

AMELEC

Signal  Conditioning

COMPACT 'A' RANGE

SIGNAL TRANSMITTERS, TRIP AMPLIFIERS, ARITHMETIC UNITS



- Suitable for input from thermocouple, millivolt, RTD, slidewire or process signals.
- Transmitters have total isolation between input and output. Trip amplifiers are single or double trip. Arithmetic units available with a wide range of functions.
- Trip points set by multiturn potentiometer. These, and other major controls, are accessible through the front panel. Other controls are internally accessible.
- Supply voltages of 120VAC, 240VAC, or 24VDC available at no additional cost. All units individually fused and front panel supply indicators fitted.
- Digital indication of input and trip points may be specified, scaled as a percentage of input span or in engineering units.
- RFI protection to BS6667, Part 3 available for all units.
- Manufactured and tested to BS5750, Part 2.
- AMELEC standard 10 year guarantee.

Specification

INPUT DATA

Input source

For details see individual specification

Open circuit response

For details see individual specification.

Input impedance (Voltage input)

>1Mohm at amplifier input. This will be shunted by burnout drive or input conditioning components.

SUPPLY DATA

Power supplies

AC models	115VAC $\pm$ 20%
	230VAC $\pm$ 20%
DC models	24VDC $\pm$ 2.5V
2 wire	12 - 60VDC

Consumption

Transmitter	3VA
Trip amplifier	3VA
2 Wire transmitter	250mW

OUTPUT DATA

Output signals

Standard units

Any constant current from 0-100uA to 0-20mA (at up to 20V loop) or any constant voltage from 0-1V to 0-10V (at up to 20mA loading).

2-wire units

4-20mA or 10-50mA as modulation of supply voltage.

Response time

<400mSec. Unless otherwise stated.

Relay specification

DP/DT or SP/DT for each trip, unless otherwise stated. Contacts are rated at 250VAC, 2A, 100VA (Resistive).

Relay function

Selected by PC link. Default is normally energised, relay to de-energise on trip (fail safe operation).

Relay status

Indicated by a red LED for each trip, mounted on the front panel. Lit when relay is energised.

Controls

ZERO	$\pm$ 25%
SPAN	$\pm$ 50%
TRIP (When fitted)	0-100%
DEADBAND (When fitted)	1-20%

CONDITIONS

Ambient temperature

Working	-20°C to +60°C
Storage	-40°C to +70°C

Humidity

From 5% to 95% R.H.

Vibration

1g at 15Hz to 150Hz.

ELECTRICAL STANDARDS

Insulation input-output-contacts-earth

1000V RMS continuous. 2000V for 20uSec. Derate to 500VDC for option 'K' enclosures.

Fusing

Power supply fused.

WIRING AND MOUNTING

Terminals

For conductors up to 2.5mm².

Weight

<1kg per module.

Position

Any position is acceptable.

Mounting

Standard units will fit onto a low profile 35mm DIN rail or be surface mounted. Option 'K' and 'DI' enclosures are suitable for DIN rail or panel mounting.

Additional protection

Enclosures are available to NEMA 12 oiltight, NEMA 4 watertight and IP54 for N-protection.

PERFORMANCE

Input/output linearity

<0.1% error, unless otherwise stated.

Series mode rejection

<0.1% error for 50Hz input at 5% of span amplitude.

Common mode rejection

<0.1% error for 250V RMS.

Temperature effect on zero

<0.02% per °C.

Temperature effect on span

<0.01% of span per °C or <0.1°C per °C, whichever is the greater.

Temperature effect on suppression/elevation

<0.02% of suppression/elevation per °C.

Supply voltage effect

<0.01% per % input change.

Trip adjustment

Infinitely variable by multiturn potentiometers, which are accessible through the front panel.

Deadband

Standard 1%. Also available adjustable from 1 to 20% by multiturn potentiometer. (To special order only)

RFI rejection

Standard units have some RFI rejection due to their design and construction. However, for extra protection to BS6667, specify option 'K'.

Permissible input overload

mV input	20V
DC voltage input	200V
DC current input	500%
AC voltage input	200%
AC current input	500%
Resistance input	6V

Trip amplifiers

ADT110 series, thermocouple and millivolt

These units will accept input from any BS4937 and ISA B,E,J,K,S,R,T or Pallaplat thermocouple, or millivolt source.

Thermocouple input units have automatic cold junction compensation.

Normal minimum span 4mV, lower ranges available to special order.

Source resistance up to 1000ohms for specified performance.

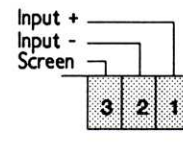
Open circuit response may be specified as upscale or downscale.

Input impedance 1Mohm, shunted by burnout drive.

Models available

INPUT	Single trip	Double trip
Thermocouple	ADT111	ADT112
Millivolts	ADT115	ADT116

INPUT WIRING



For output and supply wiring please turn to page 14.

ADT120 series, resistance temperature sensor

These units will accept input from any 2, 3 or 4 wire resistance temperature sensor.

