

Connection blocks type C for compact hydraulic power packs

Product documentation



Operating pressure p_{\max} :

700 bar

Flow rate Q_{\max} :

20 lpm



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1 Overview of connection blocks type C

A connection block represents the connecting link between the hydraulic power pack and the hydraulic control. The connection blocks described here are suitable for combining with HAWE compact hydraulic power packs.

The connection block type C is suitable for single-circuit pumps. It is used for connecting downstream pressure and return lines by means of commercially available pipe screw connections. It does not feature any additional function elements. Pressure-limiting valves and directional valves need to be arranged separately.

For connection blocks with integral function elements, e.g. pressure-limiting valves and shut-off valves, see types AB and AL.

The connection blocks type C5, C6 and C36 (for dual-circuit systems) can be directly flange-mounted to

- Compact hydraulic power packs
 - HC, HCW acc. to D 7900
 - HK, HKF, HKL acc. to D 7600 et seq.
 - INKA acc. to D 8132-1
 - KA 2, KA 4 acc. to D 8010 and D 8010-4
 - MP, MPW acc. to D 7200 H
 - MPN acc. to D 7207
- Hydraulic power pack LP acc. to D 7280 H

Features and benefits

- Simple interface between the hydraulic power pack and valve controls
- Space-saving due to direct mounting on the hydraulic power pack

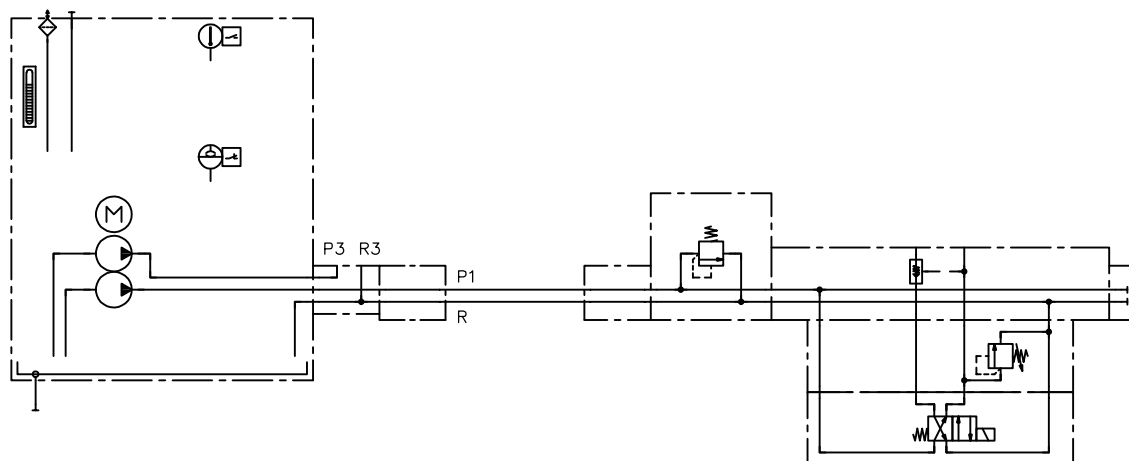


Connection block type C on compact hydraulic power pack type INKA

2 Available versions

The connection blocks type C5, C6 and C30 can be used to connect the valve bank to the compact hydraulic power pack across a distance through a pipe connection. The corresponding counterpart type C15, C16 or C36 is mounted on the valve bank to act as a linking piece. Connection block type C30 branches off the low-pressure circuit for a pipe connector (C5 or C6). For high-pressure connection, you can mount a connection block for single-circuit pumps acc. to [D 6905 AB](#), see Chapter 6.1, "Ordering examples"

Example



Compact hydraulic power pack KA 24 ... C30-C6

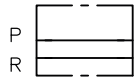
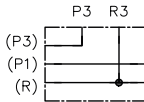
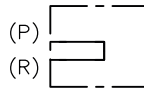
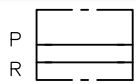
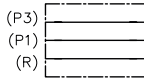
Valve bank C16-AB 1 K C ...-BA...

