

Date of Notification	Change	Part Numbers Affected
November 29, 2011	<input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor	All E4 & E4P based encoders; E4, E4P & S4

**Notification**

<input type="checkbox"/> Product Obsolescence	<input type="checkbox"/> Product Marking	<input checked="" type="checkbox"/> Process Change	<input checked="" type="checkbox"/> Design Change
<input type="checkbox"/> Material Change	<input type="checkbox"/> Specification Change	<input checked="" type="checkbox"/> Component Change	<input type="checkbox"/> Other

**Notification Description (Including Extent, Purpose / Reason, and Effect on Form, Fit and Function)**


**Summary of Changes**

We have modified the E4, E4P and S4 product lines in order to improve the performance and durability of the encoder. Changes include new molds for the plastic base and cover parts with an over-molded bushing in the S4 base, a new SMT connector (compatible with current mating connector), and a modified PCB profile to accommodate the new connector and plastic part modifications.


**Mold Changes**

Changes to the plastic base and cover parts include a hood extension over the connector, latches which are rotated 30 degrees farther away from the connector than previously designed, and a smoother round profile on the external side of the latching tabs. Additionally, the new S4 bases will have the brass bushings over-molded into the plastic instead of being secured in place by a press on retainer ring.

The connector extension of the current design is .266" wide and the face of the connector extends radially .516" from the center of the encoder. Due to the wider connector used in the new design, the extension will become .470" wide (.204" wider) and the face of the connector will protrude radially .505" (.011" less) from the center of the encoder.



CURRENT DESIGN



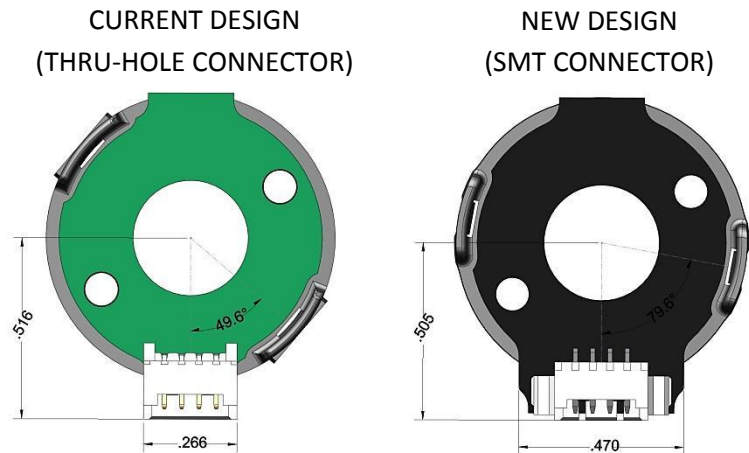
NEW DESIGN

### Connector & PCB Updates

New components will incorporate a surface mount connector (Molex# 53261-0471 or US Digital approved equivalent) in place of the current thru-hole connector (Molex# 53048-0410 or US Digital approved equivalent). Since this is essentially the same connector with a different termination style, the change will have no effect on the mating connector used with any of our standard E4, E4P, and S4 family of products.

The PCB has also been adjusted to accommodate the new connector and new latch placement. However, these changes were done with consideration to maintain the existing alignment between the mounting holes and the connector.

For now, new PCBs will initially come in the same green color as the current boards; in the future they may be replaced with identical black colored PCBs (as shown).



### Additional Images

Front views of current design (left) vs. new design (right).



Current

New

# Product Change Notification

E4 - E4P - S4 Update - PCN  
1014

Underside of S4 encoder showing over-molded bushing.



**Alternate Parts (as applicable)**

N/A

**Effective Date (Including Last Time Buy Date and Conditions, as applicable)**

Implementation will begin on January 3, 2012 and be completed by June 28, 2012 (use all existing inventory until depleted).