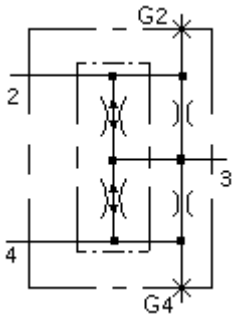
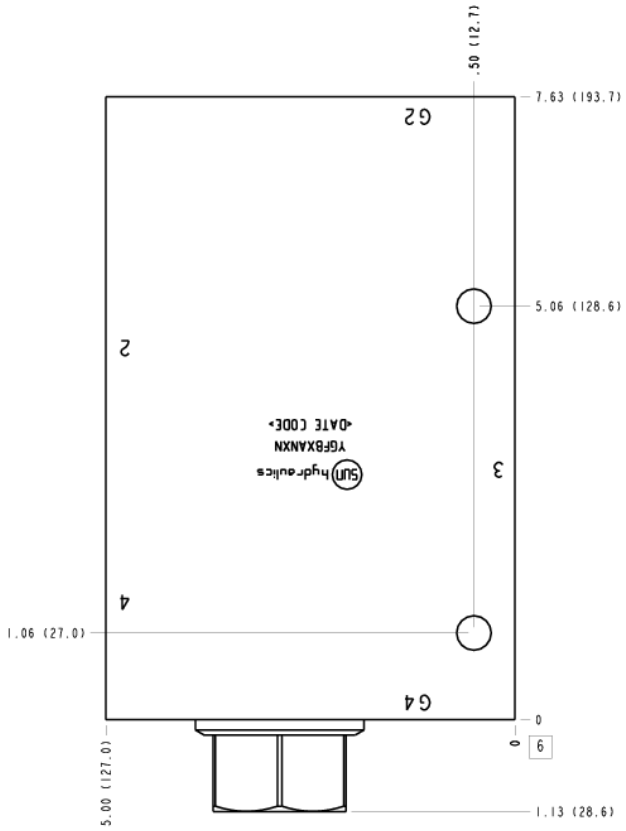




This valve assembly is intended for use in tractive systems. It incorporates a divider/combiner valve along with provisions for slip orifices. The divider/combiner provides 2 equal flows for positive traction and the slip orifices can be sized to allow for steering.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Body Type	Line mount
Capacity	15 - 70 gpm
Mounting Hole Diameter	.42 in.
Mounting Hole Depth	Through
Mounting Hole Quantity	2

NOTES:

- ***Important:*** Carefully consider the maximum system pressure. The pressure rating of the manifold is dependent on the manifold material, with the port type/size a secondary consideration. Manifolds constructed of aluminum are not rated for pressures higher than 3000 psi (210 bar), regardless of the port type/size specified.
- For detailed information regarding the cartridges contained in this assembly, click on the models codes shown in the Included Components tab.

OPTION SELECTION EXAMPLE: YGFBXANXN

CONTROL	(X)
X	Not Adjustable

FLOW SPLIT	(A)
A	50/50

SEAL MATERIAL	(N)
N	Buna-N
V	Viton

ORIFICE PART DESIGNATION	(X)
X	Slip @ 3000 psi = 36.67 gpm (with FSFH primary cartridge, High capacity, closed center, flow divider-combiner valve)
A	Slip @ 3000 psi = 0 gpm (with FSFH primary cartridge, High capacity, closed center, flow divider-combiner valve)
T	Slip @ 3000 psi = 12.33 gpm (with FSFH primary cartridge, High capacity, closed center, flow divider-combiner valve)
Y	Slip @ 3000 psi = 64.85 gpm (with FSFH primary cartridge, High capacity, closed center, flow divider-combiner valve)
Z	No Orifice Plug Installed (with FSFH primary cartridge, High capacity, closed center, flow divider-combiner valve)

