-1
A13	Shim 10 x 16 x 0,5	1	209-13047-5
A14	Snap ring SW 32	2	211-14100-1
A15	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A16	Eccentric	1	444-24170-2

1) for P203
2) for P243

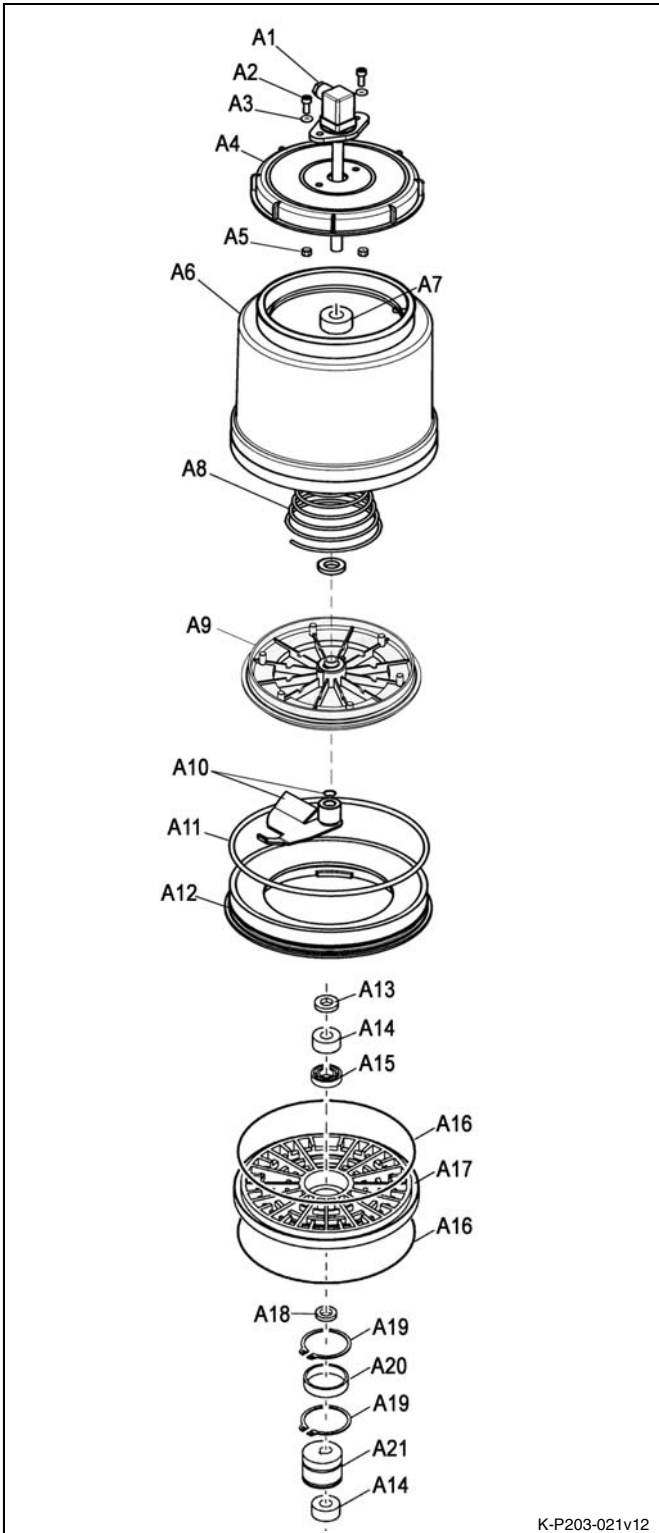
A

... with 4 l reservoir for grease

A

P203- & P243-4XLF ... with low-level control

- 4 l reservoir with lid
- with follower plate
- Control: without ¹⁾, V10-13 ¹⁾, V20-23 ¹⁾, MD20/21 ²⁾
- Type of connection: 1A1.10 ¹⁾, 3A2.01 ²⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Switch rod L1=50 / L2=135	1	234-13191-1
A2	Hexagon socket screw M6 x 20	2	201-12018-5
A3	Washer ST A 6,4 C	2	209-13011-5
A4	Lid	1	444-70113-1
A5	Nut M6	2	207-12135-5
A6	4 l reservoir	1	544-32309-1
A7	Bearing bushing SBZ D12/16 x 25	1	250-14066-7
A8	Compression spring DF6 con.	1	300-19860-1
A9	Follower plate	1	544-33307-1
A10	Stirring paddle	1	544-32343-1
A11	O-ring Ø210 x 5	1	219-13730-9
A12	Adapter ring	1	444-24235-1
A13	Washer 8,4	1	209-13072-6
A14	Inner ring	2	444-24168-1
A15	Grooved ball bearing D 10 / 26 x 8	1	250-14009-7
A16	O-ring Ø142 x 4	2	219-13730-7
A17	Intermediate bottom	1	444-24167-1
A18	Shim 10 x 16 x 0,5	1	209-13047-5
A19	Snap ring SW 32	2	211-14100-1
A20	Pressure ring Ø33 x 37 x 13	1	444-24439-1
A21	Eccentric	1	444-24170-2

¹⁾ for P203

²⁾ for P243

Subject to modifications

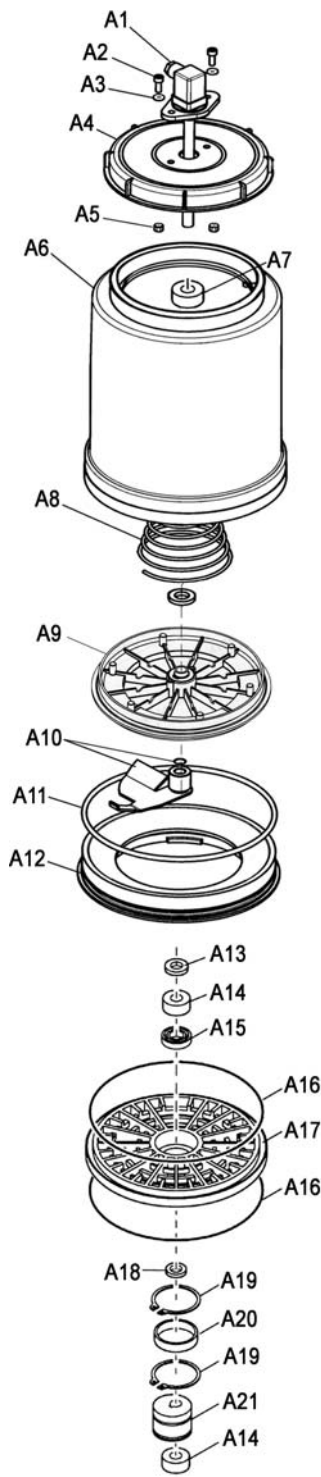
K-P203-021v12

A ... with 8 l reservoir for grease

A

P203- & P243-8XLF ... with low-level control

- 8 l reservoir with lid
- with follower plate
- Control: without ¹⁾, V10-13 ¹⁾, V20-23 ¹⁾, MD20/21 ²⁾
- Type of connection: 1A1.10 ¹⁾, 3A2.01 ²⁾



K-P203-021w12

Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Switch rod L1=50 / L2=236	1	234-13191-2
A2	Hexagon socket screw M6 x 20	2	201-12018-5
A3	Washer ST A 6,4 C	2	209-13011-5
A4	Lid	1	444-70113-1
A5	Nut M6	2	207-12135-5
A6	8 l reservoir	1	544-32311-1
A7	Bearing bushing SBZ D12/16 x 25	1	250-14066-7
A8	Compression spring DF6 con.	1	300-19860-1
A9	Follower plate	1	544-33307-1
A10	Stirring paddle	1	544-32343-1
A11	O-ring Ø210 x 5	1	219-13730-9
A12	Adapter ring	1	444-24235-1
A13	Washer 8,4	1	209-13072-6
A14	Inner ring	2	444-24168-1
A15	Grooved ball bearing D 10 / 26 x 8	1	250-14009-7
A16	O-ring Ø142 x 4	2	219-13730-7
A17	Intermediate bottom	1	444-24167-1
A18	Shim 10 x 16 x 0,5	1	209-13047-5
A19	Snap ring SW 32	2	211-14100-1
A20	Pressure ring Ø33 x 37 x 13	1	444-24439-1
A21	Eccentric	1	444-24170-2