Third wire compensation is standard to overcome lead resistance variation.

Normal minimum span 10 ohms, lower ranges available to special order.

Open circuit response is normally upscale but may be specified downscale.

Input and third wire drives are constant current, for improved linearity.

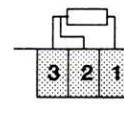
Differential operation may be specified, using 2 x 2 wire sensors.

Models available

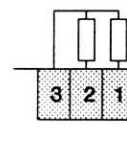
INPUT	Single trip	Double trip
Single	ADT121	ADT122
Differential	ADT125	ADT126

INPUT WIRING

Single Input



Differential Input



For output and supply wiring please turn to page 14.

ADT130 series, process

These units will accept input from any standard DC voltage or current source.

On voltage units, input impedance is 1Mohm.

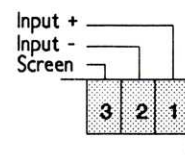
On current input units, the shunt resistor absorbs a maximum of 400mV allowing many units to be used in series, even on a modest loop.

Input currents from 0-100uA to 0-100mA or voltages from 0-400mV to 0-200V may be used and any input may carry a 20% offset

Models available

Single trip	Double trip
ADT131	ADT132

INPUT WIRING



For output and supply wiring please turn to page 14.

Trip amplifiers

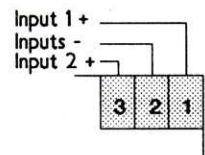
ADT139, process input deviation trip

INPUT WIRING

This unit will compare two inputs which need not necessarily be of the same type but do share a common 0V.

The upper trip will change state when Input 1 exceeds Input 2 by more than the level set on the upper potentiometer. The lower trip will change state when Input 2 exceeds Input 1 by more than the level set on the lower potentiometer. Potentiometers represent 0-50% of span.

Adjustable deadband may also be fitted, controlled by blindset potentiometers, to accurately control the point at which the trip relays return to normal. Deadband potentiometers represent 1-20% of span. (To special order only)



For output and supply wiring, please turn to page 14.

ADT140 series, slidewire and potentiometer

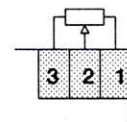
These will accept input from any 2 or 3 wire slidewire or potentiometer. Third wire compensation is standard to overcome lead resistance variation. Normal minimum span 100 ohms, lower ranges available to special order. Open circuit response is normally upscale but may be specified downscale. Input and third wire drives are constant current, for improved linearity. Differential operation may be specified, using 2 x 2 wire sensors.

Models available

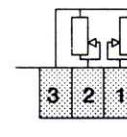
INPUT	Single trip	Double trip
Single	ADT141	ADT142
Differential	ADT145	ADT146

INPUT WIRING

Single Input



Differential Input



For output and supply wiring please turn to page 14.

ADT180 series, pulse

INPUT WIRING

These units will monitor the frequency of any regular repetitive pulse train.

Any waveform may be used provided the positive peak levels exceed the threshold.

The threshold level is adjustable over a wide range to help suppress input noise.

Any input frequency between 0-25Hz and 0-20,000Hz may be specified.

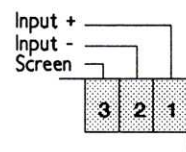
Input level may be anywhere between 50mV and 30V p-p.

Response time is determined by input frequency. Typically it is less than 500ms but for full scale frequencies under 1000Hz it will be proportionately increased.

Unit may be AC coupled where large DC levels have to be accommodated.

Models available

Single trip	Double trip
ADT181	ADT182



For output and supply wiring please turn to page 14.

Transmitters

ADM210 series, thermocouple and millivolt

These units will accept input from any BS4937 and ISA B,E,J,K,S,R,T or Pallaplat thermocouple, or millivolt source.

Thermocouple input units have automatic cold junction compensation.

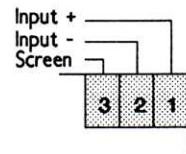
Normal minimum span 4mV, lower ranges available to special order.

Source resistance up to 1000ohms for specified performance.

Open circuit response may be specified as upscale or downscale.

Input impedance 1Mohm, shunted by burnout drive.

INPUT WIRING



Models available

Thermocouple	ADM210
Millivolts	ADM213

For output and supply wiring please turn to page 14.

ADM220 series, resistance temperature sensor

These units will accept input from any 2, 3 or 4 wire resistance temperature sensor.

Third wire compensation is standard to overcome lead resistance variation.

Normal minimum span 10 ohms, lower ranges available to special order.

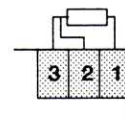
Open circuit response is normally upscale but may be specified downscale.

Input and third wire drives are constant current, for improved linearity.

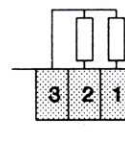
Differential operation may be specified, using 2 x 2 wire sensors.

INPUT WIRING

Single Input



Differential Input



Models available

Single	ADM220
Differential	ADM223

For output and supply wiring please turn to page 14.

