

Remote control plate

Type HICFP

RE 64663

Edition: 2016-05



- ▶ Size 02, 04, and 06
- ▶ Component series 1X
- ▶ Maximum control pressure 30 bar
- ▶ Maximum flow 40 l/min

Features

- ▶ Cost-effective solution variant for electro-hydraulic proportional control systems of mobile control blocks
- ▶ Separate accommodation of the electro-hydraulic devices in the accessible and protected area of the machine
- ▶ Easy retrofitting from hydraulic to electric control system
- ▶ Combines high performance and cost-effective design
- ▶ Different valve versions

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Ordering code

01	02	03	04	05	06	07	08	09	10	11	12	13	14	
HIC	FP		-		-	AL	-	1X	/				V	*

01	Hydraulic Integrated Circuit	HIC
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02	Remote control plate	FP
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Size

03	Size 02	02
	Size 04	04
	Size 06	06

Frame size (Number of screw-in cartridge valves)

04	2 screw-in cartridge valves	02
	3 screw-in cartridge valves	03
	4 screw-in cartridge valves	04
	6 screw-in cartridge valves	06

Type of connection

05	Threaded connection, flat-sealing according to DIN 3852-2	A
	Threaded connection, taper-sealing according to DIN EN ISO 6149	B
	Threaded connection UNF-2B ANSI B1.1 according to ISO 11926	D

Manifold material

06	Aluminum	AL
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Component series

07	Component series 10 ... 19 (10 ... 19: unchanged installation and connection dimensions)	1X
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Valve fitting

08	No valve fitting	XX/FTXX
	MHDRE 06	DR
	FTDRE 02 / 04	FTDR
	FTWE 02 / 04	FTWE
	FTMX ³⁾	FTMX

Maximum control pressure

09	18 bar	18
	30 bar ⁴⁾	30
	Valve fitting WE	00

Nominal voltage

10	DC 12 V	G12
	DC 24 V	G24

Manual override ²⁾

11	Without manual override (preferred)	N0
	With manual override	N9

Electrical connection ¹⁾

12	Without mating connector, with connector plug DT 04-2PA (Deutsch connector)	K40
	Without mating connector, with connector plug AMP Junior-Timer	C4

Seal material

13	FKM seals	V
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14	Further details in the plain text	*
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¹⁾ Mating connector (separate order) see data sheet 08006

²⁾ Manual override (N9) not available for BG 06.

Without manual override (N0) not available for FTWE.

³⁾ SO variant (mixture of FTWE and FTDRE)

⁴⁾ FTDRE 02 upon request

Preferred types

30 bar, standard is without manual override

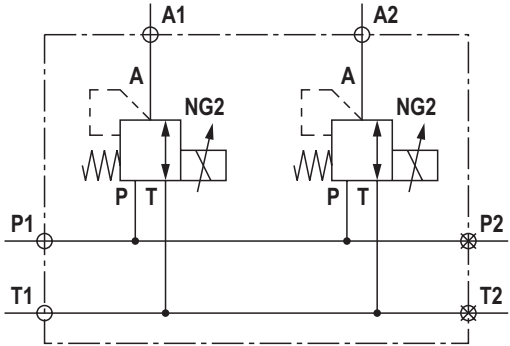
Frame size	24 V (K40; C4)		12 V (K40; C4)		not fitted	
	Type	Material no.	Type	Material no.	Type	Material no.
BG 02	30 bar upon request 18 bar in series 24 bar in series		30 bar upon request 18 bar in series 24 bar in series		HICFP02-2A-AL-1X/FTXX	R901434588
					HICFP02-3A-AL-1X/FTXX	R901434591
					HICFP02-4A-AL-1X/FTXX	R901434592
					HICFP02-6A-AL-1X/FTXX	R901434594

Frame size	24 V (K40; C4)		12 V (K40; C4)		not fitted	
	Type	Material no.	Type	Material no.	Type	Material no.
BG 04	HICFP04-2A-AL-1X/FTDR30G24N0K40V	R901434345	HICFP04-2A-AL-1X/FTDR30G12N0K40V	R901434370	HICFP04-2A-AL-1X/FTXX	R901426715
	HICFP04-3A-AL-1X/FTDR30G24N0K40V	R901434346	HICFP04-3A-AL-1X/FTDR30G12N0K40V	R901434371	HICFP04-3A-AL-1X/FTXX	R901434343
	HICFP04-4A-AL-1X/FTDR30G24N0K40V	R901182076	HICFP04-4A-AL-1X/FTDR30G12N0K40V	R901434372	HICFP04-4A-AL-1X/FTXX	R901415571
	HICFP04-6A-AL-1X/FTDR30G24N0K40V	R901182153	HICFP04-6A-AL-1X/FTDR30G12N0K40V	R901434373	HICFP04-6A-AL-1X/FTXX	R901415575

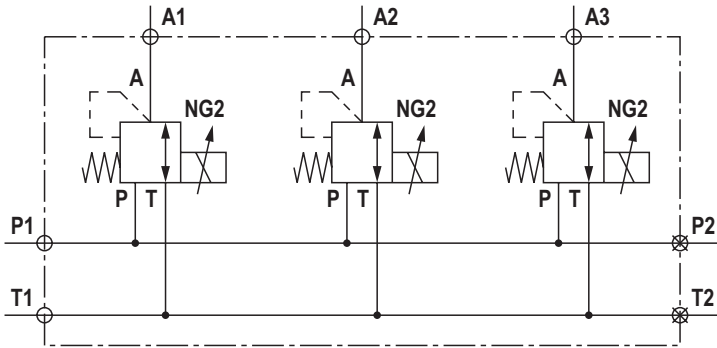
Frame size	24 V (K40; C4)		12 V (K40; C4)		not fitted	
	Type	Material no.	Type	Material no.	Type	Material no.
BG 06	HICFP06-2A-AL-1X/DR30G24N0K40V	R901391736	HICFP06-2A-AL-1X/DR30G12N0K40V	R901434490	HICFP06-2A-AL-1X/XX	R901267591
	HICFP06-3A-AL-1X/DR30G24N0K40V	R901434562	HICFP06-3A-AL-1X/DR30G12N0K40V	R901434492	HICFP06-3A-AL-1X/XX	R901434483
	HICFP06-4A-AL-1X/DR30G24N0K40V	R901420952	HICFP06-4A-AL-1X/DR30G12N0K40V	R901434493	HICFP06-4A-AL-1X/XX	R901434484
	HICFP06-6A-AL-1X/DR30G24N0K40V	R901368620	HICFP06-6A-AL-1X/DR30G12N0K40V	R901434494	HICFP06-6A-AL-1X/XX	R901434485

