

*35 Years of
Excellence
Past, Present
& Future*

AMELEC

SIGNAL CONDITIONING

Process

Instrumentation

Specialists



AMELEC

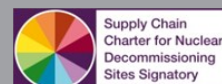
SIGNAL CONDITIONING



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



SIL RATING
1, 2 & 3
IEC61508



Company Synopsis

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

AMELEC products are controlled under our Lloyds approved **ISO 9001:2008** Quality system. Our range of services extends beyond designing, manufacturing and supplying of signal conditioning instruments. They also include 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 for your needs.

AMELEC prides itself on excellent customer service. That's why we believe that our incredible quality, predictability and flexibility of the 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 a 10 year warranty!

At AMELEC we have a global presence internationally and 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). Our website showcases many of those products, but you can call us directly for any special advice.

INEOS

CEMEX

ureenco

Dalkia

Magnox North

INVISTA

CCFE
CULHAM CENTRE FOR FUSION ENERGY

novozymes

Magnox South

Westinghouse

gsk
GlaxoSmithKline

Scottish and Southern
Energy plc

centrica

British Energy
PART OF EDF ENERGY

TEXACO

Thames
Water

Nestlé
Good Food, Good Life

Dŵr Cymru
Welsh Water

Power

Generation



Utilities



Chemical &

Pharmaceutical



Other Process

Industries



Power Generation

AMELEC's reputation for quality and service resulted in the CEGB approaching us and saying 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, and to this day we are proud to continue to provide support to the station operations and maintenance engineers.

Our products with full Seismic qualification were 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 new build project, considerable confidence in our seismic capability. Furthermore the 'K' option modules have been tested in accordance with the CEGB's DN5, IE-C801-3 & IEC61000-4-3 standards for **Radio Frequency Immunity** (20-1000MHz @ up to 10V/Metre). The technical capability of our products in this sector provides the basic foundations for our instrumentation in the Utilities sector.

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



e-on

AREVA

Drax

- 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.

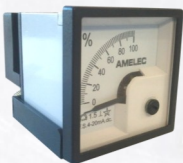
Utilities

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

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 AMELEC 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 web-site**):



Severn Trent Water

anglianwater

- The latest additions to the AEC Series include the Slim Combined Process Trip Transmitters / Isolators & the Slim Dual Trip Amplifier which is 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 & pivot movement which ensures reliability and accuracy.



SIL RATING
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IEC61508



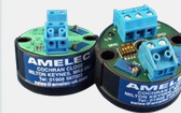
Chemical & Pharmaceutical

This sector has also maintained a strong relationship with AMELEC. We have been 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, power on indicator and 10 year warranty. The **AH Series** high-density 19" rack mounted instruments have proven to be very popular over the years. AMELEC ensure that our range of **HART** compatible Isolators offer full protection without losing bi-directional communication links between your **SMART** equipment.

AMELEC offer an exceptionally broad range of products for use in numerous applications and has built our successful reputation over the years 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**):



Lilly



- 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 cubical mounting will hold up to **21** standard 4HP wide instruments.
- Instrumentation for suitable **SIL 1,2, & 3** applications in accordance with **IEC61508**.
- Products supplied with up to 10 year warranty.

Other Process Industries

AMELEC further extends into the 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 with these industries first sprung into life in 1977, resulting 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.

AMELEC has built its reputation on its ability to create perfect solutions for its clients. When they require a unique or custom-built product, our professional manufacturing team are here to help you meet the bespoke requirement.

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



ExxonMobil

IRELLI

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-AO-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.

Obsolescence & Refurbishment

This area is one of our key strengths. Overcoming instrument obsolescence problems can prove to be seriously time-consuming and expensive in this current economic climate.

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

Alternatively, simply provide AMELEC with the original manufacturer's name / part no. / your operating spec / etc. and then 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 recently 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 your custom solution for you.

A brief service summary is provided below (full details & examples on website):



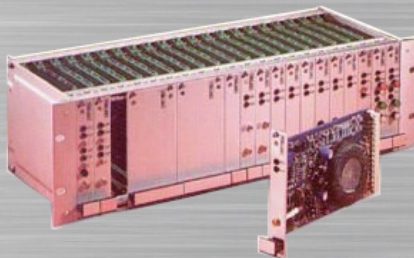
- Benefit of over 30 years of experience in the process control, monitoring and signal conditioning field.
- Cost effective, high quality, like for like pin compatible AMELEC replacements.
- Fast response & free comprehensive technical support ensures minimal disruption to your process continuity, and 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.

Product List



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 rack can hold up to 21 instruments



Compact A/AD Series

A range of enclosures for 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 amplifiers & transmitters 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 (showing), 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 your 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 to us on time"

Wondering what the attractive geometric design in our brochure is?

For iPhone users: Download "QR Reader for iPhone" App from iTunes store for free.

For Android users: Download "Barcode Scanner" App from the Android market for free.

For Blackberry users: Download "QR Code Scanner Pro" app from Blackberry App World for free.

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, 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, covered by up to 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 our 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 offers an even higher density 21-way 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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