

## 12.1 General

Safety blocks series B10-20 combine in a compact unit all the components required for an easy **connection** of accumulator on an hydraulic circuit and its **protection** from overpressure.

They also allow a quick disassembly of the accumulator or a check of accumulator pre-charge pressure also when the system is operating.

Series **B10-B20** is suitable for accumulators from **0,7 litres up to 55 litres**.

## 12.2 Construction

### STANDARD VERSION INCLUDES:

- Phosphated steel body.
- **3-way** ball valve, in chrome-plated steel, connecting accumulator to inlet or discharge.
- Seat for assembling of relief valve.
- Installation side connection, BSP female parallel threaded ISO 228.
- Accumulator side connection, metric female parallel threaded.
- Flow control valve for adjusting the flow rate during the accumulator discharge (Only on B20).
- Discharge and manometric connections.
- Gaskets for mineral oil (Perbunan).

### ON REQUEST it is supplied with:

- BODY nickel-coated; relief valve in stainless steel.
- NIPPLE for connection to accumulator.
- PLUG no. 2375 for closing of valve seat.
- RELIEF VALVE TYPE DBDS not adjusted (see page 26).
- RELIEF VALVE TYPE DBDS sealed with lead and EC certified.
- VALVE TYPE VS214/... with ISPESEL certificate or EC (see page 27).
- TWO-WAY SOLENOID VALVE for electrical discharge, "normally open".  
Technical features (voltage, frequency, etc.) or version "normally close" have to be specified.
- GASKETS IN VITON.



## 12.3 Technical features

<b>Diameter of inlet port:</b>	Ø 10 or 20 mm.
<b>Nominal flow rates at ~ 10 m/s:</b>	<b>B10</b> = 50 l/min; <b>B20</b> = 190 l/min
<b>Max. working pressure:</b>	360 bar
<b>Temperature range:</b>	- 20 ÷ +80°C standard (70°C with electrovalve) - 20 ÷ +150°C (seals in Viton)
<b>Relief valve:</b>	- Ø flow = 10 mm. - DBDS not adjusted (see chapter 10.2) - DBDS adjustable from 5 to 360 bar with EC certification - VS214/... with EC or ISPESEL certification
<b>Solenoid valve:</b>	- Power voltage = DC 24V - 110 V AC 110/220V - Power consumption = 26W - Protection = IP65

## 12.4 Identification code

The example shows a safety block series B, with inlet port 20 mm, with only manual discharge, with relief valve type DBDS tested by EC at 360 bar, accumulator side connection 2" BSP, installation side 3/4" BSP, gaskets in Perbunan, block in phosphated steel. (If the solenoid valve will be installed, specify electrical data in detail).

**B20 M P 360 G R P - -**

Type and inlet port	Discharge	Relief valve (see pages 26-27)	Valve calibration (bar)	Accumulator side connection	Installation side connection	Gasket material	Block material
<b>B 10</b>	<b>M</b> = Only manual	<b>A</b> = without valve with plastic plug <b>B</b> = valve type DBDS... (Not adjusted) <b>C</b> = valve type VS214/... (ISPESEL certified) <b>P</b> = valve type DBDS... (EC certified) <b>V</b> = valve type VS214/... (EC certified) <b>T</b> = without valve (with plug 2375)	Valves type DBDS10 or VS214 adjusted with certificate <b>5 ÷ 360</b>  Valves DBDS10 not adjusted* <b>25 - 50 - 100</b> <b>200 - 315 - 400</b> *(superior limits of regulation range)	<b>G</b> = 2" BSP <b>G1</b> = 1 1/4" BSP <b>G3</b> = 3/4" BSP <b>M</b> = M 50x1,5 <b>M1</b> = M 40x1,5 <b>G</b> = 2" BSP <b>G1</b> = 1 1/4" BSP <b>M</b> = M 50x1,5 <b>M1</b> = M 40x1,5 <b>H</b> = without nipple <b>S</b> = SAE thread <b>A</b> = other	<b>B10</b>  <b>R</b> = 1/2" BSP female  <b>B20</b>  <b>R</b> = 3/4" BSP female	<b>P</b> = Nitrile  <b>V</b> = Viton	- = Phosphated steel  <b>N</b> = Nickel coated steel 25 µm

## 12.5 Spare parts No.

In addition to the spare part number specify the complete block designation or its serial number, especially for non-standard version.

