



AMELEC

SIGNAL CONDITIONING





WATCHING
OVER THE
PROCESS
INDUSTRY
SINCE 1975



W E L C O M E

Amelec Instruments began in 1975 and over the past 40 years has served to supply a wide range of signal conditioning equipment throughout the UK and around the globe. We are a wholly owned British manufacturing and supply company and pride ourselves with a good understanding and knowledge of the application of our products.

Amelec supply to all essential process industry sectors including: Power Generation, Oil and Gas, Nuclear, Chemical and Pharmaceutical, Utilities, Food and Brewery, Aggregates, Railways, and Water Authorities. Our customers have included companies such as EDF Energy, Anglian Water, Network Rail, United Utilities, BP and Shell.

Our aim at Amelec is to work with our customers to offer the best possible service; meeting customer's needs with fast response and delivery, providing professional

advice, instruction, after-sales support, obsolescence support with replacements for discontinued instruments and matching our customer's needs for customised instrument requirements. We aim to be the best providers of analogue Signal Conditioning, Process Monitoring and Control Equipment.





EXTENSIVE PRODUCT RANGE

APM Series

'front of panel'

*Up To 5 Digit or
Analogue Displays*



AH Series 'high density'

upto 21 instruments
in 19" rack



AEC Series

'slim dim'

universal 21-265v
AC/DC supply



A Series

'legacy product'

still fully
supported



AD Series

'compact A'

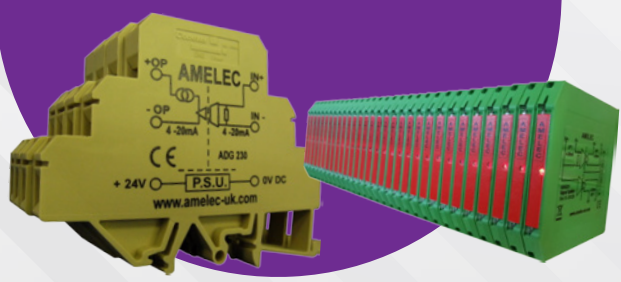
SIL 2 rated trip amps
and transmitters



ADG Series

'ultra slim dim'

upto 30 signal splitters
on 12" din rail



ASC Series

'non-intrusive'

approved
by Network
Rail





40 YEARS SUPPLY TO THE PROCESS INDUSTRY

AMELEC began the Design and Manufacture of a comprehensive range of analogue Signal Conditioning, Process Monitoring and Control Instrumentation over 40 Years ago, initially supplying to the C.E.G.B for use throughout the conventional & nuclear power generation sectors.

Today we are still at the forefront of 'Type A' Non-microprocessor based instrument technology, providing both standard signal conditioning products and bespoke monitoring or control solutions for the various different process industry sectors.

Products include; Signal Converters, Signal Isolators, Signal Splitters, Trip Amplifiers, Arithmetic units, Temperature Transmitters, AC Current Transducers, Pulse, Frequency & Strain Gauge Trip Transmitters, Panel Meters, Analogue & Digital Displays.

Our instruments are assessed and verified for use in SIL 1, SIL 2 or SIL 3 rated (IEC61508) critical safety system loop applications, and the factory in Milton Keynes operates in accordance with the UKAS certified LRQA accredited ISO 9001 Quality Management System.

Not only do we still fully support our own instruments originally supplied up to 35 years ago, we also provide wider obsolescence support to the process industries, offering free site surveys and producing Like-4-Like replacement products for discontinued instruments which were originally supplied by other manufacturers!

AMELEC continues to offer robust solutions to the process industries, with a quality driven, fast, reliable and repeatable service. New instrumentation supplied is covered by up to a 10 Year Warranty.



PRESENTING OUR STATE-OF-THE-ART PRODUCTS

ASC451LP



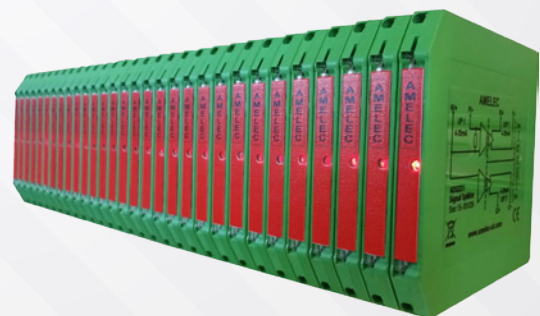
Fully tested and approved by Network Rail, this Split Core Transducer allows you to monitor AC current non-intrusively. Ideal for monitoring current loads on Fans, Pumps, Blowers, Motors and heating elements, as well as general AC current signal conditioning applications

- Input Current Can Be Specified In The Range Of: 0-20A up to 0-300A
- Loop Voltage 12 to 30Vdc
- Mounting Din Rail or Surface
- Output 4-20mA DC Sinking Current, 30mA Max,
- Output Load: 600Ω max @24Vdc supply
- Suitable for use in SIL1, SIL2 and SIL 3 rated safety loop applications.
- Approved By Network Rail- 086/036401



ADG231

Process 4-20mA Signal Splitter/Isolator, these individual devices are ideal for tight spaces.



