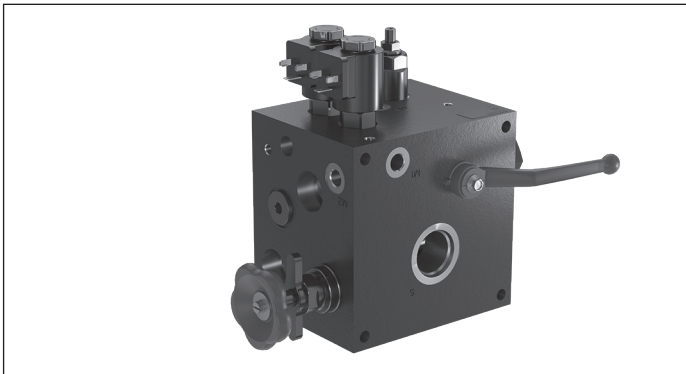


## Basic Block Hydraulic Control Block

**RE18332-95**

Edition: 01.2024

Replaces: 09.2021



Max. working pressure: 350 bar (5076 psi)

Max flow: 40 l/min. (11 gpm)

### General specifications

The Basic module realises dependable controls for pressure supply. Various functions can be implemented individually:

- Safety valve with TÜV type approval
- Mechanical release of accumulator (Hand wheel TÜV-valve)
- Electrical release of accumulator
- Pump safeguard valve
- Accumulator charging function - electric controlled
- Measuring ports, manometers, pressure switches
- Cooler and return flow filter connectable

The Control Block is mounted right on top of the container lid of the oil tank.

The Basic Module is designed to support a volume flow of 40l/min.

The Basic Module complies with the safety requirements demanded of a hydraulic Control Block:

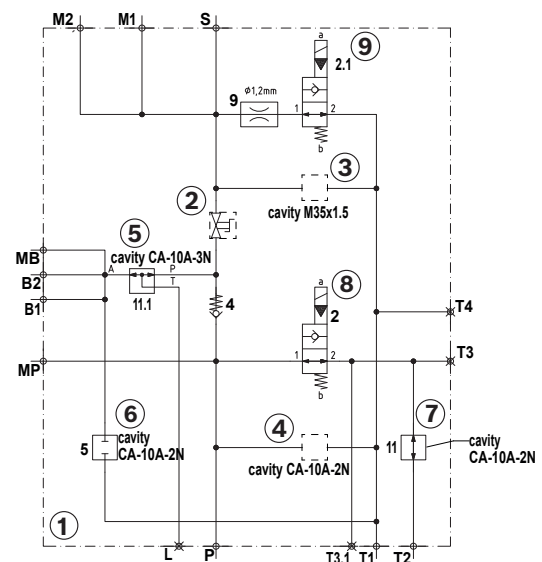
The basic configuration is equipped with a TÜV certificated, mechanically adjustable pressure relief valve and a pump protection implemented through another pressure relief valve (if required also implementable through control technology).

### Main Field of Application

- Machine tools
- General engineering
- Assembly manufacturing

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## Ordering details

01	02	03	04	05	06	07	08	09
<b>HCB</b>	-	--	--	--	--	--	-	-

### Family


01	Basic Block	<b>HCB</b>
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### Hydraulic Control Block

02	Basic Block without Ball valve	<b>A</b>
	Basic Block with Ball valve	<b>B</b>

### Cartridge - Adjustable with hand wheel + TÜV Certification<sup>1)</sup>


03	Part Number	Pressure Setting [bar]	
	0532004202	100	<b>T1</b>
	0532004203	140	<b>T2</b>
	0532004204	160	<b>T3</b>
	0532004209	200	<b>T4</b>
	0532004205	211	<b>T5</b>
	0532004206	250	<b>T6</b>
	0532004208	330	<b>T7</b>



1) External Thread M35 x 1.5, No Check Valve in RDEF 50153

### Relief valve<sup>2)</sup> (pump protection) VSBN-10: Cavity CA-10A-2N

04	Part Number	Pressure Setting [bar]	
	R930000805	Cavity Plug <sup>3)</sup> (all ports closed)	<b>0</b>
	R901191831	5-70	<b>E1</b>
	R901113609	35-140	<b>E2</b>
	R901113610	105-210	<b>E3</b>
	R901115702	175-350	<b>E4</b>

