



WEB CONTROL PRODUCTS

User Manual



Automatic Centering Sensor

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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WARNING

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 or cause injury or death.

Comply with all applicable codes.

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INTRODUCTION

Read this manual carefully, making full use of its explanations and instructions. The “Know How” of safe, continuous, trouble-free operation depends on the degree of your understanding of the system and your willingness to keep all components in proper operating condition. Pay particular attention to all NOTES, CAUTIONS, and WARNINGS to avoid the risk of personal injury or property damage. It is important to understand that these NOTES, CAUTIONS, and WARNINGS are not exhaustive. Nexen cannot possibly know or evaluate all conceivable methods in which service may be performed, or the possible hazardous consequences of each method. Accordingly, anyone who uses a procedure that is not recommended by Nexen must first satisfy themselves that neither their safety or the safety of the product will be jeopardized by the service method selected.

Nexen’s Automatic Centering Sensor is used with an Automatic Web Guide Amplifier, and provides the feedback signal to the amplifier when the amplifier is in its Automatic Centering Mode. Automatic Centering Mode in these amplifiers allows the amplifier logic circuit to disregard signals received from the Automatic Centering Sensor.

The Automatic Centering Sensor is mounted to an unwind or winding roll stand, or a guide roll mechanism in such a way as to provide a null signal when the mechanical device is at the center of its movement, and a positive or negative signal when it is off-center.

INSTALLATION

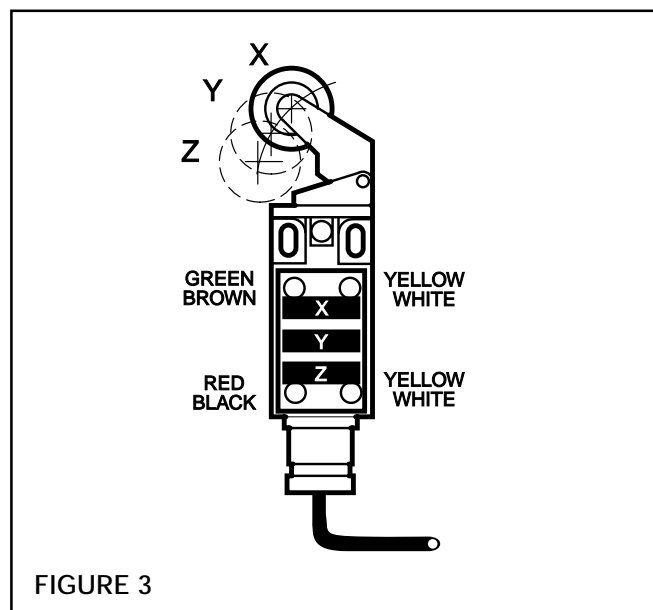
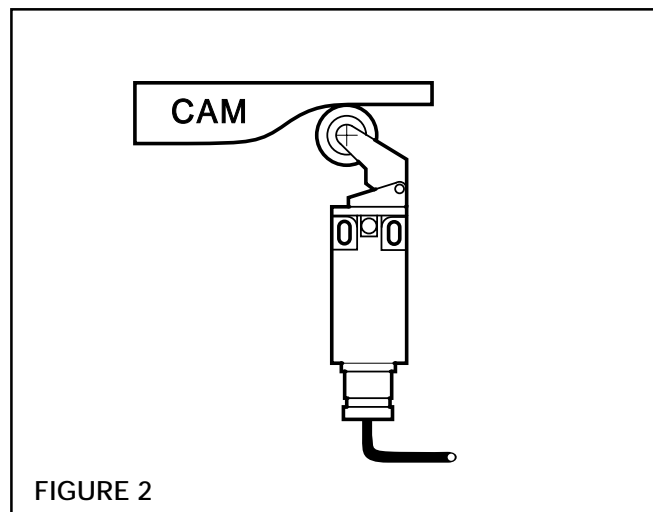
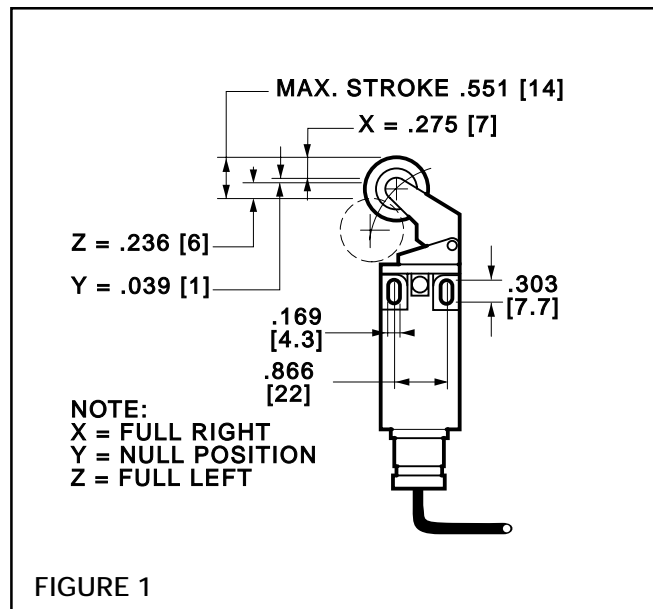
1. Using customer supplied mounting screws, mount Automatic Centering Sensor to Guide Roll Assembly Mounting Base or Roll Stand (See Fig. 1).