¹⁾ for P203

²⁾ for P243

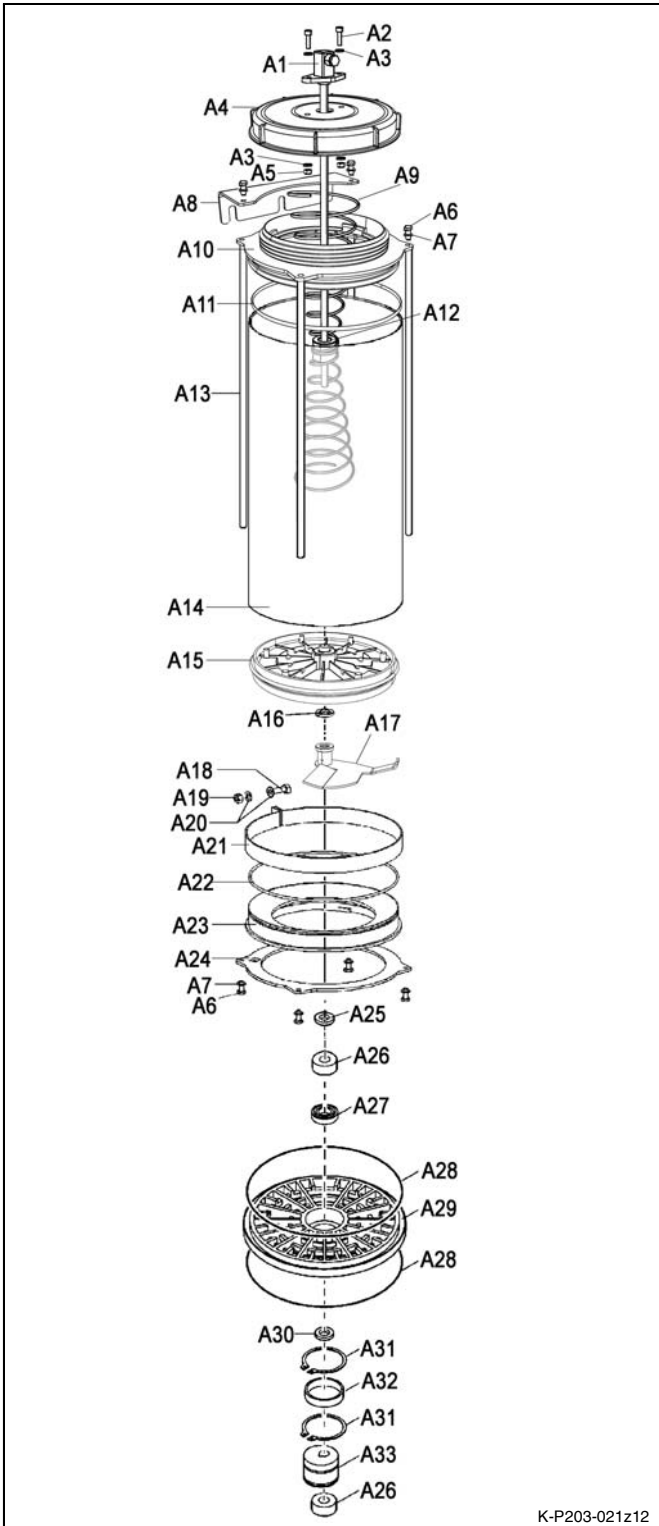
A

... with 11 l reservoir for grease

A

P203-11XBF ... with low- and high-level control

- 11 l reservoir with lid
- with follower plate
- Control: without, V10-13, V20-23
- Type of connection: 2A1.01/10, 1A7.16



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Switch rod L1=57 / L2=366	1	234-10693-5
A2	Hexagon socket screw M6 x 20	2	201-12018-5
A3	Washer ST A 6,4 C	2	209-13011-5
A4	Lid	1	444-70113-1
A5	Nut M6	2	207-10821-1
A6	Hexagon head screw M6 x 16	8	200-13022-4
A7	Washer A 6,4 C	8	209-13011-5
A8	Bracket	1	444-71796-1
A9	Compression spring	1	300-16155-1
A10	Closure insert	1	445-71532-1
A11	O-ring 180 x 4	1	219-10684-6
A12	Guide sleeve	1	444-71019-1
A13	Support collar	4	444-71413-1
A14	11 l tube	1	544-32961-1
A15	Follower plate	1	544-33307-1
A16	O-ring 12,3 x 2,4	1	219-12451-1
A17	Stirring paddle	1	544-32343-1
A18	Hexagon head screw M8 x 20	1	200-14245-6
A19	Nut M8	1	207-12516-5
A20	Washer A4 8 200HV	2	209-13683-1
A21	Clamp	1	444-70948-1
A22	O-ring 200 x 4	1	219-10390-4
A23	Adapter ring	1	444-70941-1
A24	Fixing ring	1	444-70950-1
A25	Washer 8,4	1	209-13072-6
A26	Inner ring	2	444-24168-1
A27	Grooved ball bearing D 10 / 26 x 8	1	250-14009-7
A28	O-ring Ø142 x 4	2	219-13730-7
A29	Intermediate bottom	1	444-24167-1
A30	Shim 10 x 16 x 0,5	1	209-13047-5
A31	Snap ring SW 32	2	211-14100-1
A32	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A33	Eccentric	1	444-24170-2

Subject to modifications

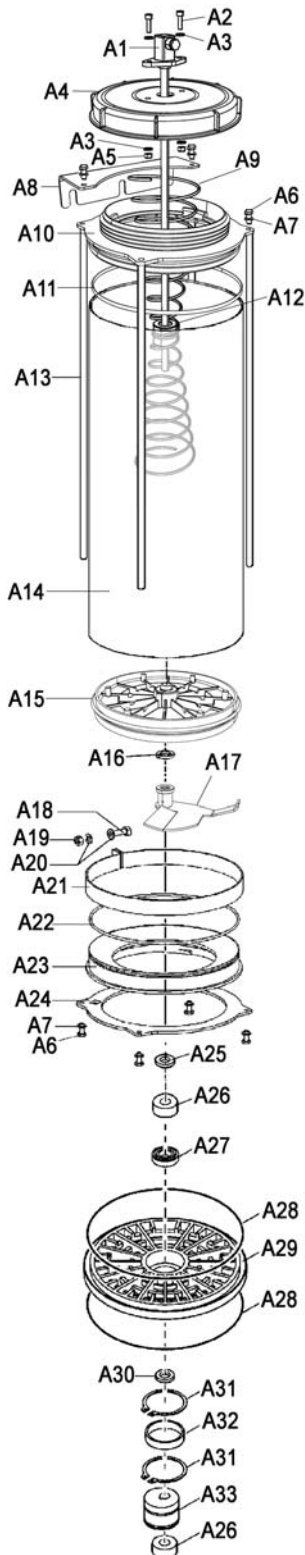
K-P203-021z12

A ... with 15 l reservoir for grease

A

P203- & P243-15XBF ... with low- and high-level control

- 15 l reservoir with lid
- with follower plate
- Control: without¹⁾, V10-13¹⁾, V20-23¹⁾, MD20/21²⁾
- Type of connection: 2A1.01/10¹⁾, 1A7.16¹⁾, 3A2.01²⁾



Pos.	Designation	Qty.	Part no.
A	Reservoir assembly		
A1	Switch rod L1=47 / L2=510	1	234-11000-1
A2	Hexagon socket screw M6 x 20	2	201-12018-5
A3	Washer ST A 6,4 C	2	209-13011-5
A4	Lid	1	444-70113-1
A5	Nut M6	2	207-12135-5
A6	Hexagon head screw M6 x 16	17	200-13022-4
A7	Washer A 6,4 C	17	209-13011-5
A8	Bracket	1	444-71796-1
A9	Compression spring	1	300-16155-1
A10	Closure insert	1	445-71532-1
A11	O-ring 180 x 4	2	219-10684-6
A12	Guide sleeve	1	444-71019-1
A13	Support collar	4	444-71002-1
A14	15 l tube	1	544-32832-1
A15	Follower plate	1	544-33307-1
A16	O-ring 12,3 x 2,4	1	219-12451-1
A17	Stirring paddle	1	544-32343-1
A18	Hexagon head screw M8 x 20	1	200-14245-6
A19	Nut M8	1	207-12516-5
A20	Washer 8,4	2	209-13072-8
A21	Clamp	1	444-70948-1
A22	O-ring 200 x 4	1	219-10390-4
A23	Adapter ring	1	444-70941-1
A24	Fixing ring	1	444-70950-1
A25	Washer 8,4	1	209-13072-6
A26	Inner ring	2	444-24168-1
A27	Grooved ball bearing D 10 / 26 x 8	1	250-14009-7
A28	O-ring Ø142 x 4	2	219-13730-7
A29	Intermediate bottom	1	444-24167-1
A30	Shim 10 x 16 x 0,5	1	209-13047-5
A31	Snap ring SW 32	2	211-14100-1
A32	Pressure ring Ø 33 x 37 x 13	1	444-24439-1
A33	Eccentric	1	444-24170-2

