



MARVEL ENGINEERING COMPANY



MARVEL ENGINEERING COMPANY

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INNOVATIVE
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PASSION

SERVICE
IN
ACTION



Marvel at the Technology.....

ABOUT US

MARVEL ENGINEERING COMPANY founded in 1974 by professionally trained technocrats, has been serving the Indian Industry, with the primary objective of providing World-Class Instrumentation Systems and Associated Equipment for varying applications and the best matching Technical Know-How and guidance to facilitate Customers to derive the maximum benefit.

These high-techs, State-Of-The-Art Devices provided by Marvel Engineering Company have been intended to enable Indian Customers to share the progress elsewhere, for stepping up productivity, eliminating downtime and mitigating pollution hazards, thus contributing to increased availability of products and ensuring a congenial, eco-friendly environment.

With new allied lines added on over the years, Marvel Engineering Company, has grown in stature, and is considered as a reliable provider of Multi-Faceted Instrumentation Devices and accompanying Support Services, for demanding applications in different industries segments.

MARVEL ENGINEERING COMPANY is engaged in the Supply & Service of Instrumentation Systems to Government, Public & Private Sectors throughout India, over the last three decades.


Recently, rated by DUN & BRADSTREET Global Database.


Many Pieces of Unique & Instrumentation Systems have gone into


- * Large Thermal, Combined Cycle Power Projects / Stations.
- * Space & General Research Labs.
- * Defence & Atomic Energy Establishments.
- * Chemical & Pharmaceuticals Units.
- * Steel, Cement, Pulp & Paper Plants.
- * Automobile & Ancillary Industries.


Our Fully Staffed & Equipped, Back-Up Support Team takes care of Installation, Commissioning and other Support activities, stays with the customers, facilitates them to get the best out of the products acquired.


In-House facilities for Servicing & Re-Calibration of Instruments including component level trouble-shooting, to ensure long-term maintenance costs are minimized. Critical spares such as components, subsystems, PCB assemblies, sensors, etc are held in stock to provide quick turnaround of repair and servicing. Engineers are Factory & Site trained.


