

Group	Stage	Date	Unknown
Series	URS20, URS26	Revised	
Element Group	Wiring	Revision	2
Element	Photoelectric Position Sensors	Author	J. Coleman
		# Of Pages	2

URS20, 26 Position Sensor Wiring

Languages	Target Group	Status	Usage	International Restrictions
<input checked="" type="checkbox"/> English	<input type="checkbox"/> Basic	<input type="checkbox"/> In Process	<input type="checkbox"/> Internal	<input checked="" type="checkbox"/> Citizens/Nationals of U.S.A.
<input type="checkbox"/> German	<input checked="" type="checkbox"/> Normal	<input checked="" type="checkbox"/> Completed	<input checked="" type="checkbox"/> Public	Non-Restricted Countries, End
<input type="checkbox"/>	<input type="checkbox"/> Specialist			<input checked="" type="checkbox"/> Uses, and End Users (www.bis.doc.gov)

About the Content:

This document contains a wiring diagram and instructions to connect photoelectric position sensors to the URS20 and URS26 slides.

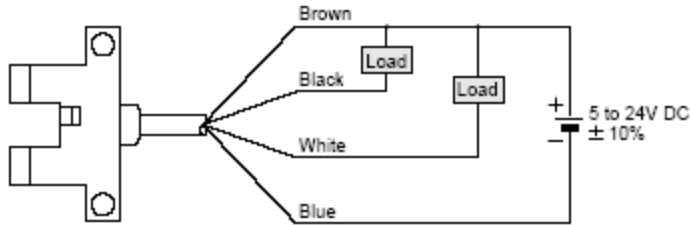
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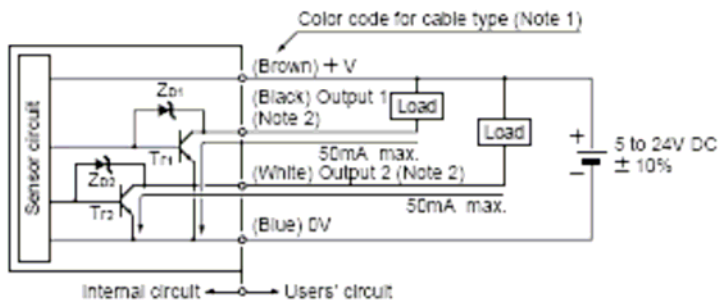
Instructions

First decide if you want/need the position sensor to be Active High or Active Low. The photoelectric position sensors have four lead wires: **Black**, **Brown**, **White**, and **Blue**. You will only connect three of them to the drive (load.) The brown wire is the positive line and will be connected to the +5 to 24VDC; blue is the ground wire and will be connected to the I/O Common. If you want the sensor to be Active High, you will connect the white wire to the drive. If you want the sensor to be Active Low you will connect the black wire to the drive.

Wiring Diagram



I/O circuit diagram



- Notes: 1) The color code of the connector attached cable is also the same.
 2) Ensure to insulate the unused output wire.

Symbols ... Zp1, Zp2: Surge absorption zener diode
 Tr1, Tr2 : NPN output transistor

*Diagrams and chart below from SUNX PM series U-shaped Micro Photoelectric Sensor manual

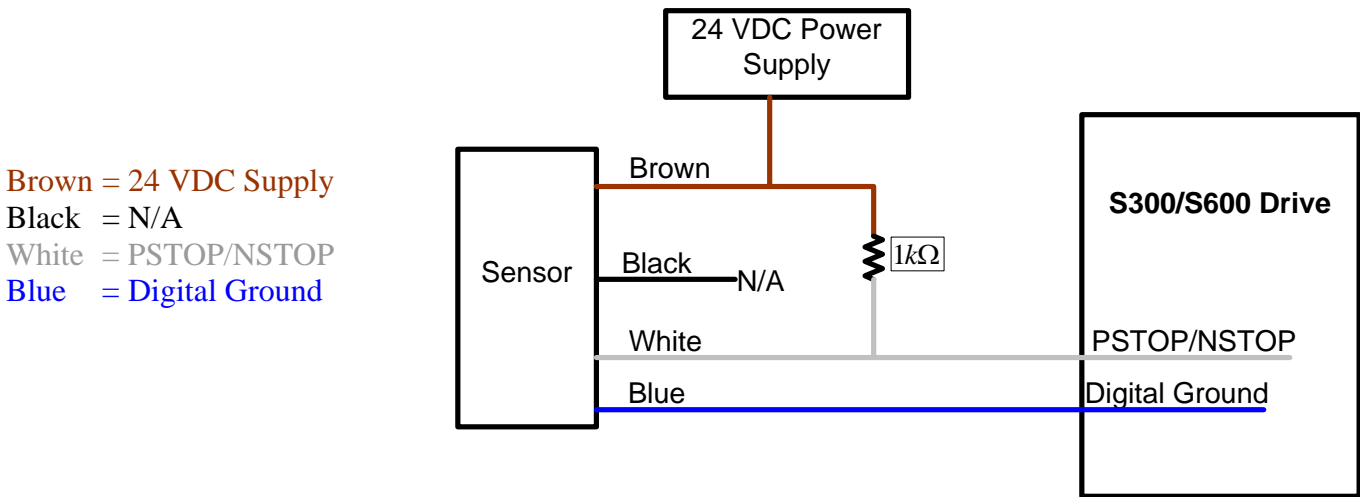
Output Operation

	Wire Color	Output Operation	Output Operation (IDC Manual nomenclature)
Output 1	Black	Active Low	Light-ON
Output 2	White	Active High	Dark-ON

