

# 2 Way and 3 Way Valve Block Installation Manual



SHIFT EC

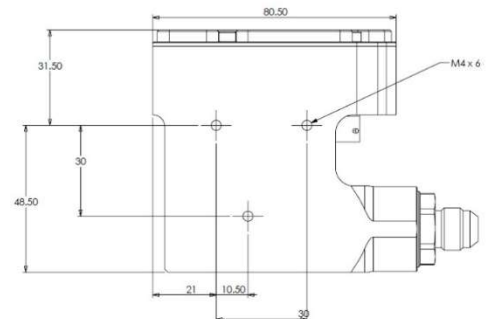
## Installing the 2 Way and 3 Way Valve Block

The ZD 200 series are tightly packaged pneumatic valve blocks featuring a built in pressure sensor and filter. They are designed to be driven and controlled by an external GCU or an ECU with transmission control ability. For applications with electronic throttle control the two port ZD202-2 will normally be used and for mechanical throttles with external pneumatic blippers the three way ZD203-3 will be used.

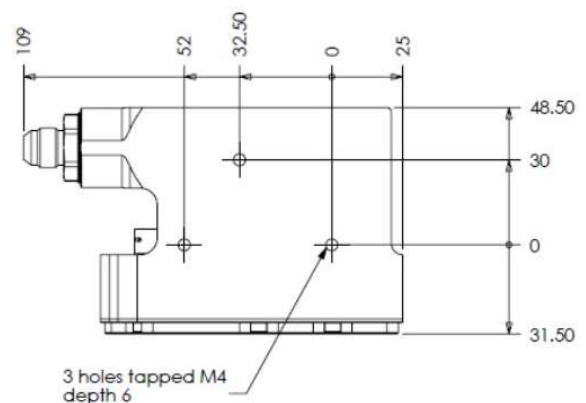
### Installation Steps:

1. The valveblock has an integrated air filter and pressure sensor. No external filter or pressure sensor is required.
2. Select a suitable location for the valve block, ensure there is sufficient room around the valve block for the pneumatic supply line and the valve exit lines to the actuator and/or blipper as well as for the wiring loom Autosport Connector. The valve block may be installed in any orientation.
3. The valve block is mounted via three M4 tapped holes in the lower side of the valve block and should only be installed using the AV Mounts provided with the valve block. Refer to the diagrams for mounting hole locations and dimensions.
4. The Air Supply to the Valve block is via a Dash 6 fitting. This should be maintained and should never be swapped for a smaller fitting.
5. The air outlet from the valves is via a Dash 4 fitting. These fittings should be maintained and should never be swapped for a smaller fitting.
6. When making pneumatic connections to the valve block use only matching fittings, do not use Loctite or PTFE tape to seal fittings. If fittings do not seal replace them with new. Only use copperslip where dictated by the fitting manufacturers.

**ZD202-2**



**ZD203-3**



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7. For optimal performance the air lines from the valveblock to the blipper and/or actuator should not exceed 400mm.

## Valve Block Wiring Connection.

The valve block is fitted with a Deutsch Autosport connector of type AS208-35PN which requires a mating half of type AS608-35SN. The valve block has an integral pressure system pressure sensor which removes the need for an external pressure sensor. The valveblock requires a 12V supply and internally generates the 5V supply from this to power the pressure sensor. The pin out for this connector is provided below:

Pin	Function	Notes
1	Down Shift Valve	
2	12V Valve Supply	5V supply for pressure sensor is generated internally
3	Pressure Sensor Signal Output	System Pressure Sensor Output.
4	Blipper Valve	Not Used On Two Way Valveblock
5	Up Shift Valve	
6	0V Pressure Sensor	Ground For System Pressure Sensor

## Valve Block Pressure Sensor Calibration.

The valve block pressure sensor provides a reference for the shift system pressure. The calibration of this sensor is as per the below table.

Output Voltage	Pressure
0.5 Volts	0bar
4.5 Volts	10bar