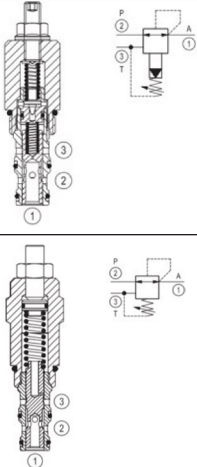


2) Max. flow 50 l/min. Leakproof hex. socket screw. For additional Information see data sheet RE18318-05

3) For additional Information see data sheet RE18325-71

### Pressure reducing valve VRPX/VRPR: Cavity CA-10A-3N

05	Valve	Part Number	Pressure Setting [bar]	
	-	R930050112	Cavity plug <sup>7)</sup> (all ports open)	<b>0</b>
	VRPX <sup>4),5)</sup>	R930006982	25-100	<b>A1</b>
	VRPX <sup>4),5)</sup>	R901104118	35-140	<b>A2</b>
	VRPX <sup>4),5)</sup>	R901106468	70-280	<b>A3</b>
	VRPX <sup>4),5)</sup>	R930005596	35-350 (Hand Wheel)	<b>A4</b>
	VRPR <sup>5),6)</sup>	R901104066	2-14	<b>B1</b>
	VRPR <sup>5),6)</sup>	R901109740	2-25	<b>B2</b>
	VRPR <sup>5),6)</sup>	R901102333	10-50	<b>B3</b>
	VRPR <sup>5),6)</sup>	R901109742	28-80	<b>B4</b>



4) Max. flow 60 l/min. For additional Information see data sheet RE18318-56.

5) Remove plug on train port "L" to install valve.

6) Alternative (with less Leakage): VRPR

- Max. flow 30 l/min.

- Max. relief pressure = 80 bar.



For additional Information see data sheet RE18318-53.

7) For additional Information see data sheet RE18325-71.

## Ordering details

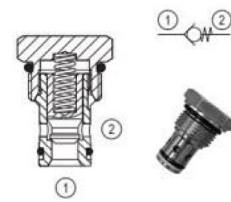


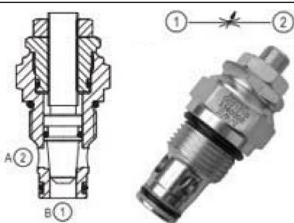
01	02	03	04	05	06	07	08	09
<b>HCB</b>	-	-	-	--	--	--	-	-

### Relief valve: Cavity CA-10A-2N<sup>8)</sup>

06	Part Number	Cavity Plug <sup>8)</sup> (all ports closed)		<b>0</b>	
	R930000805				
	R901191831	5-70		<b>E1</b>	
	R901113609	35-140		<b>E2</b>	
	R901113610	105-210		<b>E3</b>	
	R901115702	175-350		<b>E4</b>	

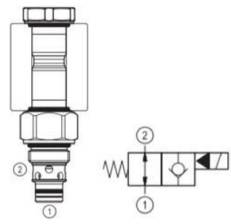
8) Max. flow 50 l/min. Leakproof hex. socket screw. For additional Information see data sheet RE18318-05

### Check valve: Cavity CA-10A-2N<sup>9)</sup>

07	Part Number	Pressure Setting [bar]			
	R930000805	Cavity Plug (all ports closed)		<b>0</b>	
	R930050112	Cavity Plug (all ports open)		<b>1</b>	
	R901106596	0.5		<b>D1</b>	
	R930005884	1.4		<b>D2</b>	
	R901106601	5.0		<b>D3</b>	
	R930000962	9.0		<b>D4</b>	
	R901191831	5-70		<b>E1</b>	
	R901113609	35-140		<b>E2</b>	
	R901113610	105-210		<b>E3</b>	
	R901115702	175-350		<b>E4</b>	
	R901109830	Adjustment Screw		<b>C1</b>	
	R901109831	Hand wheel		<b>C2</b>	

9) Max. flow 80 l/min. For additional Information see data sheet RE18318-90

### 2 way valve

08	Part Number	Max. Pressure [bar]	Max. Flow [l/min]		
09	R901175335 <sup>10)</sup>	Cavity Plug	Cavity Plug	<b>0</b>	
	R930076180 <sup>11)</sup>	350	40	<b>1</b>	
	R901393577 <sup>12)</sup>	Coil DIN43650	24V		

10) For additional Information see data sheet RE18325-71.

