

DMU 2



**0(4) - 20mA
Angular Position
Sensor**

**Dependable
Robust
Easy to use
Accurate**

ELECTRONIC POSITION TRANSMITTER DMU 2

Application

The RACO angular position transducer, DMU 2, converts the angle of a rotating shaft into a proportional, load independent, direct current signal of 0 (4) to 20 mA. Angular position transducers are particularly useful as feedback devices to position actuators in a closed loop system for valve, gate, louver and screen applications, or in general, as angular positioning indicators. For measurements of angular positions, exceeding 345°, gear sets are available from RACO's modular program to facilitate these applications.

Design

The RACO angular position transducer, DMU 2, consists of a precision potentiometer and an electronic circuit board encapsulated in a potted housing for temperature uniformity and environmental protection. On the back side of the angular position transducer two multi turn trim potentiometers and a selector switch providing easy access for angular range, offset and gain adjustment. The position of the selector switch defines the current output signal as 0(4) to 20 mA or 20 to (4)0 mA. The

adjustment of the 4 mA starting angular position is easily achieved by rotating the supplied mechanical clutch. The slip clutch mechanism connects the DMU 2 potentiometer shaft to the rotating equipment shaft which allows for rotational and some angular misalignment.

The mounting of the DMU2 is comparable to the mounting of a standard potentiometer and, therefore, makes it very easy to upgrade from a 0 to 10V angular position voltage signal to the more robust and noise immune 4-20 mA angular position signal.

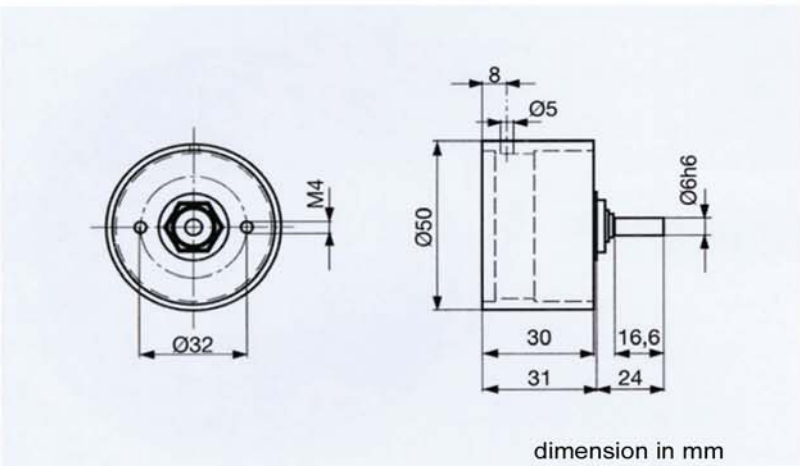
Principle of Operation

As the potentiometer rotates, an angular proportional voltage will be generated. This voltage will be converted via control amplifiers into a load independent proportional self regulated current signal. Variations in the supply voltage are automatically compensated by the control amplifiers via feedback control loops of the output current signal. The output current is limited to a maximum value of 24mA.

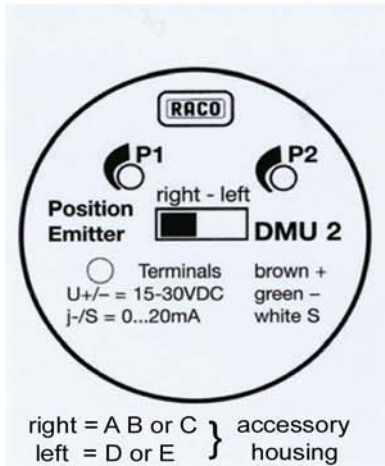
Specifications:

Power Supply:	15 to 30 V DC, filtered
Potentiometer:	1 kΩ
Current dissipation:	30 mA max.
Output signal:	0(4) to 20 mA
Linearity:	<8%
Temperature range:	-20°C to +70°C
Load:	1200 ohm max, 30V

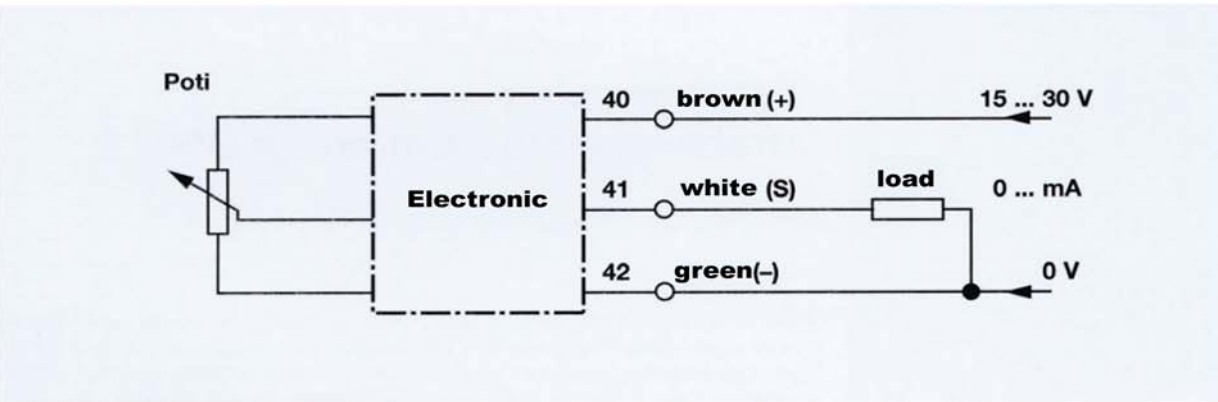
Dimensions



Adjustments



Schematic



Adjustment Range

