ELECTRIC SYSTEMS **Powering Up Locally:**

Electric Systems Energizes as Local Distributor of **MR** Transformer Components

From protection instruments, fittings and valves to advanced temperature and oil level indicators, Electric Systems (ESP) offers a comprehensive range of Maschinenfabrik Reinhausen (MR) transformer accessories tailored to meet the needs of energy producers, transformer manufacturers as well as public and industrial grid operators to guarantee a safe, economical and resilient power supply.

Whether it's improving grid efficiency, minimising downtime, or maximising the lifespan of transformers, Electric Systems delivers immediate solutions from it's local stock of MR's components from brands CEDASPE, MESSKO and REINHAUSEN ITALIA (formally CAPT).

With strategically located warehouses across Australia and New Zealand, Electric Systems ensures prompt access to European manufacturing quality reducing lead times significantly. Minimising variations by stocking products with the possibility of redundancy (a thermometer with 4 switches can be used as a thermometer with 2 switches by simply not connecting the extra switches) also enhances operational efficiency for customers.

Electric Systems' sales and engineering personnel provide comprehensive support and expertise, guiding customers through product selection, installation, and maintenance processes, troubleshooting technical issues, or providing tailored solutions.

AUSTRALIAN STANDARD BUCHHOLZ RELAY FOR OIL-IMMERSED POWER TRANSFORMERS

Cedaspe (merged with ETI) has earned a reputation as a trusted manufacturer of high-quality protective devices and essential components for power and distribution transformers. The GQ series Buchholz relay, which replaces the ESP GP series, is a protective device for onload tap-changers, oil-filled transformers and reactors with an oil conservator.

Engineered with precision and reliability in mind, the GQ series offers protection against internal faults and oil leaks in transformers. Installation and integration are seamless, due to its compact, userfriendly design. Compatible with a wide range of transformer configurations and operating conditions, it offers flexibility and ease of deployment across diverse applications without requiring significant modifications.

The device detects the following:

- Gas accumulation in the device (warning contact, ALARM)
- Loss of insulating fluid (cut-off contact, TRIP)
- Insulating fluid flow speed too high (cut-off contact, TRIP)

Above: Buchholz Relay

To complement the Buchholz relay is a Gas Receiver that is available to sample, at ground level, gas or air trapped in the relay housing. A variant design also allows the injection of air or gas into the relay in order to test the contacts.

The GQ series relay is available for immediate sale through ESP in the nominal DN25, DN50 and DN80 pipe diameters, with various flow rates and wiring and with connecting flanges with 4 (Table D) or 6 hole metric thread drill holes.

THERMOMETER WITH **BELLOW TYPE TECHNOLOGY**

With a legacy built on innovation, quality, and reliability, Messko has become identified with excellence in thermometer monitoring technology.

Messko BeTech OTIWTI thermometers measure the oil and winding temperature (thermal image) in power transformers.

The thermometers consist of a temperature sensor which is connected to the bellows for the measurement display via a capillary tube, and another expansion bellows for the compensation of the ambient temperature.

Electric Systems (ESP), a family business providing power and distribution transformer components to Australian & New Zealand industry since 1946.



Above: Messko BeTech Thermometer

The measured value is displayed directly on the pointer thermometer or transmitted by connection via 4...20 mA, 0...5 V DC analog output or A Pt100 connection via Pt 100 analog output.

The bellow-type technology is a maintenance-free, rugged and lowinterruption measurement principle which impresses with its reliability and durability.

The BeTech originates from the designers of the AKM low pressure bellows type thermometer, originally manufactured in Sweden (Electric Systems held the agency for sale of this thermometer in Australia for 28 years) and offers seamless integration into existing infrastructure without the need for modifications.

Messko BeTech OTIWTI are available for immediate sale through ESP.

ELECTRICSYSTEMS TRANSFORMER ACCESSORIES

For more information visit electricsystems.com.au or contact Electric Systems on m: +61 410 474 712 or e: sales@electricsystems.com.au