E-15 Incremental Encoder

FEATURES

3 or 6 pulses per revolution (standard).
SMD or Through-hole Mount.
Working Temperature Range (-40ºC to +120ºC).
Low Profile (4.4 mm).
Embossed Tape (SMD) or Bulk packaging (Through hole).
Reflow Soldering capability.
Shaft insertable from both sides.
Polarised "T" rotor (European Home Appliance standard).
All PT/ PTC 15 shafts compatible.
IP54 protection according to IEC 60529.

STANDARD SPECIFICATIONS

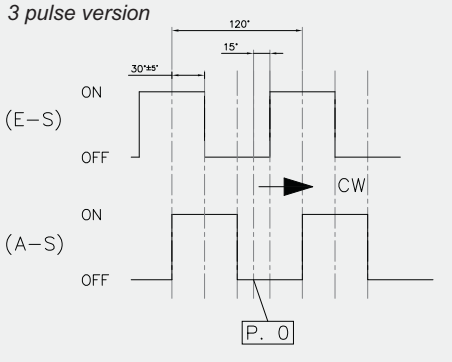
Closed Contact Resistance:	< 5Ω
Open Contact Resistance:	> 10MΩ
Contact Current:	10µA – 100mA
Operating Voltage:	16 VDC (3 pulse)
	13.5±0.2 VDC (6 pulse)
Number of pulses	3 or 6
Mechanical Life:	36K cycles (3 pulse)
	10K (6 pulse)
Rotational Torque:	<2Ncm
Mechanical rotation angle:	360º (endless)
Temperature Range:	-40ºC to +120ºC

TYPICAL APPLICATIONS

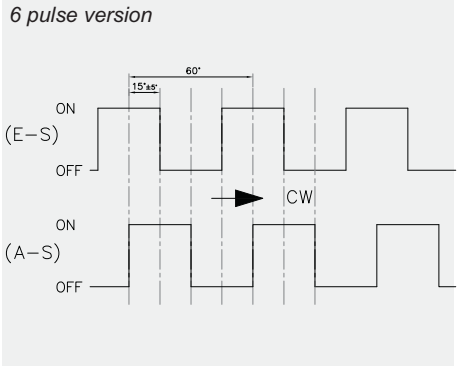
The N-15 potentiometer/sensor series has been expanded to incorporate both encoders and rotary switches in the same package configuration allowing the user to design in any one of the three options whilst keeping the same board layout and user interface. The extended temperature range (-40ºC to +120ºC) allows the encoder to be employed in extreme environmental applications where other encoders currently on the market can not be used. This in combination with optional SMD or through-hole mounting makes the E-15 series ideal for Automotive Heating, Ventilation & Air conditioning, Oven & Microwave (White and Brown goods in general), Kitchen Appliance and Power Tool Controls.

GRAPH CODE

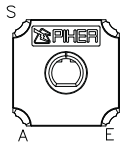
3 pulse version



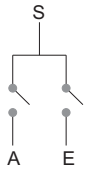
6 pulse version



TERMINAL DESIGNATIONS



Viewed from mounting side



Bit Generator (rotary)

HOW TO ORDER

E15	T	S	-	03
Series	Rotors	Mounting Method		Pulses
E-15	T	V =Through Hole S = SMD H = Horizontal Adjust		03 06
		(See note 1)		

NOTES:

(1) Horizontal adjust versions will be studied case by case

Shafts are not available mounted to the encoder and should be ordered separately

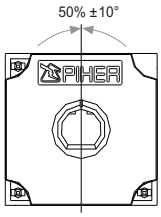
Please note that the features and specifications of custom products are to be used as general guidelines only

HOW TO ORDER CUSTOM DRAWING

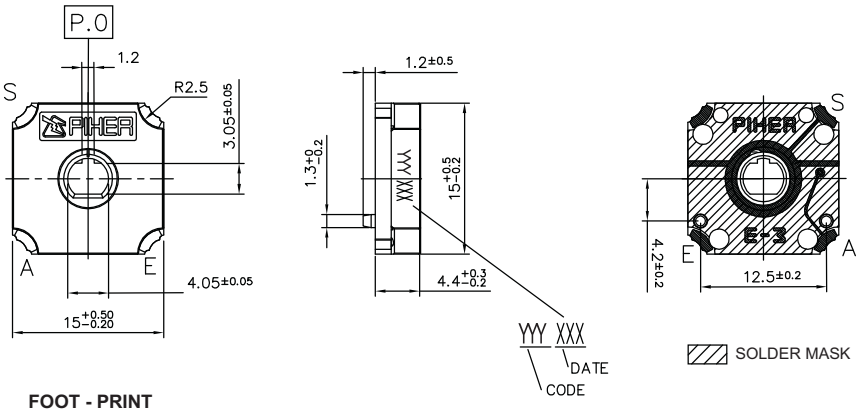
E-15 T S + DRAWING NUMBER (Max. 16 digits)

This way of ordering should be used for options which are not included in the "How to order" standard and optional extras.