Symbols: Size 02

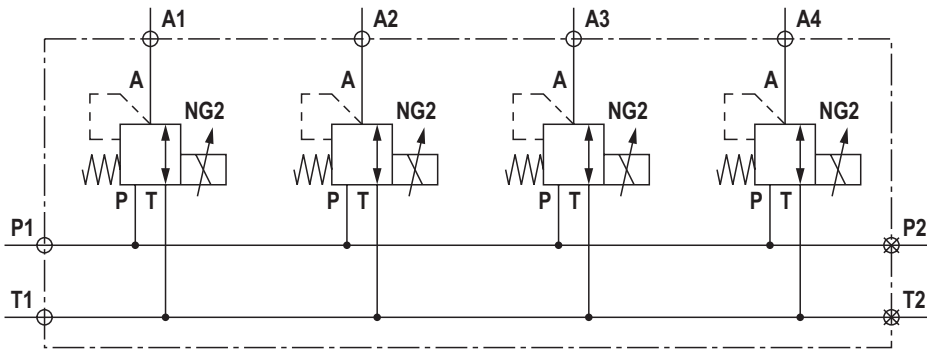
2-fold fitting HICFP02-2./FT



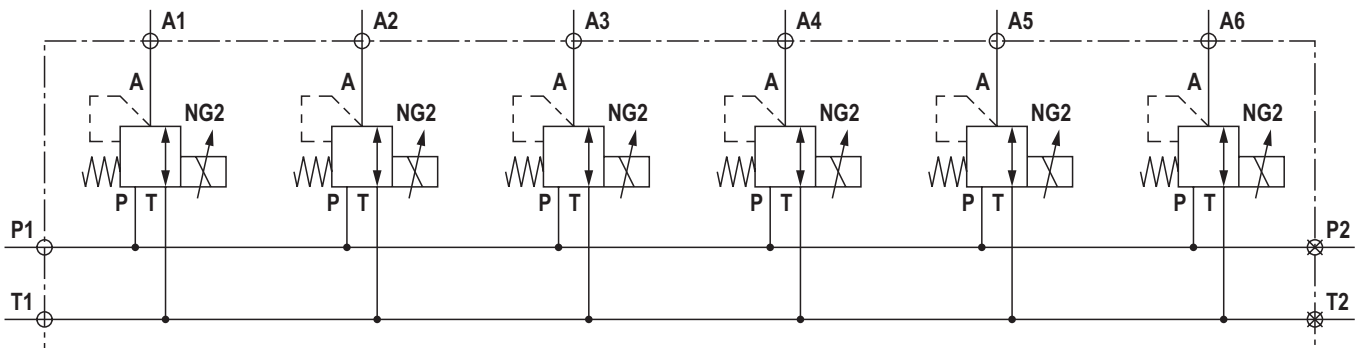
3-fold fitting HICFP02-3./FT

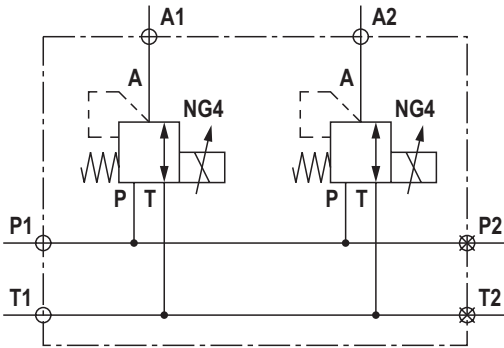
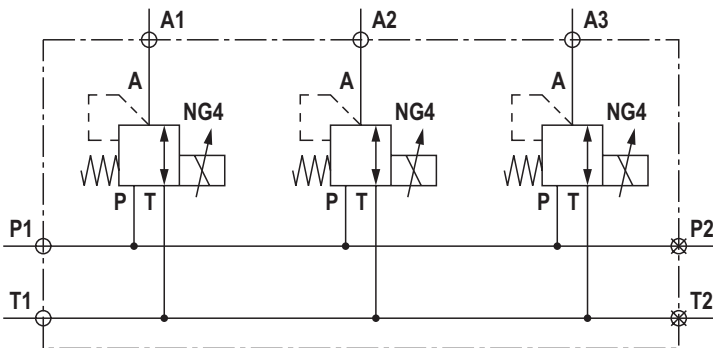
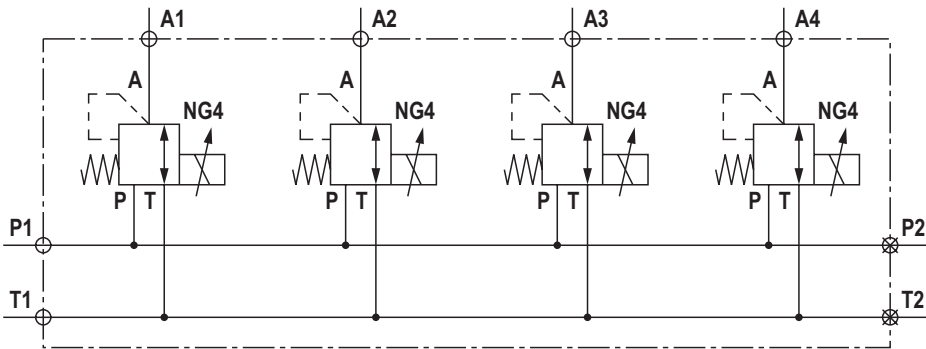
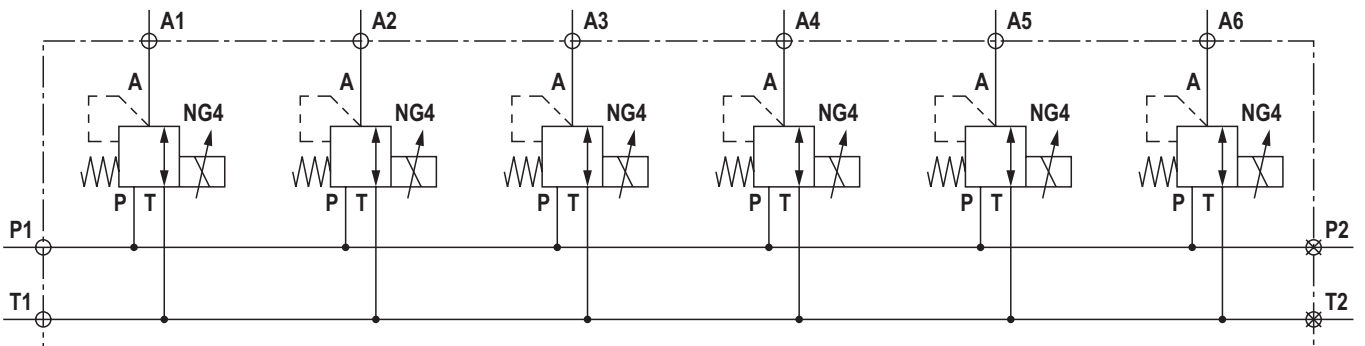