Ordering example

INKA 1 V00 - H0,64	C5
MPN 44 H 9,9 - B25.20	C6

2.1 "Basic type"

2.1 Basic type

Type	Description	Ports (ISO 228-1) P, R	Pressure p_{max} (bar)	Circuit symbol
On power pack side				
C5	For direct pipe connection	G 1/4	700	
C6 *	For direct pipe connection	G 3/8		
C30	For direct pipe connection in dual-circuit systems and in combination with connection block acc. to D 6905 AB	P G 1/4 R G 3/8		
CK	Idle circulation plate	--		
on valve bank				
C15	For direct pipe connection	G 1/4	700	
C16 *	For direct pipe connection	G 3/8		
C36	For direct pipe connection in dual-circuit systems	P G 3/8 R G 3/8		

* Only for straight screw-in fittings with max. wrench size 22, e.g. Parker EO GE12-PLR or GE10-PSR

DAMAGE

Use of idle circulation plate type CK: in dual- or triple-circuit pump versions of compact pump units type HK(F) 4... acc. to [D 7600-4](#). If required, the second pump circuit can be short-circuited to the tank using the idle circulation plate.

3 Parameters

3.1 General data

Design	Add-on valve for pipe connection or valve mounting
Material	Surface electro-galvanised Zn
Installation position	Any
Hydraulic fluid	Hydraulic fluid, according to DIN 51 524 Parts 1 to 3; ISO VG 10 to 68 according to DIN ISO 3448 Viscosity range: 4 - 800 mm ² /s Optimal operating range: approx. 10 - 200 mm ² /s Also suitable for biologically degradable hydraulic fluids type HEPG (polyalkylene glycol) and HEES (synthetic ester) at operating temperatures up to approx. +70°C. Not suitable for water-based fluids and native oils (HETG).
Cleanliness level	ISO 4406 <u>21/18/15...19/17/13</u>
Temperatures	Environment: approx. -40 to +80 °C, hydraulic fluid: -25 to +80 °C, pay attention to the viscosity range. Start temperature: down to -40 °C is permissible (take account of the start viscosities!), as long as the steady-state temperature is at least 20 K higher during subsequent operation. Biologically degradable hydraulic fluids: note manufacturer specifications. With consideration for the seal compatibility, not above +70°C.

3.2 Weight

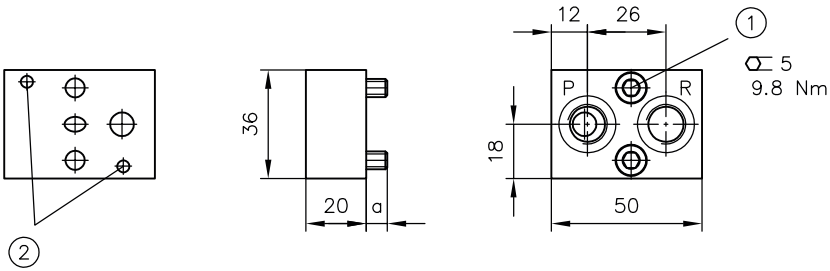
Type	
C5, C6, C15, C16, CK	= approx. 0.2 kg
C30	= approx. 0.5 kg
C36	= approx. 0.4 kg

4 Dimensions

All dimensions in mm, subject to change.