PORT AND MATERIAL DESIGNATION	(N)
N	Ports 2, 3, 4 — SAE 20; Gage Ports (Plugged) — SAE 8; Aluminum
5	Port 3 — 1-1/4" C62; Ports 2 & 4 — 1" Code 62; Gage Ports (Plugged) — SAE 8; Aluminum
5/M	Port 3 — 1-1/4" C62; Ports 2 & 4 — 1" Code 62; Gage Ports (Plugged) — SAE 8; Metric Aluminum
5/S	Port 3 — 1-1/4" C62; Ports 2 & 4 — 1" Code 62; Gage Ports (Plugged) — SAE 8; Iron
5/T	Port 3 — 1-1/4" C62; Ports 2 & 4 — 1" Code 62; Gage Ports (Plugged) — SAE 8; Metric Iron
E	Ports 2, 3, 4 — 1" NPTF; Gage Ports (Plugged) — SAE 8; Aluminum
E/S	Ports 2, 3, 4 — 1" NPTF; Gage Ports (Plugged) — SAE 8; Iron
F	Ports 2, 3, 4 — 1 1/4" NPTF; Gage Ports (Plugged) — SAE 8; Aluminum
F/S	Ports 2, 3, 4 — 1 1/4" NPTF; Gage Ports (Plugged) — SAE 8; Iron
M	Ports 2, 3, 4 — SAE 16; Gage Ports (Plugged) — SAE 8; Aluminum
M/S	Ports 2, 3, 4 — SAE 16; Gage Ports (Plugged) — SAE 8; Iron
N/S	Ports 2, 3, 4 — SAE 20; Gage Ports (Plugged) — SAE 8; Iron
Q	Port 3 — 1 1/4" Code 61 ; Ports 2 & 4 — 1" Code 61; Gage Ports (Plugged) — SAE 8; Aluminum
Q/M	Port 3 — 1 1/4" Code 61 ; Ports 2 & 4 — 1" Code 61; Gage Ports (Plugged) — SAE 8; Metric Aluminum

PORT AND MATERIAL DESIGNATION (N)	
Q/S	Port 3 — 1 1/4" Code 61 ; Ports 2 & 4 — 1" Code 61; Gage Ports (Plugged) — SAE 8; Iron
Q/T	Port 3 — 1 1/4" Code 61 ; Ports 2 & 4 — 1" Code 61; Gage Ports (Plugged) — SAE 8; Metric Iron
X	Ports 2, 3, 4 — 1" BSPP; Gage Ports (Plugged) — SAE 8; Aluminum
X/S	Ports 2, 3, 4 — 1" BSPP; Gage Ports (Plugged) — SAE 8; Iron
Y	Ports 2, 3, 4 — 1 1/4" BSPP; Gage Ports (Plugged) — SAE 8; Aluminum
Y/S	Ports 2, 3, 4 — 1 1/4" BSPP; Gage Ports (Plugged) — SAE 8; Iron

INCLUDED COMPONENTS

Part	Description	Quantity
280-040-094*	Orifice	2
A330-006-008*	SAE Plug	2
FSFHXAN	Cartridge - Primary	1