<p>Compliance Opacity and Dust Monitor</p> <p>The 4500 MkIII has reset the industry standard on compliance opacity and dust concentration measurement. Combining the unique features of three patented technologies, it achieves the highest available specification for the principal performance parameters, as defined by the internationally recognized ASTM Standard D 6216, USEPA, MCERTS & TUV Standards.</p>	<p>4500 MK III</p>  <p>HOT SALE</p>
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<p>Dust Emissions Monitor (For Small Process)</p> <p>The Model 4200 is a compact smoke, dust and particulate monitor for measuring dust emission concentrations on industrial processes and non-compliance applications. This dust monitor is ideally suited to multiprocess plants with common exhaust stacks.</p>	<p>4200</p> 
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<p>CO Monitor</p> <p>Model 9100 is across stack infrared, in-situ carbon monoxide monitor providing high accuracy and reliability, coupled with straight forward installation and setup is suitable for a wide range of industrial combustion efficiency monitoring applications. This is designed to provide the operator with a fast response measurement, of any boiler system.</p>	<p>9100</p> 
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<p>Range of Stack Gas Emissions Analysers</p> <p>The FGA 900 range of analysers use dual sensor technology to measure the levels of Nitrogen Oxides, Carbon Monoxide and Oxygen in flue gas. Land's measurement technique ensures stable long-term operation with high accuracy and very low drift.</p>	<p>FGA 900</p> 
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<p>Sulphuric Acid Dewpoint Temperature Monitor</p> <p>The Lancom 200 is designed specifically for plant requiring only periodic monitoring of the sulphuric acid dewpoint temperature for boiler efficiency checks, corrosion protection and evaluation of the effectiveness of corrective measures such as fuel additives and changes in the combustion conditions.</p>	<p>LANCOM 200</p> 
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<p>Portable Flue Gas Analyser</p> <p>The Lancom 4 is a compact, portable combustion and emissions analyser for checking or testing a boiler system or pollutant process. Building on the success of the Lancom III, the Lancom 4 is represents the next generation of portable gas analyser technology. It has the capability to monitor up to 9 different gases simultaneously.</p>	<p>LANCOM 4</p>  <p>HOT SALE</p>
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<p>Insight Data Acquisition & Analysis Software(For Lancom 4)</p> <p>Insight is a Windows™ based data acquisition software program, used for logging stack emissions measurement data directly from a LANCOM portable gas analyser.</p>	
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<p>Lancom Portable Gas Analyser Sample Probes</p> <p>The Lancom range of Portable Flue Gas Analysers features gas sample probes for varying applications. In applications where a standard probe is not suitable, or there is a special measurement requirement - select one of these alternative probes.</p>	
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<p>Mill / Silo Fire Detector</p> <p>Advance warning of the onset of coal mill and silo fires through the early detection of the build-up of carbon monoxide in the mill. Advanced fire detection system. Tailored to each application/plant. Standard analog and discreet contact outputs. Specially designed for fire detection on coal mills and silos</p>	
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<p>Railcar Fire Detector</p> <p>The transportation of coal by rail brings with it the potential risk of fire. Coal stored and moved in rail cars can provide the environment necessary for coal to smolder, which if undetected leads to fire.</p>	
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<p>Conveyor Fire Detector</p> <p>The transportation of coal on any form of conveyor system has the potential to ignite, with the ultimate outcome being a fire. Coal (even in small amounts) is a very good insulator, so fire which is burning beneath the surface may not be immediately obvious.</p>	
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<p>Coal Pile Hotspot Detection</p> <p>High resolution radiometric thermal image, giving detailed temperature information transmitted via a high speed digital connection. Designed for harsh industrial environments, ensuring ultimate measurement reliability and availability</p>	
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Calorimeter	5E-AC/PL
<p>5E-AC/PL calorimeter is used to determine the calorific value of solid and liquid combustibles such as oil, coal, coke, foodstuffs and biomass products, which is widely applied in power plant, coal mine, metallurgy, chemical industry, commercial inspection, scientific research, etc</p>	


Automatic Calorimeter	5E-C5500
<p>5E-C5500 Automatic calorimeter issued to determine the calorific value of solid and liquid combustibles including oil, coal, coke, foodstuffs and biomass products. The calorific value is a crucial characteristic for each substance, also the key point to calculate the price of coal, so it will directly affect the economic benefits of the customers.</p>	


Fully Automatic Calorimeter	5E-C5508
<p>5E-C5508 Fully Automatic calorimeter (Isoperibol Oxygen Bomb Calorimeter) is used to determine the calorific value of solid and liquid combustibles including oil, coal, coke, foodstuffs and biomass products. This technique is widely applied in power plants, coal mines, metallurgy, chemical industry, commercial inspection, scientific research, etc.</p>	


C,H,N Elemental Analyzer	5E - CHN2200
<p>5E Series C/H/N Elemental Analyzer is used to determine carbon, hydrogen, nitrogen content in coal, coke, oil, petroleum and other liquid material, biomass, fertilizer, plastic, food, hydrocarbons and plant tissue, leaves and tobacco, used in power plants, coal mines, metallurgy, chemical industry, commercial inspection, scientific research, food industry, education etc.</p>	


Automatic Chlorine Analyzer	5E-CLT2310
<p>5E-CLT2310 Automatic Chlorine Analyzer is used to determine the chlorine in coal or other combustibles by hydrolysis method & potentiometric titration method, which is widely applied in coal-fired plant, coal mine, steel plant, petrochemical industry, etc.</p>	


Automatic Fluorine Analyzer	5E-FT2300
<p>5E-FT2300 Automatic Fluorine Analyzer is used to determine the fluorine in coal or other combustibles by hydrolysis method & ion selective electrode method, which is widely applied in coal-fired plant, coal mine, steel plant, petrochemical industry, etc.</p>	


