



**BRAND**  
HYDRAULICS Co.

Made in the Heartland of America  
Serving the World

Engineering & Manufacturing Solutions

# LA

Monoblock Directional  
Auto-Cycle Valve

PLA12TGTHJB

## Specifications:

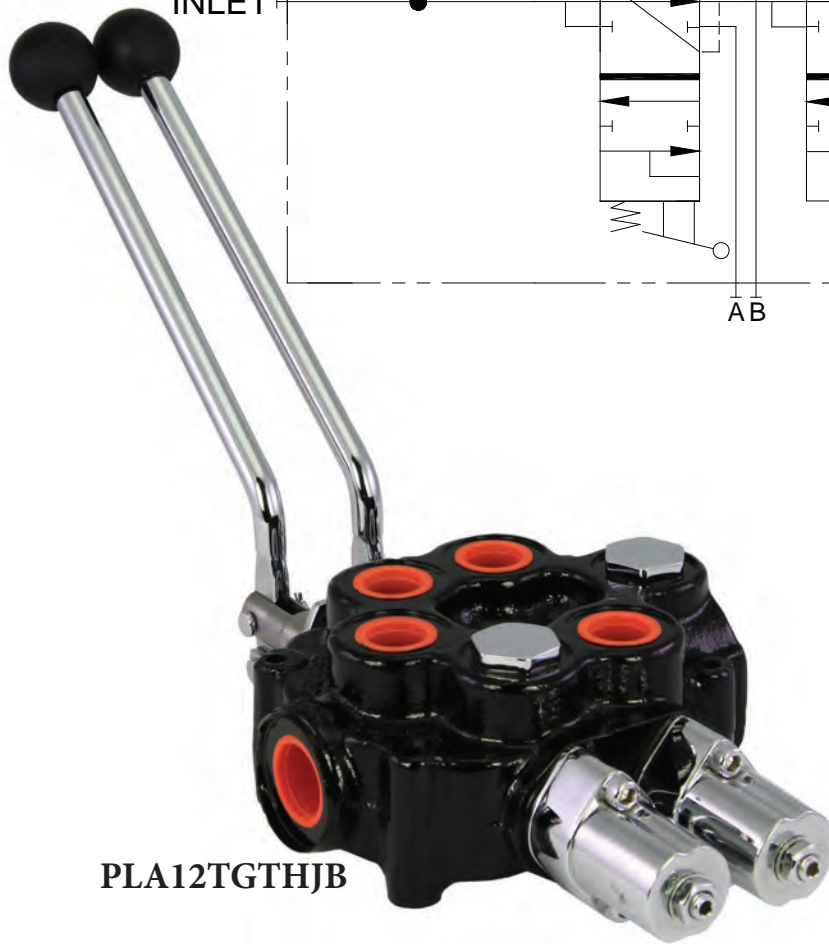
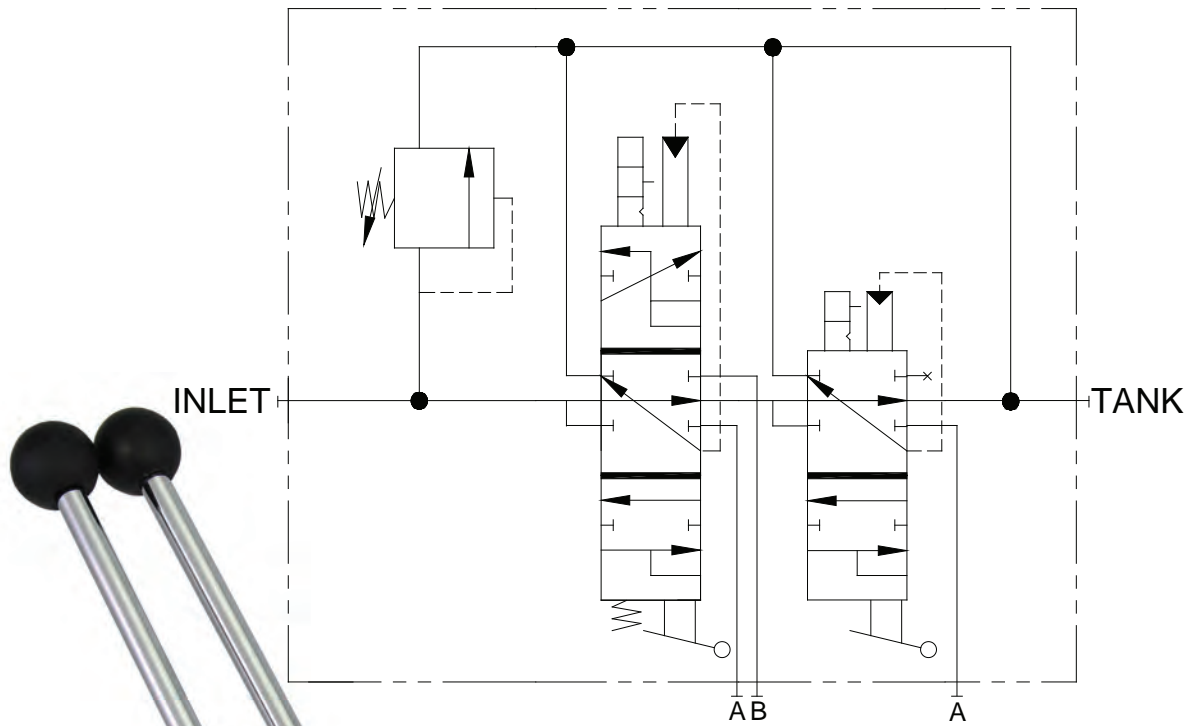
- 18 gpm (68.0 lpm) Nominal Capacity.
- Rated up to 2000 psi (138 bar).
- Port Sizes:
  - Inlet/Outlet #12 SAE.
  - Work Ports #10SAE.
- 10 Micron Filtration Recommended.
- Weight
  - 14 lbs. (6.4 kg).



