

LVDT

d.c./d.c. Driver SCM100



The LVDT Signal Conditioning Module SCM 100 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.

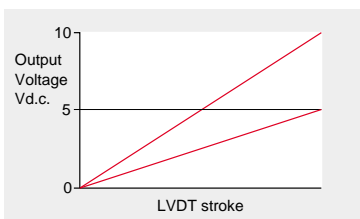
PERFORMANCE

Supply voltage	18 - 30Vd.c. (regulated) or ± 15 Vd.c. (regulated)
Supply current	100mA maximum
LVDT excitation voltage	3VRMS (nominal)
LVDT excitation frequency	2.5kHz (nominal)
Output voltage* (SCM100/V)	See output options chart below for full details
Output current (SCM100/I)	See output options chart below for full details
Output ripple	<5mVRMS
Output load	1k Ω minimum (resistive) - voltage and current output
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	$\pm 25\%$
-gain adjustment	$\pm 10\%$
Operational temperature	0 to +70°C
Storage temperature	-20 to +85°C
Temp. coeff. 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	100g

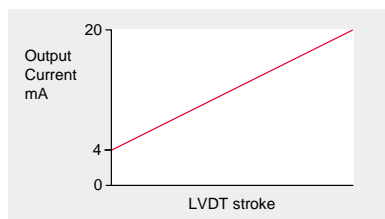
* When powered with a single rail supply, the output may not quite reach 0 Vd.c. For this reason, linearity is specified for 1% to 99% of LVDT stroke.

OUTPUT CHARACTERISTICS

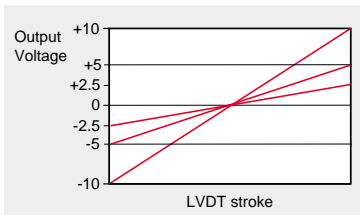
18 - 30Vd.c. supply



18 - 30Vd.c. or ± 15 Vd.c. supply



± 15 Vd.c. supply



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

OUTPUT OPTIONS

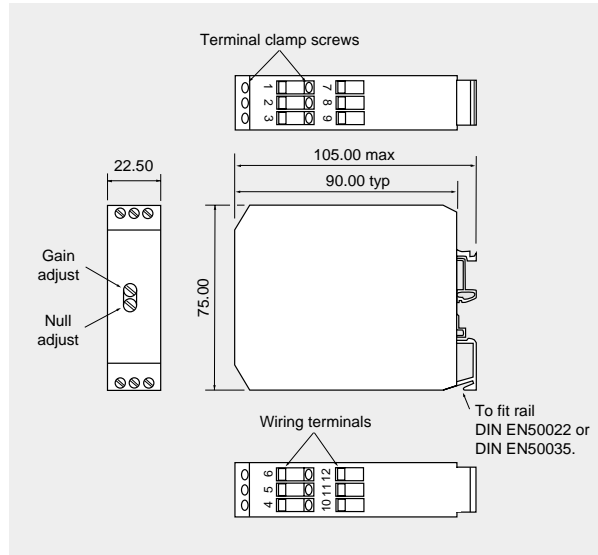
Output option	Power supply option	
	18 - 30Vd.c.	± 15 Vd.c.
± 2.5 Vd.c.	N/A	✓
± 5 Vd.c.	N/A	✓
± 10 Vd.c.	N/A	✓
0 - 5Vd.c.	✓	✓
0 - 10Vd.c.	✓	✓
4 - 20mA (SCM100/I only)	✓	✓
Slope reversal	✓	✓

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SCM100

DIMENSIONS



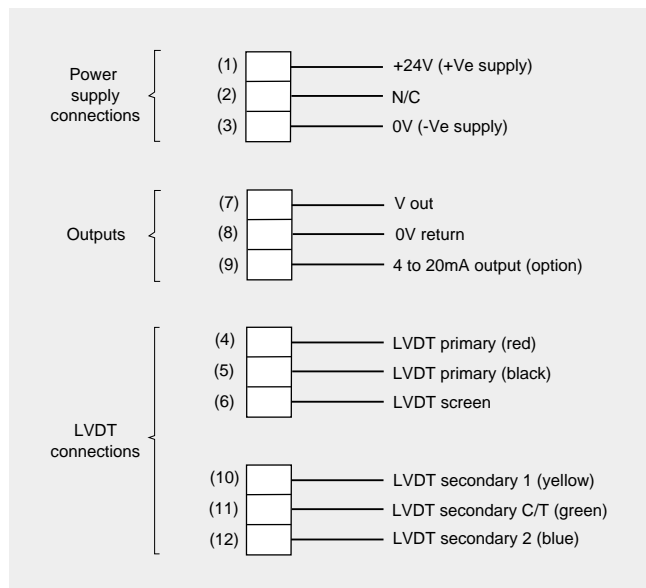
ELECTRICAL CONNECTIONS

Screw terminals

Note:

Refer to the SCM100 set-up guide for details on how to connect to a $\pm 15\text{Vd.c.}$ (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

SCM100/.....