Part number:

HYDROMA HYDRAULICKÉ SYSTÉMY | HIDROMA SISTEMS UKŁADY HYDRAULICZNE | HYDROMA ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

Hydraulic accumulator cut-off and protection unit type BS

WN 25, 32 | p_{max} 36 MPa | WK 491 820

DATA SHEET - OPERATION MANUAL



APPLICATION

Hydraulic accumulator protection and cut-off unit type **BS...** is used for connecting hydraulic accumulator to the system while meeting safety requirements.
The product is compliant with the regulations of directive **2014/35/UE.**

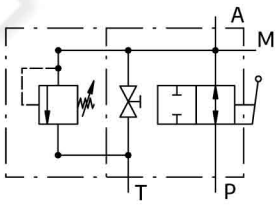
DESCRIPTION OF OPERATION

The unit consists of a housing incorporating the following subunits:

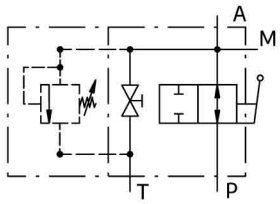
- ball cut-off valve for connecting and disconnecting the accumulator with the hydraulic system
- manual relief valve for safe unloading of accumulator after cut-off
- safety valve for system protection - with CE approval; if a unit with CE approval valve is ordered, it is set to required pressure and sealed
- electrically operated directional control valve that enables electrical unloading of the accumulator (if a version with directional valve is chosen)
- threaded flange that enables connection of the unit with the accumulator (standard flanges enable connection of EPE Italiana accumulators).

DIAGRAMS

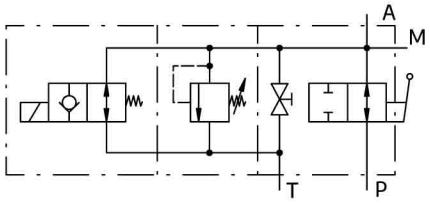
version with manual unloading:
BS25 MB...; BS32 MB...
BS25 MC...; BS32 MC...



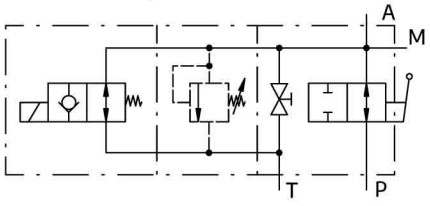
BS25 MA...; BS32 MA...



version with manual and electrical unloading:
BS25 R...B...; BS32 R...B...
BS25 R...C...; BS32 R...C...



BS25 R...A...; BS32 R...A...

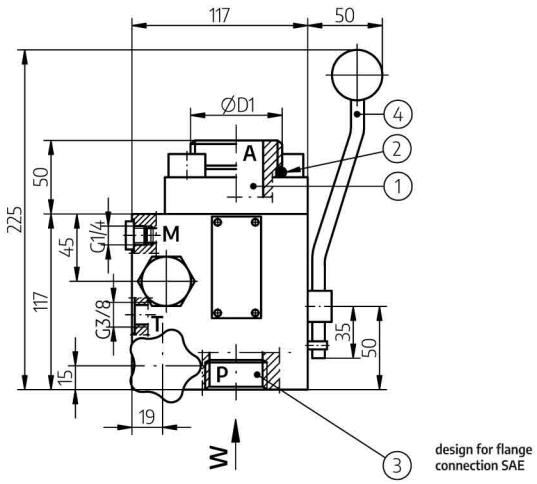


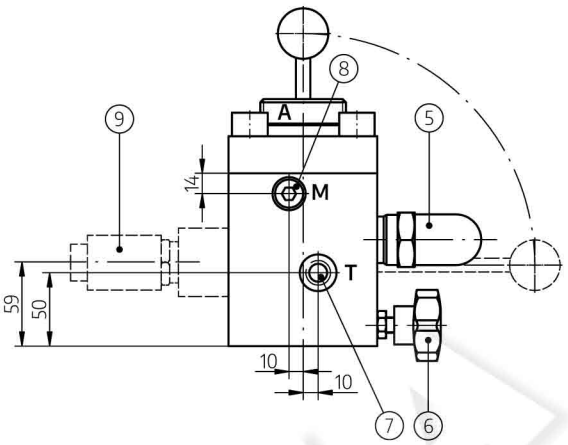
TECHNICAL PARAMETERS

nominal flow (at v = 6 m/s)	BS25- 180 dm³/min; BS32- 290 dm³/min	
hydraulic fluid	mineral oil	
required fluid cleanliness class	ISO 4406 class 20/18/15	
nominal fluid viscosity	37 mm²/s at temperature 55°C	
viscosity range	2,8 ÷ 380 mm²/s	
fluid temperature range (in a tank)	recommended max.	40 ÷ 55°C -20 ÷ 70°C
ambient temp. range (version)	without solenoid with solenoid	-20 ÷ 70°C -20 ÷ 50°C
max. operating pressure	36 MPa	
housing material	steel	
type of relief valve	DBDS10K... as in data sheet WK 450 610	
type of solenoid valve	2URED6C1... as in data sheet WK 493 130	
solenoid valve voltage	12V DC; 24V DC lub 230V 50Hz	
power consumptoin	26 W	
weight	12,3 to 14,6 kg	