ADM230 series, process

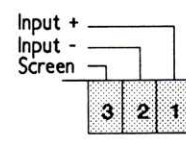
These units will accept input from any standard DC voltage or current source

On current input units, the shunt resistor absorbs a maximum of 400mV allowing many units to be used in series, even on a modest loop.

Input currents from 0-100uA to 0-100mA or voltages from 0-400mV to 0-200V may be used and any input may carry a 20% offset

This range includes the ADM237 transmitter. This has an internal power supply, wired in series with the input, which will power a two-wire transmitter.

INPUT WIRING



Models available

Process	ADM230
Two-wire	ADM237

For output and supply wiring please turn to page 14.

Transmitters

ADM239, deviation/subtraction/addition transmitter

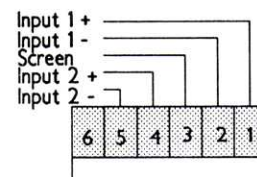
INPUT WIRING

This unit will accept two inputs which need not necessarily be of the same type but do share a common 0V.

When specified in deviation mode, the output will be 0% when both inputs are equal, anywhere within normal the input span. As the inputs go to maximum deviation, the output will rise to 100%.

When specified in subtraction mode, the output will be very similar to the condition described above.

In addition mode, the output will follow the sum of both inputs.



For output and supply wiring please turn to page 14.

ADM240 series, slidewire and potentiometer

These will accept input from any 2 or 3 wire slidewire or potentiometer.

Third wire compensation is standard to overcome lead resistance variation.

Normal minimum span 100 ohms, lower ranges available to special order.

Open circuit response is normally upscale but may be specified downscale.

Input and third wire drives are constant current, for improved linearity.

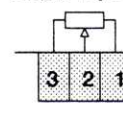
Differential operation may be specified, using 2 x 2 wire sensors.

Models available

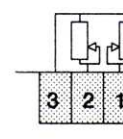
Single	ADM240
Differential	ADM243

INPUT WIRING

Single Input



Differential Input



For output and supply wiring please turn to page 14.

ADM280, pulse

INPUT WIRING

This unit will monitor the frequency of any regular repetitive pulse train.

Any waveform may be used provided the positive peak levels exceed the threshold

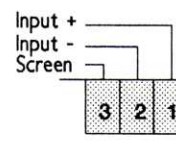
The threshold level is adjustable over a wide range to help suppress input noise.

Any input frequency between 0-25Hz and 0-20,000Hz may be specified.

Input level may be anywhere between 50mV and 30V p-p.

Response time is determined by input frequency. Typically it is less than 500mS but for full scale frequencies under 1000Hz it will be proportionately increased.

Unit may be AC coupled where large DC levels have to be accommodated.



For output and supply wiring please turn to page 14.

Two-wire transmitters

ADW510 series, thermocouple and millivolt

These units will accept input from any BS4937 and ISA B,E,J,K,S,R,T or Pallaplat thermocouple, or millivolt source.

Thermocouple input units have automatic cold junction compensation.

Normal minimum span 4mV, lower ranges available to special order.

Source resistance up to 1000ohms for specified performance.

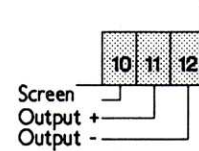
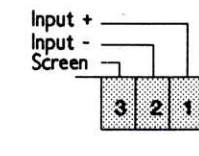
Open circuit response may be specified as upscale or downscale.

Input impedance 1Mohm, shunted by burnout drive.

Models available

Thermocouple	Millivolt
ADW511	ADW513

WIRING



ADW521, resistance temperature sensor

This unit will accept input from any 2, 3 or 4 wire resistance temperature sensor.

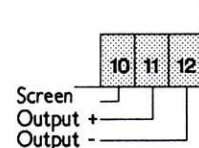
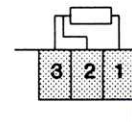
Third wire compensation is standard to overcome lead resistance variation.

Normal minimum span 10 ohms, lower ranges available to special order.

Open circuit response is upscale.

Input and third wire drives are constant current, for improved linearity.

WIRING



ADW531, process

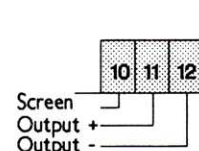
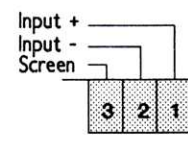
These units will accept input from any standard DC voltage or current source.

On voltage units, input impedance is 1Mohm.

On current input units, the shunt resistor absorbs a maximum of 400mV allowing many units to be used in series, even on a modest loop.

Input currents from 0-100uA to 0-100mA or voltages from 0-400mV to 0-200V may be used and any input may carry a 20% offset.

WIRING

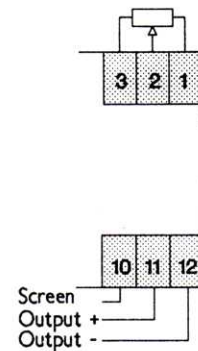


Two-wire transmitters & PSUs

ADW541, slidewire and potentiometer

This will accept input from any 2 or 3 wire slidewire or potentiometer.
Third wire compensation is standard to overcome lead resistance variation.
Normal minimum span 100 ohms, lower ranges available to special order.
Open circuit response is normally upscale but may be specified downscale.
Input and third wire drives are constant current, for improved linearity.

