EICT SIGNAL CONDITIONING MODULE

The EICT signal conditioning module has been specifically designed to operate the SLT190 and ICT range of contactless linear position transducers. This module incorporate a high performance circuit that drives the transducer and provides a choice of output signals with zero and span adjustment for simple user configuration. The module can be supplied in a choice of enclosures, with sealing to IP66 or IP68 protection.

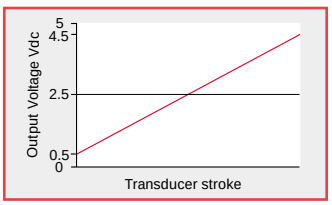
PERFORMANCE

Supply voltage, unregulated Vdc †limited to 13.5 min. on certain ranges - see options table		10 - 60 or ±(10 - 30) for standard output voltage range (**EICT** only) 10† - 30 or ±(10† - 30) for extended output voltage range (**VM** card fitted) 10 - 30 or ±(10 - 30) for current output (**CM** card fitted) or pulse width modulated output (**PWM** card fitted)
Supply current	**mA**	10 maximum (19 with **VM** card fitted, 12.6 plus output current with **CM** card fitted, 13 with **PWM** card fitted)
Output voltage signal	**Vdc**	0.5-4.5 See details on page 7 for additional output options
Output current signal	**mA**	4-20 See details on page 7 for options
Output PWM signal		TTL level compatible signal with a 10-90% duty cycle. See details on page 7
Output ripple	**mVrms**	<5
Output load	**Ω**	10k minimum (resistive to 0V line)
Frequency response	**Hz**	30 (-3dB) [equivalent to 5mS output lag]
Line regulation		<0.001% output span/Volt
Power on settlement		Within 0.25% of final output in less than 300 milliseconds
Output adjustment range		
zero adjustment		-10 to 60% of span
gain adjustment		40 to 110% of span
Operational temperature	**°C**	0 to +70
Storage temperature	**°C**	-40 to +85
Temperature stability	**ppm/°C**	200 (300 if VM card fitted)
EMC Immunity level		Threat 100V/m : derangement <0.05% FS (**EICTM** module, adjacent to transducer)
EN61000-6-2: 10kHz to 1GHz		Threat 10V/m : derangement <0.05% FS (**EICT** module, 1m cable)
Transducer types		Will only operate Penny+Giles SLT190 and ICT range of transducers
Mechanical housing		**EICT** - corrosion resistant plastic enclosure sealed to IP66, with detail to fit rail DIN EN50022 or EN50035 or bulkhead mount via four M5 screws. **EICTM** - powder coated metal enclosure sealed to IP68 with bulkhead mounting only.
Weight maximum	**g**	105 (250 for EICTM)

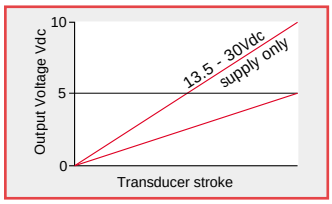
Maximum recommended distance between transducer and EICT module is 10m.

OUTPUT CHARACTERISTICS

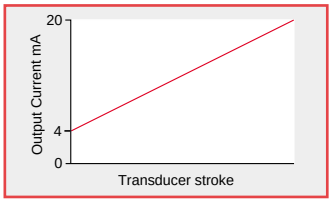
EICT standard unit
10 - 60Vdc supply



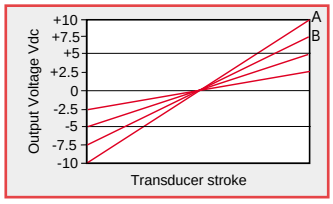
EICT with VM card fitted
10 - 30Vdc supply



EICT with CM card fitted
10 - 30Vdc or ± (10 - 30) Vdc supply



EICT with VM card fitted
10 - 30Vdc or ± (10 - 30) Vdc supply



Note: A and B outputs only available with a ±(13.5 - 30) Vdc supply

Notes:

1. The SLT190 transducer is supplied with a Sensor Calibration Module Card (SCMC) which is calibrated to match the transducer electrical stroke. This card must be inserted into the EICT signal conditioning unit before operation. The EICT is user configurable for input and output options.
   Full details on installation and set-up are included in the manual supplied with the EICT module.

GS GLOBAL RESOURCES
Foremost in Machine Performance for Life
GS Global Resources • 1-800-261-8735 • gsglobalresources.com
926 Perkins Drive, Mukwonago, WI 53149
© GS GLOBAL RESOURCES, INC. ALL RIGHTS RESERVED.

OUTPUT OPTIONS

Output option	Supply voltage range Vdc Single or (Dual) supply	EICT	EICT with **VM** option card	EICT with **CM** option card	EICT with **PWM** option card
0.5 - 4.5Vdc	10 - 60 or ±(10 - 30)	✔	N/A	N/A	N/A
0 - 5Vdc	10 - 30 or ±(10 - 30)	N/A	✔	N/A	N/A
0 - 10Vdc	13.5 - 30 or ±(13.5 - 30)	N/A	✔	N/A	N/A
±2.5Vdc	10 - 30 or ±(10 - 30)	N/A	✔	N/A	N/A
±5Vdc	10 - 30 or ±(10 - 30)	N/A	✔	N/A	N/A
±7.5Vdc	13.5 - 30 or ±(13.5 - 30)	N/A	✔	N/A	N/A
±10Vdc	13.5 - 30 or ±(13.5 - 30)	N/A	✔	N/A	N/A
4 - 20mA	10 - 30 or ±(10 - 30)	N/A	N/A	✔	N/A
TTL (10-90%)	10 - 30 or ±(10 - 30)	N/A	N/A	N/A	✔
Slope reversal		✔	✔	✔	✔

PWM output signal

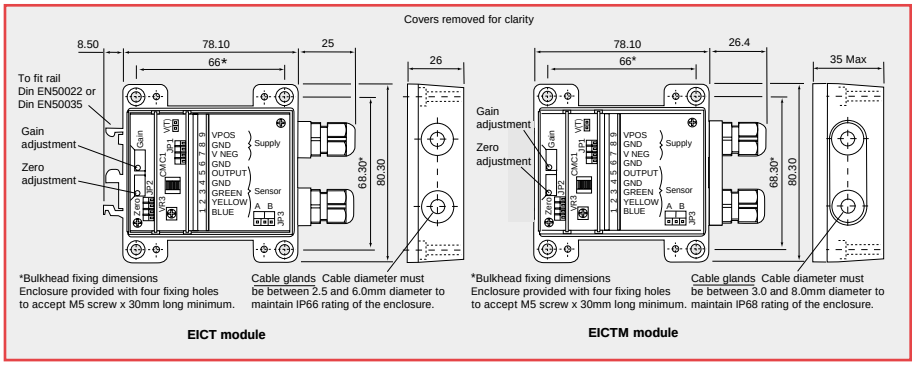
Output frequencies	**Hz**	100, 130, 310, 1000 (user selected)
Frequency accuracy	**%**	±10
Output levels	**Vdc**	LOGIC HIGH 4.5 ±0.5 LOGIC LOW <0.4
Rise/Fall time	**µS**	<2 with 1nF. load capacitance
Output range	**%**	10 (zero) to 90 (span)

TTL level compatible signal with a 10-90% duty cycle

Continual development of output options means we are working on additional **EICT** module output options. Please ask for details

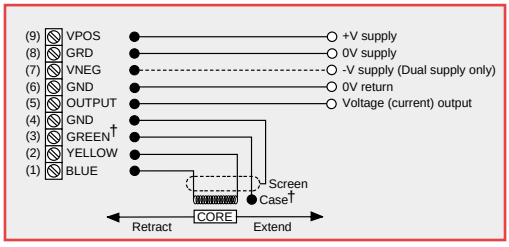
DIMENSIONS

Note: drawings not to scale



ELECTRICAL CONNECTIONS

Screw terminals



Misconnection of the supply may cause permanant damage

† The Green wire is internally connected to the transducer case. However, due to the construction of the transducer external moving parts, the Green connection should not be used as a ground connection.

Note: refer to the EICT set-up guide for details on how to connect to a split rail power supply.

AVAILABILITY

Normally available from stock

ORDERING CODES

EICT - module with 0.5 to 4.5Vdc output, IP66 protected plastic housing

EICTM - module with 0.5 to 4.5Vdc output, IP68 protected metal housing

ACCESSORIES order separately

VM - voltage module output option card

CM - current module output option card

PWM - pulse width modulation output option card

Penny+Giles

A Curtiss-Wright Company

Doc Ref: SLT190 02/10

www.pennyandgiles.com

Penny & Giles
Position sensors and joysticks for commercial and industrial applications.

15 Airfield Road
Christchurch
Dorset BH23 3TG
United Kingdom
+44 (0) 1202 409409
+44 (0) 1202 409475 Fax
sales@pennyandgiles.com

36 Nine Mile Point Industrial Estate
Cwmfelinfach
Gwent NP11 7HZ
United Kingdom
+44 (0) 1495 202000
+44 (0) 1495 202006 Fax
sales@pennyandgiles.com

5875 Obispo Avenue
Long Beach CA 90805
USA
+1 562 531 6500
+1 562 531 4020 Fax
us.sales@pennyandgiles.com

Straussenlettenstr. 7b
85053 Ingolstadt,
Germany
+49 (0) 841 61000
+49 (0) 841 61300 Fax
info@penny-giles.de

The information contained in this brochure on product applications should be used by customers for guidance only. Penny+Giles Controls Ltd makes no warranty or representation in respect of product fitness or suitability for any particular design application, environment, or otherwise, except as may subsequently be agreed in a contract for the sale and purchase of products. Customer's should therefore satisfy themselves of the actual performance requirements and subsequently the products suitability for any particular design application and the environment in which the product is to be used.

Continual research and development may require change to products and specification without prior notification. All trademarks acknowledged.

© Penny+Giles Controls Ltd 2009

Innovation In Motion

CURTISS WRIGHT Controls
Integrated Sensing

www.cwcontrols.com