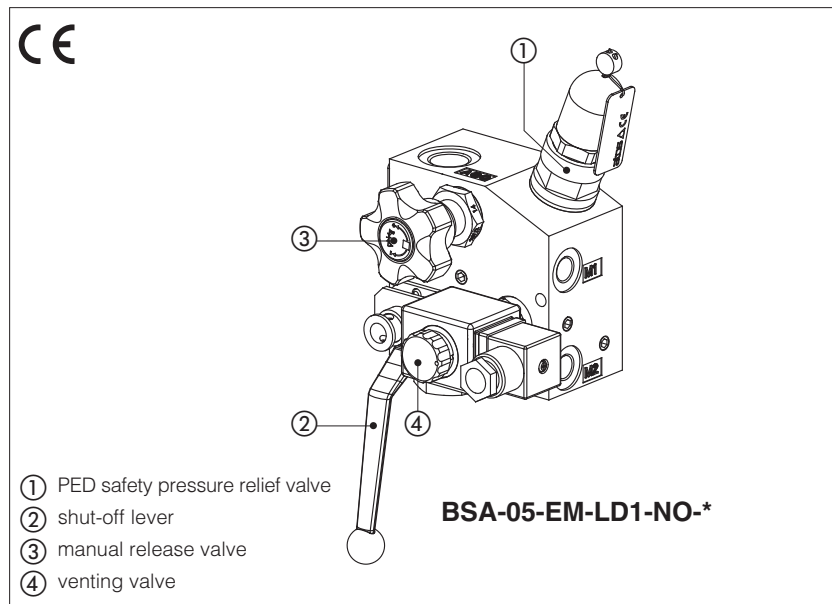


PED safety manifolds for accumulators type BSA

In line mounting - G 1/2" and G 1" threaded ports

Availability and price only on request



PED safety manifolds for accumulators type BSA are equipped with relief valves conforming to PED Directive 2014/68/EU (see tab. CY900).

The safety function is ensured by discharging the excess flow across the relief valve, at required pressure setting value at request ①.

They are equipped with manual shut-off valves to isolate the accumulator from the charging circuit ②, manual release valve ③ to drain the accumulator, and venting solenoid valve with electric driving ④ (optional).

These manifolds are suitable for any hydraulic circuit where there are one or more accumulators.

The manifolds are designed to work in hydraulic systems with oil or synthetic fluids having similar lubricating characteristics.

Max flow BSA-05: **70 l/min**
 BSA-10: **200 l/min**

Pressure up to **350 bar**

1 MODEL CODE

| | | | | | | | | | | | | | | | | | |
|--|---|-----------|---|-----------|---|------------|---|-----------|---|--------------|---|------------|---|------------|----|---|---|
| BSA | - | 10 | - | EM | - | LD1 | - | NO | - | 24 DC | / | 235 | / | PED | ** | / | * |
| Safety manifold | | | | | | | | | | | | | | | | | |
| Size: 05 = G 1/2" 10 = G 1" | | | | | | | | | | | | | | | | | |
| Release mode: EM = electric/manual M = manual | | | | | | | | | | | | | | | | | |
| Option: LD1 = with lock key on shut-off lever | | | | | | | | | | | | | | | | | |
| Venting solenoid valve (only for EM): NO =normally open NC =normally closed | | | | | | | | | | | | | | | | | |
| Voltage code (only for EM): 12 DC = 12 VDC 24 DC = 24 VDC 110 RC = 110 VAC 220 RC = 220 VAC | | | | | | | | | | | | | | | | | |
| Seals material, see section 5: - = NBR PE = FKM | | | | | | | | | | | | | | | | | |
| PED = Safety valve covered by EU Type examination to 2014/68/EU | | | | | | | | | | | | | | | | | |
| Factory pressure setting (bar): to be defined by the customer min step 1 bar (example 280 = 280 bar) min pressure setting: 25 = for BSA-05 30 = for BSA-10 | | | | | | | | | | | | | | | | | |

