

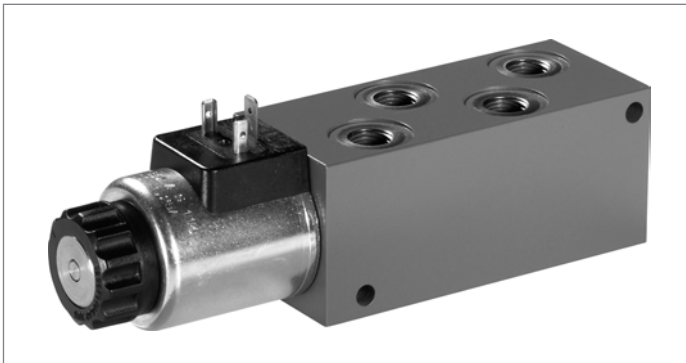
# Multi-way directional valves (hydraulic switches)

## MH.W...AG

**RE 64638**

Edition: 07.2017

Replaces: 02.2007



- ▶ Direct or pilot operated 6/2-way directional valves
- ▶ Sizes 6, 20, 30
- ▶ Series 2X
- ▶ Maximum working pressure 350 bar
- ▶ Maximum flow 450 l/min

### Features

- ▶ Temperature proportional pressure adjustment by thermostat
- ▶ Compact design
- ▶ Energy saving
- ▶ Very high repetition accuracy
- ▶ Type of actuation: hydraulic, electric
- ▶ With spring return

### Functional description

The 6/2-way valves are hydraulically or electrically actuated directional spool valves.

They control the starting, stopping and direction of a flow.

In general, these valves are used as an extension to a mobile control block instead of fitting an extra section.

The following overview table shows the models available.

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**Overview table of available models**

Size	Material number	Type	Symbol	Actuation/voltage Switching pressure $p_{st \min}$ Pilot pressure $p_{st \max}$
6	R901058030	MH7WE 06 AG2X/EG24N9M01		direct actuated, electrical 24 V
	R901058035	MH6WE 06 AG2X/LEG24N9M01		direct actuated, electrical 24 V
20	R901094340	MH6WH 22 AG2X/003V01		hydraulic, with spring return $p_{st \min} = 4.5 \text{ bar}$ $p_{st \max} = 30 \text{ bar}$
	R901094341 R901094342	MH6WW 22 AG2X/030L2G24C4V11 MH6WW 22 AG2X/030L2G24C4V01		pilot operated, electrical 24 V $p_{st \min} = 3.5 \text{ bar}$ $p_{st \max} = 30 \text{ bar}$
30	R901061669	MH6WH 32 AG2X/003M11		hydraulic, with spring return $p_{st \min} = 4.5 \text{ bar}$ $p_{st \max} = 30 \text{ bar}$
	R901061670	MH6WW 32 AG2X/L4AG24C4M11		pilot operated, electrical 24 V $p_{st \min} = 3.5 \text{ bar}$ $p_{st \max} = 30 \text{ bar}$

**Technical data**

<b>General</b>		<b>Size</b>	<b>6</b>	<b>20</b>	<b>30</b>
Weight			2.4	14.4	23
Installation position		Any			
Line connections		Pipe threads according to ISO 228/1 SAE flange connection according to J518 (6000 PSI)			
Ambient temperature range	$\theta$	°C	-20 to +80		
Standard painting		Single coat RAL 5010			
<b>Hydraulic</b>					
Maximum operating pressure at port	A, B	$p$	bar	350	
Maximum pilot pressure at port	$p_{st}$	$p_{st}$	bar	30	
Maximum flow		l/min	25	230	450
Hydraulic fluid		Mineral oil (HL, HLP) according to DIN 51524, other hydraulic fluids, such as HEES (synthetic esters) according to VDMA 24568, as well as hydraulic fluids as specified in data sheet 90221, at request			
Hydraulic fluid temperature range		$\theta$	°C	-20 to +80	
Viscosity range		$\nu$	mm <sup>2</sup> /s	10 to 380	
Maximum admissible degree of contamination of the hydraulic fluid cleanliness class according to ISO 4406 (c)		Class 20/18/15, for this we recommend using a filter with a minimum retention rate of $\beta_{10} \geq 75$			
<b>Electric</b>					
Voltage type		DC voltage			
Supply voltage		V	24		
Connector version	C4	Junior Timer (AMP) <sup>1)</sup>			

