



## DETECT DISCHARGE

The Ultrahound is a robust instrument designed to easily detect the presence of electrical discharge in HV plant and equipment. The Ultrahound can be used to pinpoint a source of RFI, arcing, corona or partial discharge on power system equipment. Such discharges can cause communications interference and can also indicate faulty or failing insulation or loose connections. The Ultrahound detects the presence of ultrasonic noise, which is just one part of the noise spectrum emitted by electrical discharges. The device consists of a parabolic concentrator focusing the signal on to the sensor and converts the ultrasonic noise to audible signals. The Ultrahound is suitable for detecting electrical discharges from power line hardware, power cable terminations and substation plant and equipment. Contact Mitton Instruments for more information. 




## FLEXIBLE HIGH-CURRENT AND ENERGY DISTRIBUTION COMPONENTS


Increasingly progressive developments in switchgear and power distribution areas are contributing factors connected with the reality that ever higher power ratings and currents must be safely transferred under even smaller spaces. To prevent heating problems and to assure connections and installations are possible, extremely flexible components are needed to transmit electricity safely and permanently without problems. German company Druseidt Electro-Technology specialises in manufacturing as well as designing flexible high-current connectors, starting with the smallest ground strap up to high-current connections of 6000sq mm or more. The following product groups are usually supplied within a short time: highly flexible insulated and non-insulated braids, lines and cables in rolls or on spools; grounding and earthing connections; highly flexible high-current copper connections; water-cooled high-current cables; flexible connections made out of copper or aluminium strips; busbars and busbar components; busbar supports and insulators. Contact DT Jointing Solutions for more information. 



## SECURING ENERGY FOR THE FUTURE

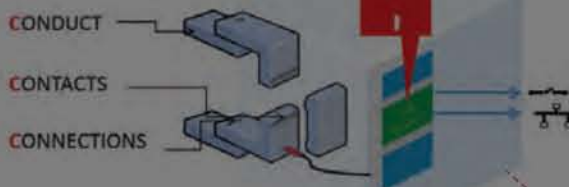
Michell Instruments has partnered with VSL, the national metrology institute of the Netherlands, on a project to increase the use of energy from renewable sources. The three-year program, Metrology for Biogas, aims to devise and validate traceable methods for determining key impurities, moisture, particulates, calorific value, and density in biogas and bio-methane so it can be used as a mainstream alternative to natural gas. Michell Instruments has provided a moisture analyser – the OptiPEAK TDL600 – for assessment testing. It uses advanced tuneable diode laser absorption spectroscopy, to provide a fast response to changes in moisture concentration while being able to withstand the acidic nature of the biogas. The sensor uses laser light to measure moisture content, so there is no contact between it and the biogas – meaning there is no long-term degradation of performance or stability of the analyser from the corrosive elements of the gas. Contact AMS Instrumentation for more information. 

## HIGH FREQUENCY POWER ANALYSER

The Hioki PW3390 power analyser is suited to mains power frequency and power electronics, high frequency power measurements, including applications such as solar and wind farms, variable speed drives and electric vehicles. The PW3390 captures input waveforms with 500 kS/s high-speed sampling and 16-bit AD converter performing period detection, wideband power analysis, harmonic analysis, waveform analysis, and noise analysis. High-speed simultaneous calculation processing enables both precise measurements and a 50 ms data refresh rate. There are four independent input channels with  $\pm 0.04$  per cent basic accuracy for power providing 200 kHz measurement band and flat amplitude and phase characteristics. Contact Power Parameters for more information. 



### 3C Overheating Protection



## EXTRA DIMENSION FOR PROTECTION FUNCTIONS

Many fast-paced modern businesses often fall into the trap of delaying the routine service of critical electrical switchgear in order to avoid lengthy power shut downs. Unfortunately, this can result in the deterioration and premature failure of switchgear contacts, conductors and connections. Terasaki has stepped ahead of the market and added an extra protective dimension for the AGR31C electronic trip units to guard against overheating of contact, connections and conductors – known as 3C protection. This 3C overheating alarm is available via a relay output contact or via the integrated MODBUS communications. 3C overheating protection can also be configured to trip the TemPower 2, if the ACB is supplying a 'non critical' process. Contact NHP for more information. 