# nexen.

# WEB CONTROL PRODUCTS

User Manual



Linear Actuator 600 lbs



In accordance with Nexen's established policy of constant product improvement, the specifications contained in this manual are subject to change without notice. Technical data listed in this manual are based on the latest information available at the time of printing and are also subject to change without notice.

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# **A** DANGER

Read this manual carefully before installation and operation. Follow Nexen's instructions and integrate this unit into your system with care. This unit should be installed, operated and maintained by qualified personnel ONLY. Improper installation can damage your system, cause injury or death. Comply with all applicable codes.



This document is the original, non-translated, version.

Conformity Declaration: In accordance with Appendix II B of CE Machinery Directive (2006/42/EC):

A Declaration of Incorporation of Partly Completed Machinery evaluation for the applicable EU directives was carried out for this product in accordance with the Machinery Directive. The declaration of incorporation is set out in writing in a separate document and can be requested if required.

This machinery is incomplete and must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the applicable provisions of the Directive.

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ISO 9001 Certified

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# INTRODUCTION

Nexen's Linear Actuators provide the thrust that is required to move an unwind stand, a wind up roll stand or to convert an existing hydraulically actuated web guiding mechanism to electrical actuation.

Nexen's Linear Actuators are available in several models with different strokes.

To ensure optimum response and accuracy, roll stands should be mounted on linear ball bearings. Sliding ways and wheel track systems have higher coefficients of friction which requires greater break away thrust. Greater break away thrust prevents accurate, minute corrections.

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# **INSTALLATION**

NOTE: Refer to Figure 1

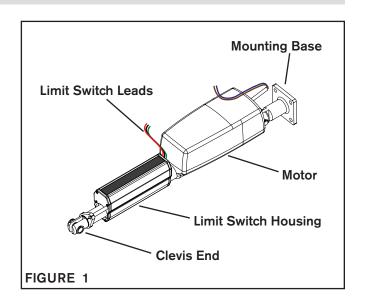
- Attach the Mounting Base bracket to a fixed member of the guiding mechanism.
- 2. Connect the Clevis End to the moveable member of the guiding mechanism.



# **CAUTION**

Do NOT use the Linear Actuator for Radial (side) loads.

The Linear Actuator is designed for axial (thrust) loads ONLY.



# **ELECTRICAL CONNECTIONS**

NOTE: Refer to Figure 2

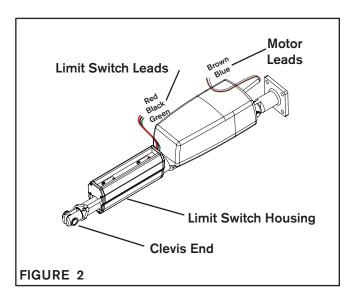
 Connect the motor leads of the Linear Actuator to the motor output terminals of the Web Guide Controller, as follows:



NOTE: If the Linear Actuator moves in the wrong direction, then reverse the wire lead connections.

2. Connect the Limit Switch leads to the Limit Switch terminals of the Web Guide Controller as follows:

Red lead	to	Extension.
Black lead	to	Retraction.
Green lead	to	Common.
Shield lead	to	Shield.



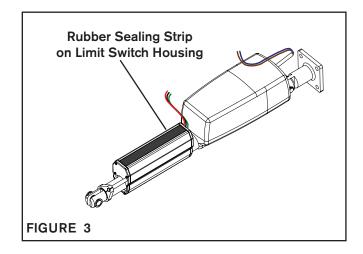
FORM NO. L-21023-F-0812

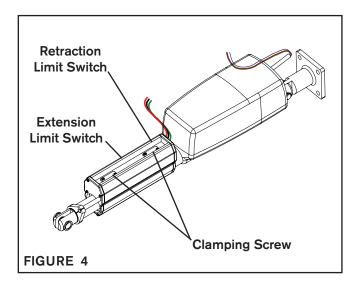
# LIMIT SWITCH ADJUSTMENT

NOTE: Refer to Figures 3, 4

The limit switches factory default setting are for the maximum stroke.

- Turn the Web Guide Controller to "ON" and place it in the manual mode.
- Carefully remove the Rubber Sealing Strip from the Limit Switch Housing.
- Press the button on the Web Guide Controller that extends the Linear Actuator until the desired extension position is reached. Refer to your controller manual for specific details.
- Use a screwdriver to loosen the Clamping Screw on the Extension Limit Switch.
- Slide the Extension Limit Switch toward the Retraction Switch until the Web Guide Controller indicates that the switches have changed state.
- Tighten the Clamping Screw on the Extension Limit Switch.
- Press the button on the Web Guide Controller that retracts the Linear Actuator to the desired retraction position. Refer to your controller manual for specific details.
- Use a screwdriver to loosen the Clamping Screw on the Retraction Limit Switch.
- Slide the Extension Limit Switch toward the Retraction Switch until the Web Guide Controller indicates that the switches have changed state.
- 10. Tighten the Clamping Screw on the Retraction Limit Switch.
- 11. Replace the Rubber Sealing Strip in the Limit Switch Housing.