ISO 9001:2008 WITH DESIGN  
Certificate #02.002.1



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**PLA12TGTHJB**

#### MATERIALS:

- Cast Iron Body
- Buna N O'Rings
- IOSSO Plated Steel Spools
- Black Nylon Ball Knob

#### FEATURES:

- AUTOCYCLE A DOUBLE ACTING CYLINDER with one input from the user.
- ADJUSTABLE HYDRAULIC KICKOUT on both spools.
- O'RING PORTS to eliminate leakage.
- POWER BEYOND CAPABILITY to fit your multi valve circuits.
- PRECISION GROUND IOSSO PLATED SPOOL that assures long life.

**LA – GENERAL INFORMATION:**

The Brand auto-cycle valve will cycle a double acting cylinder from retracted to fully extended and then back to fully retracted using two spools. The first spool can be used to manually extend and retract cylinder while the second spool only retracts the cylinder. Pushing both levers forward starts the autocycle process. The first hydraulic detent can be adjusted up to 2000 PSI (103 bar) and the second detent should always be set 500 PSI (34 bar) above the first detent setting. The valve is also field convertible to closed center and power beyond.

**SPOOL ACTION –**

The first spool uses a spring center hydraulic detent. This will hold the spool in detent until the cylinder is fully extended or until the pressure reaches the detent pressure setting causing it to return to neutral. The first spool is spring centering in the other direction. The second spool uses a hydraulic detent. This spool can only be shifted in the one direction. The cylinder will retract until it is fully retracted or until the detent pressure setting is reached causing it to return to neutral.

**HANDLE OPTIONS –**

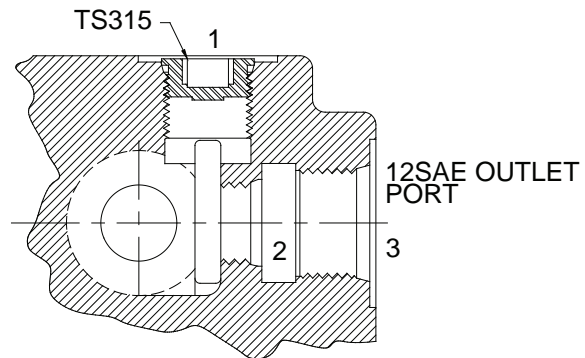
- **Lever handle (J)** pressurizes the “A” port when the handle is pushed towards the valve body.
- **No actuator (M)** is used when it is necessary to connect the spool to an external actuator (J type spool).

