

*35 Years of
Excellence
Past, Present
& Future*

AMELEC

SIGNAL CONDITIONING

Process

Instrumentation

Specialists



AMELEC

SIGNAL CONDITIONING



**Meeting Our Customers'
Needs With Quality,
Assurance & Confidence**



**SIL RATING
1, 2 & 3
IEC61508**



Company Synopsis

Since 1975, we proudly remain a wholly owned British manufacturing and supply company. We meet the specialist needs of our numerous national and international customers across various process industries. We'll understand your requirements and help you select the right product for your signal conditioning needs.

Our products are controlled under our Lloyds approved **ISO 9001:2008** Quality system. Our range of services extends beyond designing, manufacturing and supplying signal conditioning instruments. It also includes calibration/repair and refurbishment services, system life extensions/upgrades and obsolescence-retrofit solutions. Where standard products do not match your needs, we can design and produce unique instrumentation specifically to your requirements.

We pride ourselves on excellent customer service. That's why we believe that the incredible quality, predictability and flexibility of our instruments allows us to tailor-fit a solution to your exact specifications. We are so confident that our products can satisfy all your expectations that we manufacture and supply the majority of our products with up-to a 10 year warranty!

We are renowned for our global presence and have a long established history with major clients in the UK for more than 30 years. Our products are readily used in many diverse sectors, ranging from nuclear to petrochemicals and food & brewery to sewerage (some of our clients seen below).

INEOS

CEMEX

ureenco

Dalkia

Magnox North
Magnox South

INVISTA™

CCFE
CULHAM CENTRE FOR
FUSION ENERGY

novozymes®
Rethink Tomorrow

centrica

Westinghouse

AREVA

**Scottish and Southern
Energy plc**

British Energy
PART OF **EDF ENERGY**

gsk GlaxoSmithKline

**Thames
Water**

Nestlé
Good Food, Good Life®
**Dŵr Cymru
Welsh Water**

**Power
Generation**



Utilities



**Chemical &
Pharmaceutical**



**Other Process
Industries**



AMELEC

**10 Year
Warranty**

Power Generation

Our reputation for analogue signal conditioning instrumentation resulted in the CEGB approaching us and said they had a need for our consistent instrumentation on both nuclear and conventional power stations. The analysis of our products at independent test houses led to the CEGB issuing a type approval for the largest range of instruments ever covered on a single approval document.

Our core principles of outstanding quality and service led us to successfully manufacture and supply numerous instruments to the last UK Nuclear New Build project, the Sizewell B Power Station in Suffolk. AMELEC delivered in the region of **3,000** modules for use within various monitoring, control and safety systems across the plant. To this day we are still proud to continue in providing support to the station operations and maintenance engineers.

Our products have full seismic qualifications and are approved in line with IEEE 323/344 standards for Class 1E continuous duty equipment for nuclear power generating stations. This gave the engineers at the Sizewell B considerable confidence in our seismic capability. Furthermore the 'K' option modules have been tested in accordance with the CEGB's DN5, IEC801-3 & IEC61000-4-3 standards for Radio Frequency Immunity (20-1000MHz @ up to 10V/Metre). The technical capability of our instrumentation in this sector provides the basic stable foundations for the Utilities sector.

A brief technical product description on a variety of our sector suitable instruments is provided below (**full specifications on website**):



e-on

edf

Drax
Group plc

- Suitable for thermocouple, millivolt, RTD, sidewire or process input signals.
- Transmitters have total isolation between input, output, supply & earth.
- Trip amplifiers are single or double trip.
- Trip points set by multiturn potentiometer.
- Supply voltage of 110VAC, 240VAC, or 24VDC available at no extra cost.

Utilities

We have a long established and successful track record in the Utilities industry ever since we gained a renowned reputation with the CEGB. This gave us great confidence in supplying to British Gas & various water authorities who were also in search of quality signal conditioning instrumentation.

Our first water utility client was Thames Water in 1978. From there we began to manufacture and supply to most of major national water utility companies, including North West Water, Welsh Water, Northumbrian Water and South West Water. Our successful track record has ensured that AMELEC made an impact with our confidence and predictability in this sector and still do to this very day.

In 2010 & 2011, we were awarded **100% score** in **quality** accreditation by the Achilles-UVDB verify scheme. This confirmed that the quality of our instrumentation has not faltered over 35 years.

A brief technical product description on a variety of our sector suitable instruments is provided below (**full specifications on website**):



- The latest additions in the AEC Series include the Slim Combined Process Trip Transmitters / Isolators and the Slim Dual Trip Amplifier. They are fully configurable via jumper switches.
- They provide space-saving efficiency in the slim 22.5mm wide Din Rail Mounted enclosures.
- In addition the Universal 21V through to 260VAC/DC power supply is standard throughout the range.
- All our moving meters have a jewel and pivot movement which ensures reliability and accuracy.