# **CAUTION**

If there is a physical obstruction or stop, then the Limit Switches MUST be adjusted to interrupt the Linear Actuator's movement before contact is made with the physical obstruction or stop.

Failure to adjust the Limit Switches will damage both the Linear Actuator and the Web Guiding Mechanism.

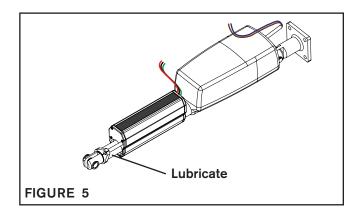
If there is no physical obstruction to travel, then the Limit Switches may be left in their factory set default positions.

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# **MAINTENANCE**

NOTE: Refer to Figure 5

Apply a few drops of light machine oil to the actuating rod. The frequency in which the Linear Actuator will require lubrication depends upon the working environment.



# **PRODUCT NUMBERS**

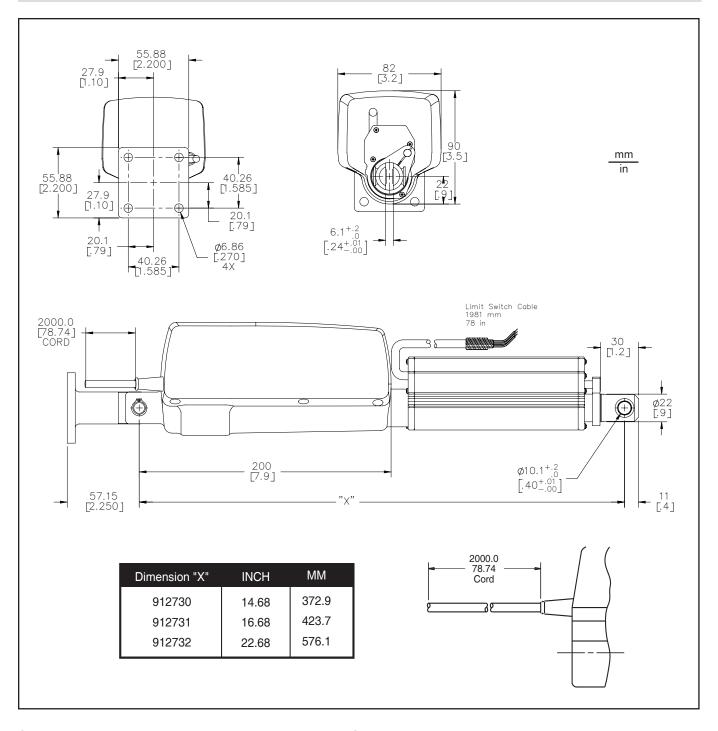
Linear Actuator / 600 lbs, 4 inch stroke	912730
Linear Actuator / 600 lbs, 6 inch stroke	912731
Linear Actuator / 600 lbs, 12 inch stroke	912732

# **SPECIFICATIONS**

Product Number	Speed [inches per second] [mm per second]	Thrust [lbs] [newtons]	Stroke [inches] [mm]	Power [volts] [amps]	Environmental Protection Rating
912730	.35 8.89	600 2669	4 100	24 VDC 4.5 max	IP51*
912731	.35 8.89	600 2669	6 150	24 VDC 4.5 max	IP51*
912732	.35 8.89	600 2669	12 300	24 VDC 4.5 max	IP51*

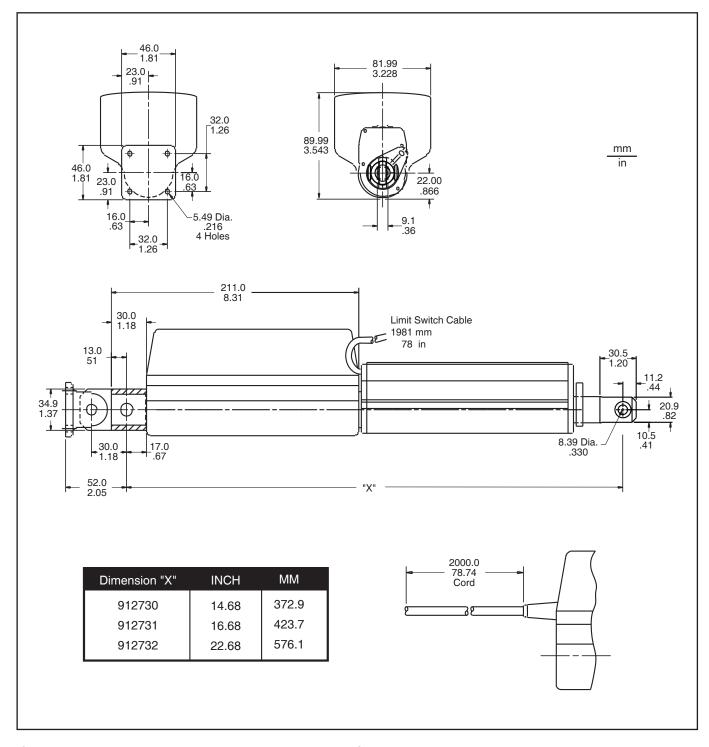
<sup>\*</sup> Protected against the ingress of dust and dripping water