WIRING



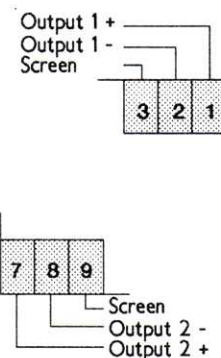
ADP901 series, power supplies

These units are available as single or double channel.
When double channel is specified, the two channels are totally isolated.
Outputs are adjustable over the range 1-25V at up to 25mA: Normally by blindset potentiometer but optionally mounted to the front panel.
A prolonged output short circuit will cause no damage to the unit.
Load variation, <0.2%. Supply variation, <0.1%.

Models available

Single channel	Double channel
ADP901/1	ADP901/2

WIRING



Other power supplies

When greater output current is required, to operate multiple units for instance, a range of other power supplies are also available from Amelec.

Types available include 12V, 24V and 48V, at output currents of 0.25A, 0.5A and 1A, with output regulation to suit the required application.

Mounting type and size will depend on the actual power requirements but most units are available in various DIN rail or surface mounting enclosures.

Please contact our Technical Sales Department with your specific requirements.

Arithmetic units

ADC311, scale and bias transmitter

Models may be specified for input from thermocouple, millivolt, RTD, slidewire or process source.

When RTD or slidewire input is specified, third wire compensation is standard to reduce the effect of lead resistance. Thermocouple units have automatic cold junction compensation.

The output span may represent any portion of the input span, with control of offset and gain being by multiturn potentiometers, accessible through the front panel.

Output may follow input (rising input = rising output) or have a reversed characteristic (rising input = falling output).

Many other combinations are possible since the unit is designed to be customised to suit individual applications. Please consult our Technical Sales Department for further details.

ADC312, square root extractor

This unit is designed to operate with any standard process voltage or current source.

It regards both input and output span - which need not necessarily be the same - as 0-1 and will convert 0.01 - 1 (1-100%) of input span to 0.1 - 1 (10-100%) of output span, using a square root law.

Since output accuracy is not specified below 1% input (10% output) a zero cut-off is fitted which will operate when the input moves into this region. It is normally preset to 0.5% and, while the input is between 0% and this level, the output will remain at 0%.

ACCURACY: <0.25% while input remains between 1% and 100%

LINEARITY: <0.25% while input remains between 1% and 100%.

RESPONSE TIME: <1Sec for the output to settle within tolerance after an input step change from 5% to 95%.

ADC316, high/low limiter

Models may be specified for input from any standard voltage or current process source.

Under normal conditions, the output will follow the input. However, two additional controls are fitted to establish upper and lower limits on the output.

The HIGH limit may be adjusted over the range 40% to 100% and the LOW limit over the range 0% to 60%. Both these controls are blindset potentiometers, accessible through the front panel.

Arithmetic units & applications

ADC353, linear integrator

INPUT/OUTPUT WIRING

This unit is designed to accept input from any standard voltage or current source.

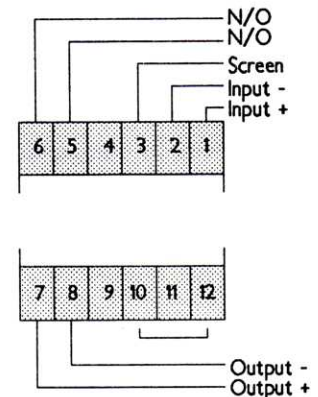
It will provide continuous integration and totalisation of quantities such as; flow, BTU, watt/hours volt/hours, etc.

Output pulses are 24V, 30mSec and are suitable for driving most electro-mechanical counters. If option 'R' is specified, output is also 30mSec pulses, from a set of voltage free contacts.

Output pulse rate is continuously adjustable from 0 - 50 to 0 - 50000 pulses per hour.

To ensure that spurious pulses are not generated at very low input levels, a zero cut-off control is fitted. This may be adjusted from 0 - 2% of input but is normally preset to .5%.

Input and output wiring is shown to the right. For supply wiring, please see page 14.



ADC353 & ADC312, square root integrator

INPUT/OUTPUT WIRING

This is designed to accept input from any standard voltage or current source.

It will provide continuous integration and totalisation of the output of devices such as; d/p flow transmitters, etc and, since it uses a square root law, enables total flow to be displayed in engineering units,

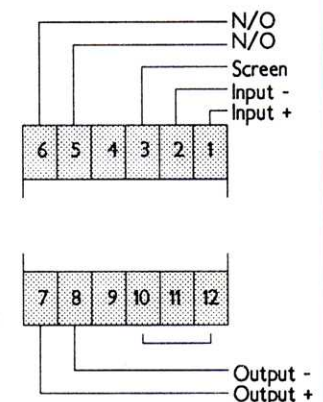
The input is applied to the ADC312, which conditions it with a square root law. It is then passed to the ADC353, which generates output pulses. The units are supplied as a pair. Pulse rate is continuously adjustable from 0-50 to 0-50000 pulses per hour.