Connection block C5, C15

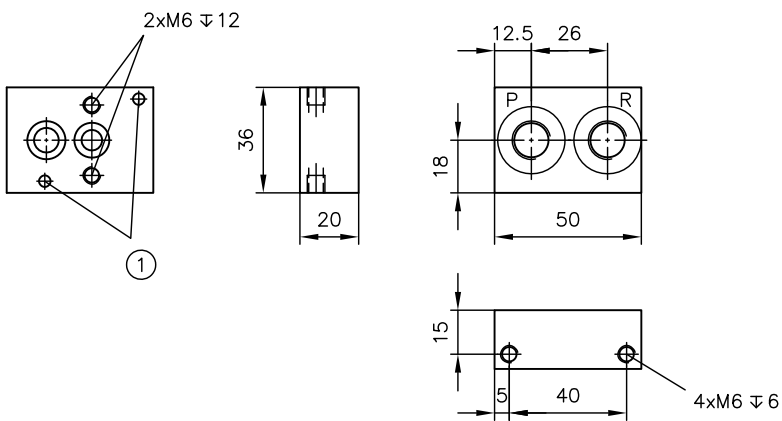
C5



- 1 Cylinder screw ISO 4762-M6x b-8.8-A2K
- 2 Centring pin

Type	a	b
LP, MP, MPN	7	20
HC, HK, HKF, HKL, INKA, KA	12	25

C15

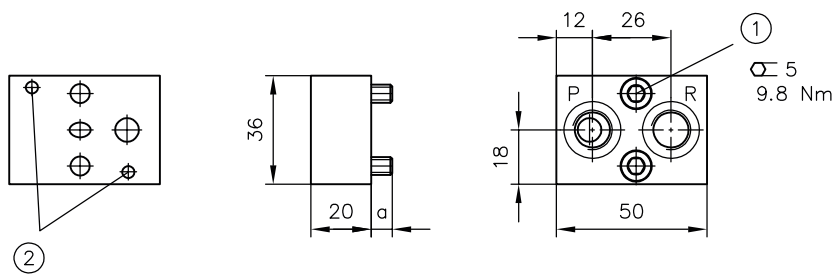


- 1 Centring pin

Connections (ISO 228-1)	
P, R	
C5, C15	G 1/4

Connection block C6, C16

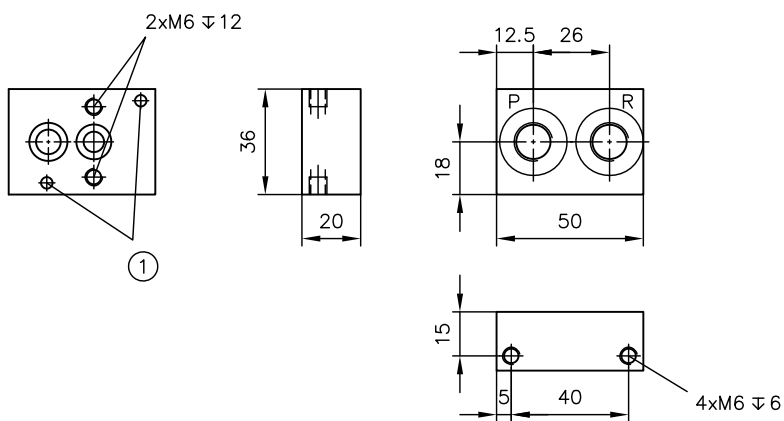
C6



- 1 Cylinder screw ISO 4762-M6x b-8.8-A2K
- 2 Centring pin

Type	a	b
LP, MP, MPN	7	20
HC, HK, HKF, HKL, INKA, KA	12	25

C16

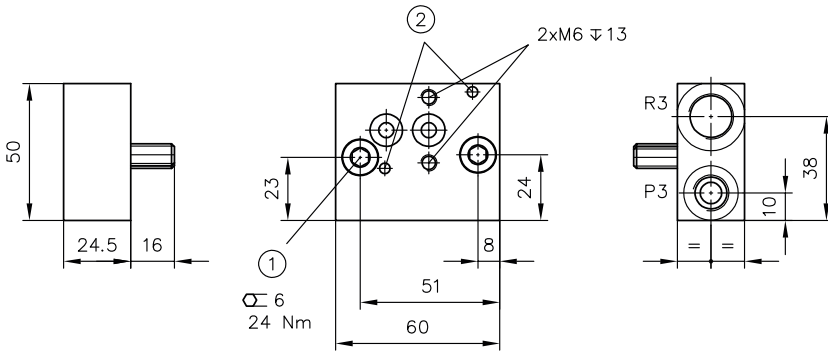


- 1 Centring pin

Connections (ISO 228-1)	
P, R	
C6, C16	G 3/8

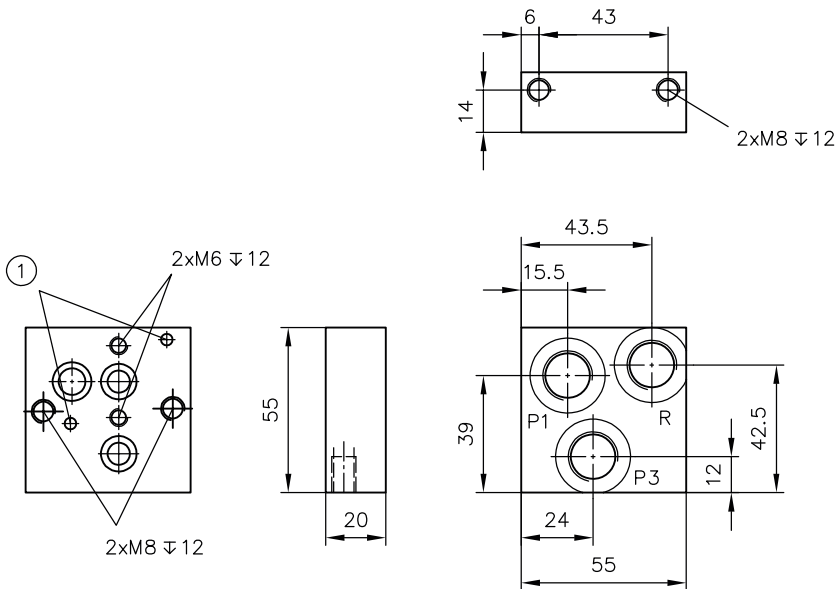
Connection block C30, C36

C30



- 1 Cylinder screw DIN 6912-M8x35-8.8-A2K
- 2 Centring pin

C36



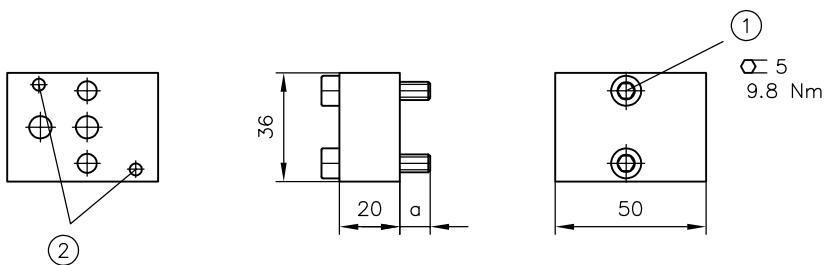
- 1 Centring pin

Connections (ISO 228-1)

	P	R
C30	G 1/4	G 3/8
C36	G 3/8	G 3/8

Idle circulation plate

CK



- 1 Cylinder screw ISO 4762-M6x b-8.8-A2K
- 2 Centring pin

Type	a	b
HC, KA2, MP	10	30
HK, KA4	15	35

5 Installation, operation and maintenance information

Observe the document B 5488 "General operating instructions for assembly, commissioning, and maintenance."

5.1 Intended use

This product is intended exclusively for hydraulic applications (fluid technology).

The user must observe the safety measures and warnings in this document.

Essential requirements for the product to function correctly and safely:

- ▶ All information in this documentation must be observed. This applies in particular to all safety measures and warnings.
- ▶ The product must only be assembled and put into operation by specialist personnel.
- ▶ The product must only be operated within the specified technical parameters described in detail in this document.
- ▶ All components must be suitable for the operating conditions when using an assembly.
- ▶ The operating instructions for the components, assemblies and the specific complete system must also always be observed.

If the product can no longer be operated safely:

1. Remove the product from operation and mark it accordingly.
 - ✓ It is then not permitted to continue using or operating the product.

