

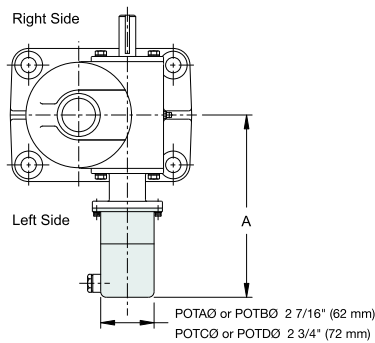
OPTIONS GEARED POTENTIOMETERS

Joyce geared potentiometers are ideal for precise, accurate positioning applications. Using a 10-turn potentiometer, a signal is provided as either a change in resistance or current (when supplied with a 4-20 mA instrument transformer), which is proportional to the actual position of the screw. Geared potentiometers are commonly needed when PLCs or computers control jacks.

Geared potentiometers are available on wormgear design jacks of 2-ton to 150-ton capacity. They include a slip clutch to prevent damage due to over-rotation but should always be inspected during installation to ensure that a full range of motion is available throughout the jack travel.

As an additional option, geared potentiometers are available with upper and lower mechanical limit switches. These are common SPDT cam operated switches used for end of travel limits or set points. The standard operating voltage is less than or equal to 48 V (an operating voltage of greater than 48 V is available upon request).

Ordering information is found within specific product sections.



Jack Capacity	POTA and POTB "A"	POTC and POTD "A"
2 Ton	6 3/8	8 1/4
2.5 Ton	6 1/4	8
3 Ton	6 1/4	8
5 Ton	7	8 7/8
10 Ton	7 7/8	9 7/8
15 Ton	7 7/8	9 7/8
20 Ton	8 1/4	10 1/4
25 Ton	9	10 7/8
30 Ton	9	10 7/8
35 Ton	9	10 7/8
50 Ton	10 7/8	12 3/4
75 Ton	12 1/4	14 1/8
100 Ton	12 1/4	14 1/8
150 Ton	12 1/4	14 1/8

Order Codes	Descriptions	Rating
POTA	0-10 V	IP65
POTB	4-20 mA	IP65
POTC	0-10 V with 2 limit switches	IP65
POTD	4-20 mA with 2 limit switches	IP65

Instrument Transformer Characteristics (POTB and POTD)	
Supply Voltage (+U _s)	24 VDC +/- 20%
Max. Load Impedance (R _l)	< 500 Ω
Output Current (I _{MESS})	4-20 mA 24 V DC ±20 %, with load ≤500*
*Standard output signal increases as screw extends	

Geared Potentiometer Electrical Characteristics	
Resistance	10 kΩ
Resistance Tolerance	+/- 5 %
Linearity Tolerance	+/- 0.25%
Load Capacity	2 W at 70°C
Standard Residual End Point Resistance	Greater of 0.2% or 1Ω
Operating Temperature	-20°C to 80°C



POTA – 0-10 VDC / POTB – 4-20mA

- 10-turn geared potentiometer with integrated slip clutch
- Model ratio is selected to maximize resolution and match shaft direction of rotation for each application at time of order
- Housing: Reinforced plastic with aluminum
- Shaft: Stainless steel
- Connector: Cable gland is standard
- Temperature rating: -4°F to 176°F (-20°C to 80°C)
- IP65 rating



POTC – 0-10 VDC / POTD – 4-20mA With limit switches

- 10-turn geared potentiometer with integrated slip clutch
- Includes 2 adjustable cam-operated limit switches
- Model ratio is selected to maximize resolution and match shaft direction of rotation for each application at time of order
- Housing: Aluminum
- Shaft: Browned steel
- Connector: Cable gland is standard
- Temperature rating: -4°F to 176°F (-20°C to 80°C)
- IP65 rating