



Potentiometer Linear Position Sensors LSRS-33P Series

Overview

The ProSense LSRS-33P series offers rodless slide action. This series is available in 400 to 1,250mm stroke measurement with an infinite resolution and IP40 protection rating. The LSRS-33P series linear position sensors offer similar form factors as competitors and are available at a less expensive cost.

Features

- 400 to 1250mm stroke measurement
- Rodless slide action
- Channel mount
- 18mm DIN 43650 Form A connection
- IP40 protection rating
- Mounting hardware and connectors (LSRS33-ACC-KIT) included



LSRS-33P-0400-D5-C1

Potentiometer Linear Position Sensors LSRS-33P Series Selection Chart

Part Number	Price	Action	Resistance	Useful Stroke (US) mm [in]	Mechanical Stroke (MS) mm [in]	Linearity	Housing Size	Drawing Link	Weight kg [lb]
LSRS-33P-0400-D5-C1	\$06dbg:	Rodless slide	5kΩ	400 [15.75]	404 [15.90]	+/- 0.05%	33 x 33 x 558mm body	PDF	1.2 [2.64]
LSRS-33P-0450-D5-C1	\$06dbh:			450 [17.71]	454 [17.87]	+/- 0.05%	33 x 33 x 608mm body	PDF	1.3 [2.86]
LSRS-33P-0500-D5-C1	\$-06dbi:			500 [19.69]	504 [19.84]	+/- 0.05%	33 x 33 x 658mm body	PDF	1.4 [3.08]
LSRS-33P-0550-D5-C1	\$-06dbj:			550 [21.65]	554 [21.81]	+/- 0.05%	33 x 33 x 708mm body	PDF	1.5 [3.3]
LSRS-33P-0600-D5-C1	\$06dbk:			600 [23.62]	604 [23.77]	+/- 0.05%	33 x 33 x 758mm body	PDF	1.6 [3.52]
LSRS-33P-0650-D10-C1	\$-06dbl:		10kΩ	650 [25.59]	654 [25.74]	+/- 0.05%	33 x 33 x 808mm body	PDF	1.7 [3.74]
LSRS-33P-0700-D10-C1	\$06dbn:			700 [27.56]	704 [27.71]	+/- 0.05%	33 x 33 x 858mm body	PDF	1.8 [3.96]
LSRS-33P-0750-D10-C1	\$06dbo:			750 [29.53]	754 [29.68]	+/- 0.05%	33 x 33 x 908mm body	PDF	1.9 [4.18]
LSRS-33P-0800-D10-C1	\$06dbp:			800 [31.50]	804 [31.65]	+/- 0.05%	33 x 33 x 958mm body	PDF	2.0 [4.4]
LSRS-33P-0850-D10-C1	\$06dbq:			850 [33.46]	854 [33.62]	+/- 0.05%	33 x 33 x 1008mm body	PDF	2.1 [4.62]
LSRS-33P-0900-D10-C1	\$06dbq:			900 [35.43]	904 [35.59]	+/- 0.05%	33 x 33 x 1058mm body	PDF	2.2 [4.84]
LSRS-33P-1000-D10-C1	\$06dg1:			1000 [39.37]	1004 [39.52]	+/- 0.05%	33 x 33 x 1158mm body	PDF	2.4 [5.28]
LSRS-33P-1250-D20-C1	\$06dbu:		20kΩ	1250 [49.21]	1254 [49.37]	+/- 0.05%	33 x 33 x 1408mm body	PDF	2.9 [6.38]

Potentiometer Linear Position Sensors Accessory Kit

Part Number	Price	Drawing Link	Description
LSRS33-ACC-KIT	\$6gdd:	PDF	ProSense mounting hardware, replacement. For use with ProSense LSRS-33P Linear Potentiometers.



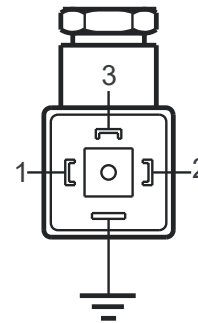
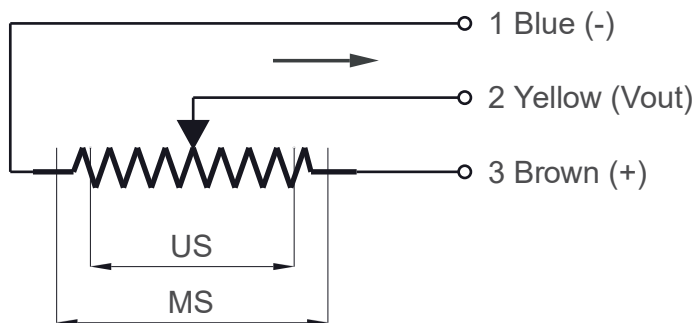
LSRS33-ACC-KIT



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Potentiometer Linear Position Sensors LSRS-33P Series Specifications	
Repeatability	0.01 mm [0.0004 in]
Permissible Applied Voltage	28VDC max.
Displacement Speed	< 1.5m/s
Mechanical Life	100 million movement
Displacement Force	3.5N (typical) IP60 version, 15N (typical) IP65 version
Vibration (According to EN 60068-2-6)	5-2000 Hz, 200m/s ² (20g) 2h 30min each axis (x,y,z)
Shock (According to EN 60068-2-2:2007)	11ms. (x,y,z axis) 500 m/s ² (50g)
Resistance Tolerance	±20%
Load Resistance	100 KΩ min.
Recommended Wiper Current	<1 μA
Operating Temperature	-20 to 80°C [-4 to 176°F]
Storage Temperature	-30 to 90°C [-22 to 194°F]
Case Material	Anodized aluminum
Connection	18mm DIN 43650 Form A
Mounting	Brackets with adjustable distance between centers, or with M5 screw ISO4017-DIN933
Agency Approval	CE

Electrical Connections



When choosing a transducer, it is important to remember that different strokes exist:

- Mechanical Stroke (MS): The actual shift that the transducer's cursor (wiper) is able to make.
- Useful Electrical Stroke (US): The part of the mechanical stroke in which transducer linearity is guaranteed.
- Therefore, when designing an application, you should choose a transducer with a useful electrical stroke that is equal to or greater than the maximum displacement carried out by the moving part.