Automatic Mercury Analyzer	5E-AM750
<p>5E-AM750 Automatic Mercury Analyzer is used to determine the mercury in coal, coal fly ash, soil, sludge, sedimen. Single sample analysis within 5 minutes. Applicable to solid and liquid samples. Login permission management and information recording function of analysis process</p>	

Fully Automatic Infrared Sulfur Analyzer	5E-IRS3000
<p>5E-IRS3000 The Fully Automatic Infrared Sulfur Analyzer is used to determine the total sulfur content in coal, coke and dark petroleum products such as heavy lubricating oil, paraffin etc by infrared absorption, Strength in testing of 48 samples per batch automatically. It provides perfect solutions for a large quantity of samples.</p>	


Automatic Infrared Sulfur Analyzer	5E-IRSH
<p>The 5E-IR SH Infrared Sulfur Analyzer is used to determine the total sulfur content in coal and coke and dark petroleum products such as heavy lubricating oil, crude oil, paraffin etc.. It applies the method of Infrared absorption, is widely applied in power plants, coal mines, metallurgy, chemical industry, commercial inspection, scientific research, etc.</p>	


Automatic Coulomb Sulfur Analyzer	5E-AS3200B
<p>5E-AS3200B Automatic Coulomb Sulfur Analyzer is used to determine the total sulfur content in coal and liquid fuel. Intelligent Rotary Tray and 20 samples per batch. Determination without oxygen and repeatable usage of moisture absorbent. Sulfur range up to 30%. Easy Operation.</p>	


Coulomb Sulfur Analyzer	5E-S3200
<p>5E-S3200 Coulomb Sulfur Analyzer is used to determine the total sulfur content in coal and liquid fuel. The gases evolved go to a electrolytic cell containing platinum indicating electrodes and platinum electrolysis electrodes. A small current is produced as the sulfur reacts with electrodes; the current is balanced and equivalent to the amount of sulfur present in coal.</p>	


Automatic Proximate Analyzer	5E-MAG6700
<p>5E-MAG6700 Automatic Proximate Analyzer (also called thermogravimetric analyzer, TGA) is used to determine the moisture, ash, volatile matter and calculate fixed carbon in coal, coke, biomass, limestone and iron ore by thermogravimetric method. It can also determine residual ash and slag combustibles in accordance with ASTM.</p>	


APPLICATIONS: Coal Mines, Power Plants, Inspection Company, Cement Plant, Steel Plant, Metallurgical Plant, Etc.


Automatic Proximate Analyzer	5E-MAC IV
<p>5E-MACIV Automatic Proximate Analyzer (TGA) is used to determine the moisture, ash, volatile matter and fixed carbon in coal and coke. It can also determine residual ash and slag combustibles in accordance with ASTM, which is widely applied in power plant, coal mine, metallurgy, chemical industry, commercial inspection, scientific research, education, etc.</p>	


Automatic Volatile Matter Analyzer	5E-MVC6700
<p>5E-MVC6700 Automatic Volatile Matter Analyzer (thermo gravimetric analyzer, short for TGA) is used to determine volatile matter in coal and coke. It can also determine residual ash and slag combustibles in accordance with ASTM, which is widely applied in power plant, coal mine, metallurgy, chemical industry, commercial inspection, scientific research, education, etc.</p>	


Automatic Moisture Analyzer	5E-MW6510
<p>5E-MW6510 Automatic Moisture Analyzer is used to determine the total moisture and air dry basis moisture in coal, coke, biomass and other solid substance, which is widely applied in thermal power plants, coal industry, metallurgical, petrochemical, cement plants, research institutes and inspection company.</p>	


