

Accumulator charging valve

Type LT 06

RE 66191

Edition: 08.2012

Replaces: 10.2011



- ▶ Component series 3X
- ▶ Maximum system pressure 200 bar
- ▶ Approx. 4 bar Δp with a flow of 70 l/min

Features

- ▶ Simple and quick installation
- ▶ Reduced piping effort
- ▶ Small installation dimensions
- ▶ Integration into existing hydraulic systems is possible
- ▶ Quickly ready-for-operation
- ▶ Flexible connection possibilities of accumulators
- ▶ Connection possibilities for downstream consumers

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Ordering code

01	02	03	04	05	06	07	08	09	10			
LT	06	-	A	06	-	3X	/		/	02	M	*

01 to 04	This information is used only for internal purposes and is always identical.	
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Component series

05	30 to 39 (unchanged installation and connection dimensions)	3X
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Pressure stage of the accumulator circuit

06	100 bar	100
	150 bar	150
	185 bar	185
	200 bar	200

Accumulator charging flow

07	ca. 6 l/min	B18
	ca. 17 l/min (Standard)	B40

Line connections

08	Metric threads according to DIN 3852-1 (see table on page 6)	02
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Seal material

09	NBR seals, suitable for mineral oil (HL, HLP) according to DIN 51524	M¹⁾
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10	Further details in clear text	
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Preferred standard types

Pressure stage [bar]	LT 06 B18 Part no.	LT 06 B40 Part no.
100	R900549834	R900427588
150	R900455464	R900427591
200	R900586937	R900427595

1) Observe sealing compatibility of the hydraulic fluid used!

Technical data

(For applications outside these parameters, please consult us!)

General			
Weight		kg	Approx. 3
Installation position			Upright preferred, pressure adjustment element face upwards
Type of connection			Metric threads according to DIN 3852-1
Ambient temperature range	θ	°C	-25 to +80
Priming			Single coat RAL 5010
Hydraulic			
Maximum system pressure in the accumulator circuit		bar	200
Maximum inlet pressure at port	- P	bar	200
Maximum tank pressure at port	- T	bar	Zero pressure to tank
Maximum flow (at ca. 4 bar Δp)	- Accumulator charging flow P → S	l/min	ca. 17 (Standard = B40)
	- Pump flow P → N	l/min	70
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 the data sheet 90221, on inquiry.
Hydraulic fluid temperature range	θ	°C	-20 to +80
Viscosity range	ν	mm ² /s	2.8 to 380
Maximum permitted degree of contamination of the hydraulic fluid, cleanliness class according to ISO 4406 (c)			Class 20/18/15, for this we recommend a filter with a minimum retention rate of $\beta_{10} \geq 75$

Function

Accumulator charging valves or pressure shut-off valves assume the function of keeping a pressure level in an accumulator circuit within certain limit values (cut-in pressure, cut-out pressure). The switching pressure differential is approx. 18 % of the cut-off pressure.

Caution!

If downstream consumers (**N**) generate a higher pressure than the cut-off pressure of the accumulator charging valve, the pressure of the accumulator circuit is raised to this level. The pressure of the downstream consumers (**N**) must be 30 % lower than the accumulator pressure ($N < \text{Accumulator pressure} - 30\%$).

The valve basically consists of a pilot control with pressure adjustment element (**1**), pressure compensator (**2**) and check valve(**3**).

Changing the pump flow over from accumulator charging to neutral circulation

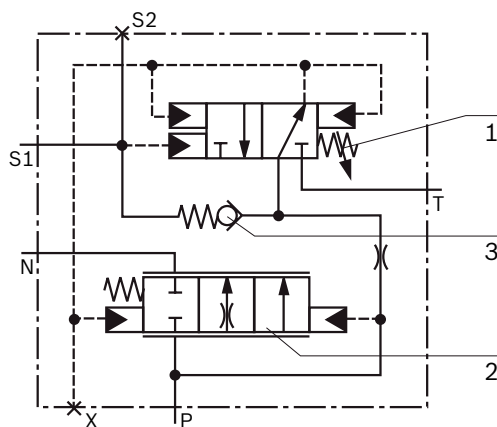
During the charging process, the pump feeds oil via the check valve (**3**) into the accumulator circuit. To this end, the pressure is directed via the pilot line and pilot control to the load signal side of the pressure compensator (**2**). This pressure compensator throttles the pump flow until the pressure that builds up in the accumulator circuit overcomes the spring force of the pressure adjustment element (**1**).