NOTE: Mounting holes are elongated to allow for position adjustment. Do not tighten mounting screws at this time.

2. Locate Automatic Centering Sensor so that the contact wheel will be actuated through its arc of movement as the roll stand or guide roll mechanism moves from full left to full right position.

NOTE: If a suitable position can not be found, it may be necessary to fabricate a cam to be attached to the moveable member (See Fig. 2)

3. Move roll stand or guide roll mechanism to the center of its travel.
4. Move Automatic Centering Sensor until contact wheel is in contact with moveable member, or cam
 - a. Move Automatic Centering Sensor until readings taken with Ohmmeter show **OPEN** between **GREEN** and **BROWN** lead, and the **WHITE** and **YELLOW** lead; and also between the **RED** and **BLACK** and **WHITE** and **YELLOW** lead (See Fig. 3).
 - b. Tighten hold down screw.
5. Move roll stand or guide roll mechanism off-center in one direction, and check that there is still continuity between the **WHITE** and **YELLOW** lead and one of the other two leads (See Fig. 3).
6. Move roll stand or guide roll mechanism through center to off-center on the other side. Continuity should now show between the **WHITE** and **YELLOW** lead and the other lead (See Fig. 3).
7. Move roll stand or guide roll mechanism back to center, all leads should show open again.



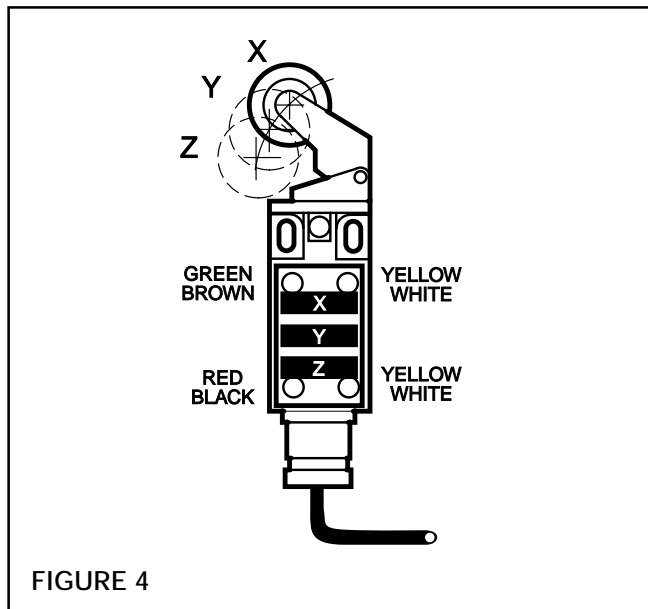
ELECTRICAL CONNECTIONS

Make all Electrical Connections according to instructions provided with the Web Guide Amplifier.

TROUBLESHOOTING

Web Guide Amplifier is set to Auto Centering and the controlled device (guide roll mechanism, or roll stand) is off-center and does not move back to center position.

1. Check position of Auto Centering Switch (See **INSTALLATION**).
2. Check continuity between **WHITE** and **YELLOW** leads and one of the other two leads.
 - a. If continuity exists, problem is within the Amplifier's Auto Centering Circuit.
 - b. If continuity does not exist;
 - 1) Individually check continuity of all leads.
 - 2) Check contact set inside Auto Centering Sensor housing for broken contacts (See Fig. 4)



Web Guide Amplifier is set to Auto Centering and controlled device is off-center, then moves further off-center to full travel position.

1. If the Web Guide System moves the web position correctly in Automatic Mode (works correctly in Automatic), reverse **GREEN** and **BROWN** lead with **RED** and **BLACK** lead where the connect to the Web Guide Amplifier Terminal Strip.
2. If Web Guide system also "works backwards" in Automatic Mode, reverse Linear Actuator motor leads (See appropriate Web Guide Amplifier Maintenance Manual).

Controlled device always goes full travel in one direction if Web Guide Amplifier is set to Auto Centering.

1. Check position of Automatic Centering Switch (see **INSTALLATION**).
2. Check for a short circuit between **WHITE** and **YELLOW** leads and one of the other leads.
3. Check contact set inside Automatic Centering Sensor housing for broken parts or welded contact set (See fig. 4).

