

Part Measurement Sequence-FAQ

Related Products:

MP2300Siec, MP2310iec, MP2600iec, MP3200iec, Sigma-5 Servopack

Question?

How can one measure the length a product passing on a conveyor using an MP2300Siec?

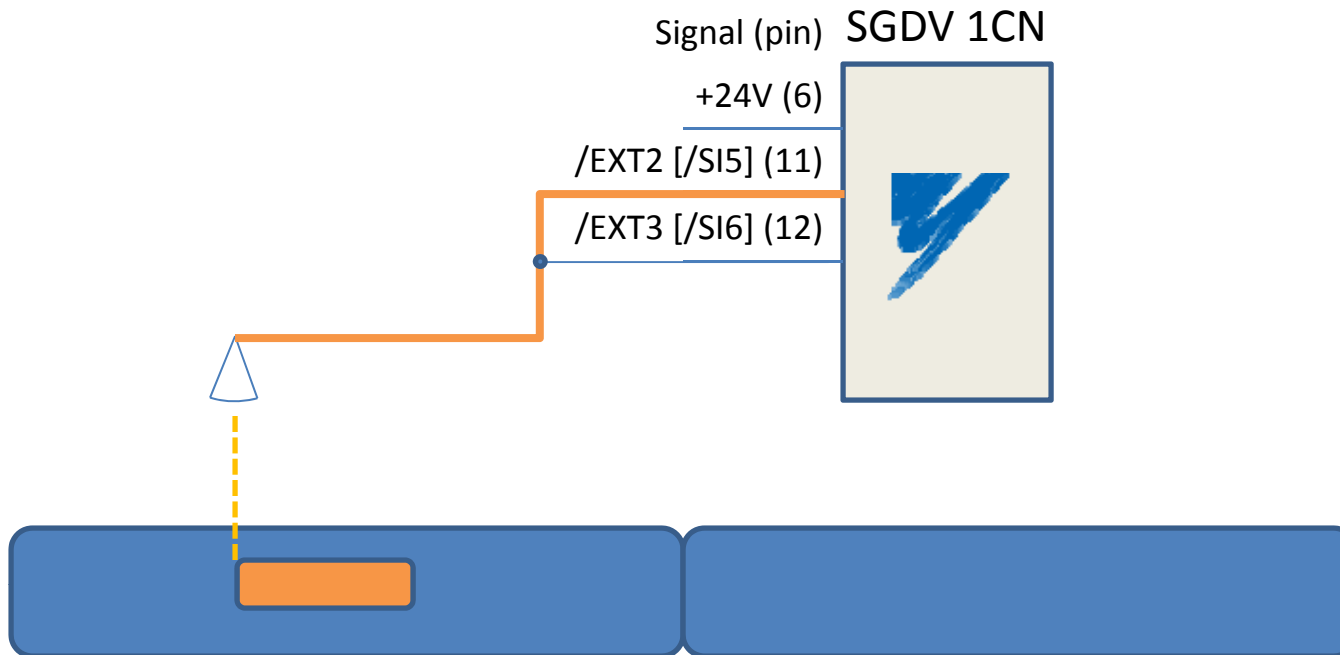
Answer:

It is possible to use one sensor to capture the encoder position of the motor as it detects the leading and trailing edges of the product as it passes below the sensor. One will need to wire the sensor output to two separate high speed latch inputs on the Servopack and change the polarity of the active signal for one of them. Then use the MC_TouchProbe function block to capture the encoder positions. Finally, subtract the two captured positions to calculate the result.