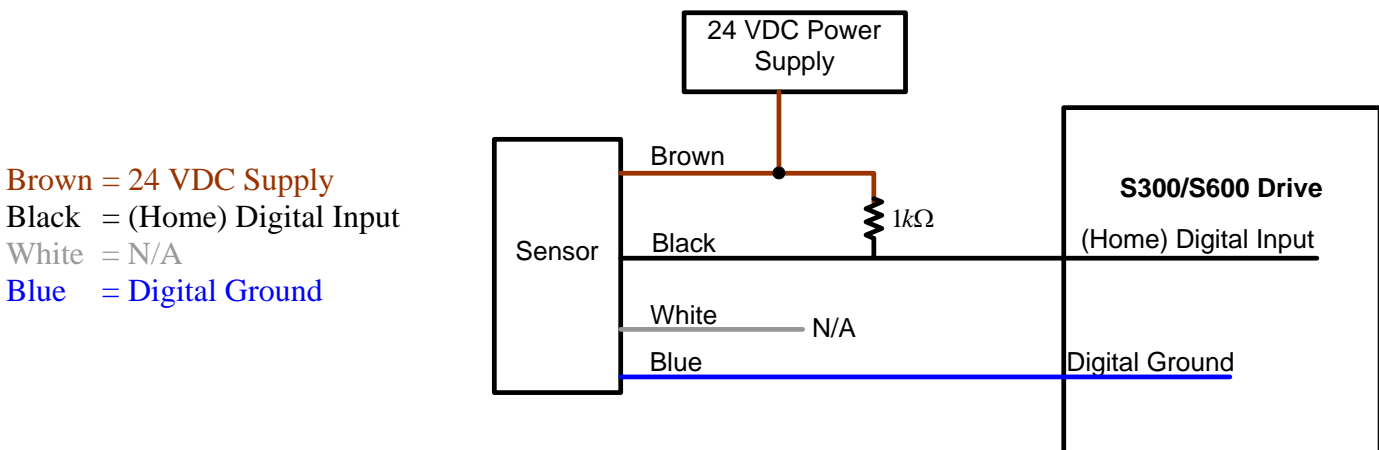
S300/S600 Wiring Diagram

The photoelectric position sensors for the URS 20 and 26 are NPN sensors. The manual for the S300/S600 indicates that PNP limit switches should be used. The photoelectric sensors for the URS will work if the following instructions and diagrams are followed correctly. The following diagrams show the wiring for the photoelectric position sensors to the S300 and S600 drives.

PSTOP/NSTOP Limit Switch



Home (Machine Home Reference) Switch / Digital Input



IDC Drives

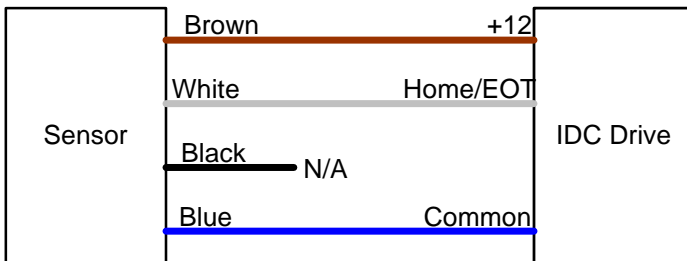
The following diagrams show the wiring for the photoelectric position sensor to the IDC branded drives.

EOT/HOME

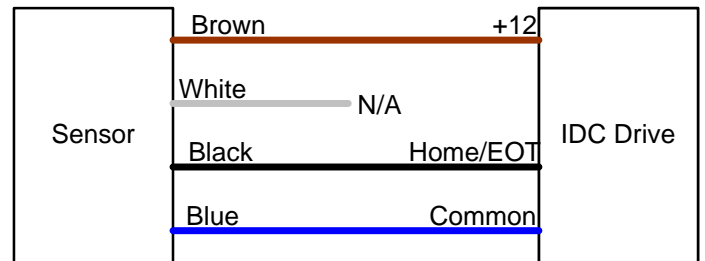
EOT = End Of Travel

EOT or HOME set to Normally Open: Connect the White wire.
 EOT or HOME set to Normally Closed: Connect the Black wire.

Normally Open



Normally closed



For Discrete Inputs