Output pulses are 24V, 30mSec and are suitable for driving most electro-mechanical counters. If option 'R' is specified, output is also 30mSec pulses, from a set of voltage free contacts.

To ensure that spurious pulses are not generated at very low input levels, a zero cut-off control is fitted. This may be adjusted from 0 - 2% of input but is normally preset to .5%.

LINEARITY: <0.25% for inputs from 1 - 100%. Below 1% input, output is not specified.

Input and output wiring is shown to the right. For supply wiring, please see page 14.



ADC353, & ADM280, pulse scaler

INPUT/OUTPUT WIRING

This unit will accept input from any sine, square or triangular waveform from 100Hz to 10000Hz, provided the positive peak level exceeds the threshold level.

The pulses are converted to an analogue level by the ADM280 and passed to the ADC353, which generates output pulses at the desired rate.

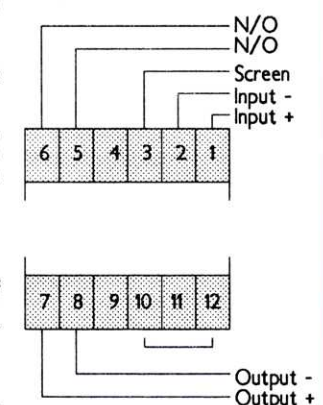
Output pulses are 24V, 30mSec and are suitable for driving most electro-mechanical counters. If option 'R' is specified, output is also 30mSec pulses, from a set of voltage free contacts.

Output pulse rate is continuously adjustable from 0 - 50 to 0 - 50000 pulses per hour.

To ensure that spurious pulses are not generated at very low input levels, a zero cut-off control is fitted. This may be adjusted from 0 - 2% of input but is normally preset to .5%.

The two units are tested together and supplied as a matched pair.

Input and output wiring is shown to the right. For supply wiring, please see page 14.



Transducers

ADP450/EP series, current/voltage transducer (With external power)

These are designed specifically for measurement of current or voltage in AC power applications.

Great care is taken to ensure absolute minimum burden on both the measuring and power supply inputs.

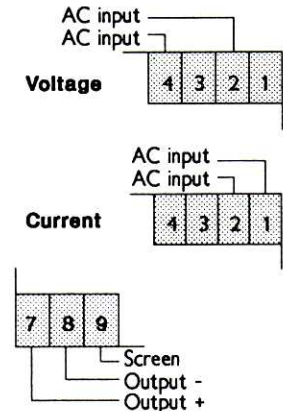
Any standard power supply or output signal may be specified.

Input may be any AC current from 0-1 to 1-10A or voltage from 0-150 to 0-600V.

Models available

Current input	Voltage input
ADP451/EP	ADP452/EP

INPUT/OUTPUT WIRING



For supply wiring, please turn to page 14.

ADP450/SP series, current/voltage transducer (Self powered)

These will also measure current or voltage in AC power applications.

No external supply is necessary. All power for the unit is derived from the voltage or current being monitored. Despite this, burden is minimal.

Any constant output current may be specified from 0-1mA to 0-20mA, into any load from 0-10V. Maximum output is 16V under open circuit load conditions.

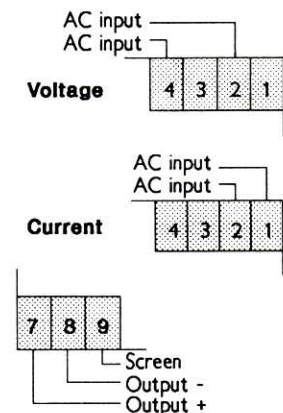
Input may be any AC current from 0-1 to 1-10A or voltage from 0-150 to 0-600V.

Accuracy/linearity: <0.5% from 1% to 110% input.

Models available

Current input	Voltage input
ADP451/SP	ADP452/SP

INPUT/OUTPUT WIRING



There is no separate supply wiring on this product.

New products

The 'Compact A' series is a comparatively new range and, as such, is constantly under review.

The direction in which the range expands is largely dictated by customer demand and we are anxious to hear from you.

If you cannot find the instrument you require in this catalogue, and you wish to use a 'Compact A' product, please contact our Technical Sales Department. The product you require may already be in process of being engineered.

Options

Option 'DI', digital display

This 3½ digit indicator is available in 12.5mm LCD and is fitted to the top panel. It will display any level from -1999 to +1999 and has its own internal gain and offset controls allowing, for instance, full scale indication over a small portion of actual input span.

When this option is specified for use with a trip amplifier, 'READ' pushbuttons are fitted for each trip point.

Under normal conditions, the display will indicate the input to the unit, either as a percentage of total input or in engineering units. When a pushbutton is pressed, the display will indicate that tripset level, in the same units, allowing very accurate adjustment.