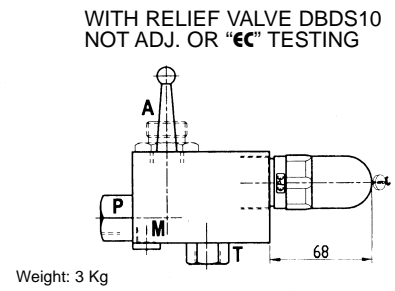
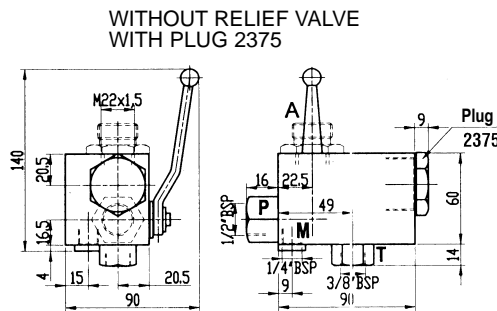
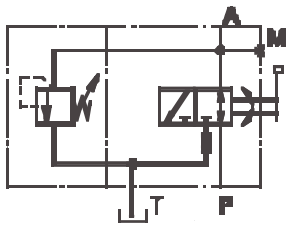
Type	Accumulator side connection Ø A					Ball of shut off valve with gaskets	Relief valve DBDS not adj. (without testing)	Relief valve DBDS adjusted (with cert. EC)	Safety valve Testings		Gaskets sets
	3/4" BSP	1 1/4" BSP	2" BSP	M40x1,5	M50x1,5				EC	ISPESEL	
B 10	10450	10451	10452	10453	10454	2132	2105/(bar)* ....	2106/(bar)/EC ....	VS214/(bar)/EC ....	VS214/(bar)/ISPESEL ....	2140
B 20	-	10470	10471	-	10472	2133					2141

\*Choose, among limits of regulation range, the value just higher than working pressure

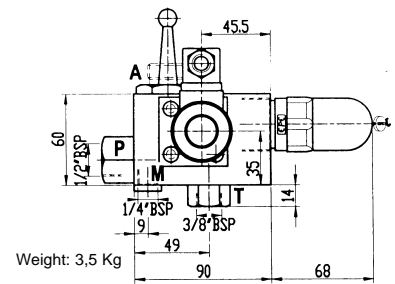
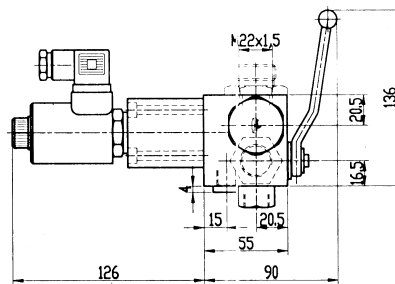
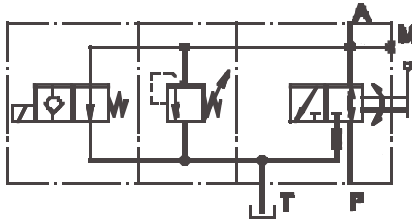
Subject to change

**12.6 Dimensions**

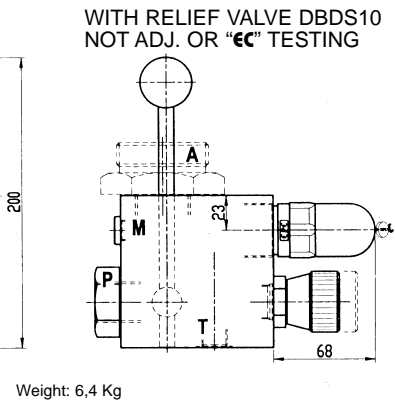
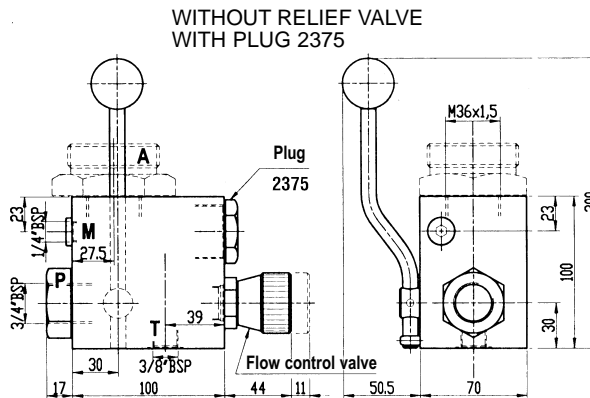
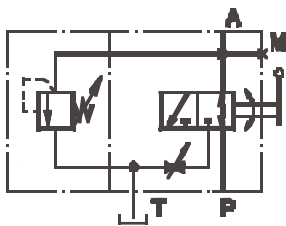
- **BLOCK TYPE B10**
- **MANUAL DISCHARGE**