¹⁾ for P203
²⁾ for P243

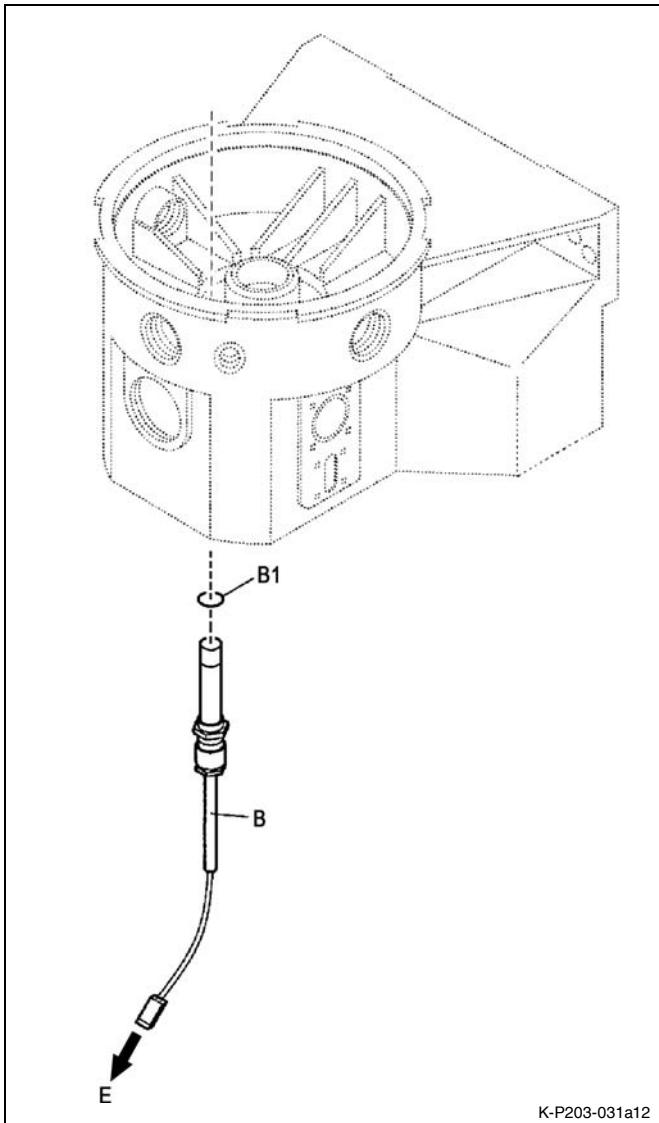
B ... with magnetic switch for low-level control

B

P203 & 223/233 & P243-XL & XLBO

- all reservoir sizes (excepting flat-type reservoir)
- for grease
- with stirring paddle

- Control: V10-13¹⁾, V20-23¹⁾, V10-13 ADR¹⁾, external²⁾, M00-23³⁾, MF/MDF01⁴⁾, MF/MDF02⁴⁾, MD20/21⁵⁾
- Type of connection: see below¹⁾⁻⁵⁾



K-P203-031a12

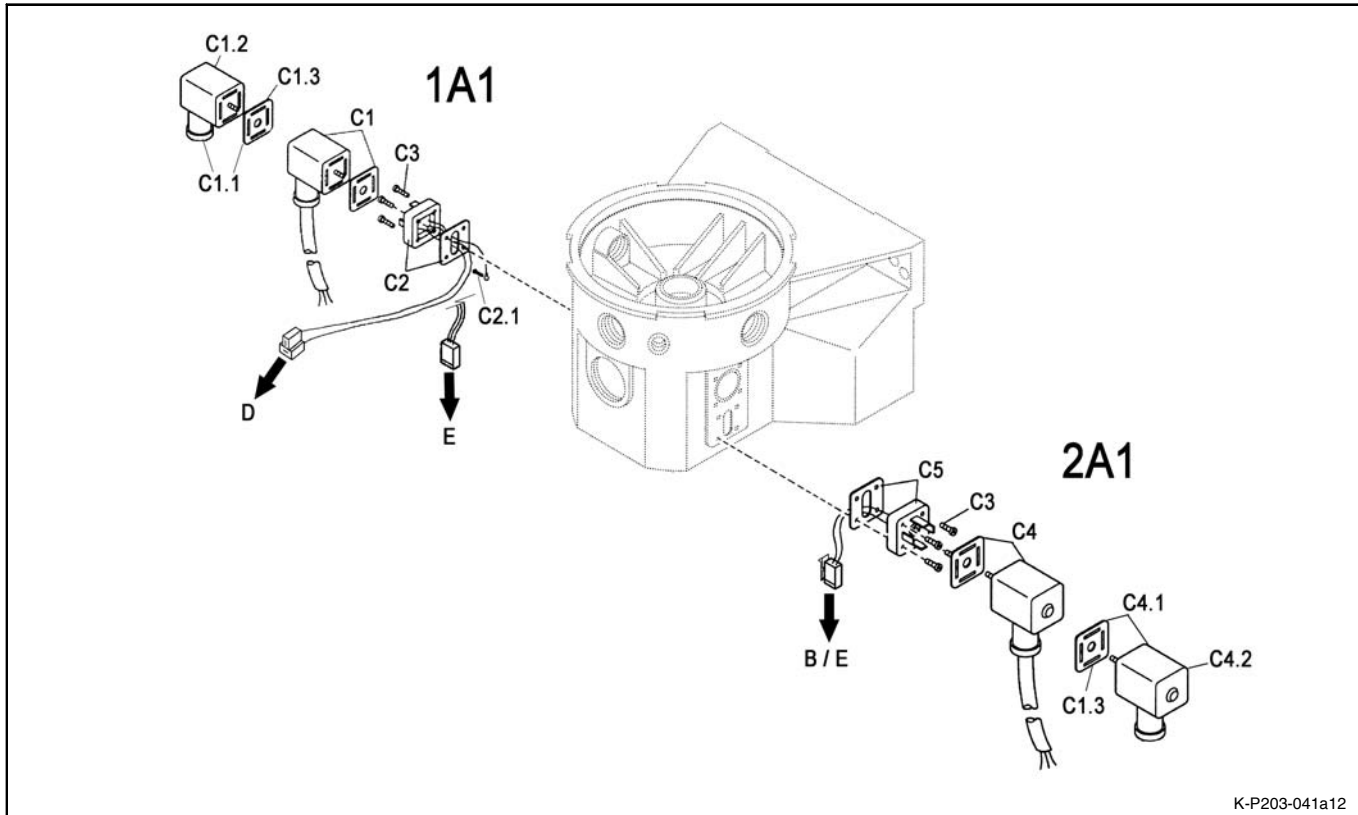
Pos.	Designation	Qty	Part no.
B	Magnetic switch incl. pos. B1	1	
1)	- for control V10-13, V20-23		234-13162-5
2)	- for external control		234-10423-4
3)	- for control M00-23		234-10423-6
4)	- for control MF01, MF02, MDF01, MDF02		
5)	- for control MD21, MD20-1 ... -8		
B1	O-ring	1	
E	see chapter ... with Control Unit	1	

- P203 type of connection C:**
 - with square-type plug 2A1.01/10, 2A1.11 (ADR)
 - with bayonet plug 1A7.16
- P203 type of connection C:**
 - with square-type plug 2A1.01/10
- P203 type of connection C:**
 - with AMP plug 2A4.12/13
 - with cable gland PG9 1A8.00, 2A8.00
 - + with AMP plug (wire-to-wire) 2A9.12/13
 - with bayonet plug 2A6.15
- P223/233 type of connection C (with bayonet plug):**
 - for control MF01 and MDF01 2A5.14
 - for control MF02 and MDF02 2A6.15
- P243 type of connection C:**
 - with M12 plug 2A2.01
 - with bayonet plug 2A7.16

C ... with square-type plug DC

C

Type of connection P203-...-1A1.01/10 & 2A1.01/10 & 2A1.11 (ADR)



K-P203-041a12

Pos.	Designation	Qty.	Part no.
C	Type of connection 1A1¹⁾		
C1	Socket 1A1 incl. pos. C1.3 and 10 m cable	1	664-36078-7
	- ADR design ²⁾	1	664-36862-1
C1.1	Socket 1A1 incl. pos. C1.3, black	1	544-32850-1
C1.2	Socket 1A1, black	1	236-10834-5
C1.3	Flat packing	1	236-13294-3
C2	Square-type plug 1A1 with cable	1	
	- to motor (without control p.c.b.)		664-34195-5
	- to control p.c.b.		664-36917-9
C2.1	Self-tapping screw 3,9 x 6,5 C	1	206-13725-7
C3	Screw BZ 3 x 10 C	4	206-13796-6

Pos.	Designation	Qty.	Part no.
C	Type of connection 2A1 (only with 1A1)		
C4	Socket 2A1 incl. pos. C1.3 and 10 m cable	1	664-36078-9
	- ADR design ²⁾	1	664-36862-2
C4.1	Socket 2A1 incl. pos. C1.3, grey	1	544-33843-1
C4.2	Socket 2A1, grey	1	236-10834-4
C1.3	Flat packing	1	236-13294-3
C5	Square-type plug 2A1 with cable	1	664-34195-5
C3	Screw BZ 3 x 10 C	4	206-13796-6

¹⁾ 1A1 for pumps without integrated control p.c.b. or low-level control
²⁾ ADR design only with type of connection 2A1.11 and with control p.c.b. V10-13 ADR or H ADR