**Note**

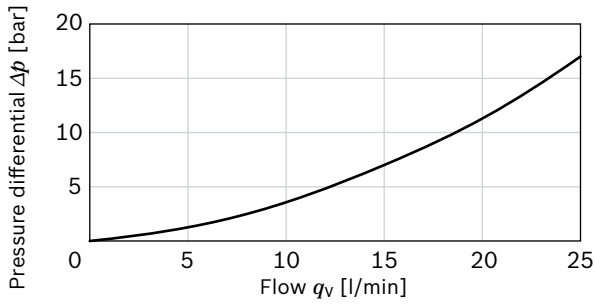
- ▶ For applications outside these parameters, please consult us!
- ▶ The technical data was determined with a viscosity range of  $\nu = 41 \text{ mm}^2/\text{s}$  and a temperature of  $\theta = 50 \text{ °C}$ .

1) Plug-in connectors are not included in the scope of delivery and must be ordered separately, see data sheet 08006.

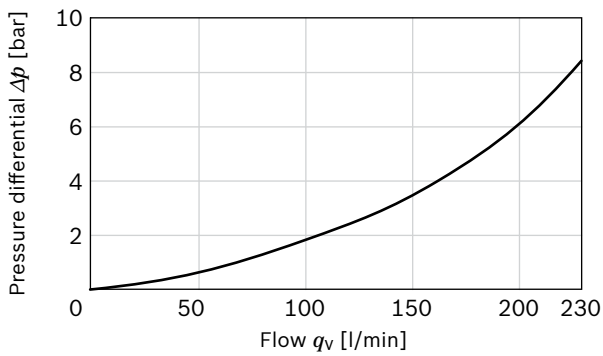
## Characteristic curves

### Flow characteristic curves ( $\Delta p - q_v$ )

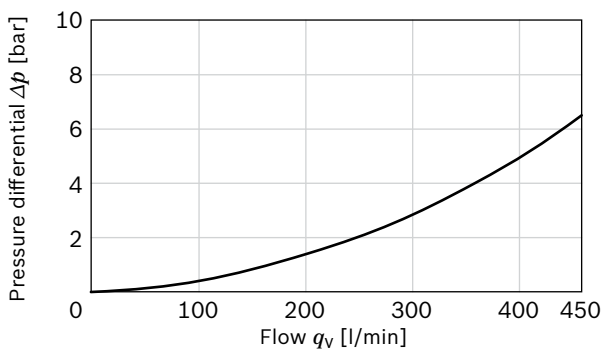
#### ▼ Size 6



#### ▼ Size 20



#### ▼ Size 30



#### Note

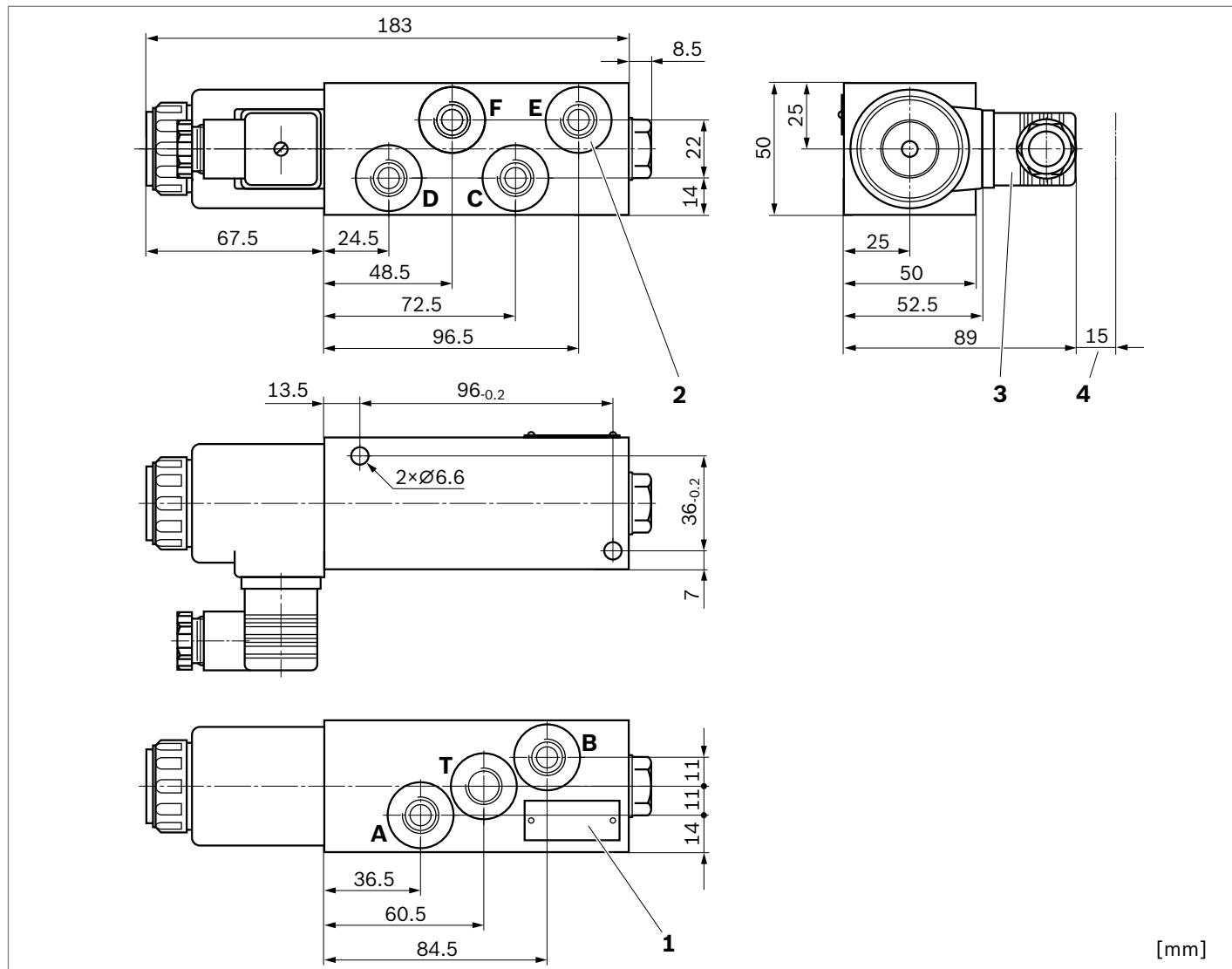
Characteristic curves measured at  $\nu = 41 \text{ mm}^2/\text{s}$  and  $\theta = 50 \text{ }^\circ\text{C}$ .