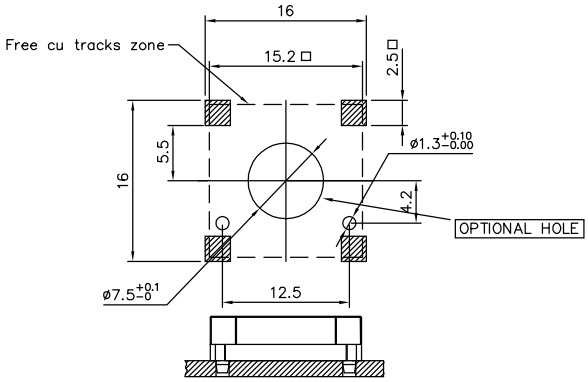
STANDARD WIPER POSITION



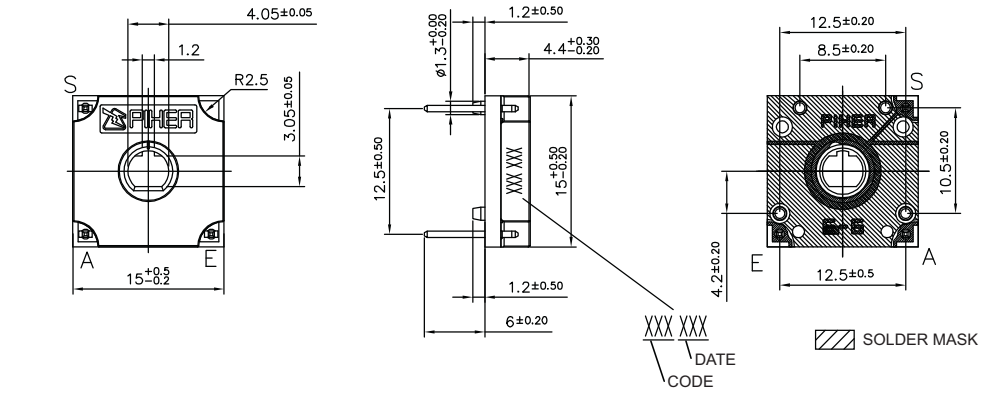
SMD VERSION



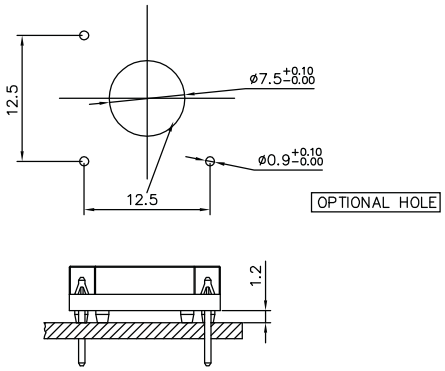
FOOT - PRINT



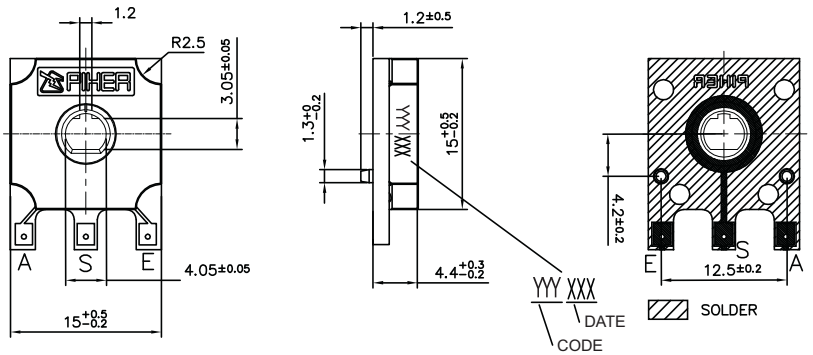
THROUGH HOLE VERSION



PCB HOLE LAYOUT



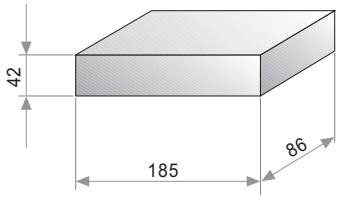
HORIZONTAL ADJUST - VERTICAL MOUNT



PACKAGING

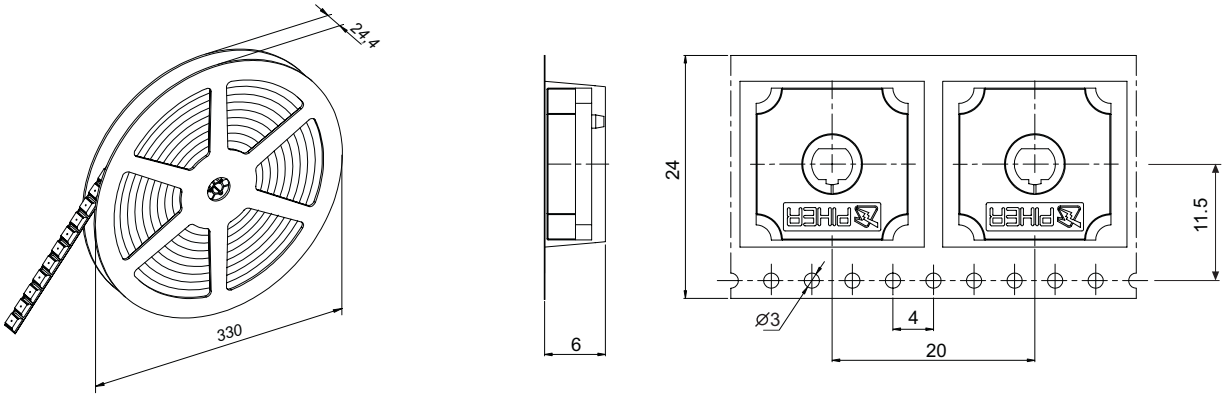
BULK

150 Units per box.
Through hole version only

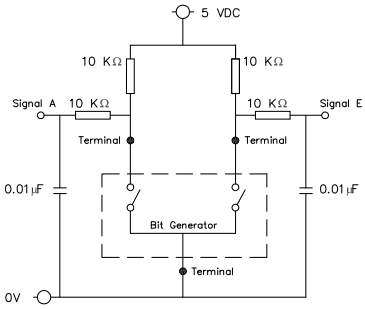


TAPE ON REEL

500 Units per reel.
SMD type only.

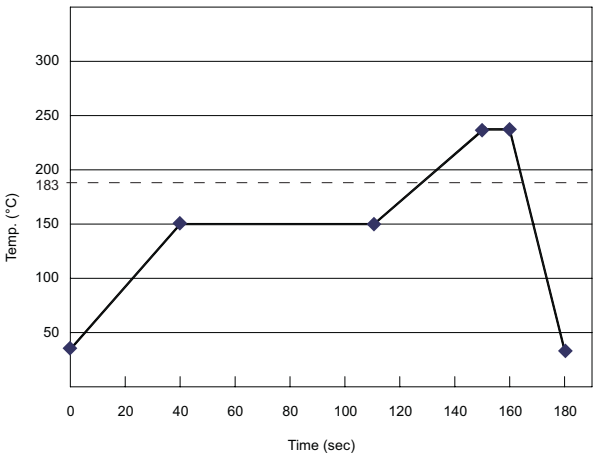


TEST CIRCUIT DIAGRAM

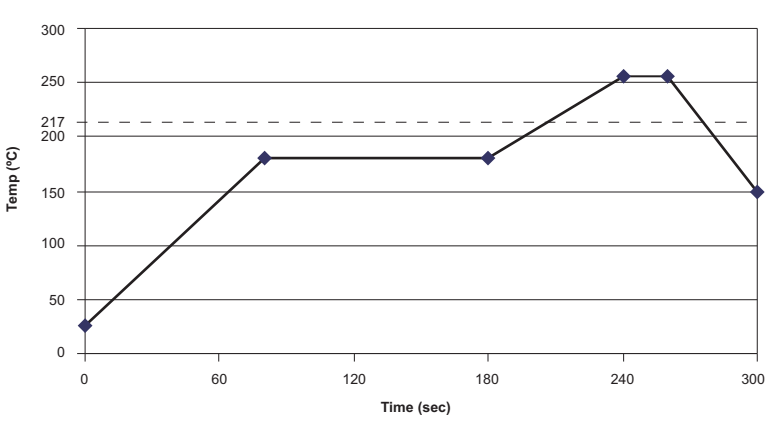


RECOMMENDED REFLOW PROFILE (SMD types)

SnPb Reflow Profile



Lead Free Reflow Profile



The recommended reflow profile is provided as a guideline. Optimal profile may differ due to oven type, assembly layout or other design or process variables. Customers should verify actual device performance in their specific application and reflow process. Please contact Piher if you require additional support.

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