

SY018 Loadcell Amplifier

- ✓ DIN rail mounted
- ✓ 4 to 20mA or $\pm 10V$ output
- ✓ 17 to 30Vdc supply range
- ✓ Protected against reverse supply connection
- ✓ 5kHz bandwidth (-3dB)



Specification

Parameter	Value	Unit
Output	Current version: 4 to 20mA, loop resistance	
Output	Voltage version: $\pm 10V$, load resistance $>10k\Omega$, slew rate $0.1V/\mu s$	
Sensitivity	Factory set between 0.5 and 100mV/V	
Span adjustment	$\pm 20\%$	
Zero adjustment	Current version: 0.02 to 11mA at the output	
Zero adjustment	Voltage version: $\pm 2V$ at the output	
Non-linearity - typical	$\pm 0.02\%$ of full range	
Drift - typical	Zero: $0.1\mu V/^\circ C$ at the input	
Drift - typical	Span: 70ppm/ $^\circ C$	
Loadcell supply	10Vdc at 150mA (4 x 350 Ω loadcells)	
Supply requirements	Nominal 24Vdc (17 to 30Vdc)	
Maximum supply current	185mA	
Operating Temperature	0 to $+50^\circ C$	
Case material	Grey flame resistant polyamide	
Case dimensions	H 72.5mm (mounted on rail) W 18mm D 62mm	
Rail types	Asymmetric to EN50035 (DIN46277-1)	

Rail types	Symmetric to EN50022 (DIN46277-3)
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This DIN rail mounted loadcell amplifier is designed for use with strain gauge loadcells.

It provides industry standard current or voltage outputs for accurate interfacing of loadcells with control and monitoring systems. This amplifier is ideally suited to engineering applications. Its small size and DIN rail mounting make compact multi-channel systems easy to implement. The voltage output version of the amplifier has a bi-polar output for use with bi-directional loadcells even though it is powered from a uni-polar supply. The amplifier is easily calibrated using non-interactive zero and span trimmers. If the SY018 is supplied with a loadcell it will normally be calibrated to read the loadcell output in the same force units as the loadcell calibration. A traceable system certificate will be supplied for the amplifier and loadcell combination. If the SY018 does not have all the functions you require the SGA or LCA20 Loadcell Amplifiers may be more suitable. An LCA20 data-sheet and an SGA data-sheet are available.

Order Codes

Code	Description
SY018	Replace A, B, C and D with the required codes from the list below.
A (Basic Type)	V for voltage output, I for current output.
B (Amplifier output)	010 for $\hat{A}\pm 10V$, 420 for 4 to 20mA.
C (Loadcell excitation voltage)	10 for 10V.
D (Loadcell output in mV/V)	Usually 1.0 or 2.0, other values are possible.
	Example: SY018I-420-10-2.0 This has a 4 to 20mA current output, 10V loadcell excitation and an input sensitivity of 2.0mV/V for full range.

Notes

If the SY018 does not have all the functions you require the SGA or LCA20 Loadcell Amplifiers may be more suitable. An LCA20 data-sheet and an SGA data-sheet are available.

This instrumentation product complies with the requirements of the European EMC directive.

 Files

Type	Title	Download
PDF Instructions	Printable user instructions for the current output SY018.	Download
PDF Instructions	Printable user instructions for the voltage output SY018.	Download

Novatech Measurements Limited

83 Castleham Road, St Leonards on Sea, East Sussex, TN38 9NT, England.

Telephone: +44 (0)1424 852744

Fax: +44 (0)1424 853002

E-mail: info@novatechloadcells.co.uk