1A1	for power supply DC D / E
	- see chapter D ... Motor Connection (for pumps without control p.c.b.)
	- see chapter E ... with Control Unit
2A1	for external signal exchange B / E
	- see chapter B ... with magnetic switch for low-level control (for pumps without control p.c.b.)
	- see chapter E ... with Control Unit V10-13 & V20-30

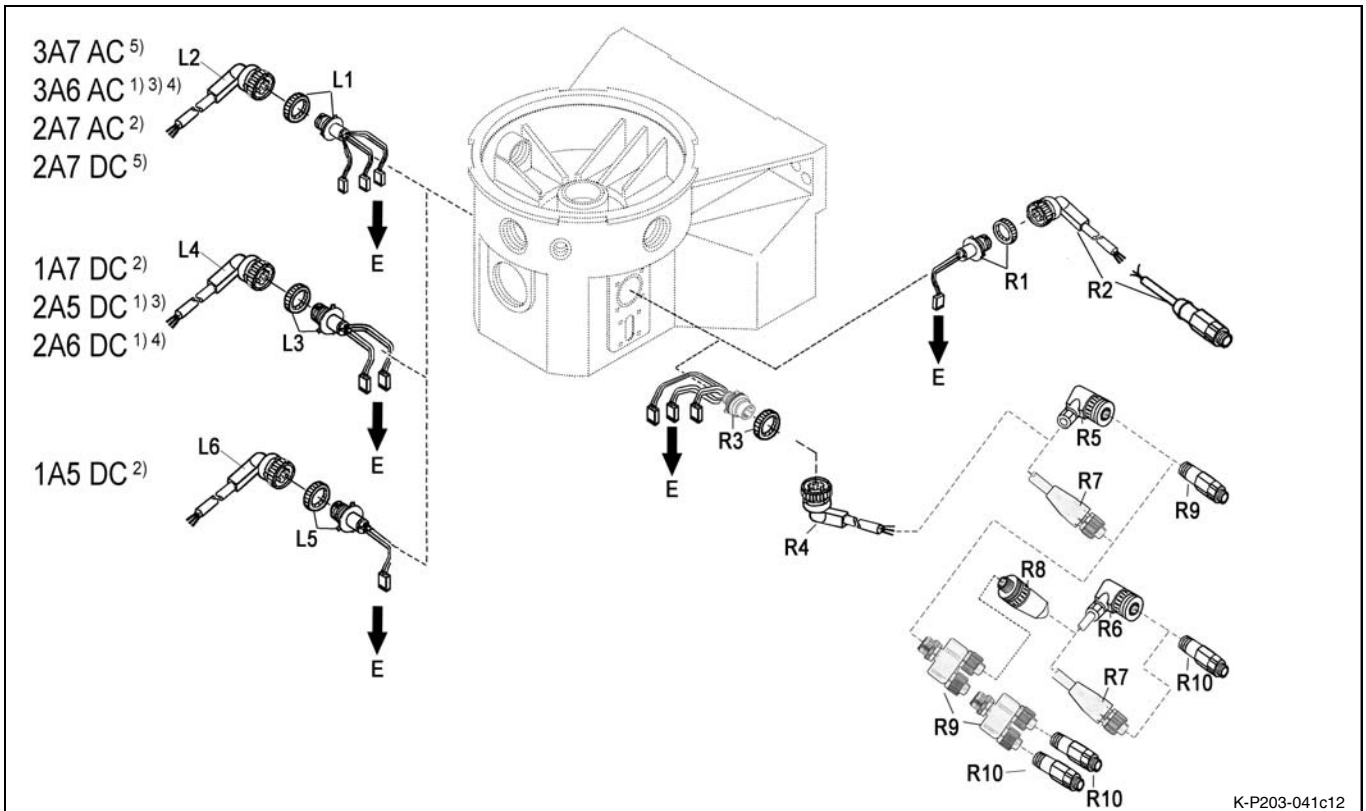
Subject to modifications

C

... with bayonet plug 12/24 DC & AC

C

Type of connection	P203-...-12/24	-1A5.14 ²⁾ / -2A5.14 ¹⁾ / -2A6.15 ¹⁾ / -1A7.16 ²⁾
	P203-...-AC	-2A7.16 ²⁾ / -3A6.15 ¹⁾
	P223/233-...	-12/24-2A5.14 ³⁾ / -12/24-2A6.15 ⁴⁾ / -AC-3A6.15 ^{3) 4)}
	P243-...	-12/24-2A7.16 ⁵⁾ / -AC-3A7.16 ⁵⁾



Pos.	Designation	Qty.	Part no.
	L1 AC version⁶⁾		
2) 5)	2A7- & 3A7 plug, 7/7-pole	1	664-34775-6
	L2 Socket with cable	1	664-34428-3
1) 3) 4)	3A6 plug, 7/5-pole	1	664-36167-1
	L2 Socket with cable	1	664-34167-2
	L1 DC version		
5)	2A7 plug, 7/7-pole	1	664-34775-7
	L2 Socket with cable	1	664-34428-3
	L3 DC version		
1) 2) 3)	1A7- & 2A6 plug, 7/6-pole	1	664-36167-3
	L4 Socket with cable	1	664-34167-5
1) 3)	2A5 plug, 4/4-pole	1	664-34045-2
	L4 Socket with cable	1	664-34045-1
	L5 DC version		
	1A5 plug, 4/3-pole	1	664-34045-2
2)	L6 Socket with cable	1	664-34045-1
	L6 ADR socket, cable		664-34167-8
	AC see additionally chapter ... with AC power connection		
	DC power supply 12/24 VDC		
	E see additionally chapter ... with control unit		

Pos.	Designation	Qty.	Part no.
	Divider monitoring		
R1 ^{1) 2)}	Bayonet plug, 4/4-pole	1	664-34041-9
R2 ²⁾	Socket incl. R3	1	
	- with 3 m cable, 4/4-core		519-34339-3
	- with 7 m cable, 4/4-core		519-34339-4
	²⁾ Piston detector	1	519-34339-3
R3 ⁵⁾	Bayonet plug, 7/5-pole	1	664-34775-8
R4 ⁵⁾	Socket, 7/5-core	1	664-34846-1
R5 ⁵⁾	M12 socket, encoding A, 90°	1-3	236-10022-6
R6 ⁵⁾	M12 socket, encoding A		
	- 90°, 5 m cable	1-3	237-13442-6
R7 ⁵⁾	M12 socket, encoding A		
	- straight, 10 m cable	1-3	237-10319-5
R8 ⁵⁾	M12 plug, encoding A, 90°	1-3	236-11003-7
	- straight		236-10518-7
R9 ⁵⁾	M12 T-piece	1-2	236-13888-8
R10 ⁵⁾	Piston detector NP	1-3	519-34339-5

Subject to modifications

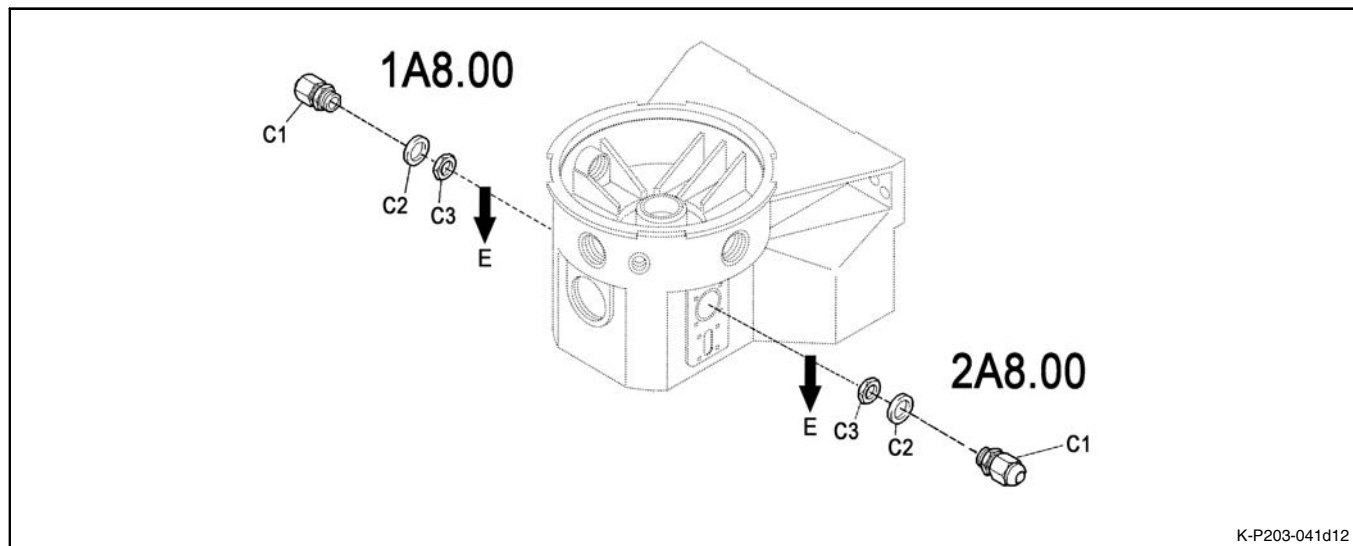
1) P203 with control unit M00-23
2) P203 with control unit V10-13 & V20-23
3) P223/233 with control unit MF/MDF01