11) For additional Information see data sheet RE18323-50.

12) For additional Information see data sheet RE18325-90.

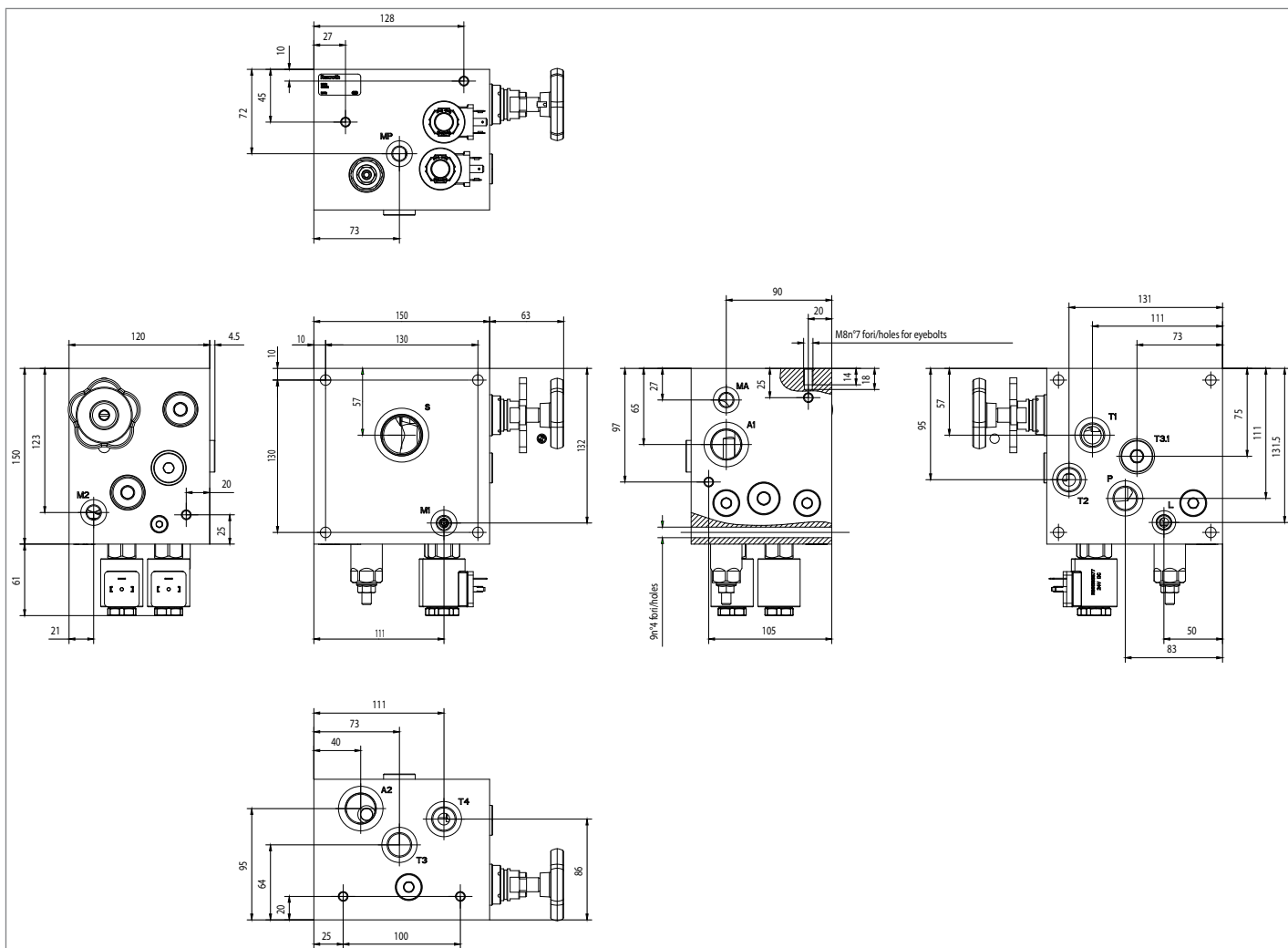
## Technical data

<b>General</b>		
Weight	kg (lbs)	18.38 (40,52)
Manifold Material		zinc plated cast iron
Ambient temperature range	°C (°F)	-30....+110 (-22....+230) (NBR seals)
Mounting Position		Unrestricted
<b>Hydraulic</b>		
Max. operating pressure	bar (psi)	350 (5076)
Max. Flow	l/min. (gpm)	40 (10.6)
Fluid		Mineral oil (HL, HLP) according to DIN 51524 part 2 2); other hydraulic fluids on request
Fluid temperature range	°C (°F)	-20...+80 (-4...+176) (Note the permissible viscosity range of the valves!)
Viscosity range	mm <sup>2</sup> /s	20...380
Permissible degree of fluid contamination, Purity level according to ISO 4406 (c)		Class 20/18/15
Filtration		ISO 4406 19/17/14