MOUNTING DIMENSIONS

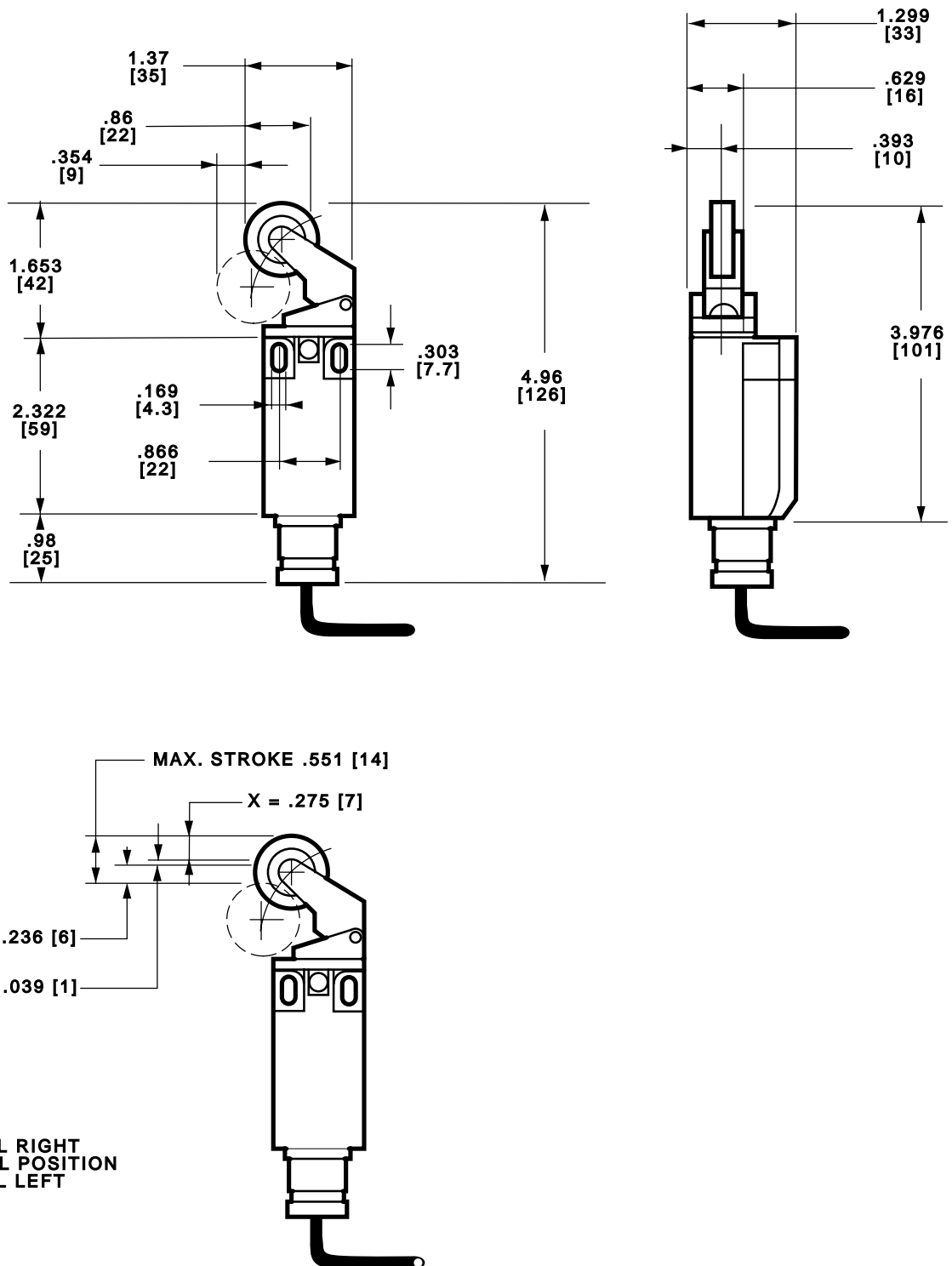


FIGURE 5

WARRANTIES

Warranties

Nexen warrants that the Products will be free from any defects in material or workmanship for a period of 12 months from the date of shipment. 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 of the Buyer for any breach of the warranties set out above will be, at the sole discretion of Nexen, a repair or replacement with new, serviceably used or reconditioned Product, or issuance of credit in the amount of the purchase price paid to Nexen by the Buyer for the Products.

Limitation of 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.

Limitation of Damages

In no event shall Nexen be liable for any consequential, indirect, incidental, or special damages of any nature whatsoever, including without limitation, lost profits arising from the sale or use of the Products.

Warranty Claim Procedures

To make a claim under this warranty, the claimant must give written notice of the alleged defect to whom the Product was purchased from and deliver the Product to same within one year of the date on which the alleged defect first became apparent.

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