2 HYDRAULIC CHARACTERISTICS

| | BSA*-M | BSA*-EM-NC | BSA*-EM-NO |
|--------------------------------------|---------------|-------------------|-------------------|
| Model | | 05 | 10 |
| Pressure range of safety valve [bar] | | 25 ÷ 350 | |
| Max flow of safety valve [l/min] | | 60 | 150 |
| Max flow recommended P←ACC [l/min] | | 70 | 200 |
| Max pressure [bar] | | 350 | |

3 GENERAL CHARACTERISTICS

| | |
|-----------------------|--|
| Installation position | Any position |
| Hydraulic connection | BSA-05: P = G 1/2" T = G 3/8" A = G 3/8" ACC = G 1/2" M* = G 1/4" BSA-10: P = G 1" T = G 3/4" A = G 3/8" ACC = G 1" M* = G 1/4" |
| Ambient temperature | Standard execution = -20°C ÷ +70°C /PE option = -20°C ÷ +70°C |
| Compliance | CE to Low Voltage Directive 2014/35/EU RoHS Directive 2011/65/EU as last update by 2015/863/EU REACH Regulation (EC) n°1907/2006 |

4 SEALS AND HYDRAULIC FLUID - for other fluids not included in below table, consult Atos Technical Office

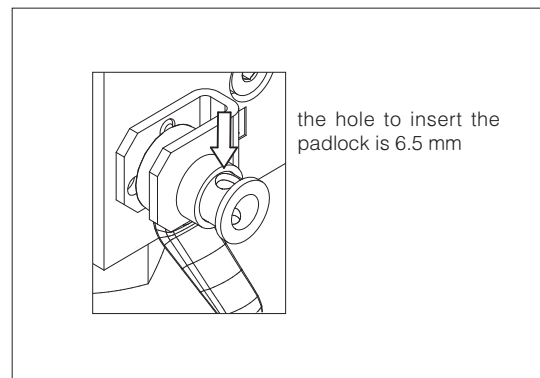
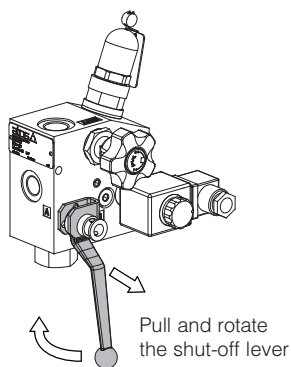
| | | | |
|--------------------------------------|--|----------------------------|----------------------|
| Seals, recommended fluid temperature | NBR seals (standard) = -20°C ÷ +80°C, with HFC hydraulic fluids = -20°C ÷ +50°C FKM seals (/PE option) = -40°C ÷ +60°C, with HFC hydraulic fluids = -20°C ÷ +50°C | | |
| Recommended viscosity | 15 ÷ 100 mm ² /s - max allowed range 2.8 ÷ 500 mm ² /s | | |
| Max fluid contamination level | ISO 4406 class 20/18/15 NAS 1638 class 9, see also filter section www.atos.com or KTF catalog | | |
| Hydraulic fluid | Suitable seals type | Classification | Ref. Standard |
| Mineral oils | NBR, FKM | HL, HLP, HLPD, HVLP, HVLPD | DIN 51524 |
| Flame resistant without water | FKM | HFDU, HFDR | ISO 12922 |
| Flame resistant with water | NBR | HFC | |

5 ELECTRIC CHARACTERISTICS

| | |
|--------------------------|---|
| Relative duty factor | 100% |
| Supply voltage | See model code at section I |
| Supply voltage tolerance | ±10% |
| Max power | 20 Watt |
| Power connector | to be ordered separately DC voltage: 666 (plastic); 3 pins, cable clamp PG11, cable max ø10mm RC voltage: 669 (plastic, with built-in rectifier bridge); 3 pins, cable clamp PG11, cable max ø10mm |
| Connectors features | DIN 43650 - ISO 4400; IP65 (DIN 40050); VDE 0110C |