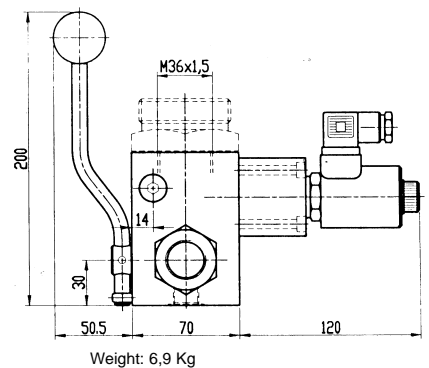
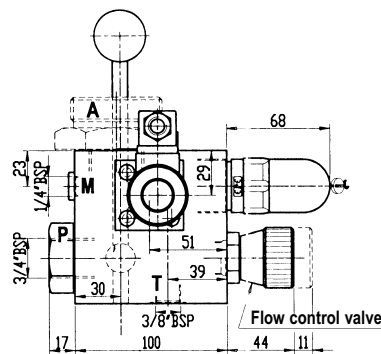
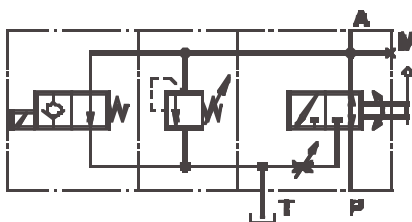
- **BLOCK TYPE B10**
- **WITH RELIEF VALVE**
- **WITH ELECTR. & MANUAL DISCHARGE**



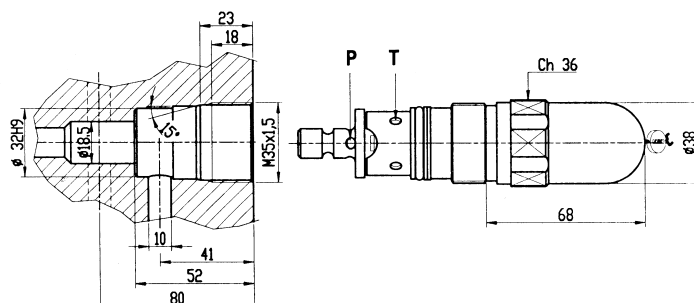
- **BLOCK TYPE B20**
- **MANUAL DISCHARGE**



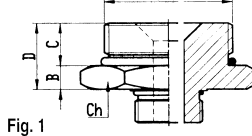
- **BLOCK TYPE B20**
- **WITH RELIEF VALVE**
- **WITH ELECTR. & MANUAL DISCHARGE**



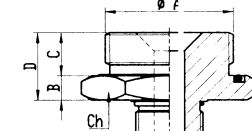
- **DBDS RELIEF VALVE**
- **CERTIFICATION ACCORDING TO DIRECTIVE 97/23/EC**



- **NIPPLE (with radial O-Ring)**
- **Connection block-accumulator**



- **NIPPLE (with frontal O-Ring)**
- **Connection block-accumulator**



Order No.	Type	Fig.	Ø A	B	C	D	Ch
10450	B10	1	3/4" BSP	8	14	20	36
10451		1	1" 1/4 BSF	8	14	20	50
10452		1	2" BSP	8	16	24	70
10453		2	M40x1,5	8	14	20	50
10454	B20	2	M50x1,5	8	16	24	70
10470		1	1" 1/4 BSF	10	16	26	50
10471		1	2" BSP	10	20	30	70
10467		2	M40x1,5	10	16	26	50
10472		2	M50x1,5	10	20	30	70

Subject to change