4-fold fitting HICFP02-4./FT



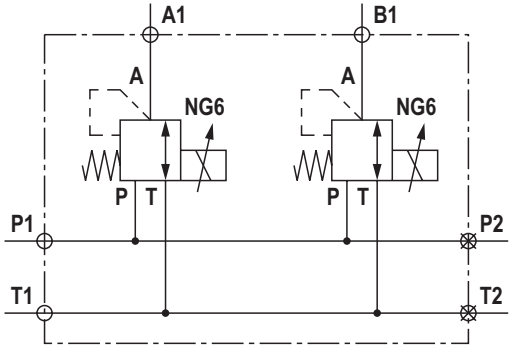
6-fold fitting HICFP02-6./FT



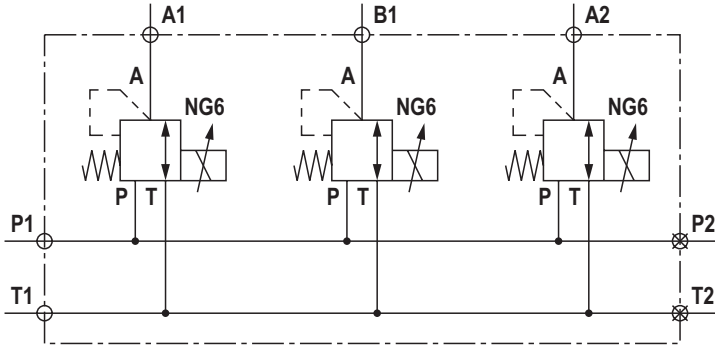
Symbols: Size 04**2-fold fitting HICFP04-2./FT****3-fold fitting HICFP04-3./FT****4-fold fitting HICFP04-4./FT****6-fold fitting HICFP04-6./FT**

Symbols: Size 06

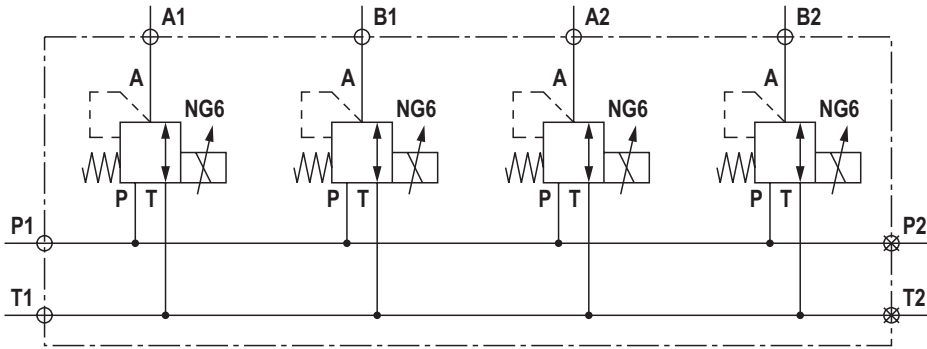
2-fold fitting HICFP06-2



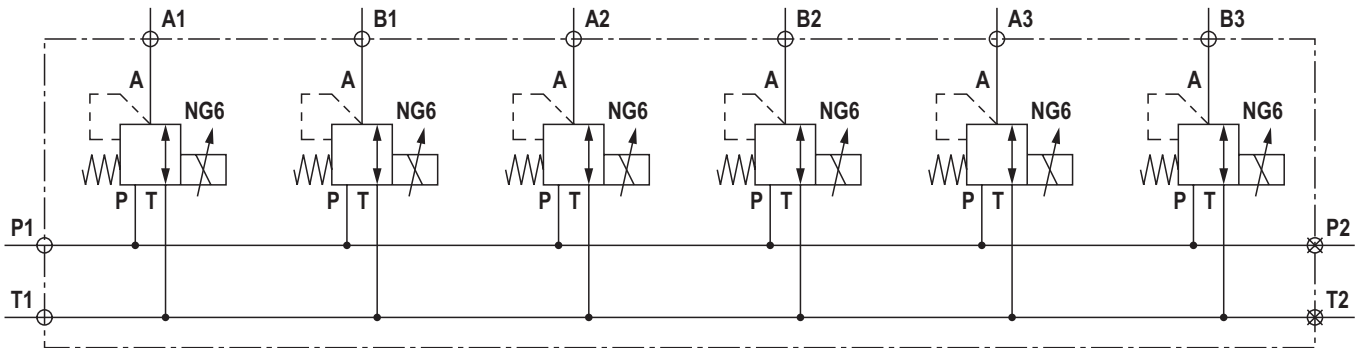
3-fold fitting HICFP06-3



4-fold fitting HICFP06-4



6-fold fitting HICFP06-6



Technical data

(For application outside these values, please consult us!)

general				
Valve type		FTDRE		MHDRE
Size	NG	02	04	06
Weight	kg	Page 9 ... 14		
Installation position		Any - if it is ensured that no air can collect upstream the valves. Otherwise we recommend mounting the remote control plate in a position with hanging valves.		
Ambient temperature range		See "Voltage tolerance" in the data sheets of the screw-in cartridge valves ¹⁾		
Storage temperature range	°C	-30 ... +80		

hydraulic				
Maximum control pressure ▶ Main port ① (A1, A2, A3)	bar	18; 30		
Maximum inlet pressure ▶ Main port ① (P1, P2)	bar	100	100	100
Maximum counter pressure ▶ Main port ① (T1, T2)	bar	Depressurized recommended (occurring tank pressures add up to the control pressure of the screw-in cartridge valves); depressurized up to a maximum of:		
	bar	30	30	100
Maximum flow	l/min	See data sheets of the screw-in cartridge valves ¹⁾		
Hydraulic fluid		See table below		
Hydraulic fluid temperature range	°C	-30 ... +100	-30 ... +100	-30 ... +100
Viscosity range	mm ² /s	10 ... 380	10 ... 380	10 ... 380
Maximum admissible degree of contamination of the hydraulic fluid Cleanliness class according to ISO 4406 (c)		See data sheets of the screw-in cartridge valves ¹⁾		
Hysteresis (within tolerance band)	bar	See data sheets of the screw-in cartridge valves ¹⁾		
Step response	ms	See data sheets of the screw-in cartridge valves ¹⁾		
Repetition accuracy	%	See data sheets of the screw-in cartridge valves ¹⁾		
Load cycles ▶ Valves	Million	5	5	10
Strainer element at the main port ② "P" of the screw-in cartridge valves	µm	160	160	250

Hydraulic fluid	Classification	Suitable sealing materials	Standards
Mineral oils	HL, HLP, HLPD, HVLP, HVLPD	NBR, FKM	DIN 51524
Bio-degradable ▶ Insoluble in water	HETG	NBR, FKM	ISO 15380
	HEES	FKM	
▶ Soluble in water	HEPG	FKM	ISO 15380



Important notices on hydraulic fluids:

- ▶ For more information and data on the use of other hydraulic fluids, please refer to data sheet 90220 or contact us!
- ▶ There may be limitations regarding the technical valve data (temperature, pressure range, life cycle, maintenance intervals, etc.)!