## Dimensions

### ▼ Size 6, electrical actuation

**Type MH7WE 06 AG2X/EG..N9M01** (Material number R901058030)

**Type MH6WE 06 AG2X/LEG..N9M01** (Material number R901058035)



**1** Name plate

**2** Ports:

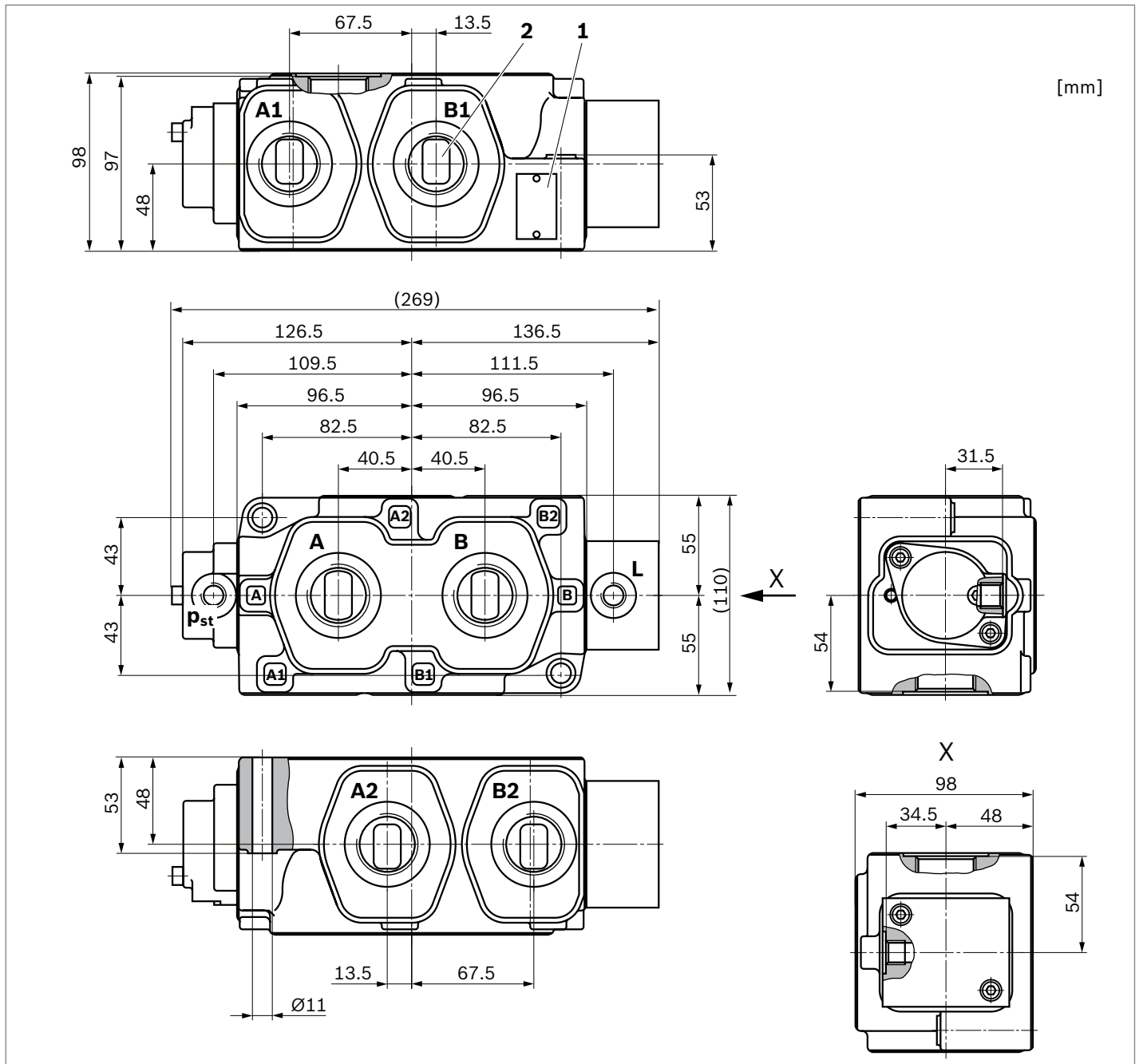
**A, B, C, D, E, F** und **T** = G 1/4 to ISO 228/1