When using this option, the standard plastic enclosure is replaced with an extruded aluminium enclosure with an Alocrome finish. This is available in either DIN rail or panel mount versions.

Option 'M', power supply

This is very similar to the ADP901/1 described on page 8 but is mounted internally. When fitted, it allows a standard unit to provide power to an external device, such as a strain gauge, input pre-amplifier or a 2-wire transmitter.

The output is adjustable over the range 2-25V at any current up to 25mA by an internal potentiometer which may, optionally, be fitted to the front panel. Load variation is better than 10mV over the full current range.

This option is available with a restricted range of products. Please contact the Technical Sales Department for further details.

Other options

Suffix	Description
/J★	Input test injection jack.
/K★	RFI protection to BS6667 Part 3.
/L	Latched relay.
/P★	Calibration test point.
/V	Variable deadband (1-20% of span. To special order only).

Some combinations of options are physically incompatible. If in doubt, please contact our Technical Sales. Those options marked with an asterisk are also suitable for 2-wire transmitters.

Mounting and wiring

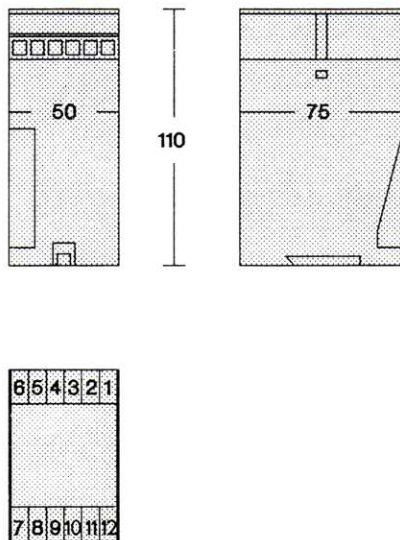
The standard method of mounting, unless options 'DI' or 'K' are specified, is a two-part plastic enclosure which is primarily designed for mounting to a low profile DIN rail, conforming to EN 50 022. Alternatively, the two external fixing holes may be used for securing the unit to a flat surface. These two holes are suitable for screws up to 4mm.

No tools are required when fitting a unit to a DIN rail. The moulded lugs at the base are simply hooked over one edge of the rail and, when the unit pressed firmly home, it will latch into place and be securely retained by a spring loaded metal clip. A screwdriver, or similar tool, should be used when removing the unit from a rail. It should be used to ease back the spring loaded metal clip, allowing the unit to be unhooked from the rail.

All input, output and supply connections are made via leaf type screw terminal blocks, which are integrally mounted just below the front panel. When wiring, provision must be made for a unit to be withdrawn from an enclosure without disturbing the wiring to adjacent units or the main wiring loom.

In the following drawings, all dimensions are in mm. Figures in brackets show the increased length of the option 'K' enclosure.

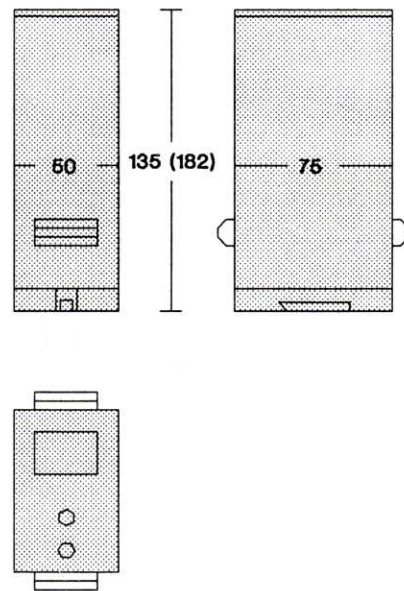
Standard mounting



Option 'DI' and 'K' units are supplied in an extruded Anodised or Achromed aluminium enclosure and is available in two mounting options. Both of these are basically a 50mm X 75mm section extrusion with a display and/or any customer accessible controls/indicators accessible at the front. When both standard and 'DI' units are ordered, the standard units may be specified in matching metal enclosures.

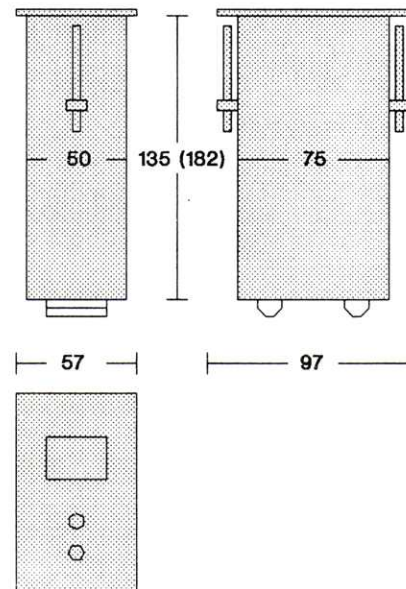
The first option is for surface mounting and is primarily for mounting to a low profile DIN rail. This option has two leaf type screw terminal blocks, which are mounted on the upper and lower surfaces of the enclosure (As seen when the unit is wall mounted to a horizontal DIN rail).

