

MSE492 Data Sheet

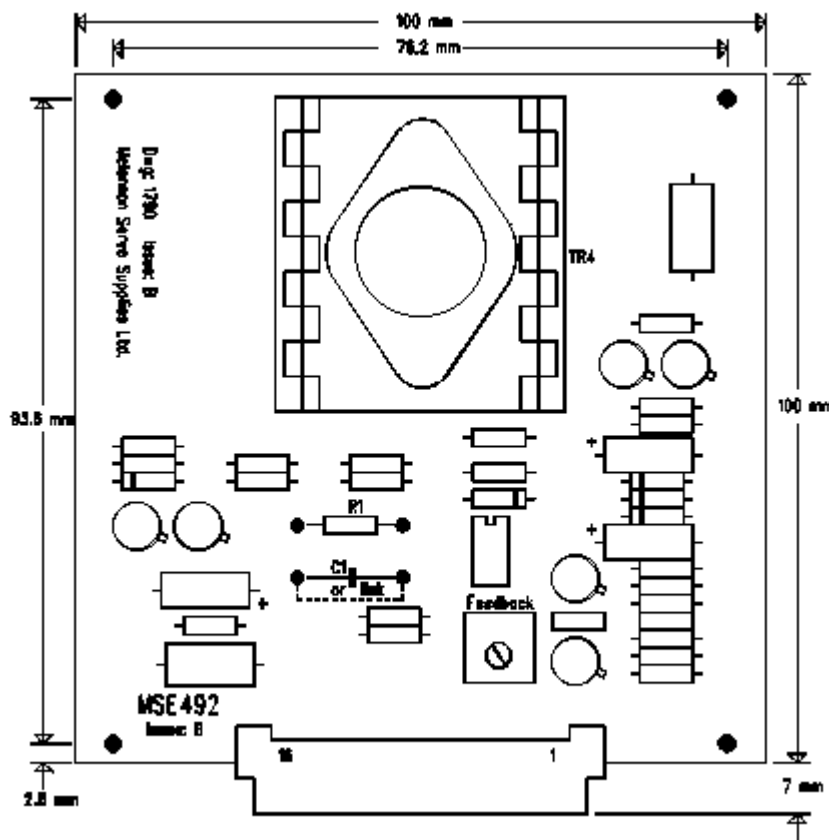
UNIDRIVE - Single Quadrant DC Motor Drive

- Single quadrant speed control.
- Tachometer or Armature current feedback.
- Up to 15 watts continuous output power.
- 15 - 24 VDC supply voltage.

The MSE492 is a low cost unidirectional DC motor speed controller. The unit will provide closed loop speed control with either armature feedback of the motor current or DC tachometer feedback.

The speed stability will be dependant on the flywheel effect provided by the individual application. Tachometer feedback method gives a better speed control.

Physical Dimensions



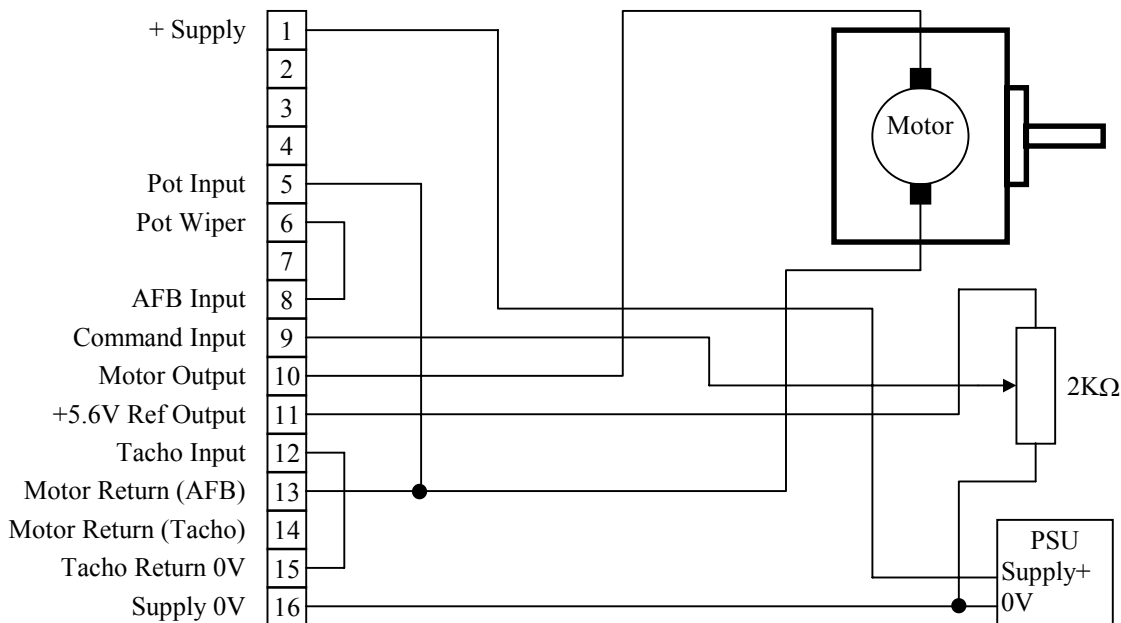
Maximum height: 47 mm
There are four mounting holes $\varnothing 2.7$ mm