TECHNICAL FEATURES

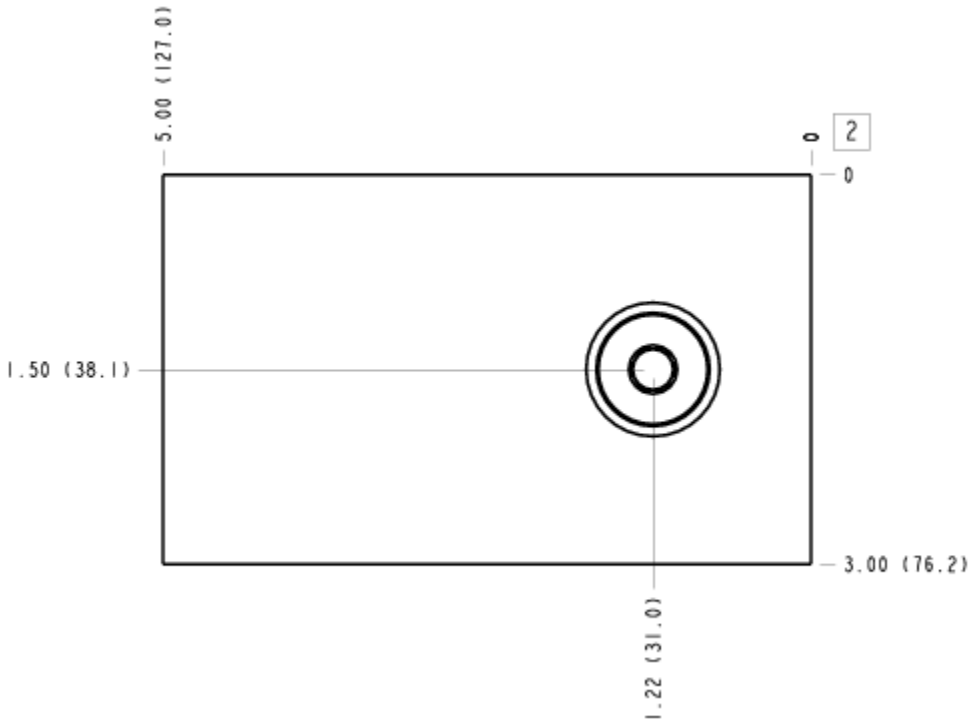
- Operating characteristics cause the leg of the circuit with the greatest load to receive the higher percentage of flow in dividing mode. If a rigid mechanism is used to tie actuators together, the lead actuator may pull the lagging actuator and cause it to cavitate.
- In combining mode, compensating characteristics will cause the leg of the circuit with the lowest load to receive the higher percentage of flow. If a synchronization feature is not included, an additive accuracy error will be experienced with each full stroke of the actuator.
- In applications involving rigid mechanisms between multiple actuators, operating inaccuracy will cause the eventual lock-up of the system. If the mechanical structure does not allow for the operating inaccuracy inherent in the valve, damage may occur.
- In motor circuits, rigid frames or mechanisms that tie motors together, and/or complete mechanical synchronized motion of the output shaft of the motors, either by wheels to the pavement or sprockets to conveyors, will contribute to cavitation, lock-up and/or pressure intensification.
- Variations in speed and lock-up can be attributed to differences in motor displacement, motor leakage, wheel diameter variance and friction of wheels on the driving surface.
- Extreme pressure intensification can occur on multiple wheel drive vehicles.
- Differential slip for tractive drive systems must be achieved with orifices in the body/manifold.
- Below the minimum flow rating there is not enough flow for the valve to modulate. It is effectively a tee. If flow starts at zero and rises, there will be no dividing or combining control until the flow reaches the minimum rating.