4) P223/233 with control unit MF/MDF02
5) P243 with control unit MD20/21
6) see chapter „... with AC power connection“

C ... with cable gland PG9 DC

C

Type of connection ...-1A8.00 & 2A8.00 with control p.c.b. M00-23



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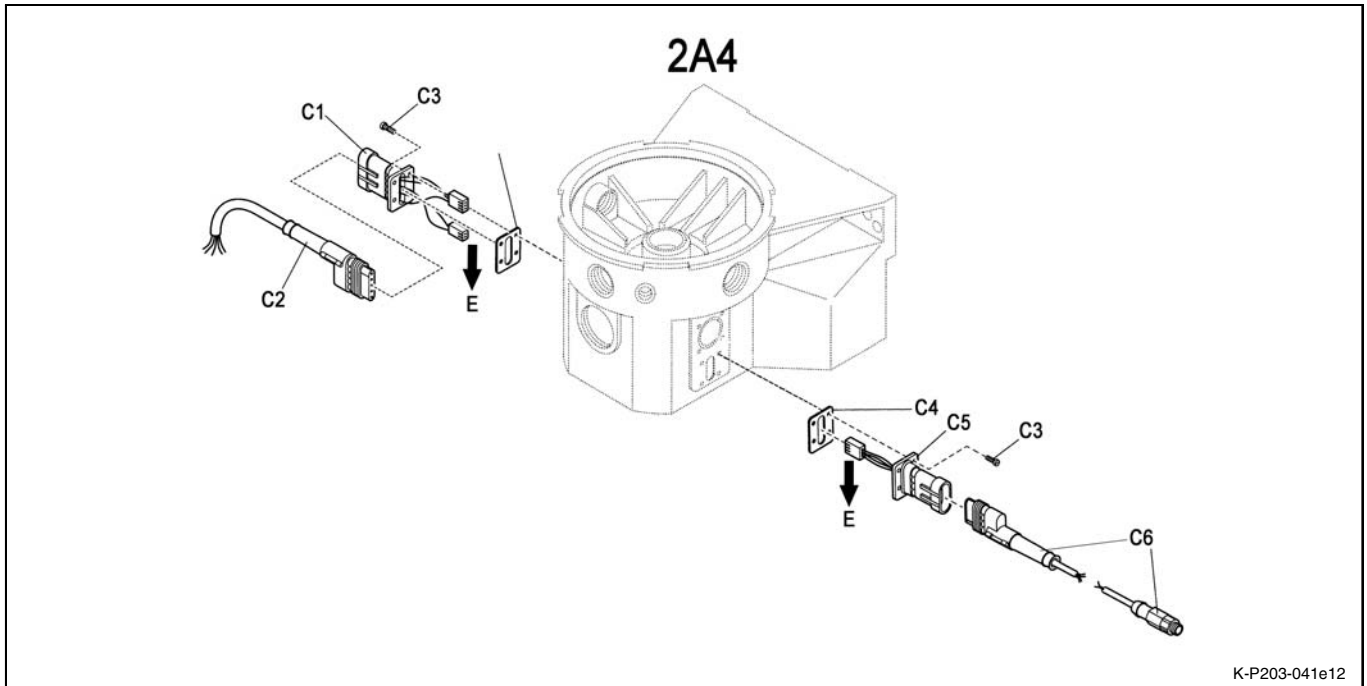
Pos.	Designation	Qty.	Part no.	Pos.	Designation	Qty.	Part no.
C	Type of connection 1A8.00			C	Type of connection 2A8.00 (only with 1A8.00)		
C1	Cable gland PG9 KF	1	237-13397-3	C1	Cable gland PG9 KF	1	237-13397-3
C2	Sealing ring 15,2 x 19,5 x 0,5	1	306-19549-1	C2	Sealing ring 15,2 x 19,5 x 0,5	1	306-19549-1
C3	Jam nut KF PG9	1	237-13352-8	C3	Jam nut KF PG9	1	237-13352-8
1A8	for power supply DC E						
2A8	for special applications E						
E	- see chapter ... with control unit (M00-23)						

C

... with AMP plug DC

C

Type of connection ...-2A4.12/13 with control p.c.b. M00-23 (only available as spare part)



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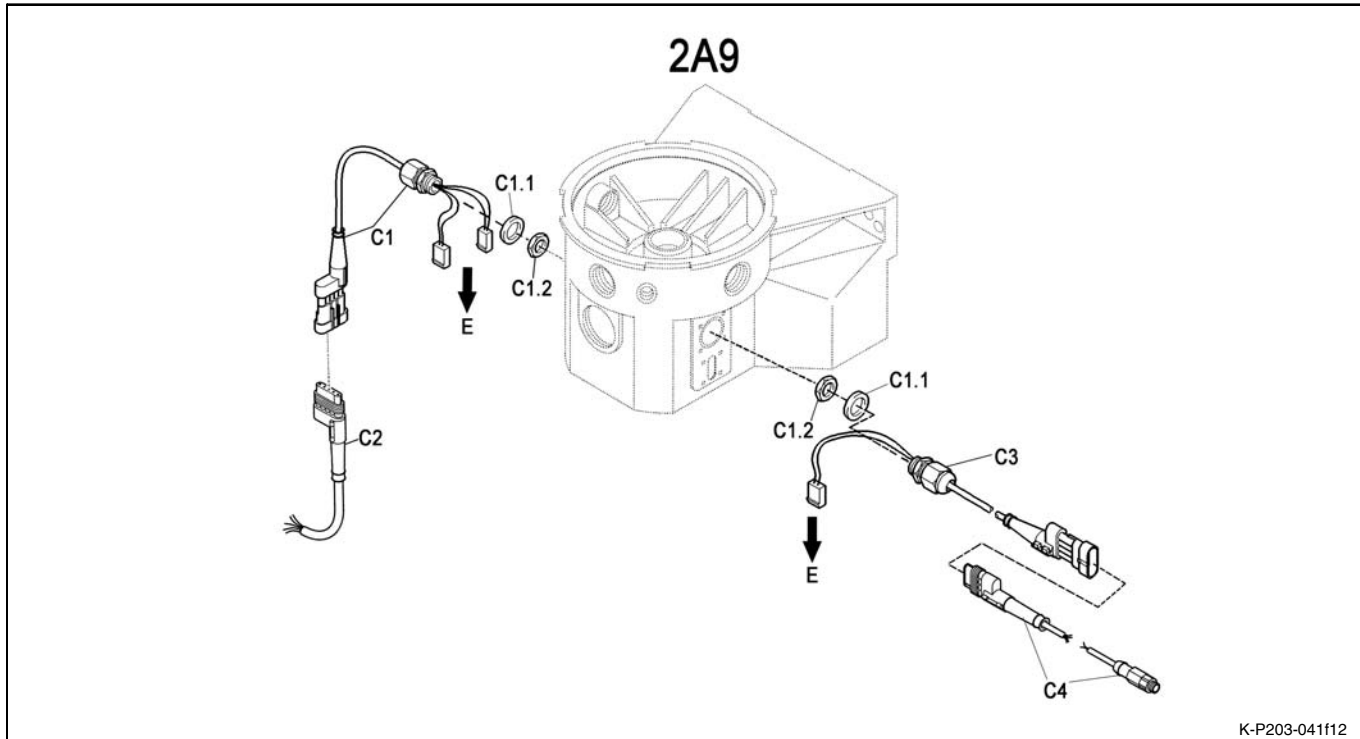
Pos.	Designation	Qty.	Part no.
C	Type of connection 2A4.12¹⁾/13²⁾		
C1	AMP flanged plug, 5-pole ³⁾	1	664-36884-2
C2	AMP connection cable	1	
1)	- 4-core		664-36844-8
2)	- 5-core		664-36884-8
C3	Screw BZ 3 x 10 C	8	206-13796-6
C4	Flat packing 35 x 27 x 1	2	306-19562-1

Pos.	Designation	Qty.	Part no.
C5	AMP flanged plug, 4-pole ³⁾	1	664-36884-1
C6	AMP connection cable	1	
	- incl. piston detector		234-13178-2
1)	for control p.c.b. M00-07		
2)	for control p.c.b. M08-23		

2A4	left for power supply DC E and for external signal exchange E
	right for signal exchange between piston detector C6 and E
E	- see chapter ... with control unit (M00-23)

C ... with cable gland PG and AMP plug (wire-to-wire) DC C

Type of connection ...-2A9.12/13 with control p.c.b. M00-23 (only available as spare part)



