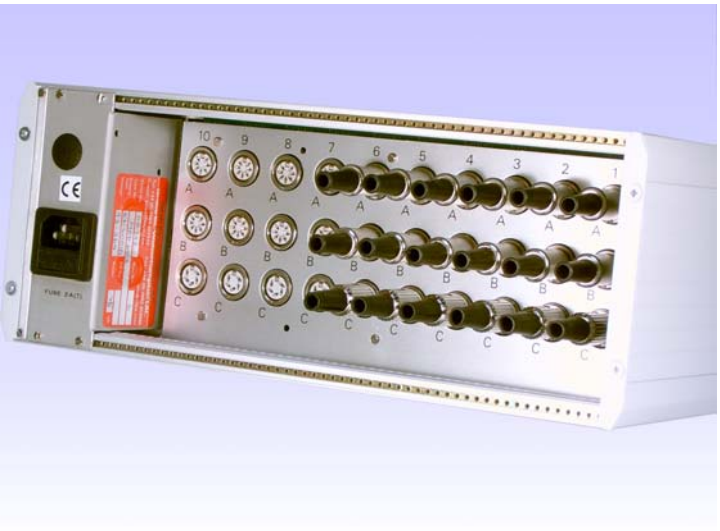
Modular 600 Multi-Channel Signal Conditioning System

- LVDT amplifier
- Strain gauge transducer amplifier
- Digital display module
- Limit trips
- Serial output
- Voltage / 4-20mA output
- Simple trimpot controls

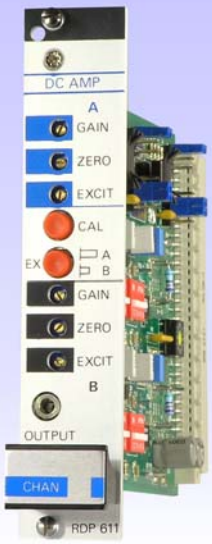


Signal conditioning is required where the output of a transducer needs to be boosted or changed into a form suitable for the monitor or logging device which will be used. A very wide range of gain adjustment ensures that our amplifiers are compatible with the vast majority of LVDT and strain gauge sensors available from any manufacturer.

Modular 600 signal conditioning allows the customer to select the type and quantity of input cards required for the application from a number of different types available. The system can be supplied with optional monitor/display/data logger units if required.

Firstly decide the type and quantity of modules required making sure to include any future requirements. Then decide if you need a monitor or data logger. Finally choose an appropriately sized housing with a power supply and blank panels to cover any unused slots.

611 Strain gauge transducer amplifier

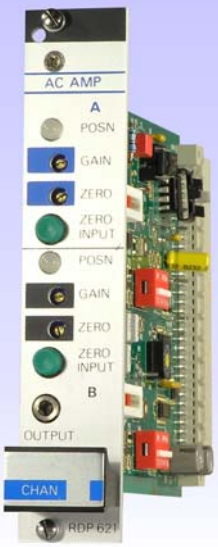


Compatible with	Most full bridge strain gauge transducers. Most amplified transducers from any manufacturer.
Number of channels	2
Supply voltage	±15V, 60mA (plus transducer and output load)
Transducer excitation	1V to 10V & ±15V (110mA maximum)
Output details	±10V/ 4-20mA (loop resistance 0 Ohms to 450 Ohms)
Amplifier gain range	1 to 2000
Signal input range	-13V to 13V
Linearity error	±0,02% F.S. (typical)
Electrical output bandwidth	0 to 200Hz (10Hz with filter turned on)
Output ripple	4mV peak-to-peak (typical) / 15uA peak-to-peak (typical)
Input impedance	1G Ohms
Temperature coefficient (zero)	±0,002% F.S. /°C (typical)
Temperature coefficient (span)	±0,003% F.S. /°C (typical)
Operating temperature range	0°C to 60°C

615 RDP PY series amplifier

Compatible with	Series PY Extreme environment non-contact displacement transducer
Number of channels	1
Supply voltage	±15V, 60mA
Transducer excitation	2,4kHz/4,8kHz/9,6kHz 10mA, (17Vrms maximum)
Output details	±10V/ 4-20mA (loop resistance 0 Ohms to 450 Ohms)
Signal input range	10mV to 10V
Linearity error	±0,05% F.S. (typical)
Electrical output bandwidth	0 to 160Hz (20Hz with filter turned on)
Output ripple	10mV peak-to-peak (typical) / 120uA peak-to-peak (typical)
Input impedance	1M Ohms
Temperature coefficient (zero)	±0,005% F.S. /°C (typical)
Temperature coefficient (span)	±0,020% F.S. /°C (typical)
Operating temperature range	0°C to 60°C