5.2 Assembly information

The product must only be installed in the complete system with standard and compliant connection components (screw fittings, hoses, pipes, fixtures etc.).

The product must be shut down correctly prior to disassembly (in particular in combination with hydraulic accumulators).



DANGER

Sudden movement of the hydraulic drives when disassembled incorrectly

Risk of serious injury or death

- ▶ Depressurise the hydraulic system.
- ▶ Perform safety measures in preparation for maintenance.

5.3 Operating instructions

Observe product configuration and pressure/flow rate.

The statements and technical parameters in this document must be strictly observed.

The instructions for the complete technical system must also always be followed.



DAMAGE

- ▶ Read the documentation carefully before usage.
- ▶ The documentation must be accessible to the operating and maintenance staff at all times.
- ▶ Keep documentation up to date after every addition or update.



CAUTION

Overloading components due to incorrect pressure settings.

Risk of minor injury.

- Pay attention to the maximum operating pressure of the pump and the valves.
- Always monitor the pressure gauge when setting and changing the pressure.

Purity and filtering of the hydraulic fluid

Fine contamination can significantly impair the function of the product. Contamination can cause irreparable damage.

Examples of fine contamination include:

- Swarf
- Rubber particles from hoses and seals
- Dirt due to assembly and maintenance
- Mechanical debris
- Chemical ageing of the hydraulic fluid

! DAMAGE

New hydraulic fluid from the manufacturer may not have the required purity.

Damage to the product is possible.

- ▶ Filter new hydraulic fluid to a high quality when filling.
- ▶ Do not mix hydraulic fluids. Always use hydraulic fluid that is from the same manufacturer, of the same type, and with the same viscosity properties.

For smooth operation, pay attention to the cleanliness level of the hydraulic fluid (cleanliness level [see Chapter 3, "Parameters"](#)).

Additionally applicable document: [D 5488/1](#) Oil recommendations

5.4 Maintenance information

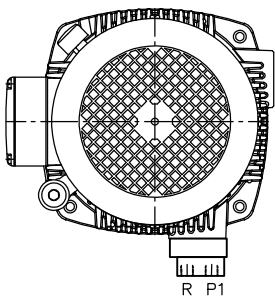
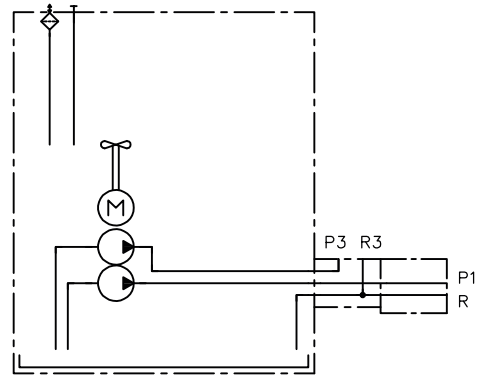
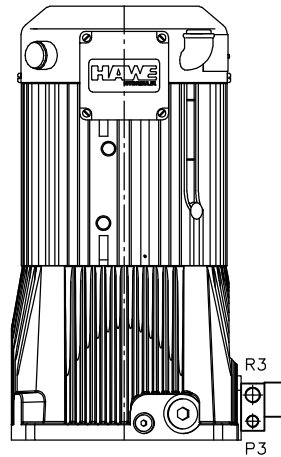
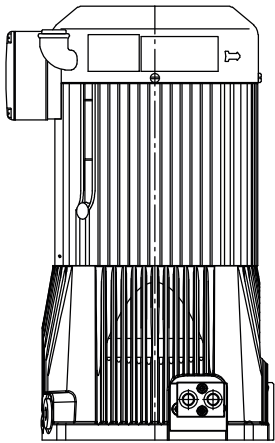
Check regularly (at least once a year) by visual inspection whether the hydraulic connections are damaged. If external leakages are found, shut down and repair the system.

Clean the surface of the device regularly (at least once a year) (dust deposits and dirt).