DI & K DIN rail mounting



The unit is fitted to, and removed from, a DIN rail in much the same manner as a standard enclosure.

DI & K Panel mounting



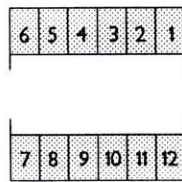
The second option is very similar to the above but is designed for panel mounting. This has a 57mm X 97mm front panel and the leaf type terminal blocks are mounted at the rear of the unit. These blocks will also accept cables up to 2.5mm².

Only a screwdriver is required when fitting a unit to a panel. After the unit has been passed through the hole, from the front of the panel, the two fixing devices are clipped to the upper and lower surfaces of the unit and the screws are tightened against the rear of the panel.

Mounting and wiring

Types of termination

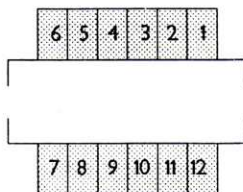
Standard unit



Shown above is a front view of the terminal blocks on a standard plastic enclosure. The terminals are integral to the upper, removable, part of the enclosure.

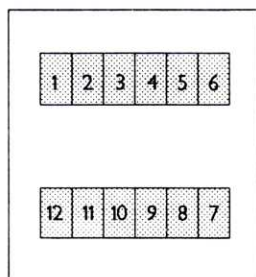
Under normal conditions, the terminal screw heads are protected by an engraved cover, which is retained by two compression clips. The cover has holes to allow access to controls and indicators.

'DI' and 'K' DIN rail mounting



This is a view from the front, or top, of the terminals on the digital display or RFI rejection enclosure.

'DI' and 'K' panel mounting



When viewed from the rear, the terminals are numbered clockwise from the top left rather than anti-clockwise from the top right.

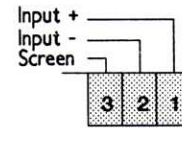
Throughout this catalogue, including on this page, all wiring drawings are shown based on the standard enclosure terminal layout.

When wiring a panel mounting unit, the terminal numbers should be regarded as more important than their physical location.

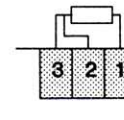
Input wiring

Where input is specific to a particular unit, details are given in the individual specification sheet. Where a unit is specified for multiple input, details are given below.

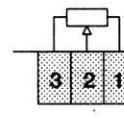
Thermocouple, millivolt, process input



Resistance temperature sensor

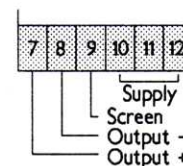
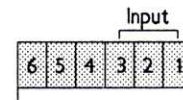


Slidewire or potentiometer

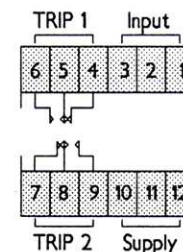


Output wiring

Transmitter, arithmetic unit

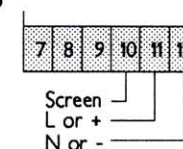


Trip amplifier



On a single trip unit, both sets of relay contacts are operated by the single trip. On a double trip unit, each set of contacts is operated by its individual trip.

Supply wiring



Additional information

Expansion to the range

The 'AH' range is still comparatively recent and is constantly being expanded. If the application you require is not covered in this catalogue, please contact our Technical Sales Department as the product may already be in process of being engineered.

AGS products

Over the years, Amelec have been called upon to solve a wide variety of process control problems. Many of the resultant products have proved so successful they have become part of our standard range. Indeed, some appear in this catalogue as standard products.

Other products, however, are specifically designed to solve a particular problem. These models do not have sufficient demand to become standard products but, since they are manufactured to the same standard, they are kept on file, ready to solve similar problems for subsequent clients.

If you have a process control problem, please ask for our shortform AGS list. Alternatively, contact our Technical Sales Department, giving full details of the problem and they will either recommend an existing AGS product or design one to suit your particular application.

Warranty and service

All Amelec products are guaranteed for ten years against faulty components or manufacture but not against misuse.

To claim under this warranty, equipment should be returned, carriage paid by the customer, to Amelec Instruments, Cochran Close, Crownhill, Milton Keynes, MK8 0AJ, together with details of the fault.

Attempted repairs or component replacement during the warranty period may render the warranty null and void, unless authorised by Amelec.

Amelec will undertake any repairs and will also supply replacement printed circuit board assemblies on an exchange price basis. Please contact the Technical Sales Department for further details.

Where the reported fault is a site problem, Amelec will make their own technical staff available to offer assistance. This service will be charged to the customer at the rate currently in force.