MANIFOLD FACES

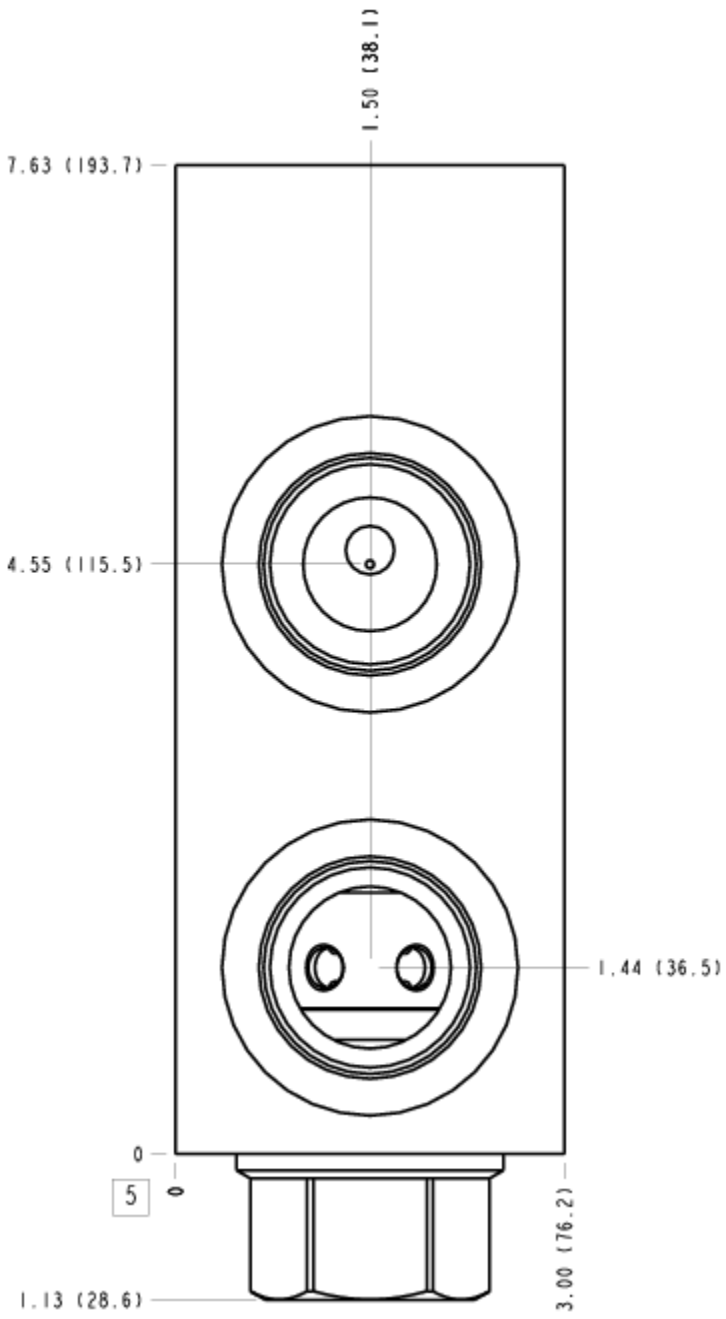
FACE GRID

1	2	3	4
5	6	7	8
9	10	11	12