The pilot control element reconnects the load signal line of the pressure compensator (**2**) from **S1** to **T**. The pressure compensator (**2**) then re-directs the pump flow from **P** to **N** and the check valve (**3**) closes. The charging process is completed and the pump flow flows with a low Δp through the charging valve.

Changing the pump flow over from neutral circulation to accumulator charging

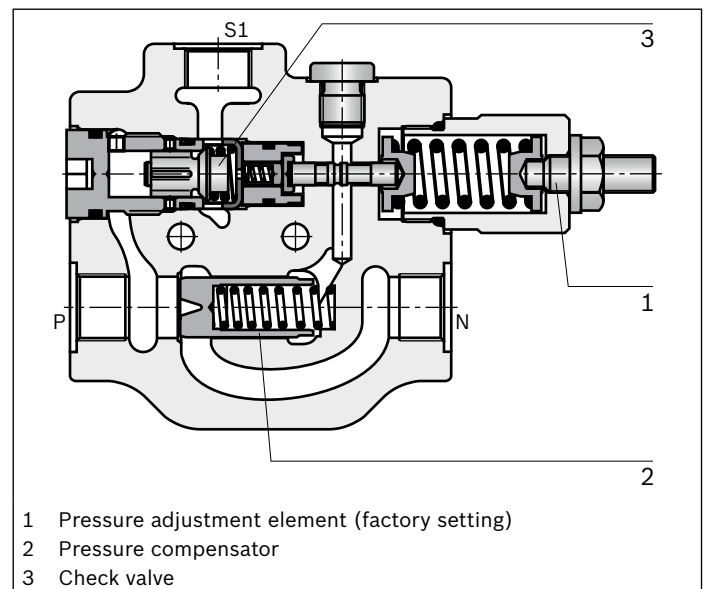
When the pressure in the accumulator circuit falls below the lower switching point (cut-in point), **P** is connected to the load signal chamber of the pressure compensator (**2**) and the pump flow is directed again into the accumulator circuit.

Symbol, cross-section



Legend

P	Pump
T	Tank
S1	Accumulator circuit 1
S2	Accumulator circuit 2
X	Load Sensing (LS)
N	Downstream consumers



- 1 Pressure adjustment element (factory setting)
- 2 Pressure compensator
- 3 Check valve

General notes

Installation notes

- ▶ Observe the minimum distance of 30 cm to the valve while cleaning with a high-pressure cleaner.
- ▶ The cross-sections of hydraulic transmission elements (pipes, hoses) must be selected so that at low operating temperatures the pressure drop between hydraulic accumulator and brake cylinder remains low.
- ▶ Port **T** must be connected separately at zero pressure to tank.
- ▶ Ensure that the brake system is always vented.
- ▶ Protect the pressure compensator from falling down while removing the plug from port **P**.

Intended use

Accumulator charging valves LT 06 are hydraulic components and are therefore either covered by the cope of the completely or the partly completed machinery in the sense of the EC machinery directive 2006/42/EC. The component is exclusively intended to be assembled together with other components to form partly completed or complete machinery. The component may only be commissioned if it has been integrated in the machine for which it is designed.

Notes for the repair

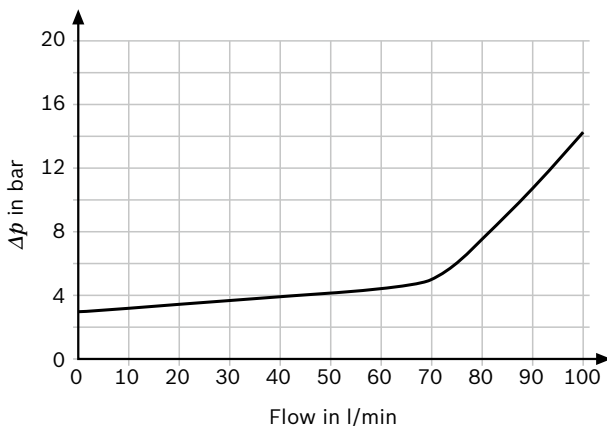
- ▶ Damaged valves must be repaired, even if their function is not impaired.

