

### 13.1 General

Safety blocks series BS25-32 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 **BS25-32** is suitable especially for applications with accumulators of **10 ÷ 55 litres** where are required **big flow-rates**.

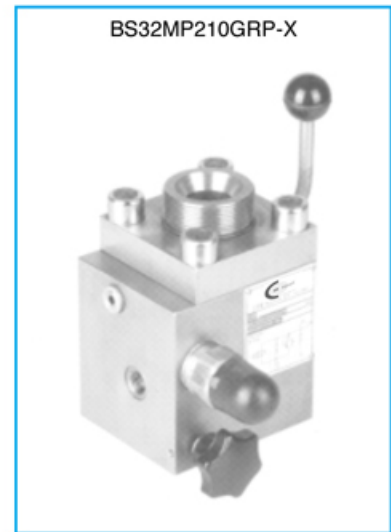
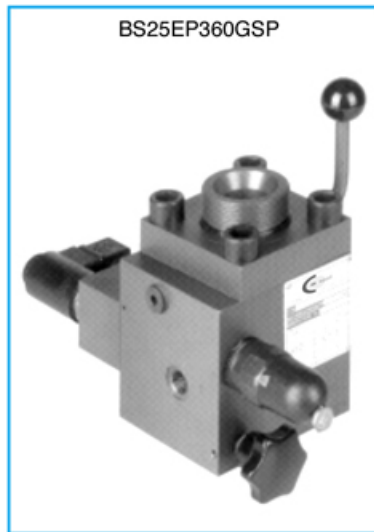
### 13.2 Construction

#### STANDARD VERSION INCLUDES:

- Phosphated steel body.
- Shut off ball valve DN25 or DN32.
- Valve for accumulator discharge.
- Discharge connection T 3/8" BSP lateral (see page 31).
- Seat for assembling of relief valve.
- Installation side connection, BSP female parallel thread.
- Accumulator side flange, 2" BSP male parallel threaded.
- Discharge and manometric connections.
- Gaskets for mineral oil (Perbunan).

#### ON REQUEST it is supplied with:

- BODY nickel-coated or stainless steel; relief valve in stainless steel.
- PLUG no. 2375 for closing of valve seat.
- RELIEF VALVE TYPE DBDS not adjusted (see pag. 26).
- RELIEF VALVE TYPE DBDS sealed with lead and EC certified.
- VALVE TYPE VS214/... with ISPEL 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.
- CONNECTION T1 installation side (see pag. 31).
- INSTALLATION SIDE CONNECTION for SAE and CETOP flanges.
- FLANGE on accumulator side different from 2" BSP.
- FLANGE on installation side (to be specified in detail).
- GASKETS IN VITON.



### 13.3 Technical features

<b>Diameter of inlet port:</b>	Ø 25 or 32 mm.
<b>Nominal flow rates at ~ 6 m/s:</b>	<b>BS25</b> = 180 l/min; <b>BS32</b> = 290 l/min
<b>Max. working pressure:</b>	400 bar
<b>Temperature range:</b>	- 20 ÷ +80°C (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 400 bar, EC cert. - VS214/... adjustable from 5 to 400 bar with EC or ISPEL certification
<b>Solenoid valve:</b>	- Power voltage = DC 24V - 110 V AC 110/220V - Power consumption = 26W - Protection = IP65

### 13.4 Identification code

The example shows a safety block series BS, inlet port 25 mm, with manual discharge only, lateral discharge connection standard T 3/8" BSP, with relief valve type DBDS with EC testing calibrated at 360 bar, accumulator side connection 2" BSP, installation side 1" BSP, gaskets in Perbunan, block in phosphated steel. (If the solenoid valve will be installed, specify electrical data in detail).

**BS25 M P 360 G R P - - -**

Type and inlet port	Discharge	Relief valve (see pages 26-27)	Valve calibration (bar)	Accumulator side connection Ø A	Installation side connection	Gaskets material	Block material	Discharge connection position
<b>BS 25</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/... (ISPEL 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 ÷ 400</b>  Valves DBDS10 not adjusted* <b>25 - 50 - 100</b> <b>200 - 315 - 400</b> (superior limits of regulation range)	<b>H</b> = without flange <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>P</b> = 2" NPT <b>S</b> = SAE thread (to be specified) <b>A</b> = other (to be specified)	<b>R</b> = BSP female par. thread <b>S</b> = SAE drilling <sup>1)</sup> <b>C</b> = CETOP drilling <sup>1)</sup> <b>FS</b> = with SAE flange <sup>1)</sup> <b>FC</b> = with CETOP flange <sup>1)</sup>	<b>P</b> = Nitrile <b>V</b> = Viton	- = Phosphated steel  <b>N</b> = Nickel-coated steel 25 µ  <b>X</b> = Stainless steel	- = Lateral standard T=3/8" BSP  <b>1</b> = Installation side T1 ø 5 (see page 31)

1) Specify flange data in detail.