Automatic Moisture Analyzer (Pre-sale)	5E-MW6513
<p>5E-MW6513 Automatic Total Moisture Analyzer is used to determine the total moisture for coal or coke samples, which is widely applied in thermal power plants, coal industry, metallurgical, petrochemical, cement plants, research institutes and inspection company.</p>	


Muffle Furnace	5E-MF6100K
<p>5E-MF6100K Muffle Furnace is used to determine the ash, volatile matter in coal, coke, biomass and other organic material. Over-temp alarm and SCM/PC temperature control. One PC connects more than one muffle furnace. Available to record and transmit analysis data for each set, including sample number, sample mass, heating time, results.</p>	

Mini Moisture Oven	5E-MIN6150
<p>5E-MIN6150 Mini Moisture Oven is used to determine the moisture in coal, coke, heavy oil, biomass and other liquid and solid substance, which is widely applied in power plants, coal industry, metallurgical, petrochemical, cement plants, research institutes and inspection company.</p>	

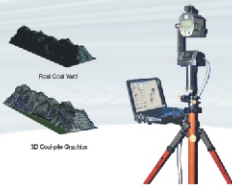
5E Series Drying Oven	5E-DHG6095 / 5E-MHG6090
<p>5E series Drying Oven is used for drying, baking and sterilizing of samples in the laboratory. These drying ovens are suitable for use in industry, colleges, research institutes, inspection company, hospital laboratories and coal mines.</p>	

Ash Fusion Determinator	5E-AF4000
<p>5E-AF4000 Ash Fusion Determinator is used to determine ash cone deformation temperatures in coal ash, coke ash, biomass ash and mold powders automatically, which are critical to the boiler functioning properly and to avoid slugging and fouling.</p>	


Automatic Plastometric Indices Determinator	5E-PL300B
<p>5E-PL300B Automatic Plastometric Indices Determinator (also called Spozhnikov Plastometer) is used to determine the plastometric indices of bituminous coal and describe technical characteristics of coke, which helps to guide coking and coal blending. It is widely applied in coal mining, metallurgy, chemical industry and verification institution of coal quality.</p>	


Automatic Coal Cup Cleaner	5E-PL360
<p>5E-PL360 Automatic Coal Cup Cleaner is specially used to clean the coke breeze inside of coal cup after the plastometric indices testing.</p> <ol style="list-style-type: none"> 1.Free adjustment of impeller rotating speed and cleaning times. 2.Clean coal cup back and forth continuously to ensure full cleaning. 4.Equipped with position detection and resetting when switched on. 	

Hardgrove Grindability Index Tester	5E-HA60×50
<p>5E-HA60×50 Hardgrove Grindability Index Tester is designed to measuring the grindability of bitumite and anthracite , which is widely applied in coal industry, power plant ,metallurgy and chemical industry.</p>	


Portable Stockpile Inventory Instrument	5E-PMIII
<p>5E-PMIII Portable Stockpile Inventory Instrument is used to measure and quantify dry bulk inventory stockpiles (coal and petroleum coke, minerals, fertilizer, and agriculture products) by providing the volume or weight information. It's capable to obtain the feature points of piles, and finally works out the volume and 3D graphics of piles by software.</p>	


SAMPLE PREPARATION EQUIPMENTS


<p>Intelligent Dust-Removing System</p>	<p>5E-SDCSII</p>
<p>5E-SDCSII Intelligent Dust-Removing System is new coal dust-removing system that aims at "Safety, Simplesness, Grace, Cleaning" and comprehensively treats dust caused from traditional sample preparation room, improving the heavy dust environment to reach emission standard, which will not affect sample preparation or change its precision and representativeness.</p>	


<p>Automatic Sample Preparation System (Pre-sale)</p>	<p>5E-APS</p>
<p>5E-APS Automatic Sample Preparation System is designed to produce specified coal samples automatically with unattended operation, which applies to coal sample preparation in power plants, coal mines, chemical industry, metallurgy, construction material, geography, environmental protection, scientific research, etc.</p>	