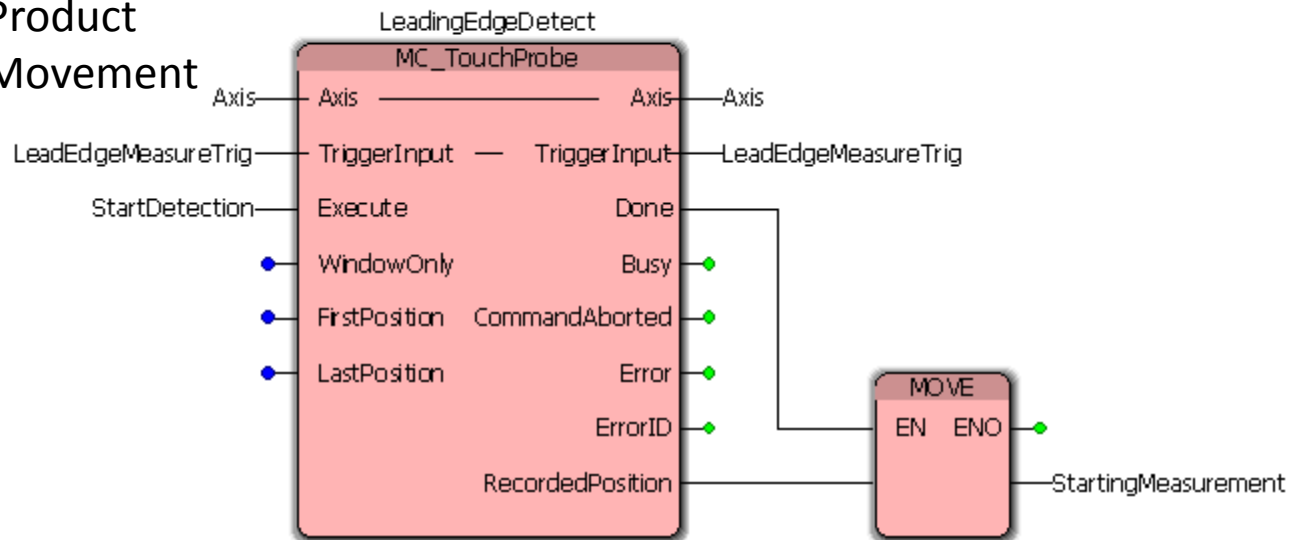
Part Measurement Sequence

- 1) Arm Leading Edge Touch Probe
- 2) When Complete, store captured position (1)
- 3) Arm Falling Edge Touch Probe
- 4) When Complete, store captured position (2)
- 5) Subtract position (2) from position (1) for length of part
- 6) Re-start sequence @ 1 to measure next part