Chemical & Pharmaceutical

We have maintained a strong relationship within this particular sector. We began successfully manufacturing and supplying instrumentation into this sector since 1978. Our earliest clients were ICI, Dow Corning, Courtaulds, GlaxoSmithKline and Clayton Aniline Dyes.

A wide range of Trip Amplifiers, Transmitters/Isolators, combined Trip Transmitter Isolators and Arithmetic Units come with their own power supply, fuse and power on indicator. The **AH Series** high-density 19" rack mounted instruments have proven to be very popular over the years.

We ensure that our range of **HART** compatible Isolators offer full protection without losing bi-directional communication links between your **SMART** equipment.

We offer an exceptionally broad range of products for use in numerous applications and has also built our successful reputation within the general process industries.

A brief technical product description on a variety of our sector suitable instruments is provided below (**full specifications on website**):



- The AEH Series offers simple configuration via solder jumpers & the ability to be easily retrofitted into existing temperature probe heads.
- The AH Series 19" rack for either surface or conventional mounting will hold up to **21** standard 4HP wide instruments.
- Instrumentation for suitable **SIL 1, 2, and 3** applications in accordance with **IEC61508**.
- Products supplied with up to a 10 year warranty.

Other Process Industries

We further extend into this service sector by recognising the need for our credible products (conditioning, monitoring & control instrumentation) within the Oil and Gas, Petrochemicals, Food and Brewery, Steels and many other general process industries.

Our relationship within this industry first sprung into life in 1977. This resulted in the development of many interesting, challenging and varied applications over the years. Some of our earliest clients included British Sugar, Allied Breweries and Nestle, which enabled us to match a quality service with high quality instrumentation.

We have built our reputation on the ability to create one-of-a-kind solution for our clients. When they require a unique or custom-built product, our professional manufacturing team are here to help them meet their bespoke requirement.

A brief technical product description on a variety of our sector suitable instruments is provided below (full specifications on website):



ExxonMobil

PIRELLI

Weetabix

- General Process monitoring inputs include I/V, TC/RTD, Pulse/Frequency & Loadcell/Strain Gauge.
- Isolated analogue retransmission & Trip relay outputs available.
- Digital Panel Meters with 4 & 5 digit red LED high-brightness displays, isolated retransmission of input & 2 alarm set points.
- The APM489-5-4RL process Indicator/controller has a analogue output fitted as standard with optional 1 RS485(Modbus RTU Mode) interface with versatile functions & up to 4 alarm set points.

UVDB Verify
empowered by Achilles

Achilles



SIL RATING
1, 2 & 3
IEC61508

HART
COMMUNICATION FOUNDATION



Obsolescence & Refurbishment

This area is one of our key strengths. Overcoming instrument obsolescence problems can prove to be seriously time-consuming and in the long term a hefty expensive.

Implementing a completely new system upgrade can prove costly. It can involve significant downtime, re-wiring, and possibly staff re-training issues.

Alternatively, simply provide us with the original manufacturer's name / part no. / your operating spec / etc. and we should be able to provide you with a quote for a cost effective, high quality, like for like compatible replacements for your obsolete or difficult to source instrumentation.

Several of our successful obsolescence and refurbishment projects include requests for replacement of instruments originally supplied or manufactured by others. One project that AMELEC has supplied to is the upgrade of aged GEC GEM80 systems at Kraft Foods (Cadburys), providing plug-in replacement cards for the 8405 series I/O signal conditioning sub-racks.

The AH Series offers the ideal retrofit solution where obsolete Rochester (RIS) installations may exist on plants. This shows the technological traceability we possess and we still fully support and supply spares for our instruments supplied over 30 years ago.

Simply talk to us about your requirements - both technical and budgetary - and we'll develop a custom solution for you.



- Renowned 30 years' experience in the process control, monitoring and signal conditioning industry
- Cost effective, high quality, like for like pin compatible replacements.
- Fast response & free comprehensive technical support ensures minimal disruption to your process continuity and aids your efficient project design work.
- Up to 10 years warranty on AMELEC products, with preventative maintenance / refurbishment programmes available for products outside of their warranty period.