<p>Sample Preparation Combined Apparatus (Pre-sale)</p>	<p>5E-PHB100</p>
<p>5E-PHB100 Sample Preparation Combined Apparatus is used to crush and divide coal, include two grades crushing, two grades dividing. It is widely applied in power plants, coal mines, chemical industry, metallurgy.</p>	

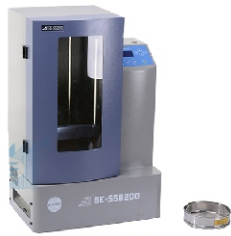
<p>Sample Preparation Combined Apparatus</p>	<p>5E-PA2x2</p>
<p>5E-PA2x2 Sample Preparation Combined Apparatus is used to crush and divide the graininess material such as coal, mineral etc. Not only crushing work is available, it also provides the dividing function. It is widely used in power plant, coal mine, chemical industry, metallurgy, building material industry and geology.</p>	


<p>5E-HC Series Hammer Crusher</p>	<p>5E-HC</p>
<p>5E-HC Series Hammer Crusher is used for sample preparation of graininess material such as coal, limestone, mineral waste residue, oil shale etc. Hermetic structure improving the operation environment and reducing sample contamination. Equipped with three kinds of sieve plate. Patent for quick sieve plate replacement.</p>	

<p>Humid Coal Hammer Crusher</p>	<p>5E-HCA400x260</p>
<p>5E-HCA400x260 Humid Coal Hammer Crusher is especially designed to crush humid coal. Design of vibrating sieve plate structure leads to high moisture adaptability and less moisture loss to avoid blocking. Hermetic structure improving the operation environment and easy for cleaning. Equipped with 13mm and 6mm sieve plate, the discharge size is even and good.</p>	


<p>Series Jaw Crusher</p>	<p>5E-JCA</p>
<p>5E-JCA Series Jaw Crusher is designed for primary crushing of medium-hard, brittle and tough materials. Typical sample material includes coal, coke, limestone and so on. Jaw plates with BTMcr20 material are reversible for extended life. Access to the chamber through the front door makes it convenient to clean.</p>	

<p>Double Roller Crusher</p>	<p>5E-DCA250x150</p>
<p>5E-DCA250x150 Double Roller Crusher is used to crush medium hard material, which is widely used for the sample preparation in coal mines, power plants, metallurgy, geology, chemical industry and scientific research. Easy to operate, available to adjust discharge size by single-hand wheel. Durable material for roller to decrease the maintenance costs.</p>	

<p>Sieving Shaker</p>	<p>5E-SSB200</p>
<p>5E-SSB200 Sieving Shaker is used for grade sieving of particulate materials, which is widely applied in power plants, coal mines, chemical industry, metallurgy, foodstuff and geology. Effectively reduce dust leakage with dust cover. Combined sieving function of horizontal shaking and vertical vibration. Available to store three modes.</p>	

<p>Pulverizer</p>	<p>5E-PCM Series</p>
<p>5E-PCM Series Pulverizer is used to pulverize the sample after crushing in power plants, coal mines, chemical industry, metallurgy, building material and geology, in which an analysis sample of particulate material is prepared. Easy operation with pneumatic bowl clamping and pneumatic lid operation. Good safety with power-off switch when open the lid.</p>	

<p>Sample Divider</p>	<p>5E-MR1/8</p>
<p>5E-MR1/8 Sample Divider is the updated motive division apparatus after simulating manual division. It is suitable for sample division in coal mine, iron ore, metallurgical coke and chemical industry. Dust free due to complete sealed design. Easy to clean and no sample mixing. Patent technology, easy to adjust the division ratio.</p>	


<p>Rotary Sample Divider</p>	<p>5E-MRA1/8</p>
<p>5E-MRA1/8 Rotary Sample Divider is the updated motive division apparatus after simulating manual division. It is suitable for sample division in coal mine, iron ore, metallurgical coke and chemical industry. Vibrating feeder to ensure the feed material even. Rotary speed & feed location is adjustable. Compact structure and easy to install and uninstal of the receiving hopper.</p>	

APPLICATIONS: Coal Mines, Power Plants, Inspection Company, Cement Plant, Steel Plant, Metallurgical Plant, Etc.