# **Linear Actuator Dimensions**



See next page for product dimensions prior to July, 2012. Check product to verify.

# **Linear Actuator Dimensions**



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Obsolete mounting bracket on product prior to July, 2012. Check product to verify.

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# **WARRANTY**

#### Warranties

Nexen warrants that the Products will (a) be free from any defects in material or workmanship for a period of 12 months from the date of shipment, and (b) will meet and perform in accordance with the specifications in any engineering drawing specifically for the Product that is in Nexen's current product catalogue, or that is accessible at the Nexen website, or that is attached to this Quotation and that specifically refers to this Quotation by its number, subject in all cases to any limitations and exclusions set out in the drawing. NEXEN MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. This warranty applies only if: (a) the Product has been installed, used and maintained in accordance with any applicable Nexen installation or maintenance manual for the Product; (b) the alleged defect is not attributable to normal wear and tear; (c) the Product has not been altered, misused or used for purposes other than those for which it was intended; and (d) Buyer has given written notice of the alleged defect to Nexen, and delivered the allegedly defective Product to Nexen, within one year of the date of shipment.

#### **Exclusive Remedy**

The exclusive remedy for the Buyer for any breach of any warranties provided in connection with this agreement will be, at the election of Nexen: (a) repair or replacement with new, serviceably used, or reconditioned parts or products; or (b) issuance of credit in the amount of the purchase price paid to Nexen by the Buyer for the Products.

#### **Agent's Authority**

Buyer agrees that no agent, employee or representative of Nexen has authority to bind Nexen to any affirmation, representation, or warranty concerning the Products other than those warranties expressly set forth herein.

### Limitation on Nexen's Liability

TO THE EXTENT PERMITTED BY LAW NEXEN SHALL HAVE NO LIABILITY TO BUYER OR ANY OTHER PERSON FOR INCIDENTAL DAMAGES, SPECIAL DAMAGES, CONSEQUENTIAL DAMAGES OR OTHER DAMAGES OF ANY KIND OR NATURE WHATSOEVER, WHETHER ARISING OUT OF BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, NEGLIGENCE OR OTHER TORT, OR OTHERWISE, EVEN IF NEXEN SHALL HAVE BEEN ADVISED OF THE POSSIBILITY OR LIKELIHOOD OF SUCH POTENTIAL LOSS OR DAMAGE. For all of the purposes hereof, the term "consequential damages" shall include lost profits, penalties, delay damages, liquidated damages or other damages and liabilities which Buyer shall be obligated to pay or which Buyer may incur based upon, related to or arising out of its contracts with its customers or other third parties. In no event shall Nexen be liable for any amount of damages in excess of amounts paid by Buyer for Products or services as to which a breach of contract has been determined to exist. The parties expressly agree that the price for the Products and the services was determined in consideration of the limitation on damages set forth herein and such limitation has been specifically bargained for and constitutes an agreed allocation of risk which shall survive the determination of any court of competent jurisdiction that any remedy herein fails of its essential purpose.

### Inspection

Buyer shall inspect all shipments of Products upon arrival and shall notify Nexen in writing, of any shortages or other failures to conform to these terms and conditions which are reasonably discoverable upon arrival without opening any carton or box in which the Products are contained. Such notice shall be sent within 14 days following arrival. All notifications shall be accompanied by packing slips, inspection reports and other documents necessary to support Buyer's claims. In addition to the foregoing obligations, in the event that Buyer receives Products that Buyer did not order, Buyer shall return the erroneously shipped Products to Nexen within thirty (30) days of the date of the invoice for such Products; Nexen will pay reasonable freight charges for the timely return of the erroneously shipped Products, and issue a credit to Buyer for the returned Products at the price Buyer paid for them, including any shipping expenses that Nexen charged Buyer. All shortages, overages and nonconformities not reported to Nexen as required by this section will be deemed waived.

### **Limitation on Actions**

No action, regardless of form, arising out of any transaction to which these terms and conditions are applicable may be brought by the Buyer more than one year after the cause of action has accrued.



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