- ▶ The flash point of the hydraulic fluid used must be 40 K higher than the maximum solenoid surface temperature.
- ▶ **Bio-degradable:** When using bio-degradable hydraulic fluids that are zinc-soluble, zinc may accumulate in the fluid (700 mg zinc per pole tube).

¹⁾ Proportional pressure reducing valves

- ▶ Type FTDRE 02 according to data sheet 58032
- ▶ Type FTDRE 04 according to data sheet 58038
- ▶ Type MHDRE 06 according to data sheet 64655

Technical data

(For application outside these values, please consult us!)

electric								
Valve type		FTDRE		MHDRE	FTDRE		MHDRE	
Size	NG	02	04	06	02	04	06	
Supply voltage	V	12 DC			24 DC			
Voltage type		Direct voltage						
Maximum control current	▶ 18 bar	mA	1800	1800	1450	800	800	700
	▶ 30 bar	mA	1900			850		
Coil resistance (cold value at 20 °C)	Ω	2.4		5	12		22.5	
Duty cycle	%	100 (see characteristic curves in data sheets)						
Maximum coil temperature ¹⁾	°C	150		185	150		185	
Protection class according to VDE 0470-1 (DIN EN 60529), DIN 40050-9	▶ Version "C4"	See data sheets of the screw-in cartridge valves						
	▶ Version "K40"	See data sheets of the screw-in cartridge valves						
Control electronics (separate order)		Analog amplifier type RA... (Data sheet 95230) BODAS control unit type RC.. (Data sheet 95200)						
Recommended sealer frequency (PWM) Chopper frequency (recommended) ²⁾	Hz	150	200	150	150	200	150	
Design		According to VDE 0580						

¹⁾ Due to the surface temperatures of the solenoid coils, the standards ISO 13732-1 and ISO 4413 need to be adhered to!

²⁾ The chopper frequency is to be optimized depending on the application. In this regard, observe the working temperature range of the application.

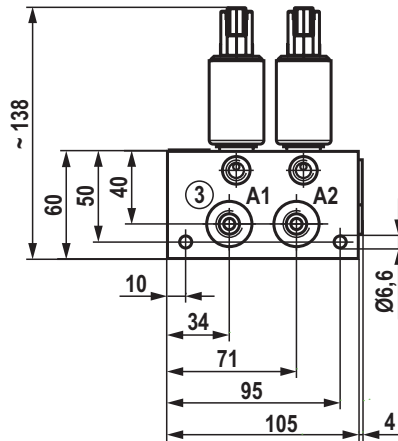
Notice:

- ▶ The technical data were determined at a viscosity of 46 mm²/s (HLP46; 40 °C).
- ▶ You can find further information on the correct handling of Rexroth hydraulic products in data sheet 64020-B, "Hydraulic valves for mobile applications - General information".

Dimensions: Size 02
(dimensions in mm)

2-fold fitting
HICFP02-2./FT

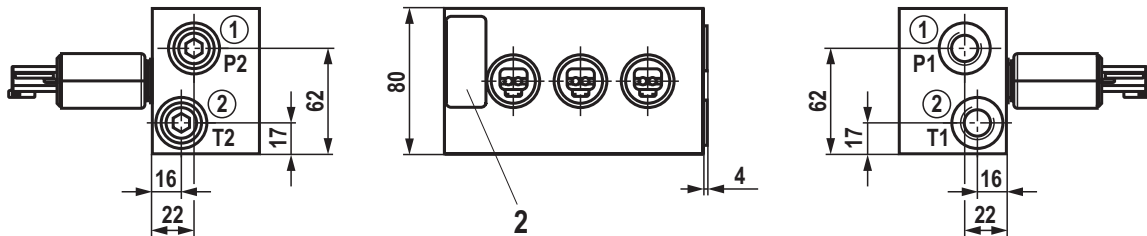
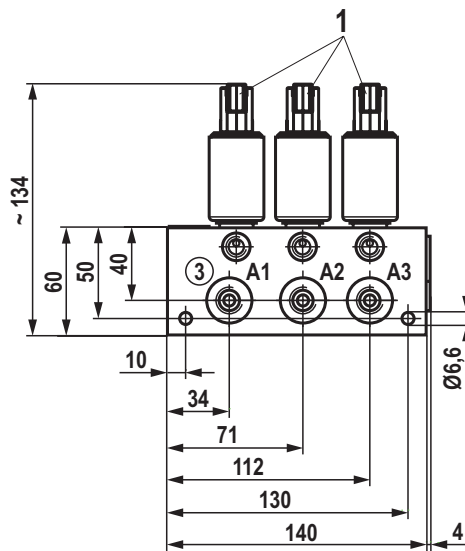
Weight approx. 1.8 kg



Type of connection A, connections DIN 3852-2	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6
Type of connection B, connections ISO 6149	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6
Type of connection D, connections ISO 11926	
3/4-16 UNF	P1, T1, P2, T2
9/16-18 UNF	A1, A2, A3, A4, A5, A6

3-fold fitting
HICFP02-3./FT

Weight approx. 2.6 kg



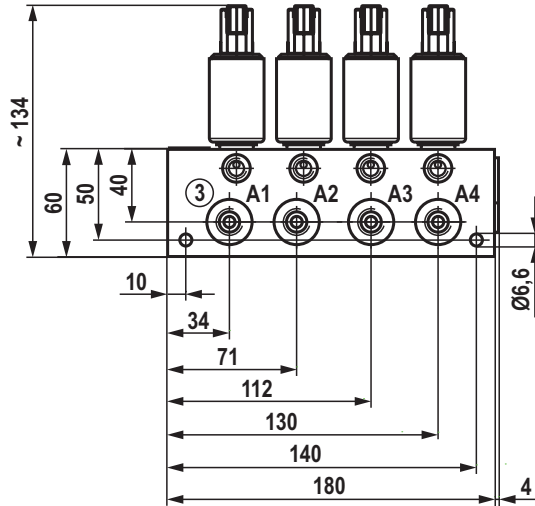
- 1 Proportional pressure reducing valves
 - ▶ Type FTDRE 02 according to data sheet 58032
 - ▶ Type FTDRE 04 according to data sheet 58038
 - ▶ Type MHDRE 06 according to data sheet 64655
 - ▶ Type FTWE 02 according to data sheet 58007
 - ▶ Type FTWE 04 according to data sheet 58008
- 2 Name plate

- ① = Main port 1 (P)
- ② = Main port 2 (T)
- ③ = Main port 3 (A1, B1, A2, ...)