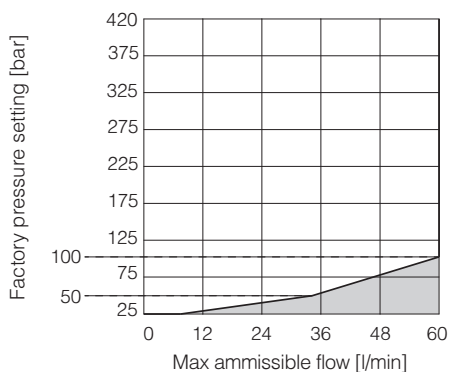
6 OPTION

LD1 option allows to mechanically lock the lever position, and consequently the opening or closing condition of the shut-off valve.

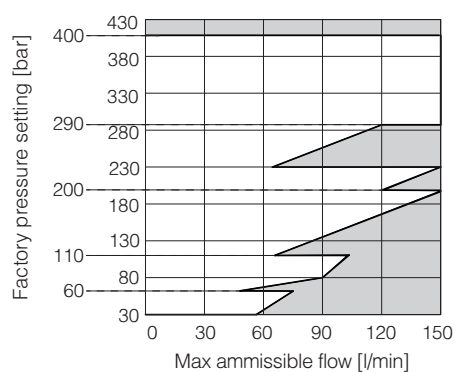


7 DIAGRAMS

BSA-05-*/PED

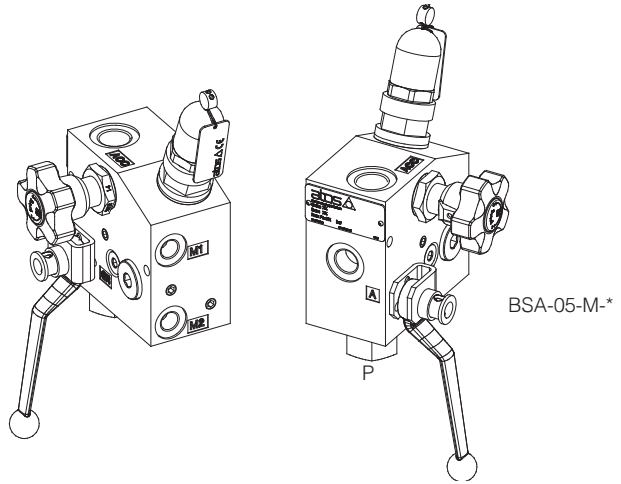


BSA-10-*/PED

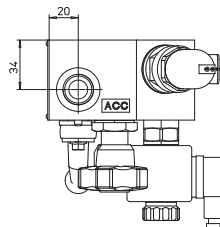
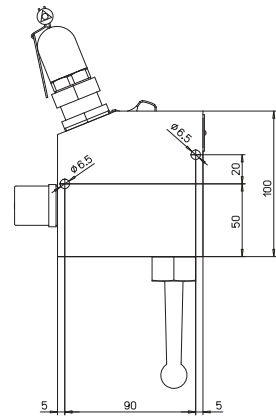
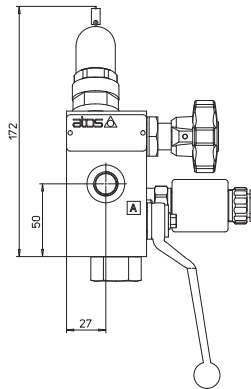
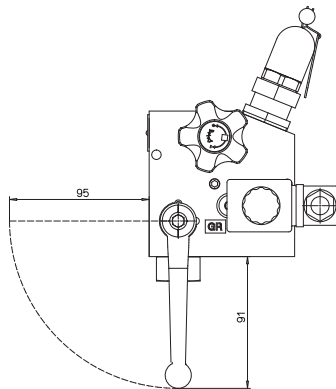
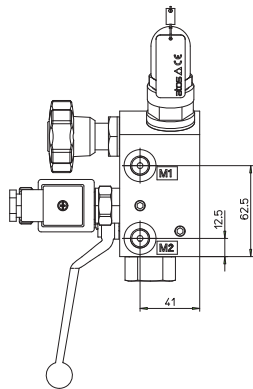
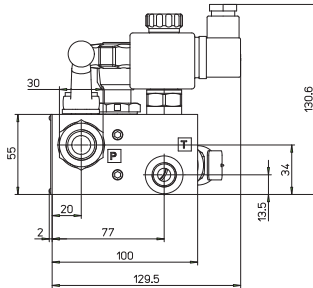


