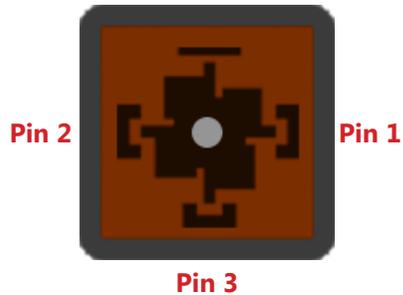


VALVES WITH SQUARE CONNECTORS



The valve will either have 1 or 2 connectors attached for the left and right functions. When providing the maximum output to the valve in either direction, you should see 12 volts between the pins listed below.



Steering Direction	Single Connector	Two Connectors
Left	1 and 3	1 and 2 (Left Connector)
Right	1 and 2	1 and 2 (Right Connector)

VALVES WITH 2-PIN CONNECTORS



On these valves, there will be a connector for the left and a connector for the right. You should see 12 volts on the left connector when providing full output to the left. The same will apply for the right.

There will also be two blockers on the valve that also use 2-pin connectors (Power and Ground are the same pins as seen above). When providing a full output to the left or the right, both blocker connections should also register 12 volts.



VALVES WITH 4-PIN CONNECTORS (SAUER DANFOSS VALVES)



Sauer Danfoss steering valves use voltage control on a single 4-pin Deutsch connector, meaning it will read the machine voltage on the Power pin and supply half of that voltage on the Signal pin for driving straight forward. It will then add approximately 3 volts to steer right at full output, and subtract approximately 3 volts to steer left at full output. It will vary this voltage when steering less than full left or right.

EXAMPLE

If the valve reads 13 volts coming from the machine on the Power pin, the following voltages should be present between Ground and Signal when traveling in a given direction:



Steering Direction	Voltage
Full Left	3.5 Volts
Straight	6.5 Volts
Full Right	9.5 Volts

STEERING VALVE VOLTAGES