Dimensions: Size 02
(dimensions in mm)

4-fold fitting
HICFP02-4./FT

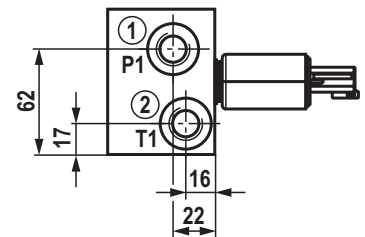
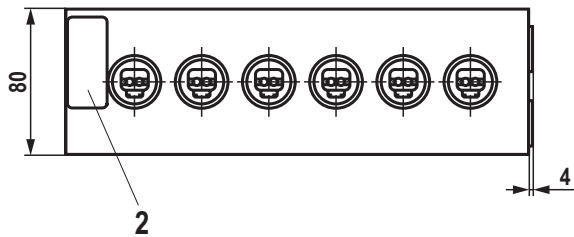
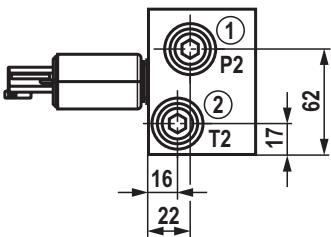
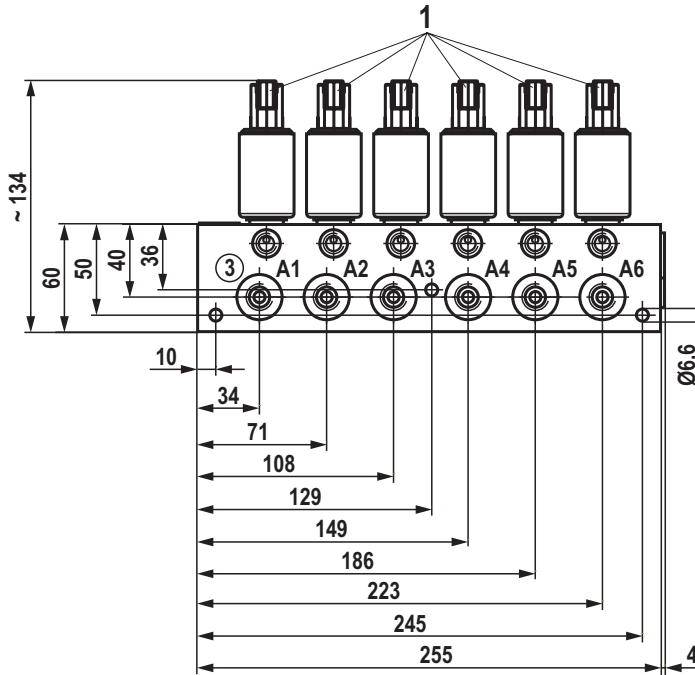
Weight approx. 3.2 kg



Type of connection A, connections DIN 3852-2	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6
Type of connection B, connections ISO 6149	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6
Type of connection D, connections ISO 11926	
3/4-16 UNF	P1, T1, P2, T2
9/16-18 UNF	A1, A2, A3, A4, A5, A6

6-fold fitting
HICFP02-6./FT

Weight approx. 4.6 kg



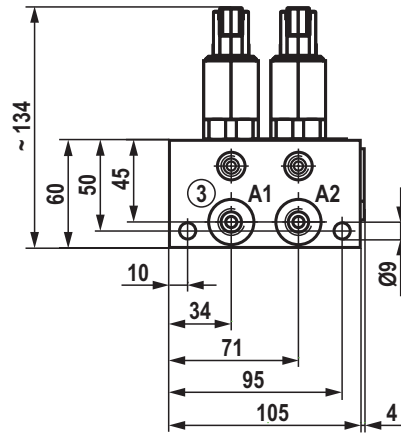
- 1** Proportional pressure reducing valves
- ▶ Type FTDRE 02 according to data sheet 58032
 - ▶ Type FTDRE 04 according to data sheet 58038
 - ▶ Type MHDRE 06 according to data sheet 64655
 - ▶ Type FTWE 02 according to data sheet 58007
 - ▶ Type FTWE 04 according to data sheet 58008
- 2** Name plate

- ① = Main port 1 (P)
 ② = Main port 2 (T)
 ③ = Main port 3 (A1, B1, A2, ...)

Dimensions: Size 04
(dimension in mm)

2-fold fitting
HICFP04-2./FT

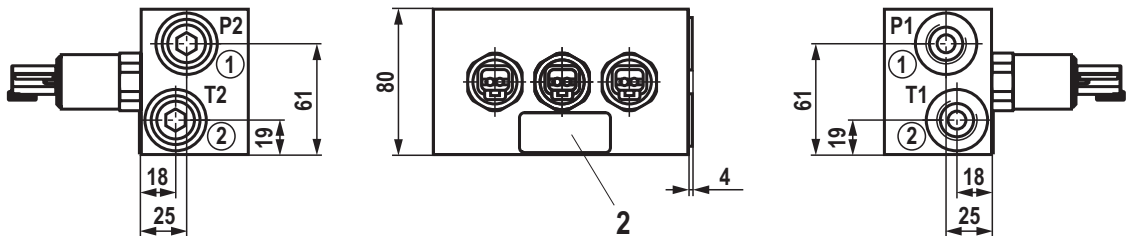
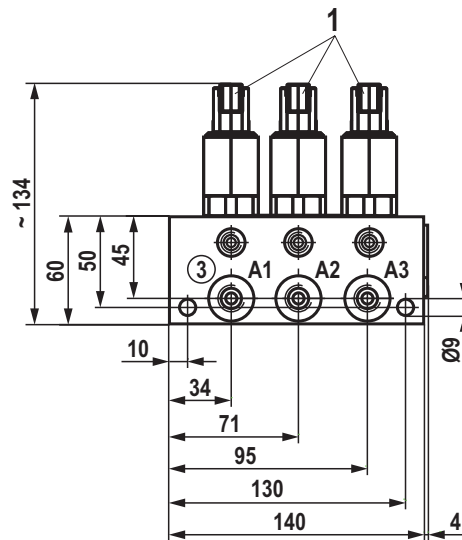
Weight approx. 1.8 kg



Type of connection A, connections DIN 3852-2	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6
Type of connection B, connections ISO 6149	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6
Type of connection D, connections ISO 11926	
3/4-16 UNF	P1, T1, P2, T2
9/16-18 UNF	A1, A2, A3, A4, A5, A6