Internal Leakage		see data sheet (Technical data)
Sealing Material		NBR
Pressure settings of valves		See data sheet
<b>Electrical</b>		
2 Way Valve (Pos. Nr. 2.0/2.1)		See data sheet RE18323-50
Connections		DIN 43650 - ISO 4400
Voltage	V	24 ±15% at 60 °C (140°F)
Type of voltage		DC voltage
Coils Protection		IP65
Insulation Class of Coil	°C (°F)	H 180 (356)
Current	A	I Max. 1.67 - I Nom. 1.04
Power	W	20

### Engineering notes

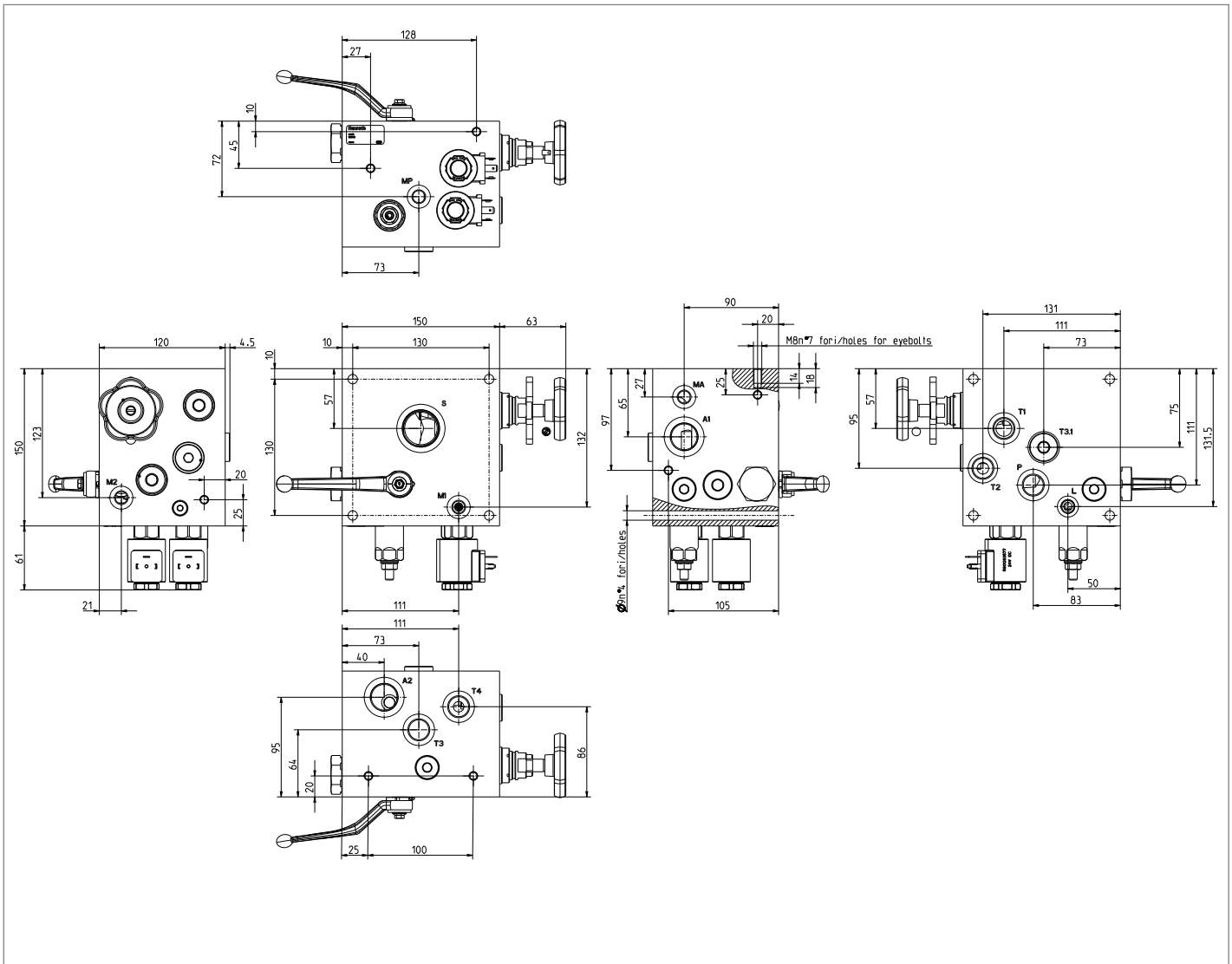
When designing the control with an accumulator, it must be ensured that the accumulator is protected from impermissible overpressure by a type tested pressure relief valve (TÜV). The safety valve with TÜV type-approval may not take on any regulatory functions. The max. adjustable pressure of the TÜV Type-approved pressure relief valve must equal or underrun the max. permitted operating pressure of the accumulator.