6 Other information

6.1 Ordering examples

Connection blocks for dual-circuit pumps



HK 44/1 - HH1,5/5,1

- C30

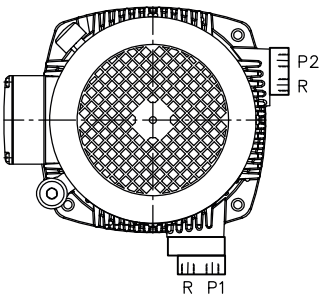
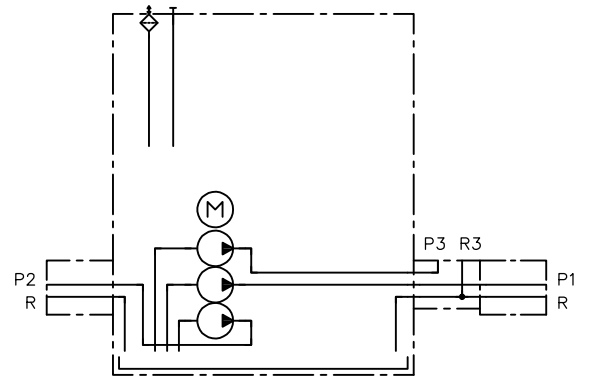
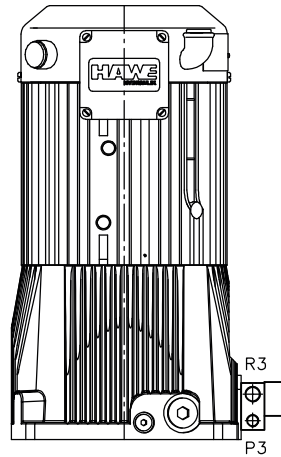
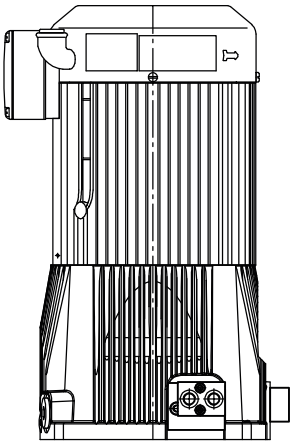
- C5

Connection block

Intermediate block

Type C30 for separate outputs P1 and P3
Type SS, VV usable for shared output on P
See [D 6905 A/2](#)

Connection blocks for triple-circuit pumps



HK 44/1 - HH 3,8/0,6 - H 1,4	- C30	- C5	- C5
HKF 439/1 - HH 4,4/4,4 - H 0,6	- VV	- C5	- CK

Secondary connection base

Connection block C5(6) or idle circulation plate type CK mounted directly

Connection block

Intermediate block

Type C30 for separate outputs P1 and P3
Type SS, VV usable for shared output on P
See D 6905 A/2

Connection block for valve bank

C15	-AB 1 K P B 500	-BWH 1 F-R3R3-1-1-L 24
C16	-AB 1 B 500	-VB 11 FM-HH-1-GM 24

Connection block

References

Additional versions

- Connection blocks for single-circuit pump types AB, AL: D 6905 AB
- Connection blocks type B for hydraulic power packs: D 6905 B
- Connection blocks for dual-circuit pump types AN, AL, NA: D 6905 A/2

Application

- Compact hydraulic power pack type HC and HCW: D 7900
- Compact hydraulic power pack type HK 3: D 7600-3
- Compact hydraulic power pack type HK 4: D 7600-4
- compact hydraulic power pack type HKF 4 with frequency converter: D 7600-4 FU
- Compact hydraulic power pack type HKL and HKLW: D 7600-3L
- Compact hydraulic power pack type INKA: D 8132-1
- Compact hydraulic power pack type KA and KAW size 2: D 8010
- Compact hydraulic power packs type KA and KAW size 4: D 8010-4
- Compact hydraulic power pack type MP: D 7200 H
- Compact hydraulic power pack type MPN and MPNW: D 7207
- Air-driven hydraulic pump type LP: D 7280