3-fold fitting
HICFP04-3./FT

Weight approx. 2.6 kg



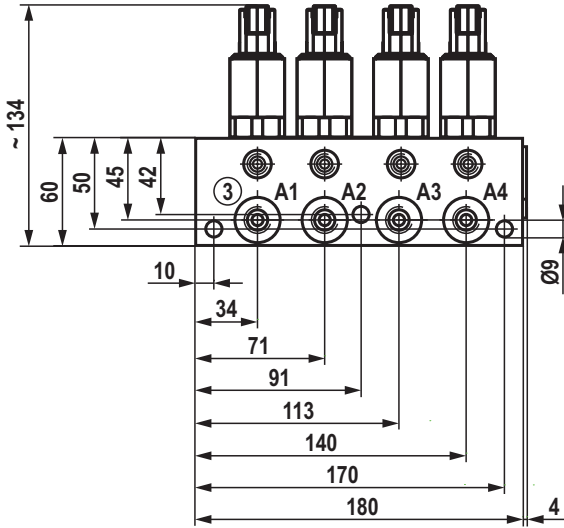
- 1** Proportional pressure reducing valves
- ▶ Type FTDRE 02 according to data sheet 58032
 - ▶ Type FTDRE 04 according to data sheet 58038
 - ▶ Type MHDRE 06 according to data sheet 64655
 - ▶ Type FTWE 02 according to data sheet 58007
 - ▶ Type FTWE 04 according to data sheet 58008
- 2** Name plate

- ① = Main port 1 (P)
- ② = Main port 2 (T)
- ③ = Main port 3 (A1, B1, A2, ...)

Dimensions: Size 04
(dimension in mm)

4-fold fitting
HICFP04-4./FT

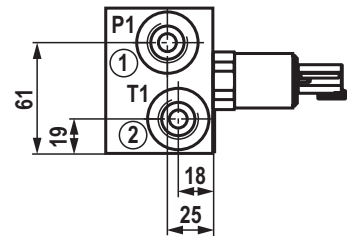
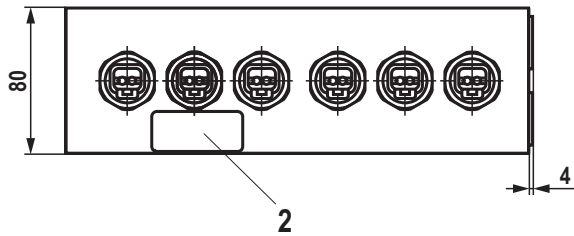
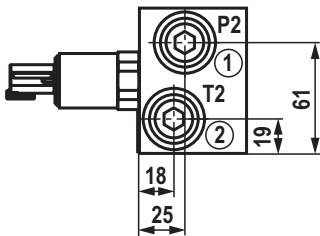
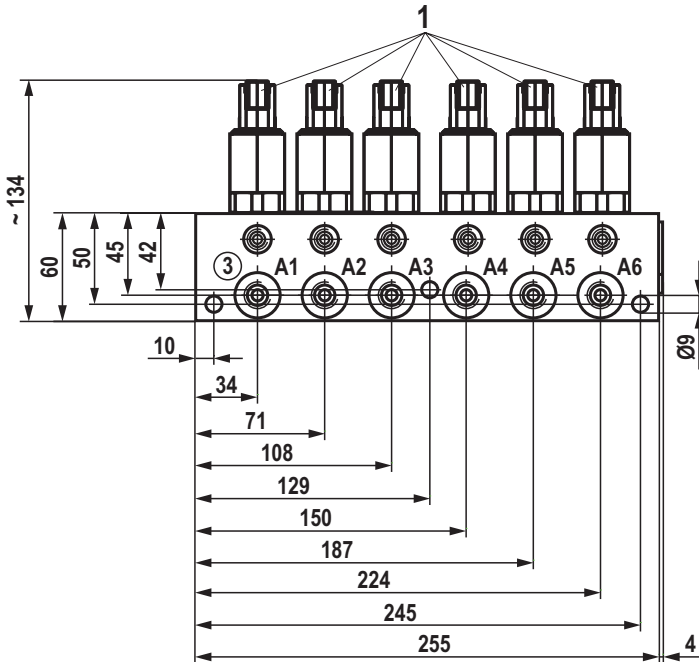
Weight approx. 3.2 kg



Type of connection A, connections DIN 3852-2	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6
Type of connection B, connections ISO 6149	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6
Type of connection D, connections ISO 11926	
3/4-16 UNF	P1, T1, P2, T2
9/16-18 UNF	A1, A2, A3, A4, A5, A6

6-fold fitting
HICFP04-6./FT

Weight approx. 4.6 kg



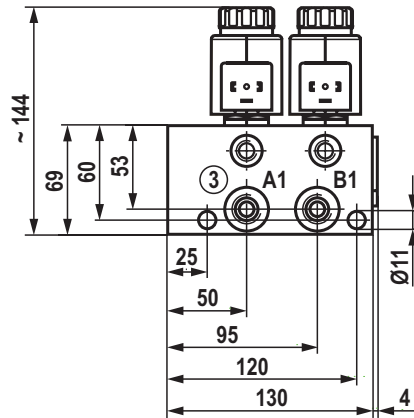
- 1** Proportional pressure reducing valves
- ▶ Type FTDRE 02 according to data sheet 58032
 - ▶ Type FTDRE 04 according to data sheet 58038
 - ▶ Type MHDRE 06 according to data sheet 64655
 - ▶ Type FTWE 02 according to data sheet 58007
 - ▶ Type FTWE 04 according to data sheet 58008
- 2** Name plate

- ① = Main port 1 (P)
 ② = Main port 2 (T)
 ③ = Main port 3 (A1, B1, A2, ...)

Dimensions: Size 06
(dimension in mm)

2-fold fitting
HICFP06-2

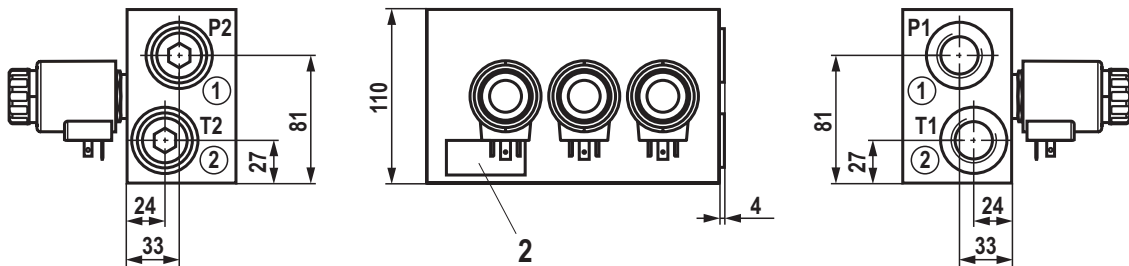
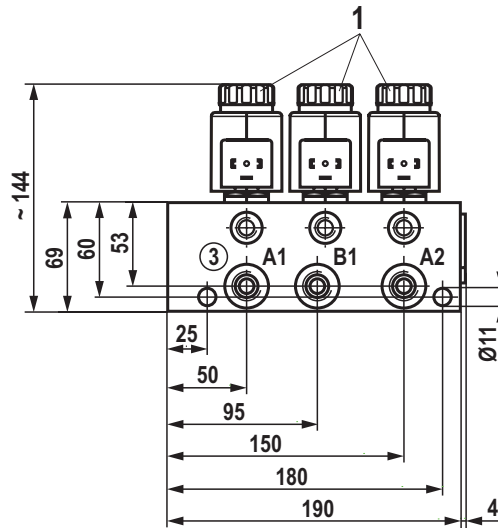
Weight approx. 3.9 kg