assembly and operation requirements at **www.operating-conditions.ponar.pl**

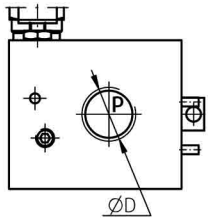
OVERALL AND CONNECTION DIMENSIONS

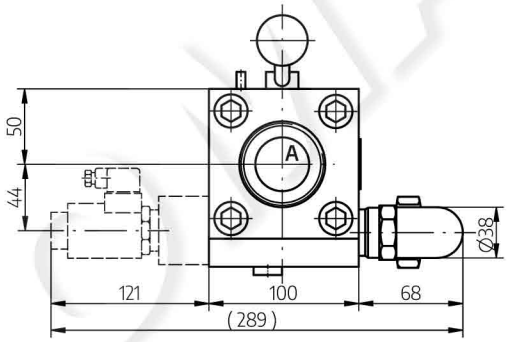




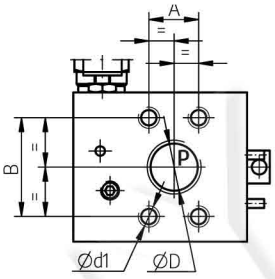
SECTION W

standard design
(threaded connection)





design for flange
connection **SAE**



1. Accumulator connection (A) - see table below
2. O-ring - see table below
3. Hydraulic system side connection (according to section W)
4. Cut-off valve
5. Safety valve type DBD S 10 K as in data sheet WK 450 610
6. Manual relief valve
7. Accumulator unloading connection (T) - G⅜
8. Pressure gauge connection (plug G¼)
9. Electrically operated directional control valve 2URED6 C1 acc. to data sheet WK 493 130 (optional for version: BS25R..., BS32R...)

hydraulic system connection (**P**)

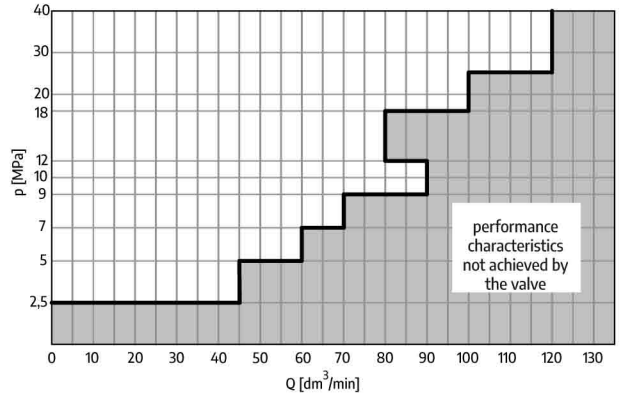
block version	**standard**	flanges connection **SAE**				
	ØD	size	ØD	A	B	Ød1
BS25	G 1	1 ¼ SAE6000	(G 1)	31,6	66,7	M14 depth 24
BS32	G 1 ½	1 ½ SAE6000	(G 1 ½)	36,7	79,4	M16 depth 24
		2 SAE3000		42,9	77,8	M12 depth 20

accumulator connection (**A**)

size connection ØD1	G 2
sealing ring	o-ring 55,25 x 2,62

PERFORMANCE CURVES

measured at viscosity ν = 41 mm²/s and temperature t = 50 °C



performance curve **p** - **Q** for a safety valve DBDS10 (max. capacity of the valve for various pressures of adjustment - **operation area of the valve must be within the white area of the diagram**)

HOW TO ORDER

BS □ / □ □ □ □ **G** □ □ □ □

1 2 3 4 5 6 7 8 9 10

1 nominalna size

25 =	25
32 =	32

2 unloading method

manual =	**M**
manual and electrical =	R

3 control voltage for solenoids
(only for version ...R...)

12V DC =	G12
24V DC =	**G24**
230V AC 50 Hz =	**W230R**

4 type of relief valve

without valve =	A
with preset valve (without approval) =	B
with sealed valve and with CE approval =	C

5 safety valve setting

up to 2,5 MPa =	25
up to 5 MPa =	50
up to 10 MPa =	100
up to 20 MPa =	200
up to 31,5 MPa =	315
up to 33 MPa =	330
up to 36 MPa =	360

for valves with **CE** approval specify pressure setting (factory setting and sealing) **every 5 bar**

6 accumulator connections

connection G 2 =	**G**

7 hydraulic system side connection dimensions

port with inch screw thread (G1 for BS25, G1 ½ for BS32) =	**R**
with SAE flange connection =	S

8 SAE connection

SAE 1 ¼ =	A
SAE 1 ½ =	B
SAE 2 =	C

9 sealing

NBR (for fluids on mineral oil base) =	**P**
FKM (for fluids on phosphate ester base) =	V

10 further requirements = *
(to be agreed upon with the manufacturer)

The symbols **in bold** are the preferred versions available in short delivery time.

Coding example: **BS 25/ M C 255 G R P**