

E4T/S4T Q & A

Is the E4T mechanically interchangeable with my current E4P?

- The new E4T will mount to your existing application. The bolt circle and alignment of the electrical connector remain the same as the current E4P; however, the center hole in the E4T base plate is 2mm smaller than the E4P.

What are the mechanical differences between the E4T and the E4P?

- The E4T has some slight dimensional differences in the body of the encoder, in most cases less than .05 inches (1.3mm). If you think this might be an issue, please have your engineering department review our mechanical drawing.
- The center hole in the E4T base plate is 2mm smaller than the E4P.
- The E4T cover must be installed for operation.
- The E4T uses the same mounting holes as the E4P.

How does the E4T electrical output compare to the E4P?

- The connector and pin-out of the E4T are identical to the current E4P.
- The E4T output circuit is designed to interface with all existing E4P applications.
- The E4T output is capable of both sinking and sourcing 8 mA of current as compared to the E4P that can only sink about 3 mA of current.
- The output frequency of the E4T is 100 kHz as compared to 60 kHz for the E4P.

What is the Electrical difference between the E4T and the E4P?

- The E4T is a sink source output and E4P is a sink only output for the single ended option. The differential output is identical for both encoders. For most applications you should not see any difference between the E4T and the E4P.
- The rise and fall times of the E4T output signal is faster. The frequency response is also increased which allows the E4T to operate at a higher RPM electrically. For most applications the rise fall time of the signal is not critical.

What is the difference in the quadrature waveforms between the E4P and E4T?

- The quadrature phasing with regard to A leading B for shaft rotation direction is identical between both encoders. The E4T encoder output signals perform closer to ideal quadrature 90 electrical degrees phasing over the E4P, and the E4T signals have a faster rise and fall time.

Is the E4T available with single ended and differential output options?

- Yes, both are available

What are the differences between assembling the E4P and E4T?

- Because the two encoders are very similar, the assembly process for the E4T is as simple and time efficient as the current E4P. Please see the E4T Assembly Instructions on our website, [www.usdigital.com/assets/assembly/E4T Assembly Instructions.pdf](http://www.usdigital.com/assets/assembly/E4T%20Assembly%20Instructions.pdf).

How does pricing for the new E4T encoder compare to the E4P?

- At this time, the pricing for the new E4T encoder is identical to the current E4P pricing, both being dependent on specific configurations. Please visit our Product Configuration Page (Insert Link) to view pricing. For high volume pricing inquiries, please contact Customer Service at sales@usdigital.com, 1-800-736-0194.

How do I convert my current E4P part number to an equivalent E4T part number?

- Please visit our E4T Product Configuration Page at www.usdigital.com/E4T. If you require assistance converting your part number please contact support@usdigital.com or call 1-800-736-0194 to speak with a Customer Service Agent.

How long will the current E4P encoder be supported?

- The E4T was designed as an alternative to the E4P with increased functionality. Because of the shortage in one of the components used in the E4P, US Digital has been working with our customers to allocate the E4P product line based on historical order volumes. We plan to continue to support our customer's production requirements with this process as long as possible.

How do I find out more information about the E4T?

- Please visit our website at www.usdigital.com/E4T for complete details and specifications.

What are the mechanical differences between the S4T and the S4?

- The S4T has some slight dimensional differences in the body of the encoder, less than .05 inches (1.3mm). If you think this might be an issue, please have your engineering department review our mechanical drawing.
- The shaft and torque options are identical between both encoders.
- The mounting is identical between both encoders.

What is the Electrical difference between the S4T and the S4?

- The S4T is a sink/source output and the S4 is a sink only output for the single ended option. The differential output is identical for both encoders. For most applications you should not see any difference between the S4T and the S4 output circuitry
- The rise and fall times of the S4T output signal is faster. The frequency response is also increased which allows the S4T to operate at a higher RPM electrically.

How do I find out more information about the S4T?

- Please visit our website at www.usdigital.com/S4T for complete details and specifications.

For any other questions or concerns please contact support@usdigital.com or call 1-800-736-0194 to speak with a Customer Service or Technical Support Agent.