### 13.5 Spare parts No.

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

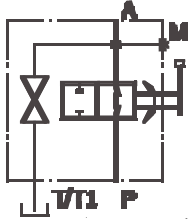
Type	Accumulator side flange Ø A					Ball of shut off valve with gaskets	Complete valve for manual discharge	Relief valve DBDS without certif.	Relief valve DBDS with cert. EC	Safety valve EC or ISPEL	Gaskets sets
	2" BSP	1"1/4 BSP	M50x1,5	M40x1,5	2" NPT						
BS 25	10349	10473	10347	10492	10448	2134	2152	2105/(bar)* ....	2106/(bar)/EC ....	VS214/(bar)/... ....	2142
BS 32	-	-	-	-	-	2135					2143

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

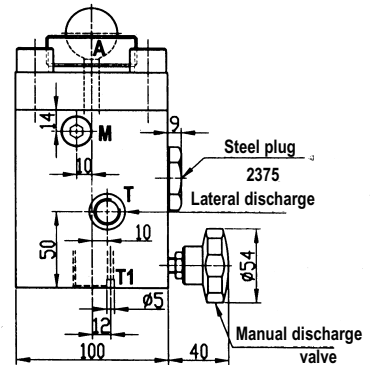
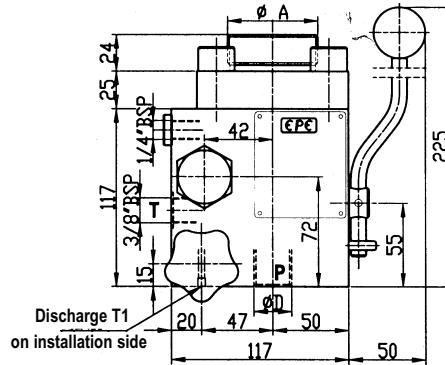
Subject to change

13.6 Dimensions

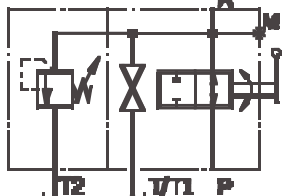
- BLOCK WITHOUT RELIEF VALVE
- MANUAL DISCHARGE



Weight: 12,2 Kg

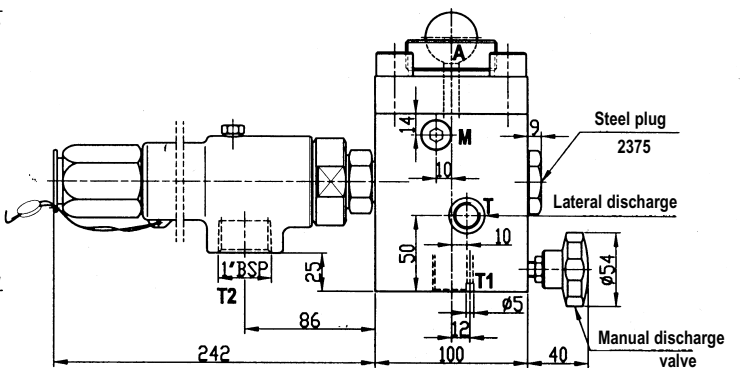
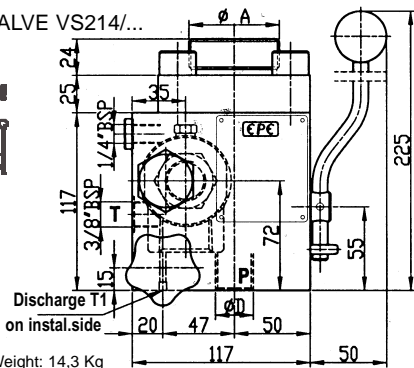