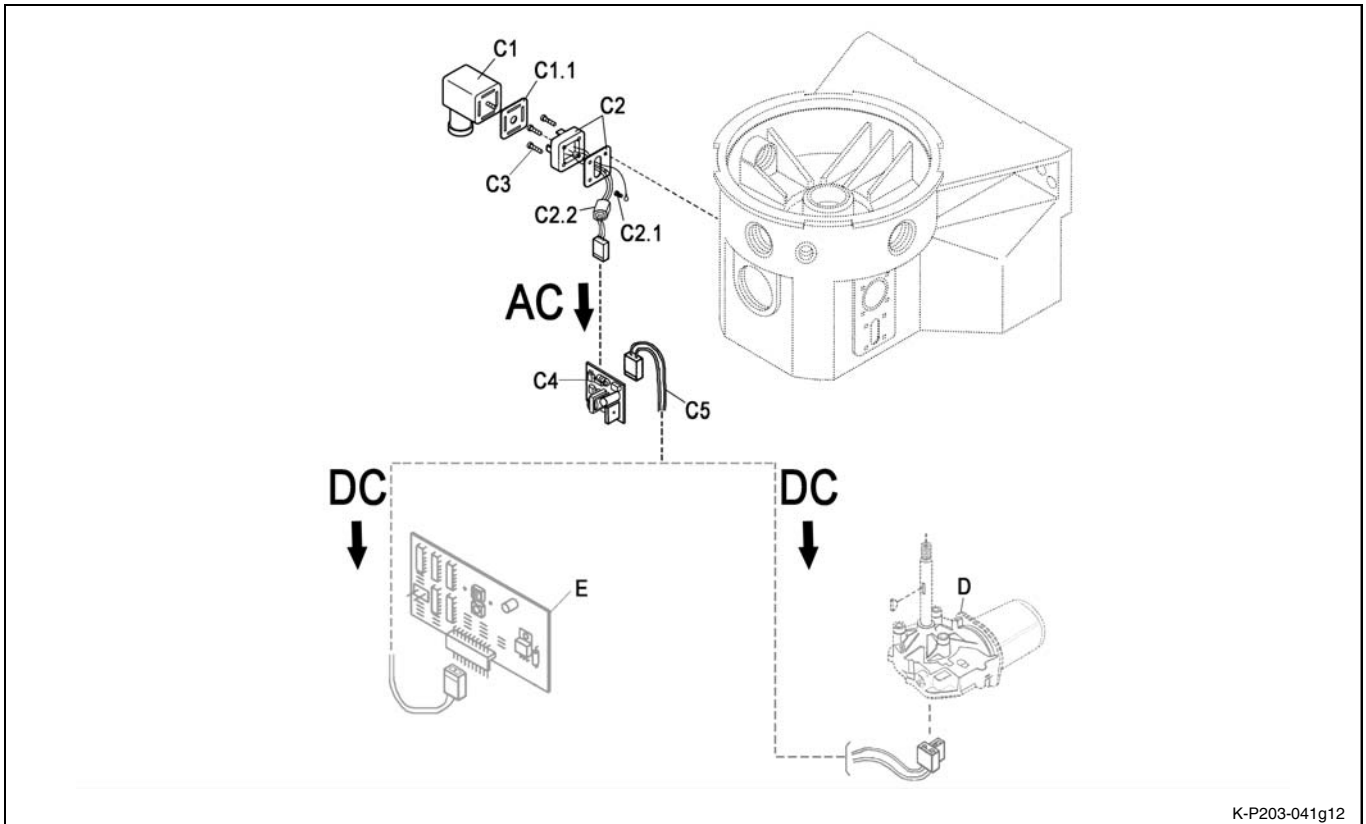
Pos.	Designation	Qty.	Part no.
C	Type of connection 2A9.12¹⁾/13²⁾		
C1	Cable gland PG with cable and AMP plug, 5-pole	1	664-36931-2
C2	AMP connecting cable	1	
¹⁾	- 4-core		664-36844-8
²⁾	- 5-core		664-36884-8

Pos.	Designation	Qty.	Part no.
C3	Cable gland PG with cable and AMP plug, 4-pole	1	664-36931-1
C4	AMP connecting cable	1	
	- incl. piston detector		234-13178-2
¹⁾	for control p.c.b. M00-07		
²⁾	for control p.c.b. M08-23		
³⁾	Length from cable gland PG to end of wire: 0,8 m		

2A9	left for power supply DC E and for external signal exchange E
	right for signal exchange between piston detector C4 and E
E	- see chapter ... with control unit (M00-23)

C ... with AC power connection **C**

Type of connection „Power Supply AC“ ¹⁾



K-P203-041g12

Pos.	Designation	Qty.	Part no.
C	Type of connection AC		
C1	Socket AC	1	236-10834-5
C1.1	Flat packing	1	236-13294-3
C2	Square-type plug AC incl. packing, pos. 2.1 & 2.2	1	664-36917-5
C2.1	Self-tapping screw 3,9 x 6,5 C	1	206-13725-7
C2.2	Ferrit core	1	236-13829-4
C3	Screw BZ 3 x 10 C	4	206-13796-6
AC	from AC connection (square-type plug) to the power supply DC of the motor D ¹⁾ or of the control p.c.b. E		
D	- see chapter ... Motor connection		
E	- see chapter ... with control unit		

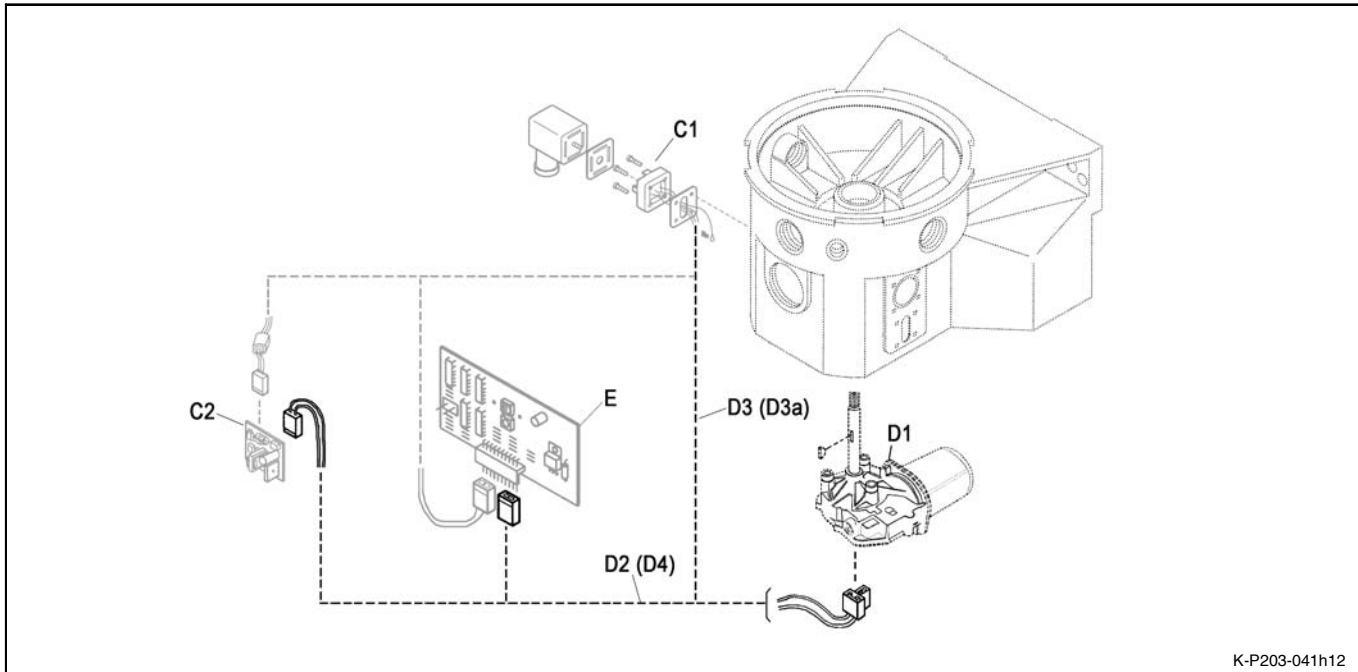
Pos.	Designation	Qty.	Part no.
C	Type of connection AC		
C4	Power supply board	1	
	- for 110-230 VAC - up to 280 VAC		236-14252-2 236-14252-3
C5	Connecting cable DC	1	
	- Power supply board to control p.c.b. - Power supply board to motor		664-36917-7 664-34195-4
¹⁾ With the AC connection the first number of the type of connection is increased by 1, e. g. - 1A1.01 zu 2A1.01 or - 1A7.16 zu 2A7.16 ... ²⁾ only for pumps without control p.c.b.s (see chapter „D ... Motor connection“)			