**3** Plug-in connector

**4** Space required to remove plug-in connector

▼ **Size 20, hydraulic actuation**

**Type MH6WH 22 AG2X/003V01** (Material number R901094340)



**1** Name plate

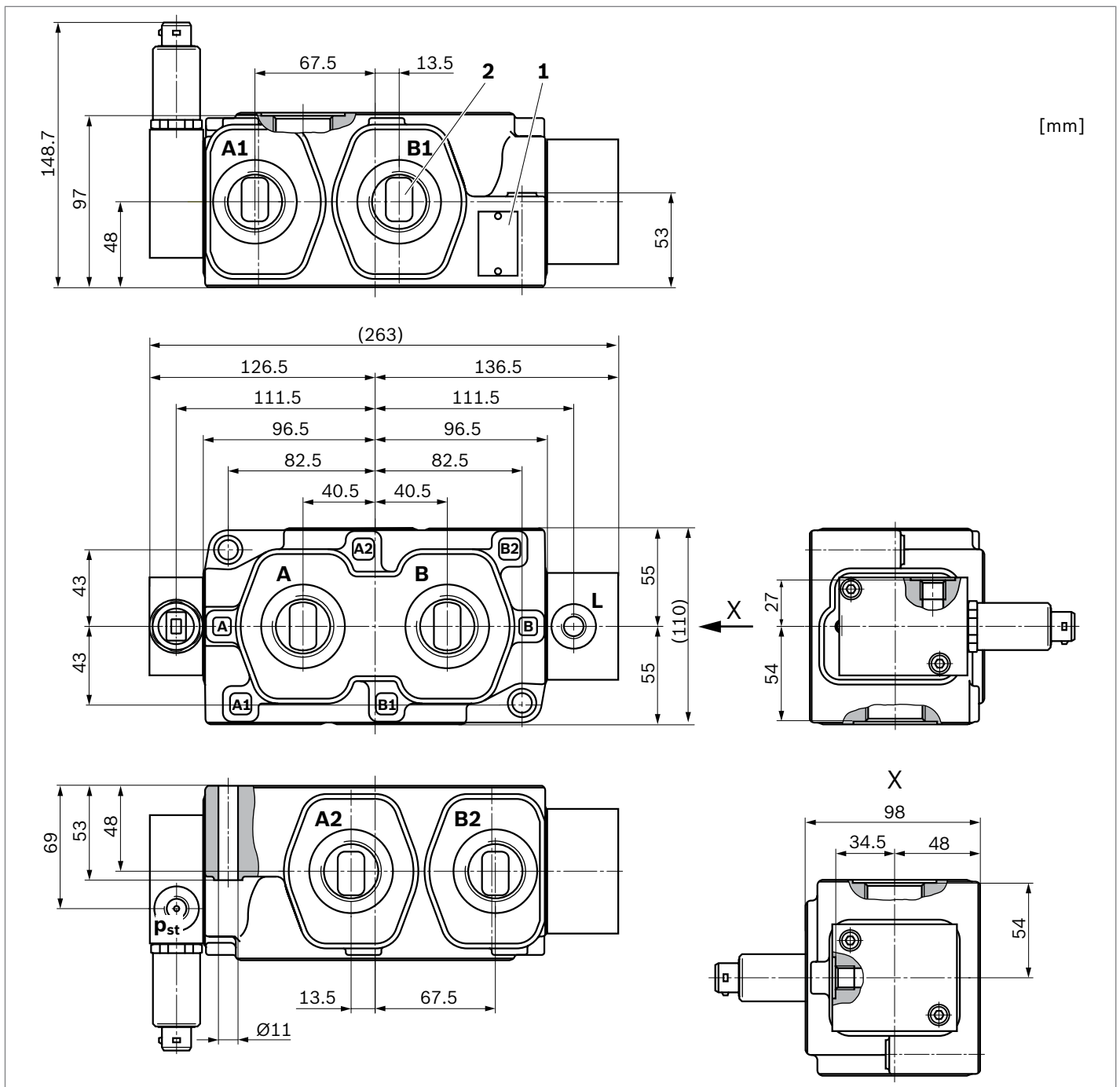
**2** Ports:

**A, A1, A2, B, B1 and B2** = G 1 to ISO 228/1

**p<sub>st</sub>, L** = G 1/4 to ISO 228/1

▼ **Size 20, electrical actuation**

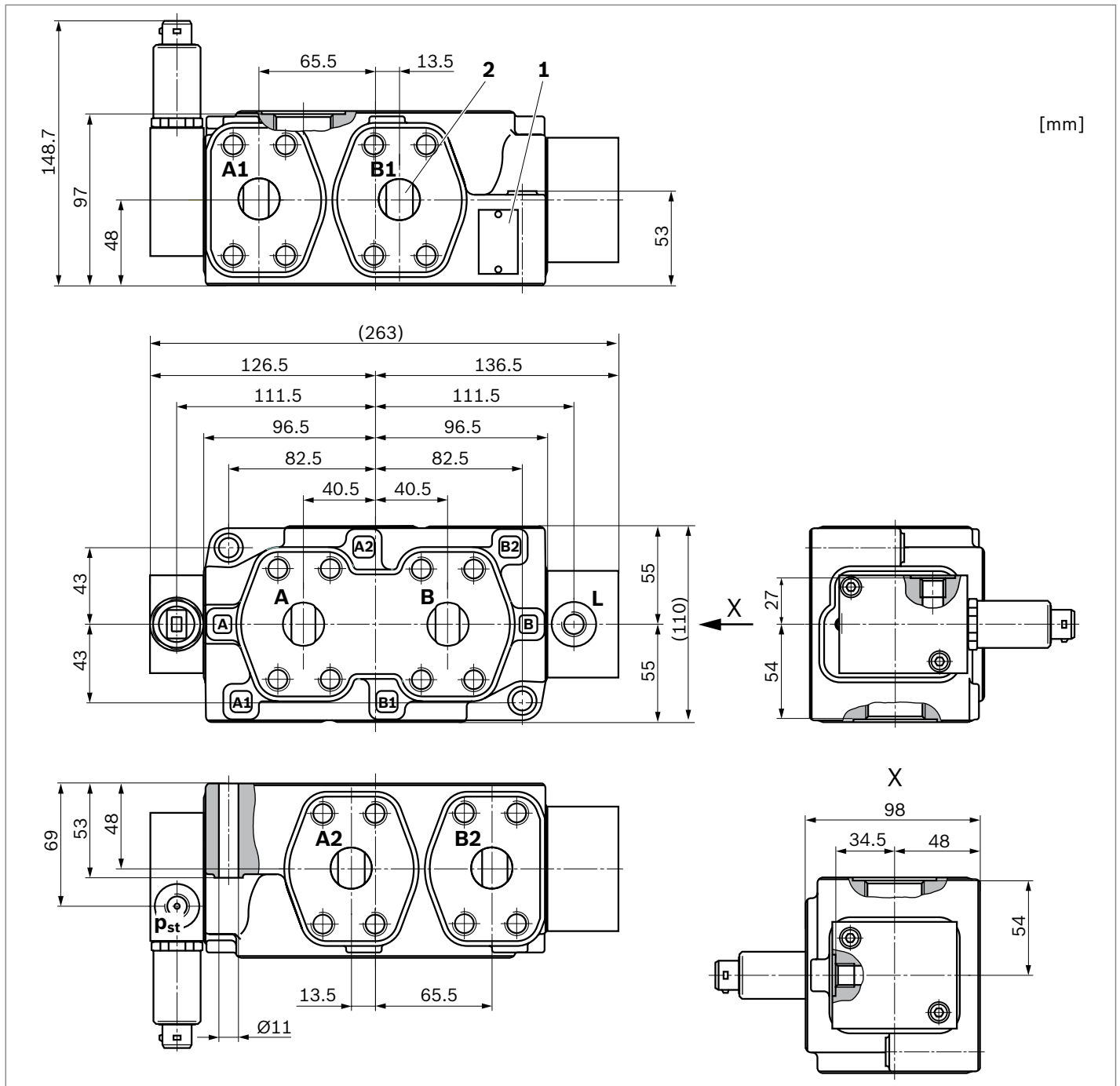
**Type MH6WW 22 AG2X/030L2G24C4V01** (Material number R901094342)



- 1 Name plate
  - 2 Ports:
- |                                |                      |
|--------------------------------|----------------------|
| <b>A, A1, A2, B, B1 and B2</b> | = G 1 to ISO 228/1   |
| <b>pst, L</b>                  | = G 1/4 to ISO 228/1 |

▼ **Size 20, electrical actuation**

Type **MH6WW 22 AG2X/030L2G24C4V11** (Material number R901094341)