**External dimensions and fittings: Basic Block without ball valve**



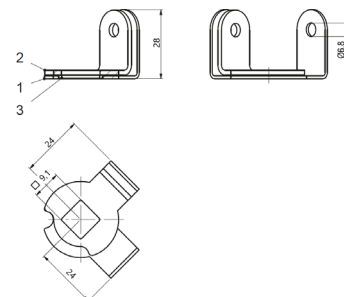
Ports	Std. size
M1-M2-MA-MP-L	G 1/4 - BSPP ISO 1179-1
P-T1-T2-T3-T3.1-T4	G 1/2 - BSPP ISO 1179-1
A1 - A2	G 3/4 - BSPP ISO 1179-1
Accumulator port S	M33x2 ISO-6149

**External dimensions and fittings: Basic Block with ball valve<sup>1)</sup>**



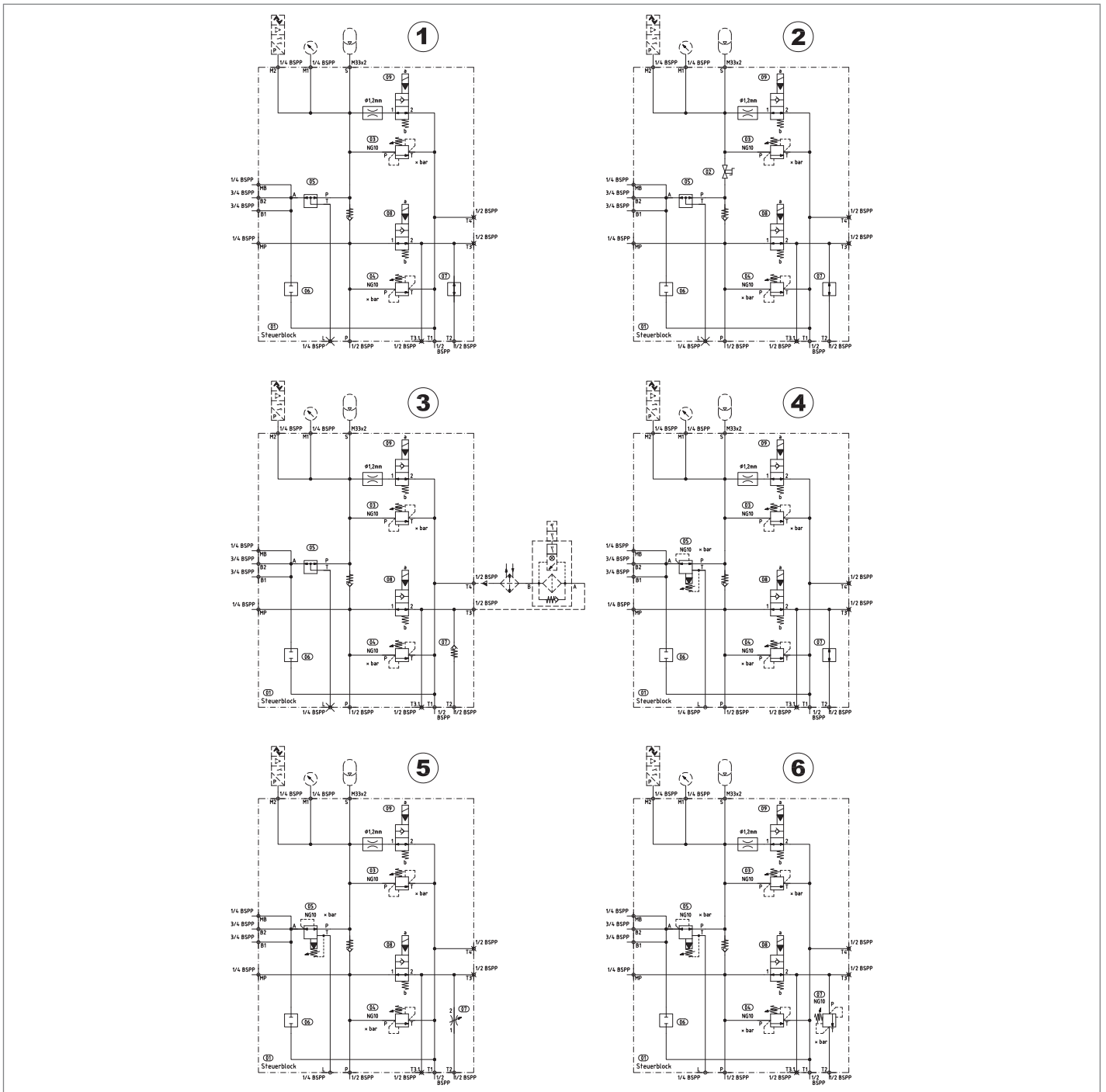
Ports	Std. size
M1-M2-MA-MP-L	G 1/4 - BSPP ISO 1179-1
P-T1-T2-T3-T3.1-T4	G 1/2 - BSPP ISO 1179-1
A1 - A2	G 3/4 - BSPP ISO 1179-1
Accumulator port S	M33x2 ISO-6149