**OPTIONS -**

Power beyond (W) offers high pressure carryover for valves downstream. The LA series is field convertible to power beyond. Area differential relief cartridge (B) is preset at factory at 1500 PSI. Other pressure can be achieved using different springs.

Pressure Range	Spring P/N
300 - 700	DC7594
700 - 1400	P1270-360
1400 - 2400	P1270 (standard)
2400 - 3000	P1279

**CLOSED CENTER CONVERSION -** To have the casting in closed center operation, both the top port (1) and internal port (2) must be plugged. Take the TS315 plug from the top port (1) and insert it into the internal port (2). Then plug the top port (1) with any standard #10 SAE plug or purchase a TS315 plug from the factory. Closed center blocks “Pump” only, the condition of ports A and B depend on the spool type. (See illustration)



**POWER BEYOND CONVERSION -** To convert the valve to power beyond operation, take the TS315 plug from the top port (1) and insert it into the internal port (2). Next, plumb a #10 SAE fitting from the top port (1) to the adjoining valve. Lastly, run a line from the #12 SAE outlet port (3) to the reservoir. (See illustration)

**LA - CREATING A MODEL CODE FOR LA'S:**

**LA12TGTH**

**PAINT:**

- Blank** – No paint
- P** – Painted black (other colors available, consult factory)
- MP** – Epoxy coating

**HANDLE OPTION:**

- J** – Lever handle
- M** – No actuator

**OPTIONS:**

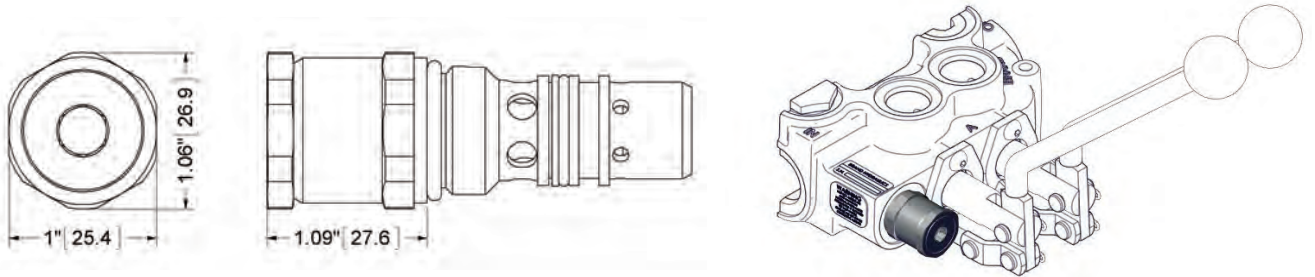
- W** – Power beyond
- C** – Closed center
- Omit** – Open center

**RELIEF OPTION:**

- B** – Adjustable relief (2300 psi (159 bar) standard setting)
- N** – No relief