Subject to modifications

D ... Motor connection

D

via square-type plug DC, control p.c.b. DC/AC or power supply board AC



K-P203-041h12

Pos.	Designation	Qty.	Part no.
D	Motor connection		
D1	Motor	1	
	- 12 VDC		544-36913-6
	- 24 VDC		544-36913-7
	- 24 VDC for AC power connection		544-36913-8
¹⁾ only for VAC pumps without control p.c.b. (see chapter „C ... with AC power supply connection“) ²⁾ for pumps with control p.c.b. ³⁾ only for VDC pumps without control p.c.b. (see chapter „C ... with square-type plug“) ⁴⁾ for motor exchange „new“ for „old“			
C1	for power supply DC via square-type plug 1A1		(see chapter C ... with square-type plug)
C2	for power supply DC via power supply board		(see chapter C ... with AC power connection)
E	for power supply DC via control p.c.b.		(see chapter E ... with control unit)

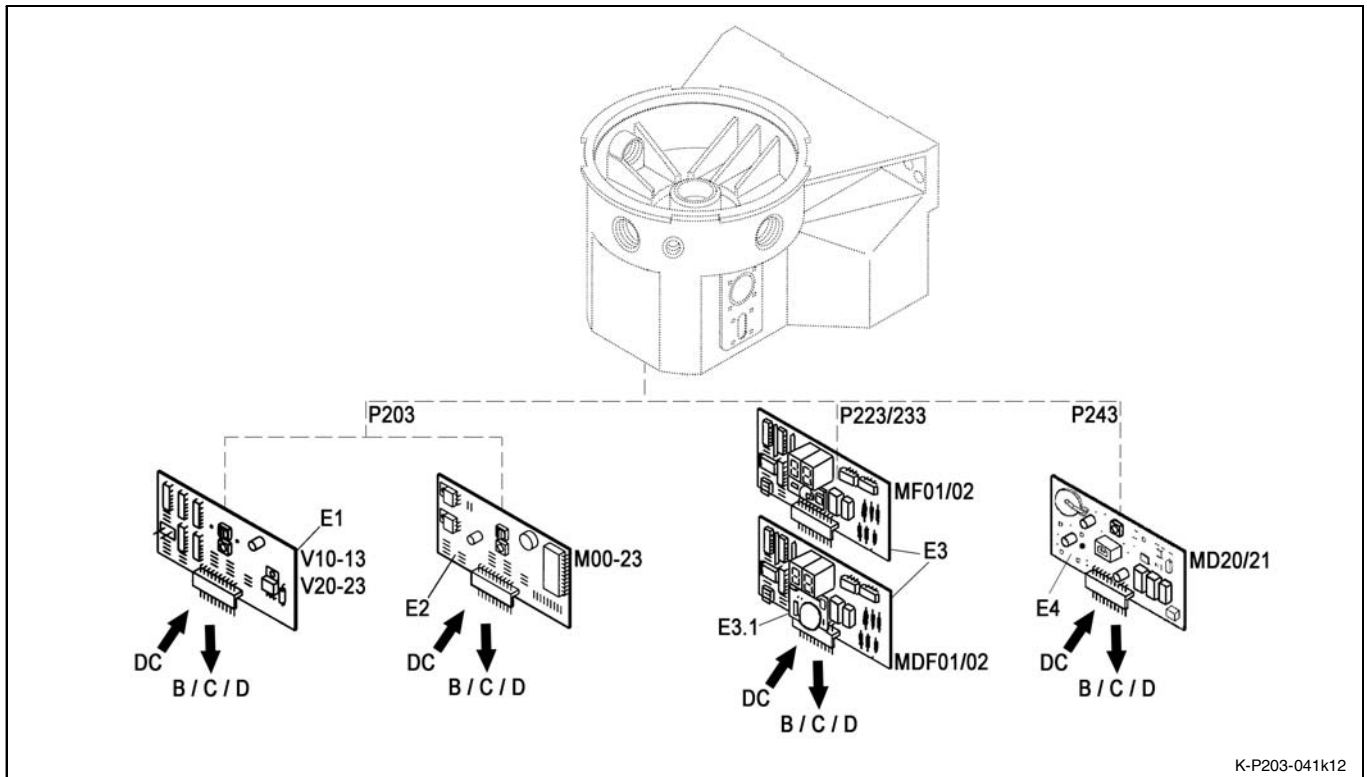
Pos.	Designation	Qty.	Part no.
D	Motor connection		
D2	Connecting cable	1	
¹⁾	- to power supply board C2		664-34195-4
²⁾	- control p.c.b. E		
^{2) 4)}	- control p.c.b. E		664-36862-3
D3 ³⁾	direct connection to C1	1	664-36884-5
D3a	Adapter cable	1	
³⁾	- to square-type plug C1 (old)		664-34195-8
D4	Connecting cable ⁴⁾	1	
¹⁾	- to power supply board C2		664-36917-6
²⁾	- to control p.c.b. E		

E

... with control unit

E

Control p.c.b.s V10-13, V10-13 ADR, V20-23, H, H ADR, M00-M23, MF01/02, MFD01/02, MD20/21



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








Pos.	Designation	Qty.	Part no.
E	Control p.c.b.s		
E1	Control p.c.b.s for P203	1	
¹⁾	- V10-13, V10-13 ADR		236-10697-1
¹⁾	- V20-23		236-10697-2
²⁾	- H, H ADR		236-13857-1
E2 ³⁾	M00-23 control p.c.b. for P203 ⁸⁾	1	236-13870-3
E3	Control p.c.b.s for P223	1	
⁴⁾	- MF01		236-10097-7
⁴⁾	- MF02		236-10097-8
E3	Control p.c.b.s for P233		
⁵⁾	- MDF01		236-10111-3
⁵⁾	- MDF02		236-10111-4
E3.1	P233 Datalogger	1	236-10096-2
E4 ⁶⁾	MD20 / MD21 Control p.c.b.s for P243		236-10947-1
	Accessories		
	Jumper for control p.c.b.s	1	236-13898-1

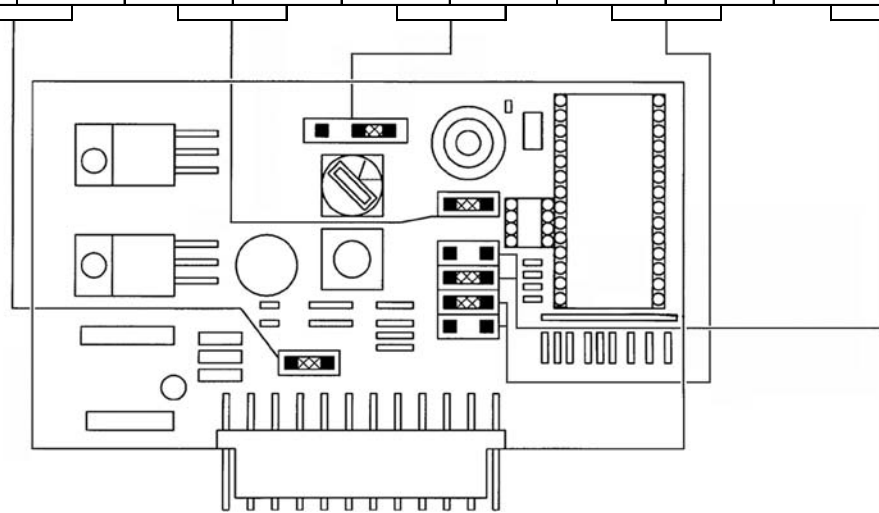
Pos.	Designation	Qty.	Part no.
B ⁷⁾	Signal exchange with magnetic switch		
C ⁸⁾	Signal exchange via connecting plug		
D ⁹⁾	Power supply DC for motor		
DC	PCB power supply		
¹⁰⁾	- via square-type plug 1A1		
¹¹⁾	- via power supply board		

- ¹⁾ see chapter C, type of connection 2A1, 1A5.14, 1A7.16, 1A5.17, 2A7.16
- ²⁾ see chapter C, type of connection 2A1
- ³⁾ see chapter C, type of connection 1A8.00, 2A8.00, 2A4.12/13, 2A9.12/13, 2A6.15, 3A6.15
- ⁴⁾ see chapter C, type of connection AC: 3A6.15 / DC: 2A5.14
- ⁵⁾ see chapter C, type of connection AC: 3A6.15 / DC: 2A6.15
- ⁶⁾ see chapter C, type of connection AC: 3A7.16 / DC: 2A7.16
- ⁷⁾ see chapter B ... with magnetic switch
- ⁸⁾ see chapter C
- ⁹⁾ see chapter D
- ¹⁰⁾ see chapter C ... with square-type plug
- ¹¹⁾ see chapter C ... with AC power connection