- Input Options 4-20mA, Impedance 50Ω / 1-5Vdc, Impedance 500K
- Dual Output Options 4-20mA, Max Load 300Ω or 1-5Vdc, Min Load 200K
- Supply 24Vdc ± 10%
- Suitable for use in SIL 1 and SIL 2 Rated Safety System Loop Applications (1001 architecture, HFT:0, IEC61508)
- Combinations of Process V/I Input and Outputs
- Ultra Compact Design, only 10mm wide enclosure
- Suitable for both TS32 G-Rail and TS35 DIN Rail Mounting
- Up to 30 units/60 isolated loops along 12" length of Din rail





OBSOLESCENCE SUPPORT

- ✓ Repair / refurbishment of aged instruments
- ✓ Like-4-Like products to replace discontinued instruments originally supplied by other manufacturers
- ✓ Life extension of systems within areas of plant where aged instrumentation is installed. Simply provide us with the Serial No. for a product in question & we will gladly provide you with a quote for new like-4-like replacement options
- ✓ Upgrade aged GEC GEM80 systems with our plug-in replacement 8400/8405-6 series instrument cards
- ✓ Upgrade obsolete Rochester Rack Systems with our plug-in replacement AH-RIS series instrument cards
- ✓ New replacement Instrumentation supplied with up to a 10 year warranty
- ✓ Benefit of our 40 years of experience in the signal conditioning and safety critical, process, monitoring, and control field





SIL 2 RATED INSTRUMENTS AS STANDARD

Instruments produced by AMELEC are based purely on analogue techniques, no software or microprocessors included, and are classed as Simple Type A components within a safety loop;

- Failure modes of all constituent components are well-defined.
- Behaviour of the subsystem under fault conditions can be completely determined
- Sufficient dependable data from field experience to show that the claimed rates of failure for detected and undetected dangerous failures are met.

Trip Amplifiers, Signal Isolators, Transmitters, Signal Converters, Transducers, Signal Splitters, combi Trip- Transmitters, Arithmetic units, Panel Meters & Loop Power Supplies.

Independently verified Failure Mode Effect Analysis (FMEA) / SIL Data also available on request for all products, including;

Failure Rates, Parts counts, Diagnostic Cover, Safe Failure Fractions, Dangerous Detected & Undetected Failure rates, Risk Reduction Factors, Probability of Failure on Demand Information & Proof Test procedures.



OUR CUSTOMERS ARE OF UPMOST IMPORTANCE

Our strong relationship with the nuclear and conventional power generation sectors began in 1976, further to the CEGB approaching AMELEC with a demand for quality, robust, reliable and repeatable instrumentation.

1977 Began also supplying to Oil & Gas, Petrochemicals, Food & Brewery, Steels and other process industries- Our Earliest Clients included: British Sugar, Allied Breweries. Nestle, Shell, BP, British Gas and British Steel.

1978 Thames Water was our first Water Utility Client. We have continued to supply to all major National Utility companies since.

1978 Also supplying to the Chemical & Pharmaceutical sector companies- Our earliest clients included: ICI, Dow Coming, Courtaulds, GlaxoSmithKline and Clayton Aniline Dyes

UK Nuclear New Build project- Sizewell B Power Station- Suffolk- Amelec Manufactured and Supplied in the region of 3000 modules for use in safety monitoring, condition and control systems across the plant from the Nuclear Island to balance of plant.

Today we maintain a reputation for our fast response as well as the ability to create one of a kind solutions for our clients when they require a unique or custom built product.



“Today we maintain a reputation for our fast response as well as the ability to create one of a kind solutions for our clients when they require a unique or custom built product”



***“Fantastic Service,
many thanks for
the support”***

Technical Advice Engineer



***“Thank you for
the great service”***

Process Industries



***“Fantastic service that
filled in the hole we
had dug for ourselves!”***

Commissioning Supervisor



***“Thanks again for
persevering with the
development of
these units”***

Engineering Delivery
Manager



***“Thanks again
for the prompt
response”***

Systems Engineer



***“Amelec’s AEC231 is an
excellent Dual Output
Analogue Signal Splitter.
The AEC231 is robust,
reliable and very
competitively priced”***

Estimating Engineer





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Watching Over The Process Industry since 1975
Unanswered Questions? Please Contact Us

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