**LA - COMPLETE LIST OF OPTIONS AND ACCESSORIES:**

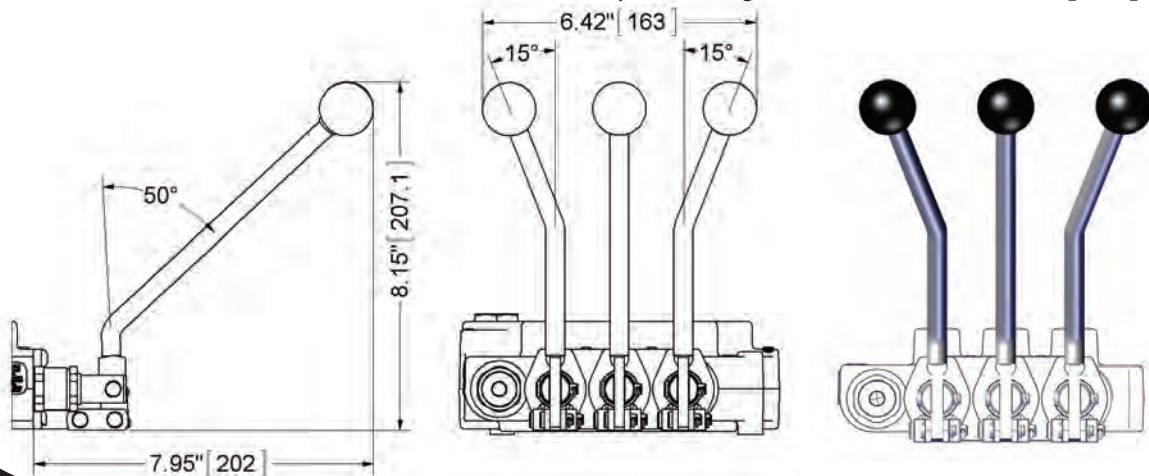
**34R10**.....Area differential relief cartridge set at 1000 psi (69.0 bar). (Available in pressure setting increments of 100 psi (6.9 bar), standard pressure setting is 1500 PSI).



**TS-HJ**.....TS handle kit with ball knob. (One per spool)

**TS-HJBL**.....TS handle kit double bend, away, offset left with ball knob. (One per spool)

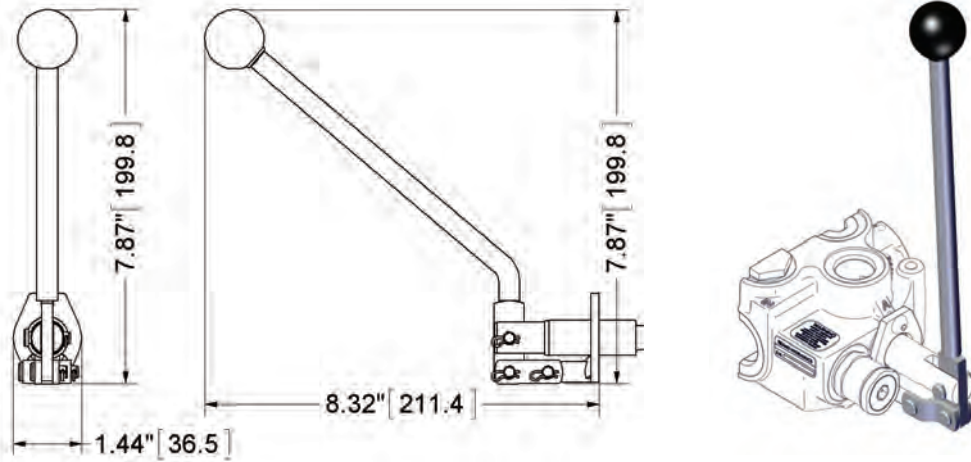
**TS-HJBR**.....TS handle kit double bend, away, offset right with ball knob. (One per spool)



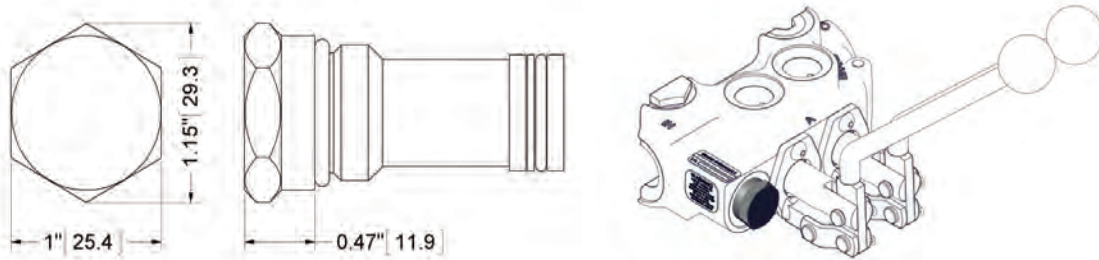
External dimensions are the same for all kits listed above.