621 LVDT amplifier

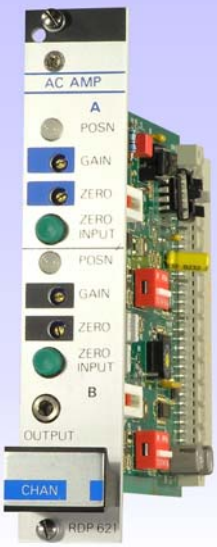


Compatible with	Any standard RDP LVDT (without integral electronics). Most LVDTs from any manufacturer.
Number of channels	2
Supply voltage	±15V, 65mA (typical)
Transducer excitation	1,1V, 5kHz (1kHz to 10kHz with component change), 100mA
Output details	10V/ 4-20mA (loop resistance 0 Ohms to 450 Ohms)
Amplifier gain range	2,5 to 833
Signal input range	12mV to 4V
Linearity error	±0,05% F.S. (typical)
Electrical output bandwidth	0 to 500Hz
Output ripple	10mV peak-to-peak (typical) / 100uA peak-to-peak (typical)
Input impedance	100k Ohms
Temperature coefficient (zero)	±0,005% F.S. /°C (typical)
Temperature coefficient (span)	±0,005% F.S. /°C (typical)
Operating temperature range	0°C to 60°C

626 LVDT amplifier with Sum/Average/Difference calculation

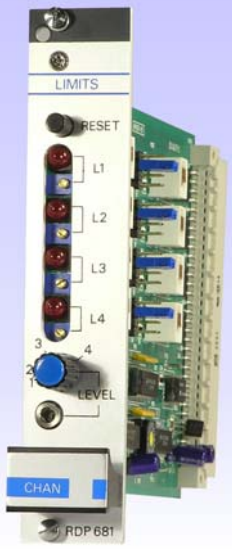
Compatible with	Any standard RDP LVDT (without integral electronics). Most LVDTs from any manufacturer.
Number of channels	2
Supply voltage	±15V, 65mA (typical)
Transducer excitation	1,1V, 5kHz, 100mA
Output details	±10V/ 4-20mA (loop resistance 0 Ohms to 450 Ohms)
Amplifier gain range	2,5 to 833
Signal input range	12mV to 4V
Linearity error	±0,05% F.S. (typical)
Electrical output bandwidth	0 to 500Hz
Output ripple	10mV peak-to-peak (typical) / 100uA peak-to-peak (typical)
Input impedance	100k Ohms
Temperature coefficient (zero)	±0,005% F.S. /°C (typical)
Temperature coefficient (span)	±0,005% F.S. /°C (typical)
Operating temperature range	0°C to 60°C

628 1/4, 1/2 and full bridge strain gauge amplifier



Compatible with	1/4, 1/2 and full bridge strain gauges. Most full bridge strain gauge transducers.
Number of channels	1
Supply voltage	±15V, 70mA (plus transducer and output load)
Transducer excitation	1V to 10V 110mA maximum
Output details	±10V/ 4-20mA (loop resistance 0 Ohms to 400 Ohms)
Amplifier gain range	1 to 80000
Signal input range	-11V to 11V
Linearity error	±0,02% F.S. (typical)
Electrical output bandwidth	0 to 10/100/1k/10kHz
Output ripple	40mV peak-to-peak (typical) / 80uA peak-to-peak (typical)
Input impedance	100M Ohms
Temperature coefficient (zero)	±0,001% F.S. /°C (typical)
Temperature coefficient (span)	±0,002% F.S. /°C (typical)
Approximate zero adjustment range	±0,4V
Operating temperature range	0°C to 60°C

681 Limit trip module



Compatible with	The voltage output of any modular 600 amplifier.
Number of channels	4
Supply voltage	±15V, 100mA
Output details	Voltage free relay contacts, TTL output
Contact rating	30Vdc/125Vac,30/60VA
Operation time	6ms
Signal input range	-10V to 10V
Accuracy	±0,01% F.S. (typical)
Input impedance	10M Ohms
Operating temperature range	0°C to 60°C