1 Name plate

2 **Ports:**

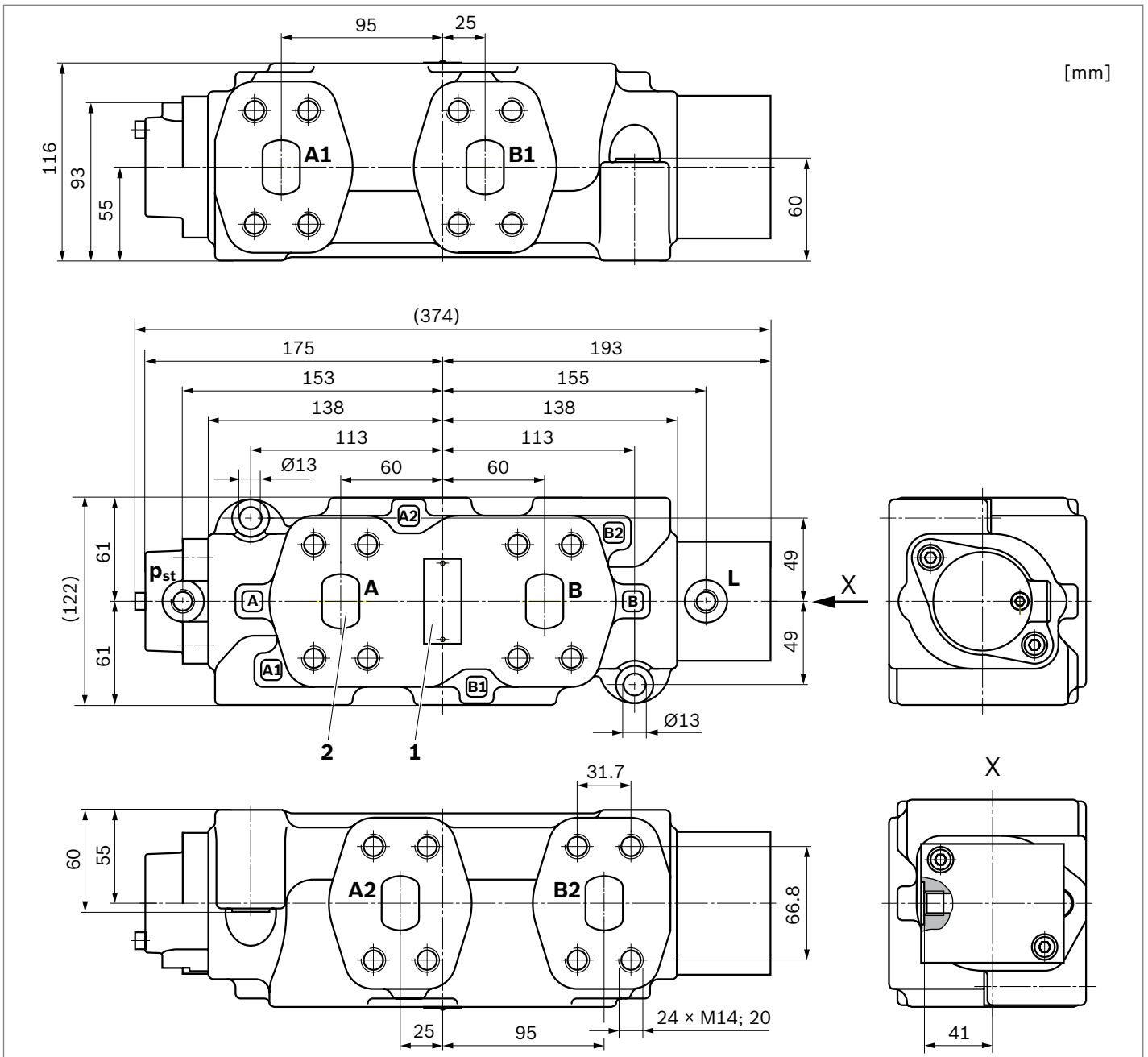
**A, A1, A2, B, B1 and B2** = SAE 1 to J518 (6000 PSI)