BSA-05

| ACC | A | P | T | M* | Mass [Kg] |
|--------|--------|--------|--------|--------|-----------|
| G 1/2" | G 3/8" | G 1/2" | G 3/8" | G 1/4" | 4,6 |



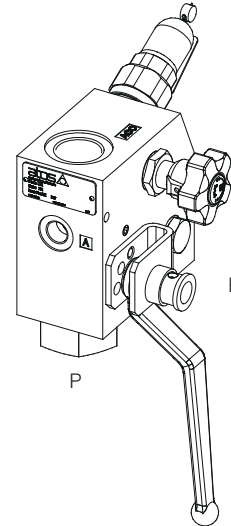
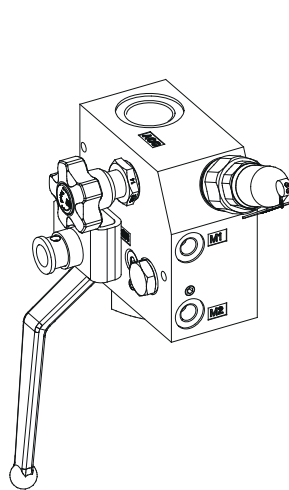
BSA-05-EM*



Electric connector according to DIN 43650
(must be ordered separately)

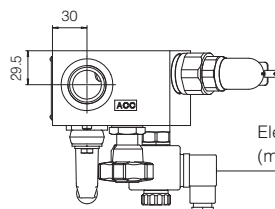
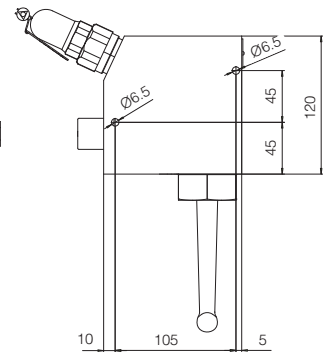
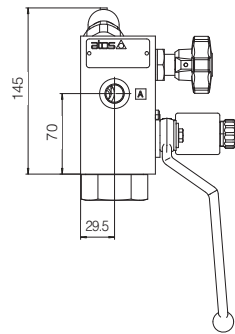
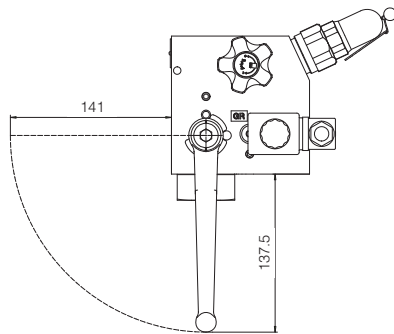
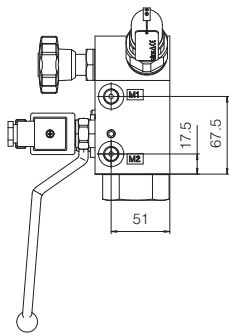
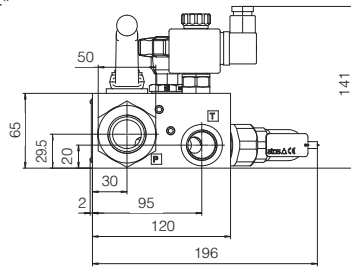
BSA-10

| ACC | A | P | T | M* | Mass [Kg] |
|------|--------|--------|--------|--------|-----------|
| G 1" | G 3/8" | G 3/4" | G 1/2" | G 1/4" | 7,5 |