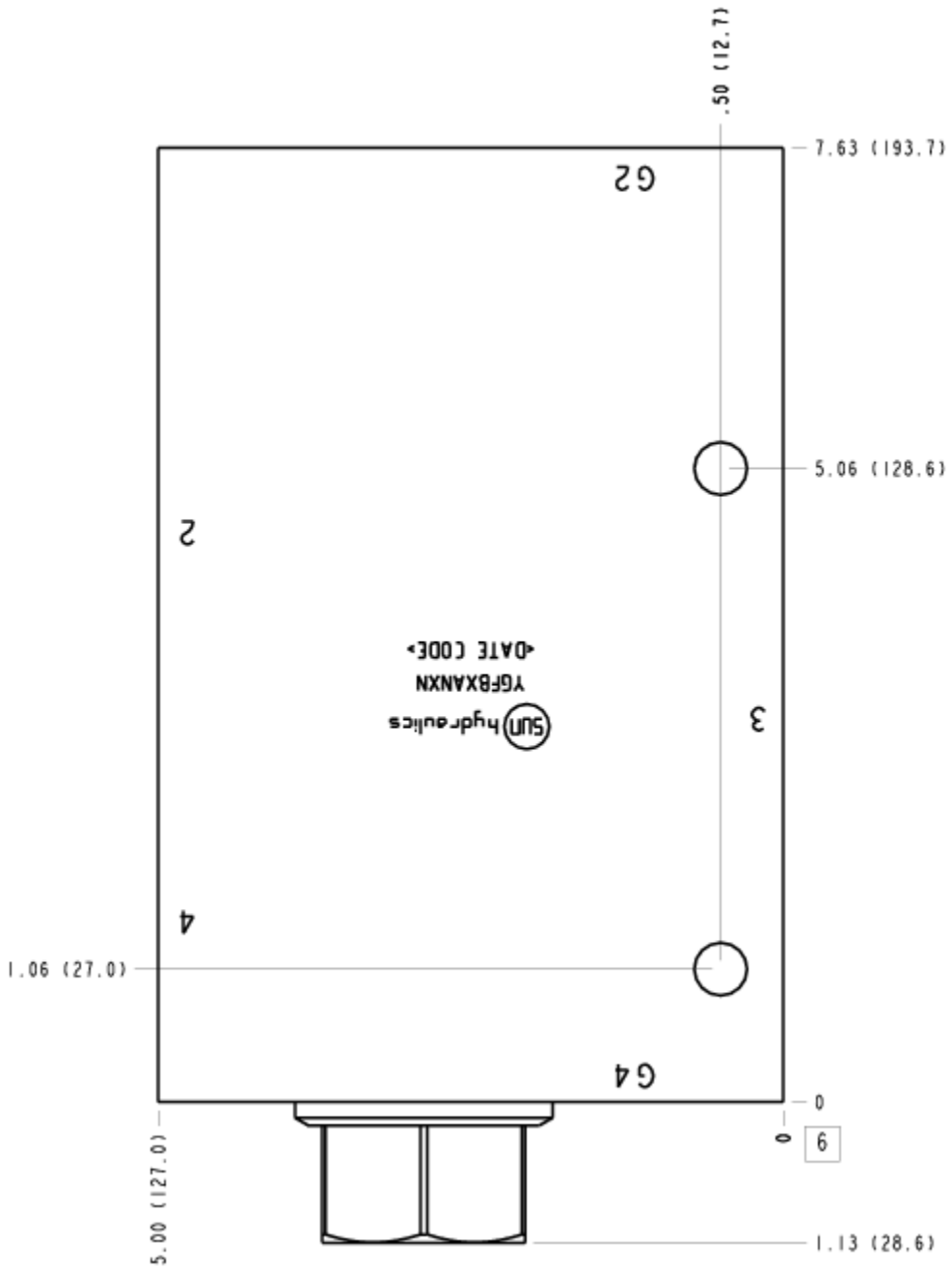
FACE 2



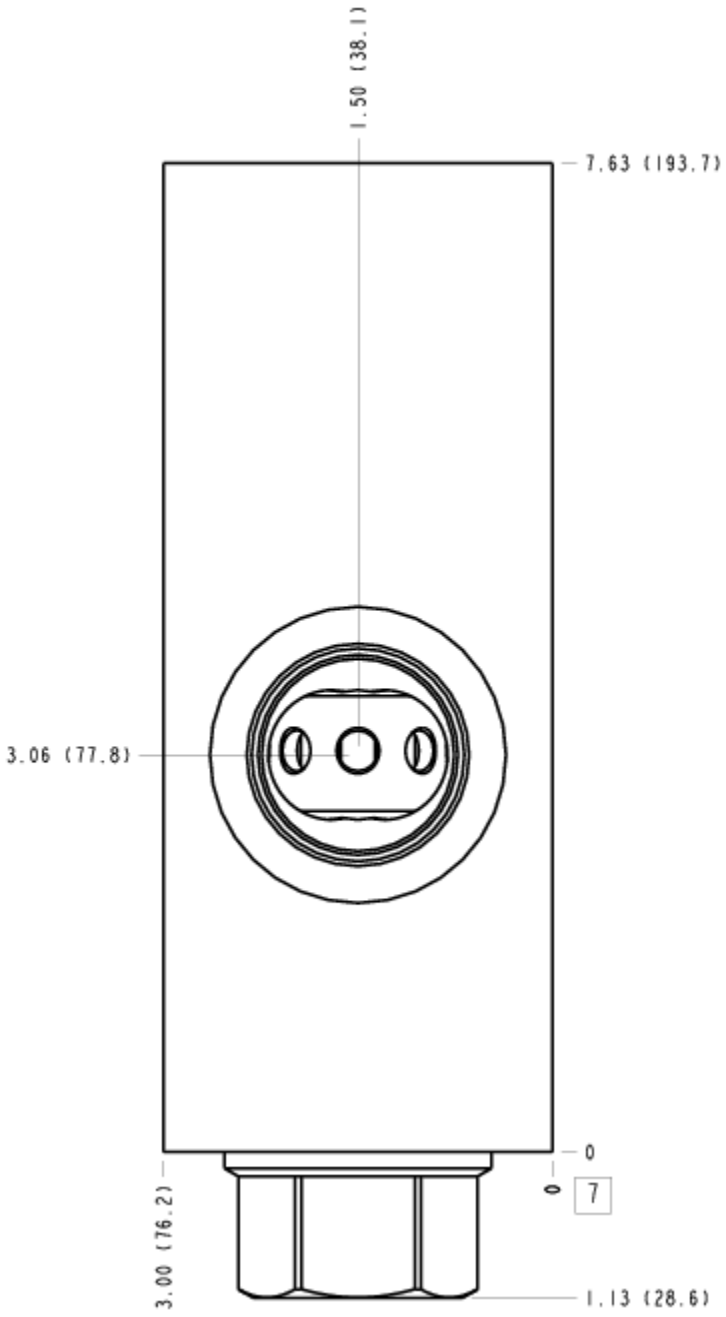