Step 1 & 2

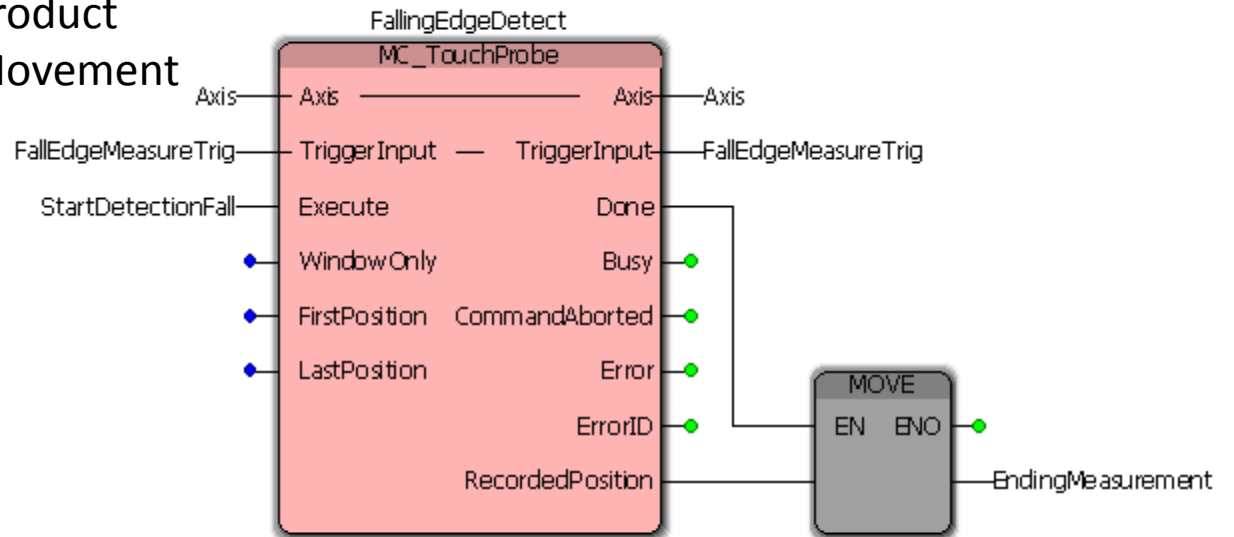
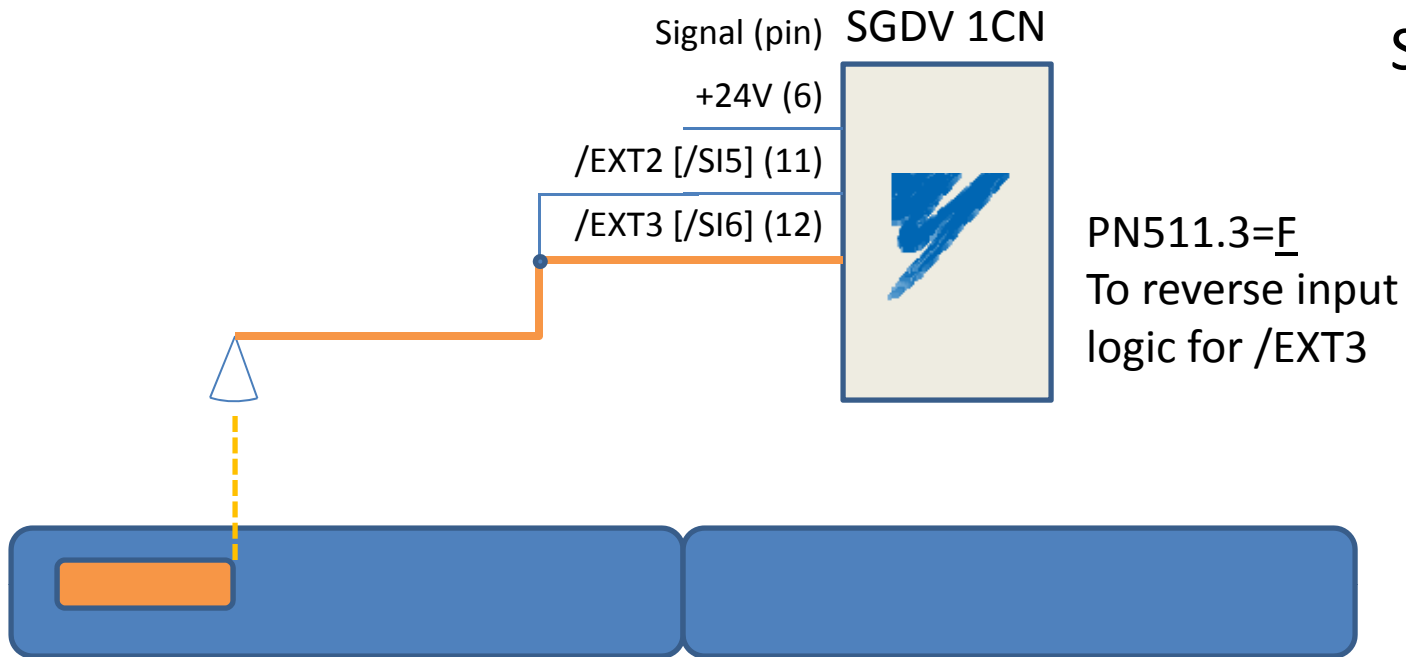