Type of connection A, connections DIN 3852-2	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6
Type of connection B, connections ISO 6149	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6

3-fold fitting
HICFP06-3

Weight approx. 5.6 kg



- 1** Proportional pressure reducing valves
- ▶ Type FTDRE 02 according to data sheet 58032
 - ▶ Type FTDRE 04 according to data sheet 58038
 - ▶ Type MHDRE 06 according to data sheet 64655
 - ▶ Type FTWE 02 according to data sheet 58007
 - ▶ Type FTWE 04 according to data sheet 58008

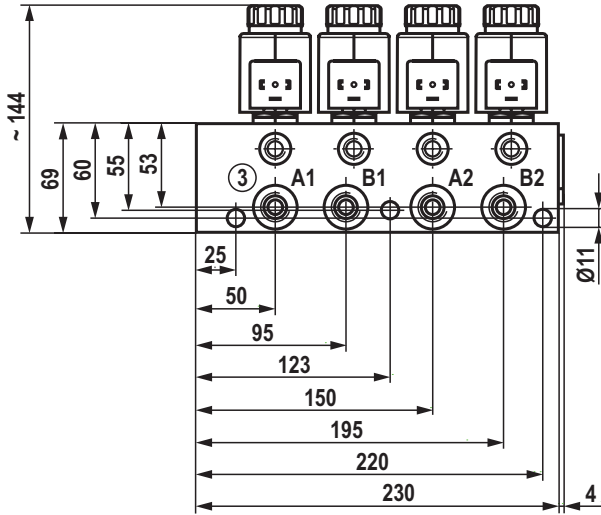
- ① = Main port 1 (P)
- ② = Main port 2 (T)
- ③ = Main port 3 (A1, B1, A2, ...)

2 Name plate

Dimensions: Size 06
(dimension in mm)

4-fold fitting
HICFP06-4

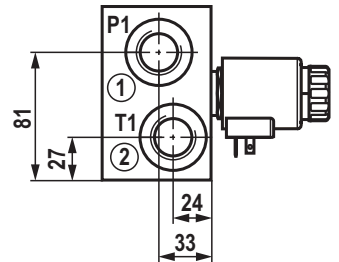
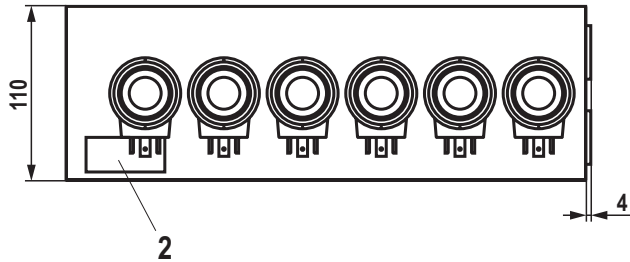
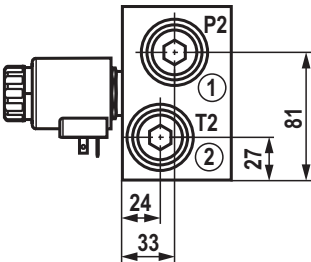
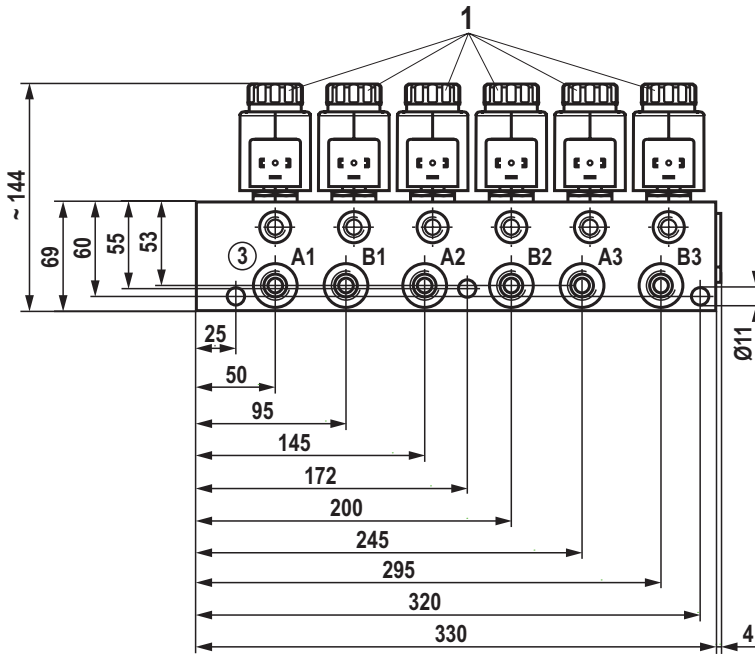
Weight approx.
7.3 kg



Type of connection A, connections DIN 3852-2	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6
Type of connection B, connections ISO 6149	
G1/2	P1, T1, P2, T2
G1/4	A1, A2, A3, A4, A5, A6