FACE 5



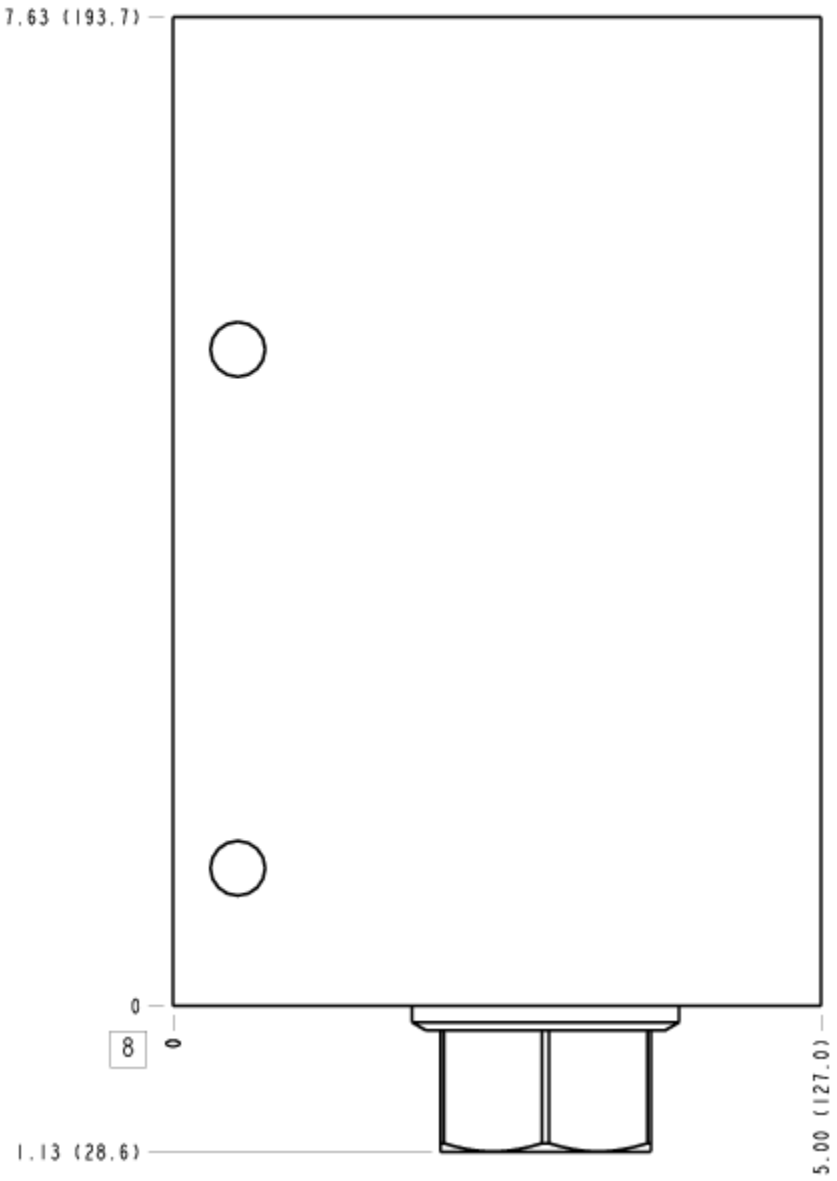
FACE 6



FACE 7



FACE 8



FACE 10