Subject to modifications

Jumper-Configuration Control p.c.b.s M00-M23

Possibilities of presetting	Connection of power supply		Control display for faults, signal output		Pause time range		Monitoring time range (min)		Number of monitored circuits	
	Terminal 15	Terminal 15 + 30	Inter-mitted	perma-nent	h	min	5	30	1	2
Setting	Terminal 15	Terminal 15 + 30	Inter-mitted	perma-nent	1 - 15	4 - 60	5	30	1	2
Jumper position	 30 / 15 1175a95	 30 / 15 1174a95	 B / D 1177a95	 B / D 1176a95	 1 - 15 h 1186a95	 4 - 60 min 1187a95	 5 min 1190a95	 30 min 1189a95	 1182a95	 2 1183a95
Combination no.	M00	X		X		X		X	X	
	M01	X		X		X		X	X	
	M02	X		X		X		X		X
	M03	X		X		X		X		X
	M04	X		X			X	X	X	
	M05	X		X			X	X	X	
	M06	X		X			X	X		X
	M07	X		X			X	X		X
	M08		X	X		X		X	X	
	M09		X	X		X		X	X	
	M10		X	X		X		X		X
	M11		X	X		X		X		X
	M12		X	X			X	X	X	
	M13		X	X			X	X	X	
	M14		X	X			X	X		X
	M15		X	X			X	X		X
	M16		X		X	X		X	X	
	M17		X		X	X		X	X	
	M18		X		X	X		X		X
	M19		X		X	X		X		X
	M20		X		X		X	X	X	
	M21		X		X		X	X	X	
	M22		X		X		X	X		X
	M23		X		X		X	X	X	X

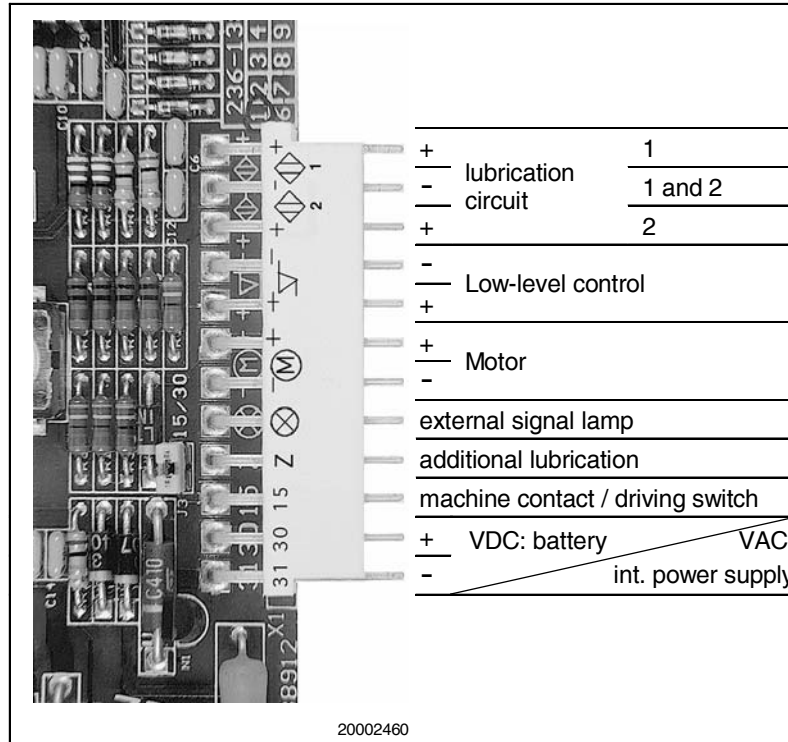


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Schematic view of the control p.c.b. 236-13870-3 M00-M23

Control p.c.b.s M00-M23, continuation

Terminals of the p.c.b.



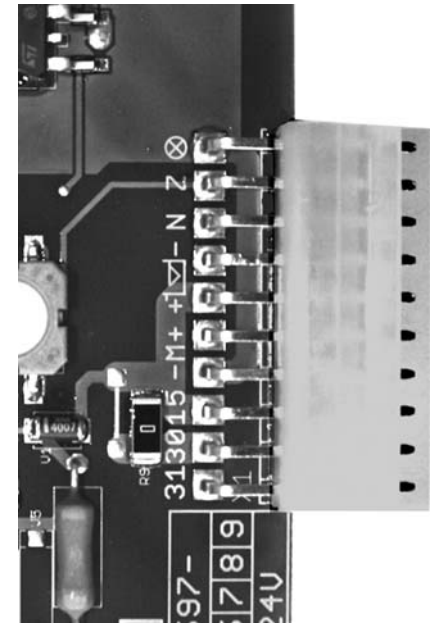
Jumper-Configuration Control p.c.b. V10-V13

JUMPER Position Combinations - Survey

Possibilities of preselection		Range of pause time P		Range of lubricating time I		Jumper position (see fig. PCB 5)
		4 to 60 min	1 to 15 h	8 to 120 sec.	2 to 30 min	
Combination no.	V10 Standard		X		X	 6290b04
	V11		X	X		 6291b04
	V12	X			X	 6292b04
	V13	X		X		 6293b04

Control p.c.b.s V10-V13

Terminals of the printed circuit board



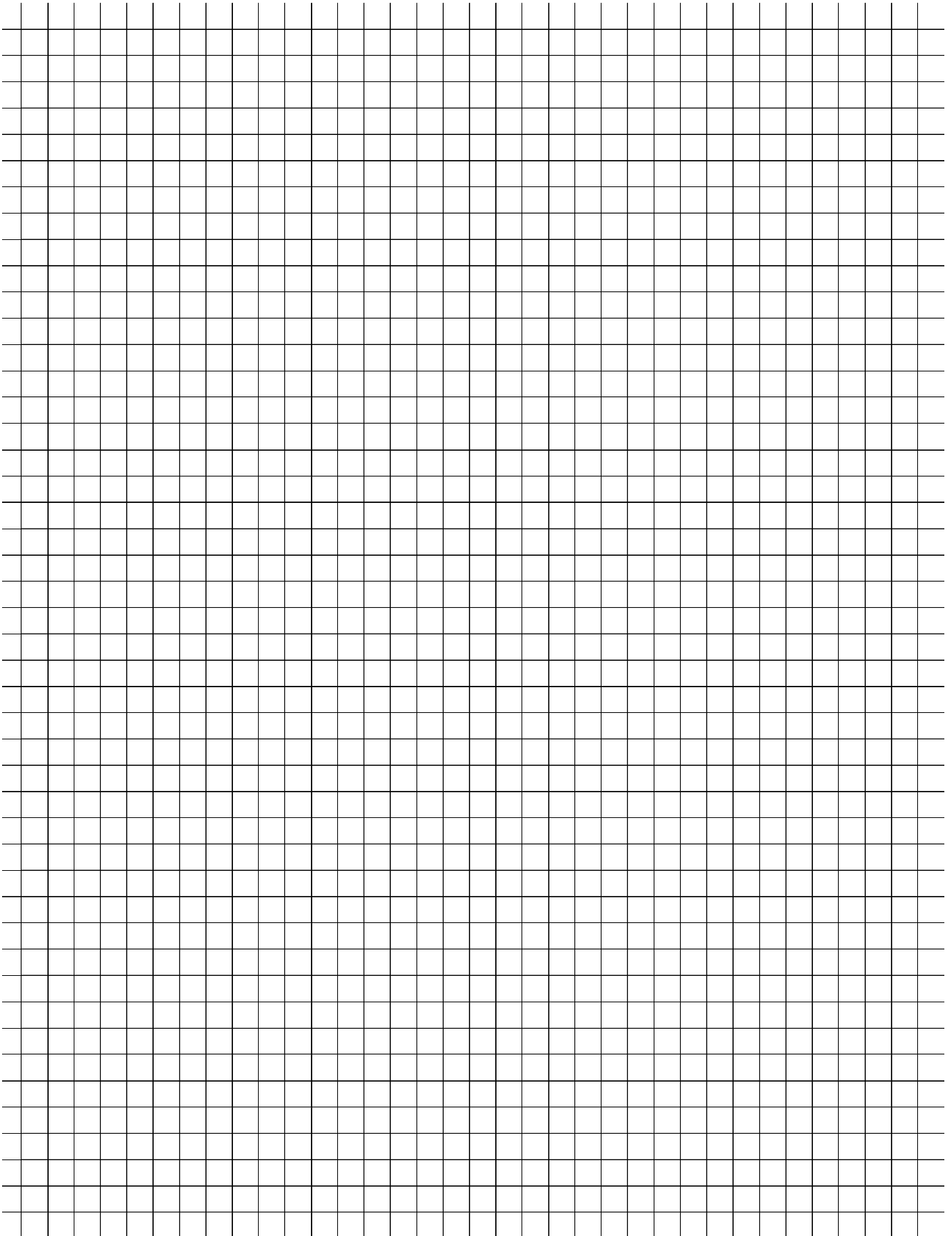
Signal lamp ¹⁾
Additional lubrication ¹⁾
Level control ¹⁾
- Low-level control ¹⁾
+ Low-level control ¹⁾
+ Motor
- Motor
Machine contact or driving switch (+ VDC)
Contact 30 (Example: bridged with contact 15)
Earth (- 0 VDC)

T-PCBv-040a10

¹⁾ Option

Terminals of the printed circuit board V10-V13 (contact 15/30 bridged)

Notizen:



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