Product Movement



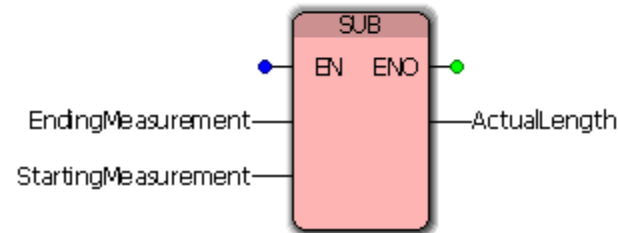
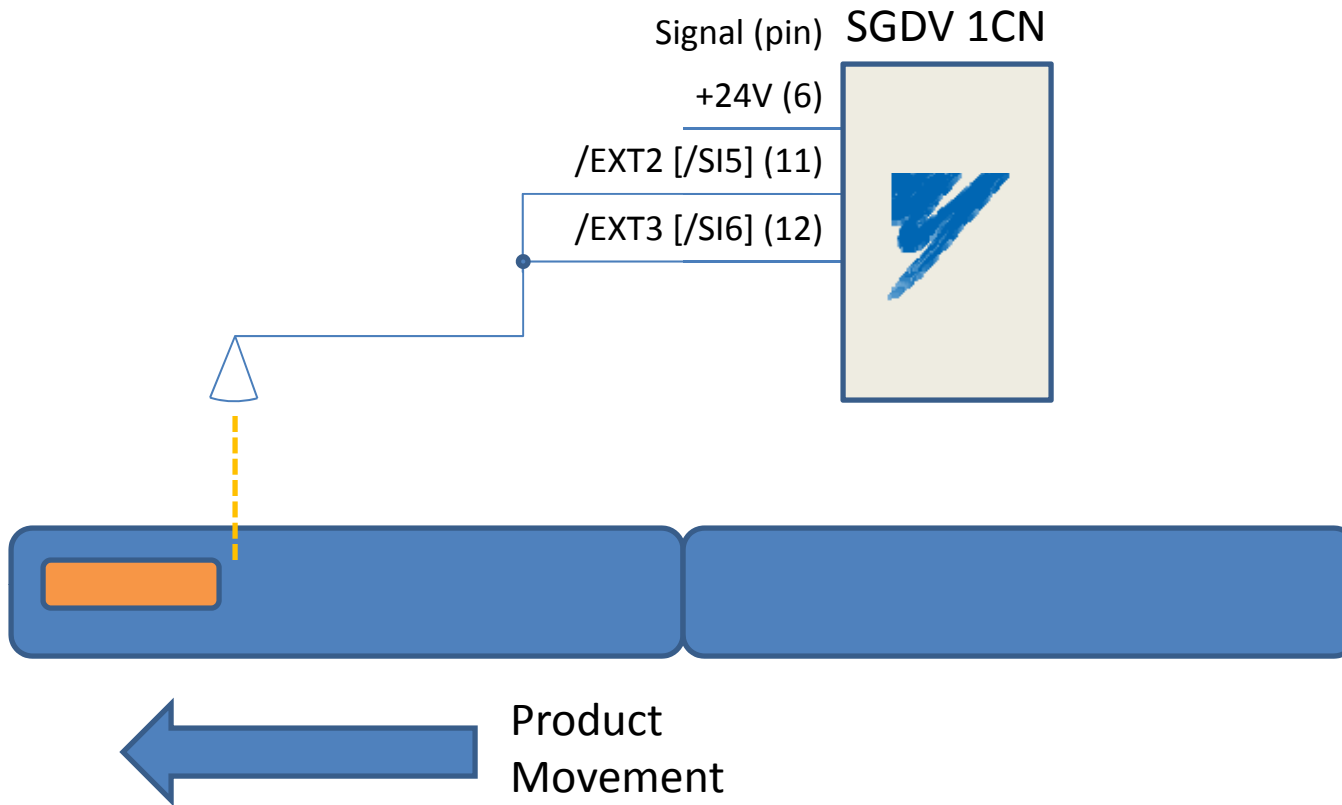
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LeadEdgeMeasureTrig.Bit := UINT#2;
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Step 3 & 4



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FallEdgeMeasureTrig.Bit := UINT#3;
```

Step 5



Wiring / Configuration

- Sensor output is wired in to two SGD V high speed inputs (SI5 & SI6 chosen)
- SI5 captures rising edge of sensor
- SI6 captures falling edge of sensor
 - SI6 is configured for reverse logic in SGD V (PN511.3=F) in order to capture falling edge.

Other Considerations

- This method has some delays to consider:
 - Arming Latch
 - 1 Program scan + 1 Mlink scan
 - Detecting latch complete
 - 1 Mlink scan + 1 Program scan
- If these delay times are too great to measure minimum part length consider using Y_ProbeContinuous function block.
 - Y_ProbeContinuous can capture latches as close together as one Mlink scan.