6-fold fitting
HICFP06-6

Weight approx.
10.6 kg

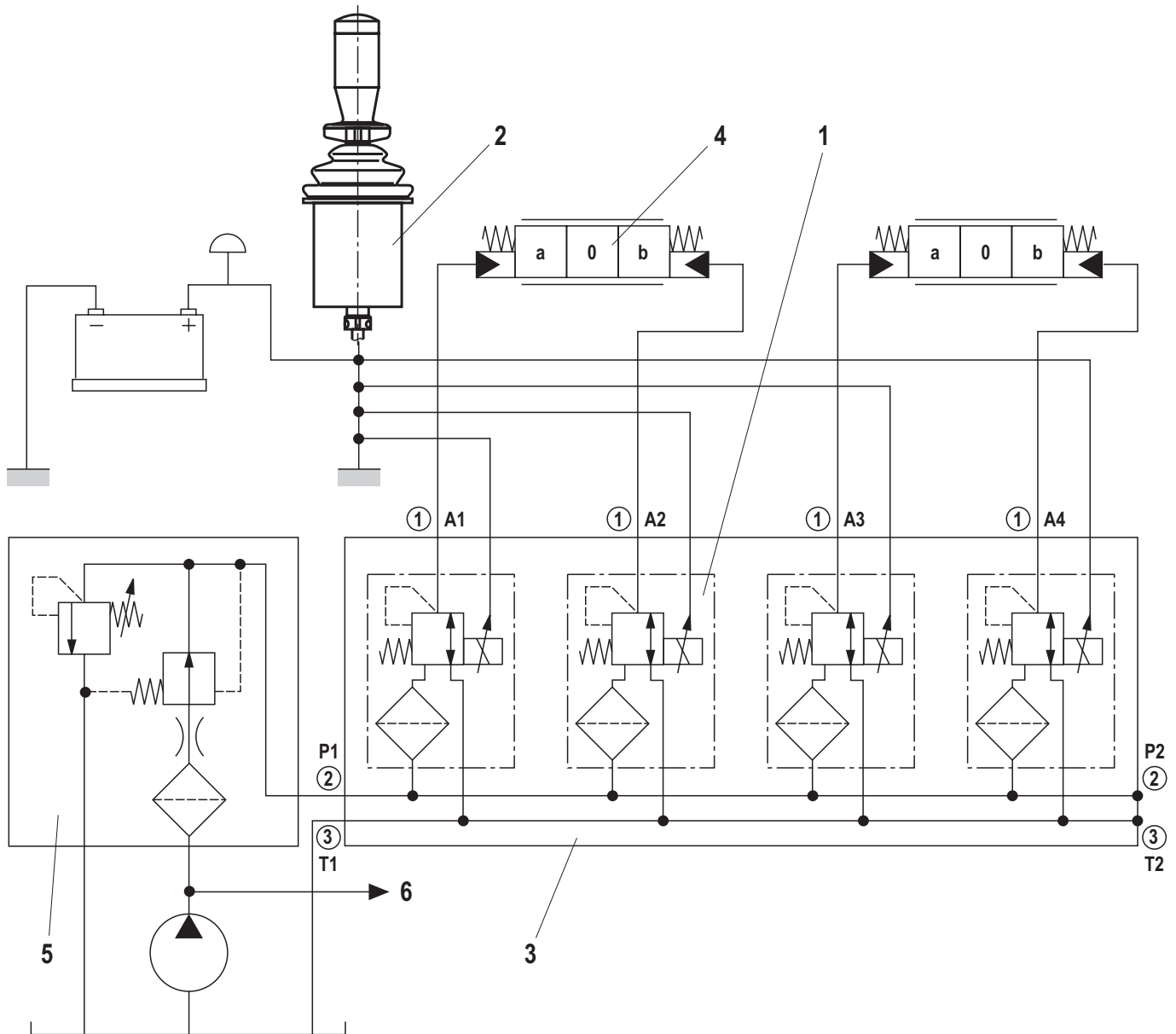


- 1** Proportional pressure reducing valves
- ▶ Type FTDRE 02 according to data sheet 58032
 - ▶ Type FTDRE 04 according to data sheet 58038
 - ▶ Type MHDRE 06 according to data sheet 64655
 - ▶ Type FTWE 02 according to data sheet 58007
 - ▶ Type FTWE 04 according to data sheet 58008

- ① = Main port 1 (P)
② = Main port 2 (T)
③ = Main port 3 (A1, B1, A2, ...)

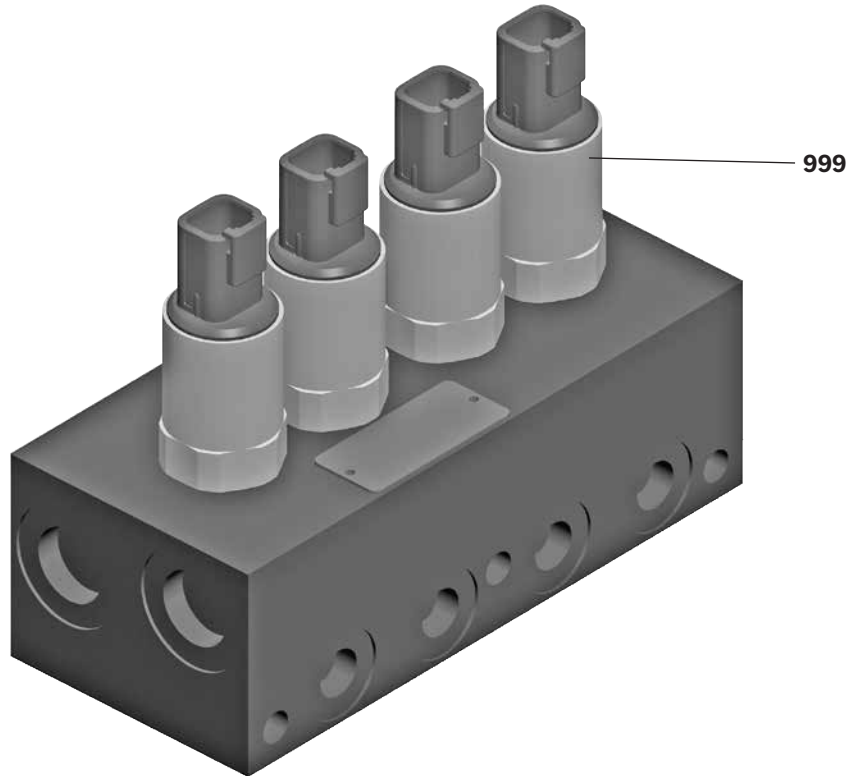
2 Name plate

Circuit example



- 1 Proportional pressure reducing valves
Type MHDRE 06 according to data sheet 64655
- 2 Electronic remote control and modules (see overview
according to data sheet 64013)
- 3 Remote control plate HICFP
- 4 Directional valve, hydraulically actuated
- 5 Pilot oil supply system (not included in the scope of delivery)
- 6 Work hydraulics

Available individual components



Example

Item	Denomination	Data sheet no. NG02
999	Proportional pressure reducing valve	58032

Further information

- ▶ Proportional pressure reducing valve type FTDRE 02
- ▶ Proportional pressure reducing valve type FTDRE 04
- ▶ Proportional pressure reducing valve type MHDRE 06
- ▶ Proportional pressure reducing valve type FTWE 02
- ▶ Proportional pressure reducing valve type FTWE 04
- ▶ BODAS control unit RC
- ▶ Analog amplifier RA
- ▶ Hydraulic valves for mobile applications
- ▶ Hydraulic fluids on mineral oil basis
- ▶ Selection of the filters

Data sheet 58032

Data sheet 58038

Data sheet 64655

Data sheet 58007

Data sheet 58008

Data sheet 95200

Data sheet 95230

Data sheet 64020-B

Data sheet 90220

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