<sup>1)</sup> Locking Device for ball valve (R901538442) is to be ordered separately.



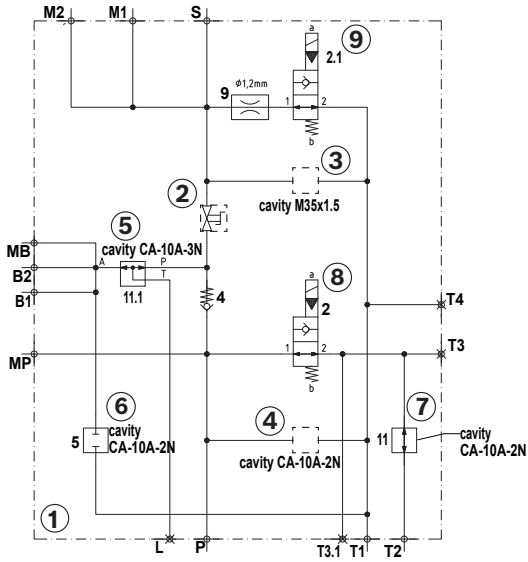
**Drawing of R901587192**

### Configuration examples



- 1) Main function: Pump and Accumulator protection  
\* Hydraulic diagram of Application \*
- 2) Main function: Pump and Accumulator protection  
+ Accumulator Shut-off Ball valve
- 3) Main function: Pump and Accumulator protection  
+ Cooler & Filter connected  
+ Cooler protection via check valve
- 4) Main function: Pump and Accumulator protection  
+ pressure reducing valve for constant system pressure  
(prop. Pressure reducing possible)
- 5) Main function: Pump and Accumulator protection  
+ pressure reducing valve for constant system pressure  
+ switchable and adjustable orifice (for variable speed function - Sytronix)
- 6) Main function: Pump and Accumulator protection  
+ pressure reducing valve for constant system pressure  
+ switchable and adjustable relief valve for second pressure level

## Assembly checklist



## Code available Basic manifold

		Mandatory				Optional				
		01	02	03	04	05	06	07	08	09
R930080761	OFD32609BS0101	HCB	A	X	X	0	0	1	1	1
R930081567	OFD32609BS0201	HCB	B	X	X	0	0	1	1	1

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