635 Digital display module

Number of channels	24 (maximum)
Number of digits	4 ½, red LED (10mm)
Display update rate	2,5Hz
Accuracy	±0,03% F.S. (typical)
Linearity error	±0,05% F.S. (typical)
Temperature coefficient (zero)	±0,002% F.S. /°C (typical)
Temperature coefficient (span)	±0,005% F.S. /°C (typical)
Operating temperature range	0°C to 60°C

636 Digital display module with max/min store for selected channel

Number of channels	24 (maximum)
Number of digits	4 ½, red LED (10mm)
Display update rate	2,5Hz
Accuracy	±0,03% F.S. (typical)
Linearity error	±0,05% F.S. (typical)
Temperature coefficient (zero)	±0,002% F.S. /°C (typical)
Temperature coefficient (span)	±0,005% F.S. /°C (typical)
Operating temperature range	0°C to 60°C

650 Serial interface and data logger module

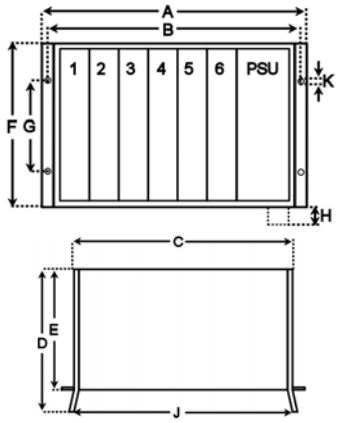
Number of channels	164 (maximum)
Data storage capacity	650 = 10240 650ME1 = 65530
Baud rate	600 to 57600
Number of digits	4 ½, red LED
Display update rate	1,0Hz
Accuracy	±0,03% F.S. (typical)
Temperature coefficient (zero)	±0,002% F.S. /°C (typical)
Temperature coefficient (span)	±0,005% F.S. /°C (typical)
Operating temperature range	0°C to 60°C

631 Power supply

Supply voltage	93 to 264Vac, 80W
Operating temperature range	0°C to 55°C

Housings available.

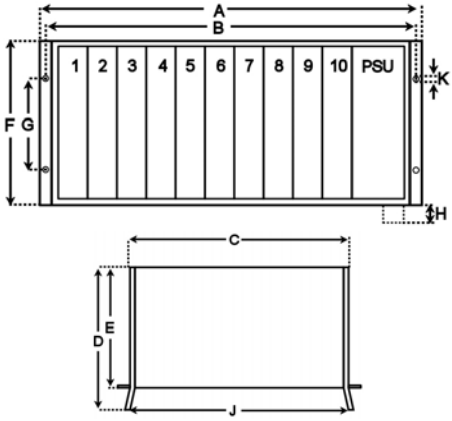
602



A = 270mm F = 133mm
B = 252mm G = 57mm
C = 236mm H = 17mm
D = 282mm J = 279mm
E = 250mm K = 7mm

The optional display/logger module fits into slots 4, 5 & 6

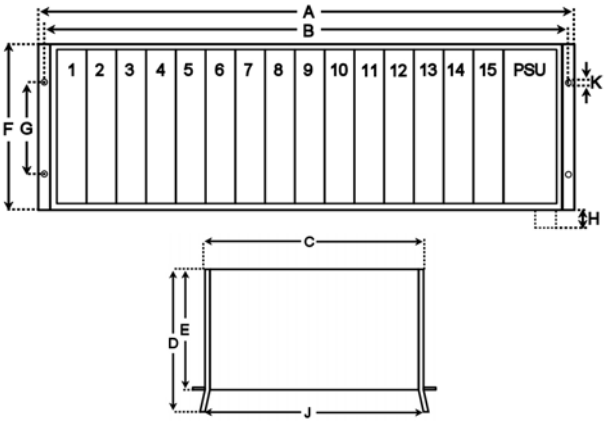
603



A = 376mm F = 133mm
B = 358mm G = 57mm
C = 342mm H = 17mm
D = 282mm J = 385mm
E = 250mm K = 7mm

The optional display/logger module fits into slots 8, 9 & 10

604



A = 483mm F = 133mm
B = 456mm G = 57mm
C = 449mm H = 17mm
D = 282mm J = 492mm
E = 250mm K = 7mm

The optional display/logger module fits into slots 13, 14 & 15

All dimensions and specifications are nominal.

Due to our policy of on-going development, specifications may change without notice. Any modification may affect some or all of the specifications for our equipment.

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