Products



Digital Panel Meters

A range of panel meters/controllers with a 4 / 5 relay output Available for next day delivery



AH SERIES

A range of 3U high aluminium enclosures with individual plug-in modules. The High density 19" rack can hold up to 21 instruments



Compact A/AD Series

A range of sil rated level 1, 2 and 3 trip amps, transmitters and more. Individual surfaces, Din rail or front of panel mounting



A Series

A range of 4U high aluminium enclosures with individual plug-in modules



AEC Series

A 22.5mm range of slim trip & trip amps, transmitters, converters, isolators, splitters and more for TS35 DIN rail mounting



APM Series

A range of moving coil meters suitable for measurement of AC & DC current/voltage. Available in Bezel sizes of: 48mm, 72mm & 96mm



Process Control Panels/Enclosures

We can manufacture and supply control panels to your specification, fully wired with control equipment installed and tested to a high quality standard



AEW & AES Series

Our brand **NEW** improved range of 2-wire TC/RTD temperature transmitter & Signal Isolator measure at only 7.6mm



AEH Series

A range of flexible 2-wire transmitters, which have a low output ripple and high stability

Client Feedback

"I recently had one of your trip amplifiers go faulty on me. The said item is at least 21 years old, and had been in service for all this time. I was really pleased when you told me that you could supply me with a direct replacement that would not need any modifications done to make it fit. It is very rare for electronic equipment not to be obsolete after a couple of years, never mind 21 years!

In all my dealings with your company I have always been impressed with the quality of your products. The manuals provided with each item are excellent, as is your after sales technical help. I think that your 10 years warranty speaks volumes about faith in your products. I would never hesitate in recommending your company to anyone"

SHEFFIELD FORGEMASTERS
INTERNATIONAL



"Many thanks for your prompt response...Great Service!"



"Thanks for the fast response."



"Thank you for the great service."



"Thanks again for the prompt response."



"Thanks for your support."



"This is just what we needed, so many many thanks."



"Many thanks for your very prompt service...we thank you for helping us on this urgent request, it is much appreciated."



"Thank you very much... please say thanks to Oscar & David."



"I'd like to thank you for your quick response to our request, and for getting the item getting to us on time"

Wondering what the attractive geometric design in our brochure is?

1. Download the "i-nigma" app from your respective app store (Apple App store, Android Market or Blackberry App World).
2. Point the camera at the QR code so that it is within the red square guidelines.
3. Follow the link and uncover what is hiding within our code.

For other users: Go to www.mobile-barcodes.com/qr-code-software

(Data charges will apply, check your network provider and data plan for costs/usage allowance)



F.A.Q.

Is Amelec an American owned company?

No...originally formed in February 1975, AMELEC remains a wholly owned British manufacturing & supply company celebrating over 35 years of excellence.

Panic!..Can we have some Signal Isolators tomorrow please?

Yes...The AMELEC compact AEC series Signal Isolators, Signal Splitters & Trip Amplifiers are generally built as stock items. They are available for next day or even same day delivery to assist your reactive maintenance engineers in their daily challenges.

Can the Amelec Transmitters & Trip Amp's be used in SIL rated safety systems?

Yes...AMELEC produce a vast array of instrumentation suitable for use in SIL 1, SIL 2 & SIL 3 rated safety loops & applications. They are covered up to a 10 Year warranty & all provided with the required FMEA analysis / independently verified failure data as per IEC 61508 / IEC61511 for your safety instrumentation engineer.

What payment options are available?

As well as the usual credit accounts / payment terms that may have been agreed between the accounts departments along with the preferred BACS payment method, AMELEC also accept payment for goods by Visa, MasterCard, Purchase Card or Cheque.

Are the Amelec ABT / ABM / ABC series 19" Rack mounted instruments originally installed 25 years ago now obsolete?

No...These instruments are still fully supported & available as new if required.
The AMELEC AHT / AHM series is a more efficient high density 19" Rack option if an upgrade or replacement system is preferred.

Do the Amelec 'A', & 'Compact A/AD' series Transmitters & Trip Amp's contain any uProcessors?

No... In fact all of the 'A', 'AB', 'AH', 'Compact A/AD' & 'AEC' series instruments that AMELEC offer to the market place are based on straight forward well tried & tested analogue techniques, using readily available discrete components. Generally categorised as *Type A devices*, they are described as *Simple Components* with well-known failure modes and a solid history of operation.
(whereas instruments containing time dependent or microprocessor based circuitry tend to be categorised as *Type B devices*. *Complex Components* with potentially unknown failure modes, i.e., microprocessors, ASICs, etc.)

Are the AMELEC ATA / AMT / ACC series instruments originally installed up to 30 years ago now obsolete?

No...These instruments are still fully supported & available as new if required.
The AMELEC AH, APM, Compact A, AD & AEC series instruments offer alternative options where upgrades or replacement systems are preferred.



Still have unanswered questions, ring us on: 01908-567003

Amelec Instruments is the trading name of Amelec Technical Solutions Ltd
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AMELEC

SIGNAL CONDITIONING

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