BSA-10-M-*

BSA-10-EM-*



Electric connector according to DIN 43650
(must be ordered separately)

9 INSTRUCTIONS AND MAINTENANCE

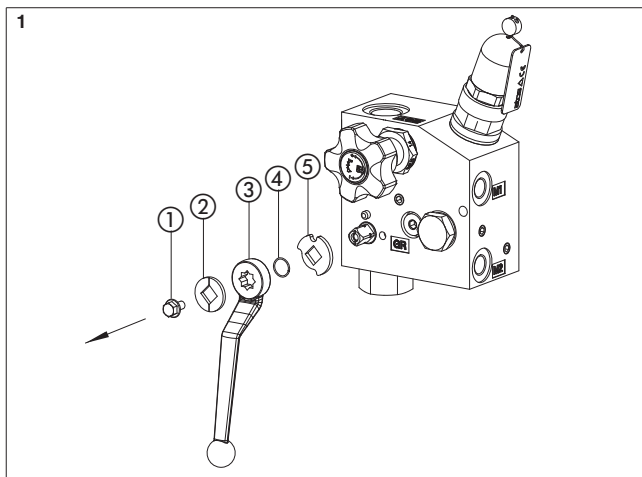
For safety reasons BSA manifold is provided with shut-off lever locked in **open position**.
In case you need to unlock the lever, follow these instructions



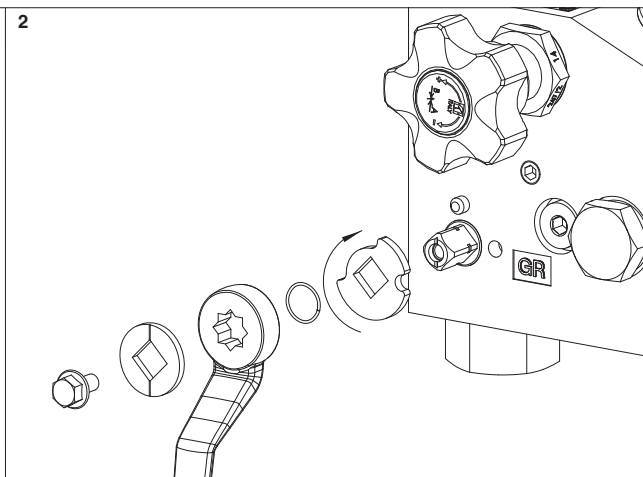
ATTENTION:

- System under pressure before performing any operation turn off and discharge the pressure of the circuit.