**pst, L** = G 1/4 to ISO 228/1



▼ **Size 30, hydraulic actuation**

**Type MH6WH 32 AG2X/003M11** (Material number R901061669)



**1** Name plate

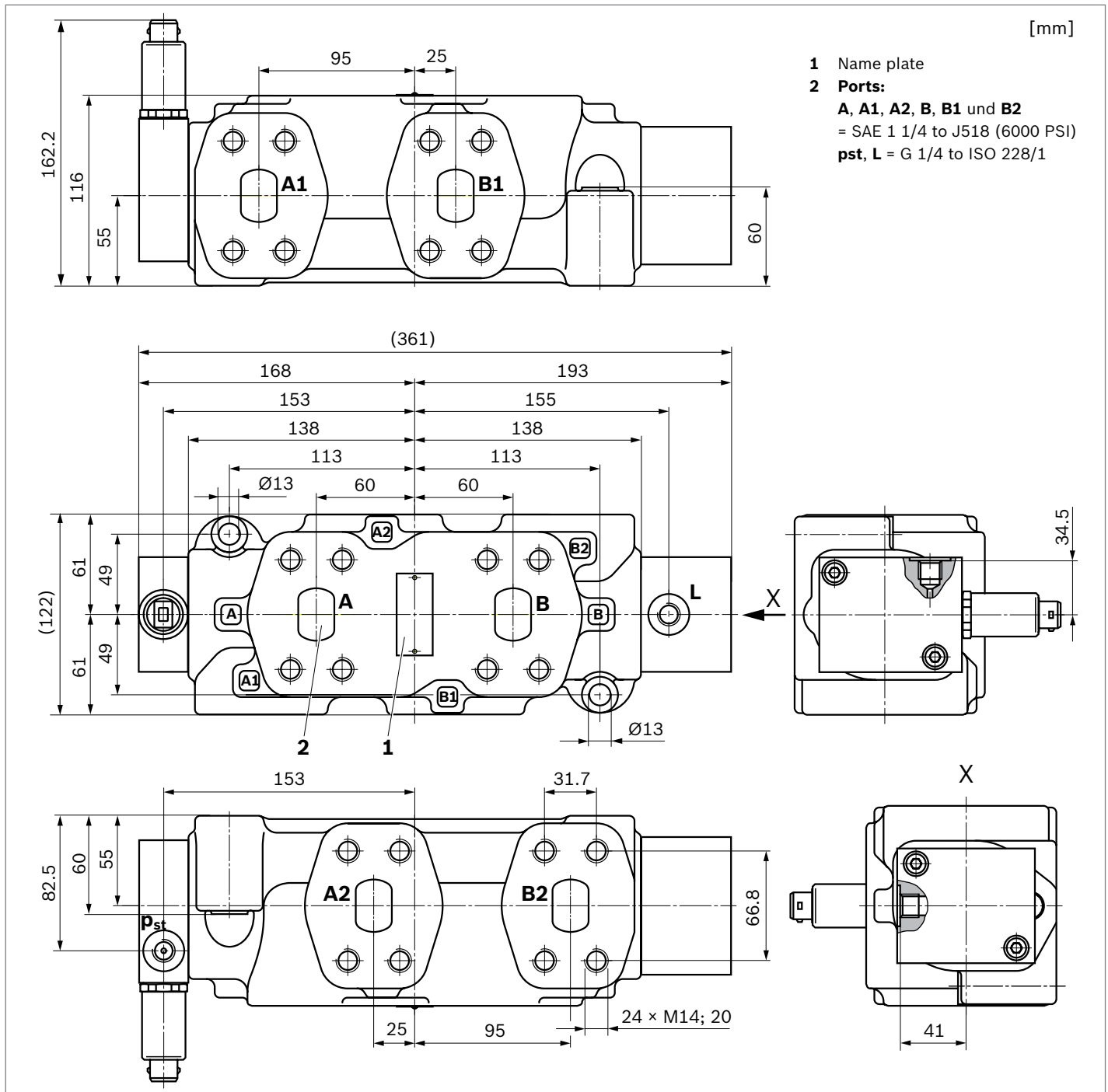
**2** Ports:

**A, A1, A2, B, B1 and B2** = SAE 1 1/4 to J518 (6000 PSI)

**p<sub>st</sub>, L** = G 1/4 to ISO 228/1

▼ **Size 30, electrical actuation**

Type **MH6WW 32 AG2X/L4AG24C4M11** (Material number R901061670)



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