**LA - COMPLETE LIST OF OPTIONS AND ACCESSORIES:**

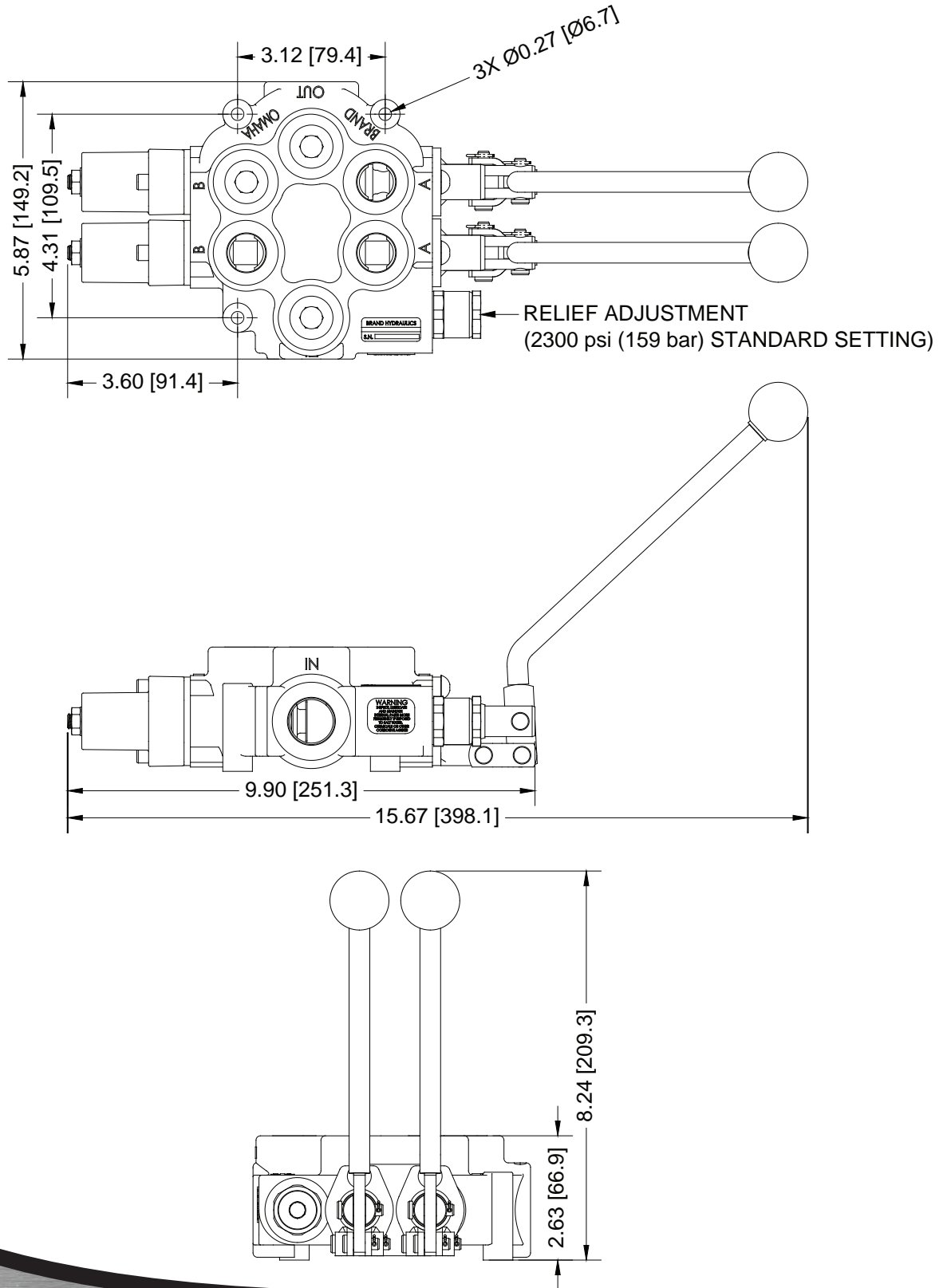
**TS-HJS**.....TS straight handle kit with ball knob. (One per spool).



**TS-NB**.....Plug for relief cavity.



## DIMENSIONAL DATA: inches & [millimeters]



### AUTO-CYCLE HYDRAULIC CIRCUIT:

