SCM100 dc/dc LVDT DRIVER

The LVDT Signal Conditioning Module SCM100 has been specifically designed to operate with the AF111 and AF145 range of LVDT's, and to make using an LVDT as simple as using a linear potentiometer. This module incorporates a high performance circuit which drives the LVDT in a ratiometric configuration, thereby maximising system accuracy by eliminating effects caused by temperature and supply current variations.

Supply voltage	Vdc	10 20 (regulated) or 15 (regulated)	
Supply voltage		18 - 30 (regulated) or ± 15 (regulated)	
Supply current	mA	100 maximum	
LVDT excitation voltage	Vrms	3 (nominal)	
LVDT excitation frequency	Hz	2.5k (nominal)	
Output voltage* (SCM100/V)		See output options on page 9 for full details	
Output current (SCM100/I)		See output options on page 9 for full details	
Output ripple	mVrms	<5	
Output load	Ω	1k minimum (resistive) - voltage and current output	
Frequency response	Hz	300 (-3dB)	
Non-linearity		$\pm 0.05\%$ max (over 1% to 99% of stroke when used with AF111 or AF145 LVDT's)	
Line regulation		<0.01% output span/Volt	
Load regulation		<0.05% output span (minimum to maximum load)	
Output adjustment range -null adjustment		+25%	
-gain adjustment		±10%	
Operational temperature	°C	0 to +70	
Storage temperature	°C	-20 to +85	
Temp. coefficient of output		<0.01% of span volts/°C	
Transducer types		5 wire ratiometric LVDT only	
Mechanical housing		Entrelec 11000 series (to suit DIN EN50022/EN50035 rails)	
Weight maximum	g	100	

PERFORMANCE

* When powered with a single rail supply, the output may not quite reach 0 Vdc For this reason, linearity is specified for 1% to 99% of LVDT stroke.

OUTPUT CHARACTERISTICS

18 - 30Vdc supply



±15Vdc supply



18 - 30Vdc or ±15Vdc supply



Note: This module is user configurable for input and output options. See set-up guide supplied with module for full instructions.

OUTPUT OPTIONS

Output option	Power sup 18 - 30Vdc	ply option ±15Vdc
±2.5Vdc	N/A	1
$\pm 5 Vdc$	N/A	1
±10Vdc	N/A	1
0 - 5Vdc	1	1
0 - 10Vdc	1	1
4 - 20mA (SCM100/I only)	1	1
Slope reversal	1	1

DIMENSIONS



ELECTRICAL CONNECTIONS

Screw terminals

Note:

Refer to the SCM100 set-up guide for details on how to connect to a ±15Vdc (split rail) power supply. *Misconnection of the supply may cause permanent damage.*



AVAILABILITY

Normally available from stock

ORDERING CODES

V = Voltage output I = Current output





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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

12701 Schabarum Avenue Irwindale CA 91706 USA +1 626 337 0400 +1 626 337 0469 Fax us.sales@pennyandgiles.com

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

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