Ordering

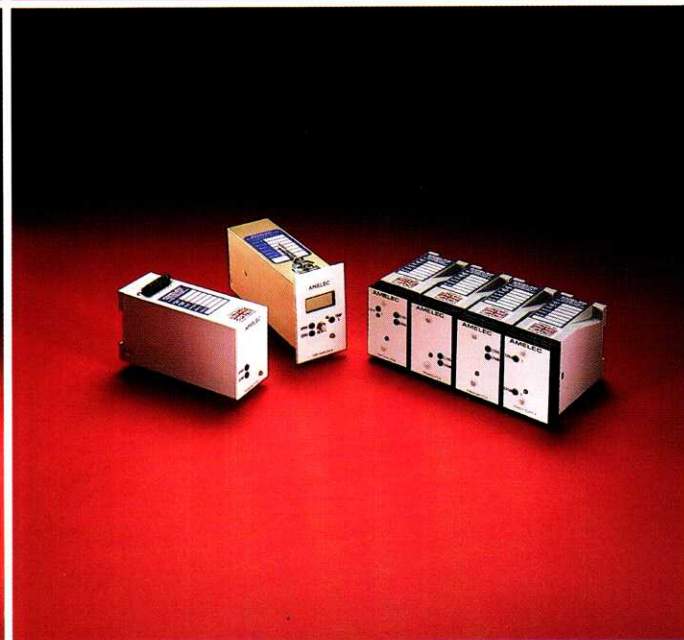
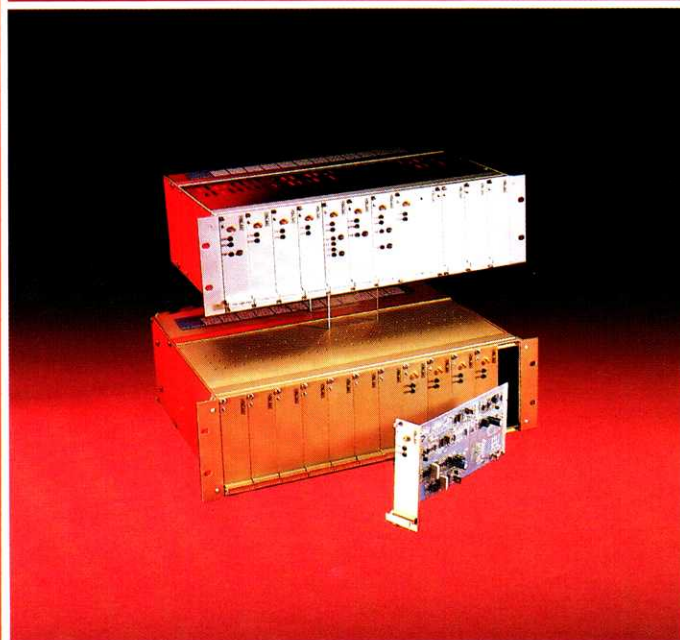
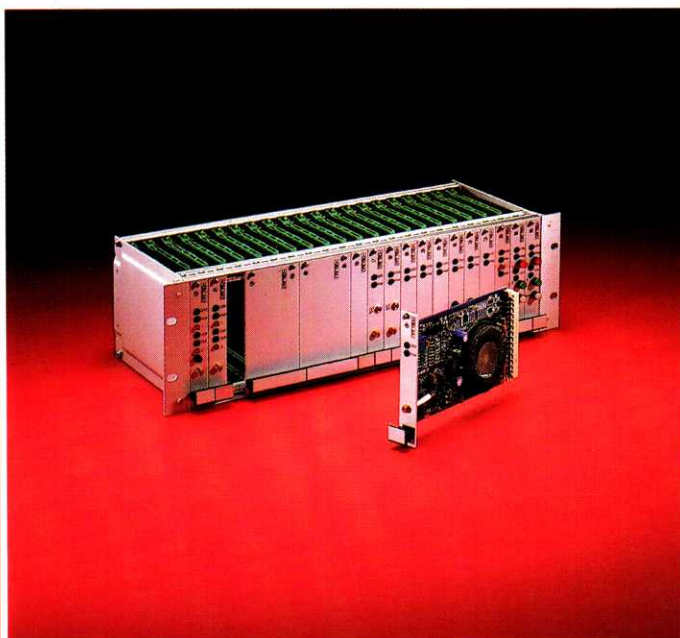
When ordering, please give the following details:-

1. Model number
2. Supply voltage and frequency
3. Mounting - Surface, Panel, Single end access or Rack
4. Input span, output span, offset and source
5. Open circuit response - If not specified, default is upscale for thermocouple, millivolt and resistance input units, downscale for process
6. Relay status and mode - If not specified, default is normally energised and single trips are set to Hi, double trips to Hi/Lo. LEDs are lit when relays are energised
7. Any options required
8. Information appropriate to any options ordered

A complete range of Trip amplifiers, Signal conditioners and Arithmetic units are also available in these complementary ranges:-

A 4U X 12E Surface, Panel, SEA and Rack **AB** 3U X 7E Rack. **AD** DIN rail and Surface. **AH** 3U X 4E Rack

Please ask for our other catalogues



Cochran Close Crownhill Milton Keynes MK8 0AJ

www.amelec-uk.com Tel: 01908 567003 Fax: 01908 566735 sales@amelec-uk.com