Connections

Connector type: 32 way a,b 1/2 size DIN 41612 connector (Mating half connector - RS:481-847, Farnell:270-167)

Pin 1 a&b	+ DC Supply (15 - 24 V DC)
Pin 5 a&b	Pot Input (1K Ω)
Pin 6 a&b	Pot Wiper (Output)
Pin 8 a&b	Armature Feedback Input
Pin 9 a&b	Speed Command Input
Pin 10 a&b	Motor Output
Pin 11 a&b	+5.6V Reference Output (maximum current: 5 mA)
Pin 12 a&b	Tachometer Input
Pin 13 a&b	Motor Return (Armature Feedback)
Pin 14 a&b	Motor Return (Tachometer Feedback)
Pin 15 a&b	Tacho Return (0V)
Pin 16 a&b	Supply 0V

Connection Diagram for Armature Feedback



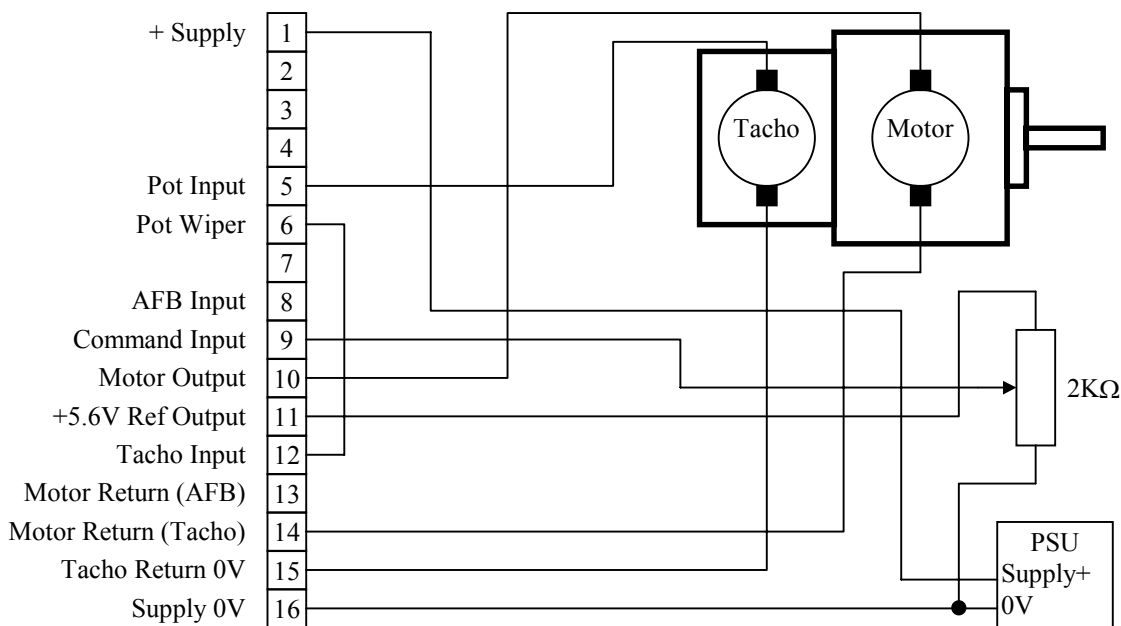
For armature feedback:

Fit 1M Ω resistor across **R1** turret lugs (default).

Fit wire link across **C1** turret lugs (default – ignore capacitor).

Feedback trimmer **VR1** adjusts velocity feedback scaling.

Connection Diagram for Tachometer Feedback



For armature feedback:

Fit $1\text{M}\Omega$ resistor across **R1** turret lugs (default).

Fit 10nF across **C1** turret lugs (capacitor already present - cut out wire link).

Feedback trimmer **VR1** adjusts velocity feedback scaling.

Limitations of Use

Good engineering practices should be employed when using this product.

The unit should be mounted so that the heatsink fins are vertical, in free air. The heatsink should not be connected to anything. The operating temperature should be between 0°C and 30°C .

Users should take suitable precautions in the application of this product, to ensure that the overall system complies with EN50081-1 and EN50082-1 (EMC directive).

These products should not be put into service until the machinery in which they are incorporated has been declared in conformity with the provisions of The Supply of Machinery (Safety) Regulations 1992 and The Supply of Machinery (Safety) (Amendment) Regulations 1994 (Machinery directive).

Motor control systems are inherently hazardous. Even a small motor, if coupled to a leadscrew, gearbox, or any other form of mechanism which provides a mechanical advantage, can generate considerable force and could cause serious injury. Incorrect operation can also lead to damage to the motor or associated machinery.