You may use the product as follows:

- ▶ Accumulator charging valves LT 06 have been developed for the application in mobile working machinery.
- ▶ Comply with the technical data.
- ▶ The product is only intended for professional use and not for private use.

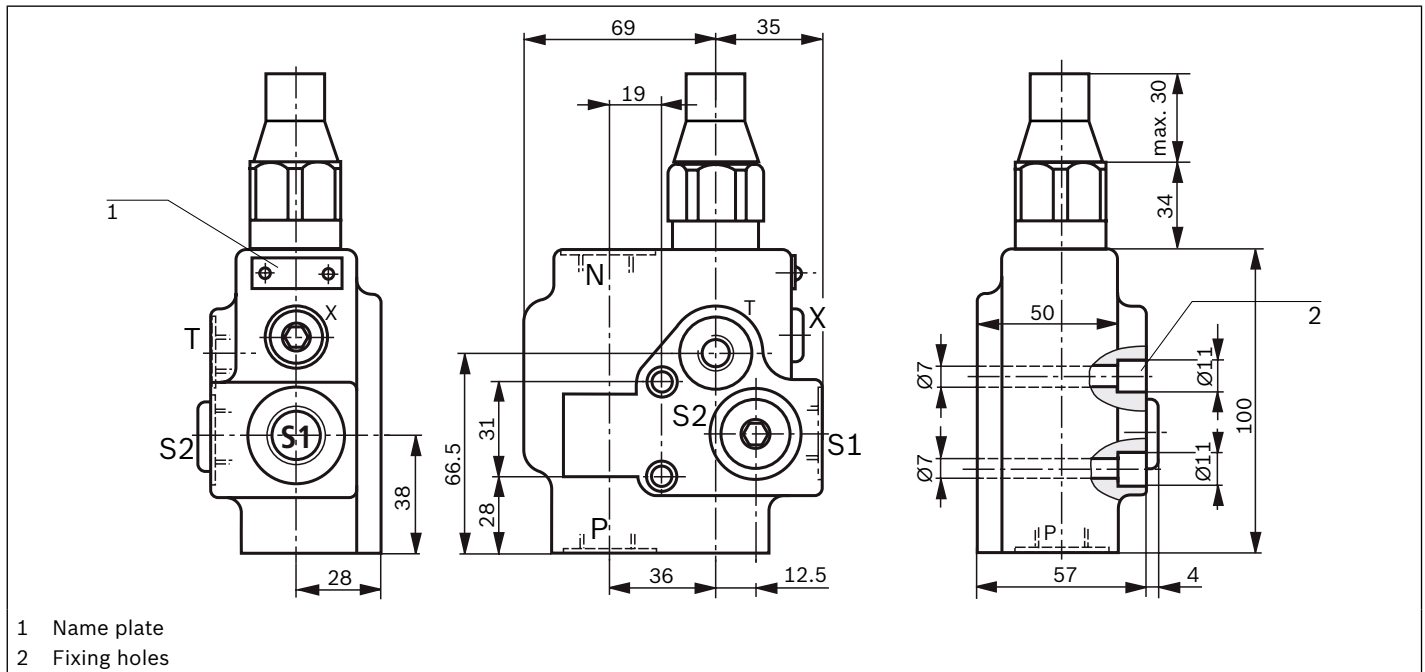
Characteristic curve

Pressure loss Δp from P → N



Dimensions

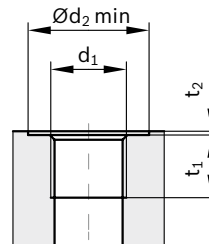
Dimensions in mm



Ports according to DIN 3852-1

Port	d_1	$\text{Ø}d_2$	t_1	t_2
P, N	M18 x 1.5	32	12	1
S1, S2	M18 x 1.5	32	12	1
T, X	M12 x 1.5	19	12	1

Ports **S2** and **X** plugged by default.



Spare parts

Spare part	Part no.
Protective cap (Color code orange) for pressure adjustment element	R900025379

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