- BLOCK WITH SAFETY VALVE VS214/...
- MANUAL DISCHARGE

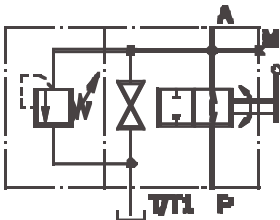


The block with valve VS214/... must have a connection for the manual discharge connection T or T1 and one to the valve (connection T2)

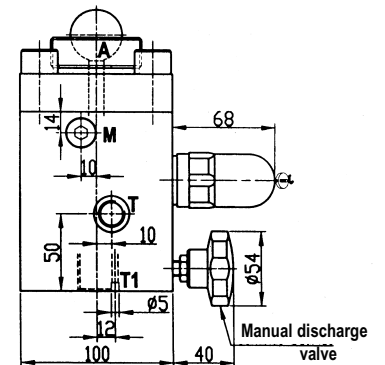
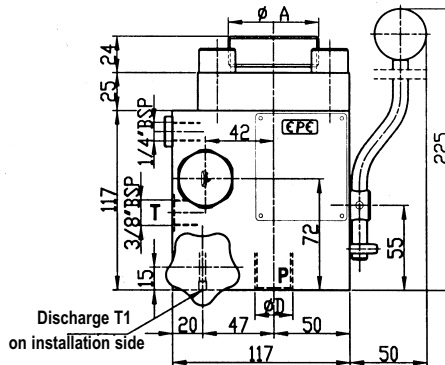
Weight: 14,3 Kg



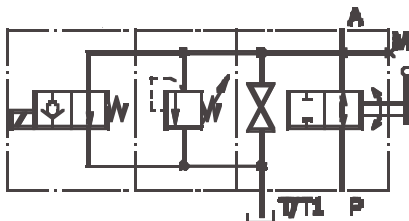
- BLOCK WITH RELIEF VALVE DBDS
- MANUAL DISCHARGE



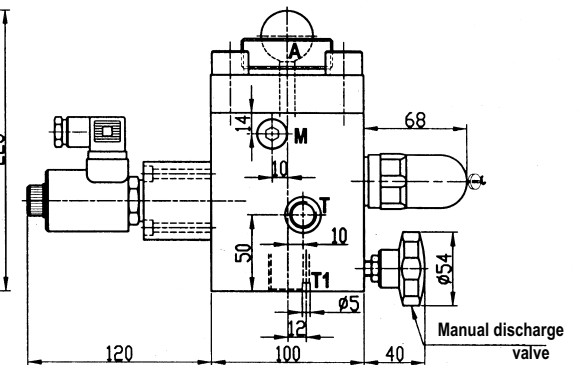
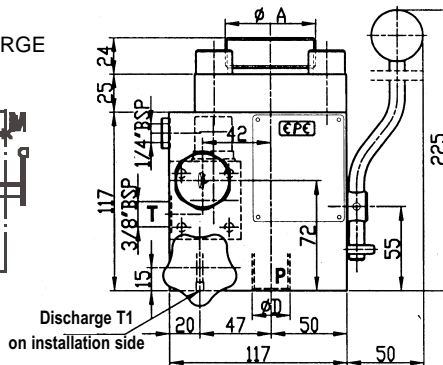
Weight: 12,2 Kg



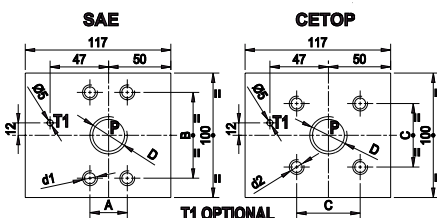
- BLOCK WITH RELIEF VALVE DBDS
- ELECTRICAL AND MANUAL DISCHARGE



Weight: 13,1Kg



Attention: the standard execution has the discharge connection T; on request is possible to have the discharge connection T1.



All dimensions in mm.

INSTALLATION SIDE CONNECTIONS

Type	Standard version ø D	For SAE Flanges		On request		For CETOP Flanges				
		A	B	d1	Thread height	C	d2	Thread height		
BS 25	1"	1 1/4 SAE 6000	31,6	66,7	M14	24	CETOP 38-400	51,6	M12	20
		1 1/4 SAE 6000	31,6	66,7	M14	24				
		1 1/2 SAE 6000	36,7	79,4	M16	24				
BS 32	1 1/2"	1 1/2 SAE 3000	35,7	70	M12	20	CETOP 50-400	60,1	M14	24
		2" SAE 3000	42,9	77,8	M12	20				

Subject to change