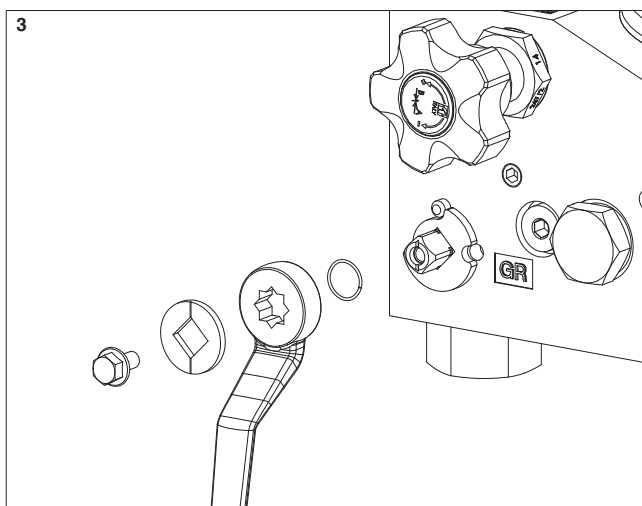
9.1 START-UP



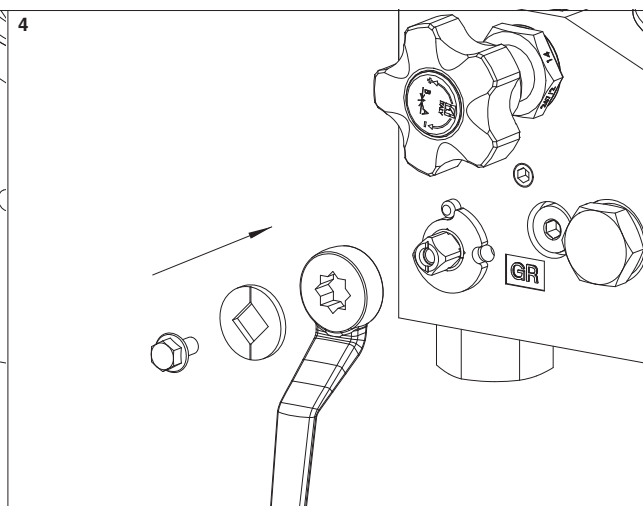
Remove the screw ① and the flow indicator washer ②, pull out the shut-off lever ③, the snap ring ④ and the stopping disk ⑤



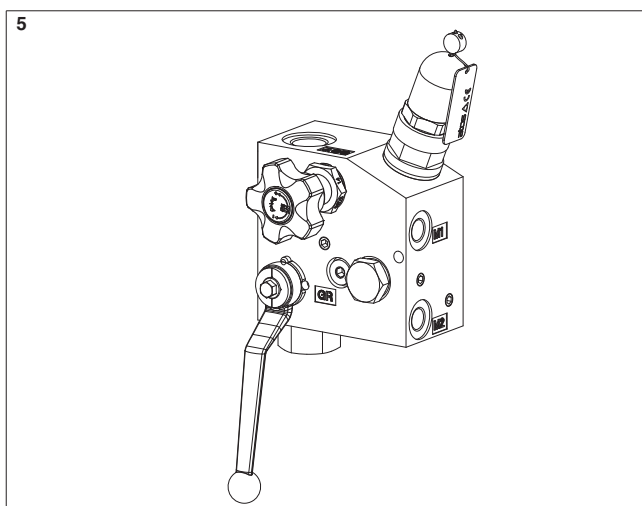
Rotate 90° clockwise the stopping disk



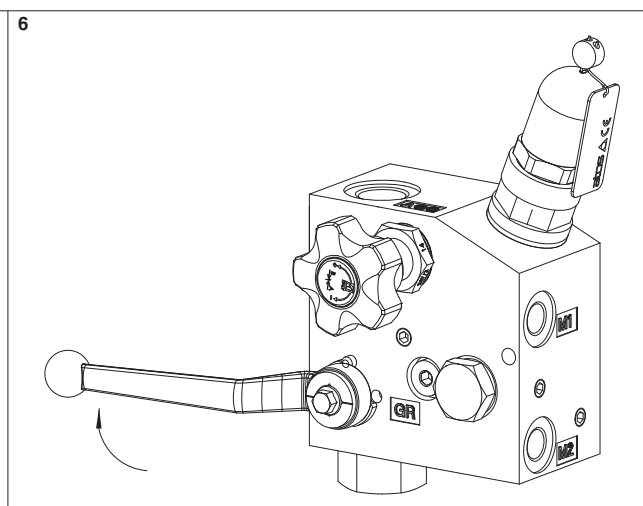
Reinsert the stopping disk



Reinsert the snap ring



Reinsert the shut-off lever, the flow indicator washer and the fixing screw



Shut-off lever can be rotated

9.2 MAINTENANCE



ATTENTION:

- System under pressure before performing any operation turn off and discharge the pressure of the circuit.

In case of any operating problems, after having emptied and depressurized the system, check the following conditions:

- check the seals and replace them if damaged
- remove the venting solenoid valve (for **EM** option)
- remove GR plug, check the screw hole is not clogged

10 RELATED DOCUMENTATION

CY900 Operating and maintenance information for PED certified valves