Compact Power Analyzer **PPA500**

The PPA500 Power Analyzer range addressing a need for high performance power analysis at low cost. Primarily aimed toward applications that require precision measurement without complex features, the PPA500 series is ideally suited to a production or test environment.




Compact Power Analyzer **PPA1500**

The PPA1500 Power Analyzer offers higher performance than its sibling – the PPA500 unit. The main differences between the PPA500 and PPA1500 Power Analyzers are that the PPA1500 features a 1Mhz Bandwidth and full graphical display, this includes harmonic bar graphs and graphical data logging.




1 ~ 6 Phase Power Analyzer **PPA3500**

The PPA3500 is a high accuracy 1~6 phase power analyzer able to perform reliable, accurate power analysis in a variety of applications. As a result of innovative analogue card design, the PPA3500 is packaged in a 2U chassis, the PPA3500 is available in 1, 2, 3, 4, 5 or 6 phase configurations. There is also the option to install the unit in a 19in rack providing a 2U 6 Phase solution.




Precision Power Analyzer **PPA4500**

The PPA4500 features high speed FPGA/DSP sampling techniques and N4L's highly respected "Planar Shunt" Technology, the PPA4500 is the result of over 12 years of development. The PPA4500 is well suited to transformer loss testing, PWM inverter drive efficiency testing, standby power testing to IEC62301/EN50564 and many more challenging applications.




Precision Power Analyzer **PPA5500**

The PPA5500 series extends our power analysis range still further for those who need the ultimate power analysis product, this is the top of the range model offered by N4L and rightly deserves its place. Greater processing power, increased memory, real time clock, high contrast colour display, 1GB non-volatile internal memory and external USB memory port.




Harmonics and Flicker Analyzer **PPA55x1 IEC61000**

The PPA55x1 series precision power analyzer provides a fully compliant test and measurement solution to meet the latest IEC61000 Harmonics and Flicker international test standards. The instrument offers both standalone and software driven test ability, giving the user the option to obtain pass/fail results on the instrument with no requirement for a PC.




10µHz-1MHz Frequency Response Analyzer **PSM1700**

PSM1700 PsimetriQ is a comprehensive DFT and true RMS analysis instrument for R&D and production test applications. Specifically aimed at a range gain/phase analysis applications, amongst which include switched mode power supply feedback loop stability analysis and general frequency response analysis of filters.




10uHz to 35MHz Frequency Response Analyzer **PSM1735**

Utilizing an innovative design that incorporates both direct digital analysis and heterodyning techniques, the PSM1735 provides a broad range of measurement functions over a wider frequency range than any other instrument available today. Typical applications for this product include SMPS feedback loop analysis, filter test and design, LVDT testing, much more.




10µHz-50MHz Frequency Response Analyzer **PSM3750**

The IA12 Impedance Analyzer provides all of the functionality offered by the LCR Active Head but with a wider frequency and impedance measurement range plus higher nominal accuracy. The IA12 feature 4 internal shunts plus an internal high frequency amplifier, the combination of the PSM3750 and the IA12 result in a comprehensive measurement suite.



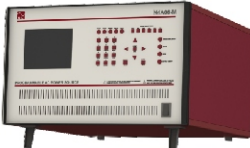
Sweep Frequency Response Analyzer **SFRA45**

The SFRA45 is a Sweep Frequency Response Analyzer with a bandwidth of 5Hz to 45MHz, the SFRA45 offers a fully portable solution, which fully complies with IEC60076-18 - Measurement of frequency response. Featuring an inbuilt colour LCD screen as well as being battery powered, the tablet style instrument can be used with or without PC Software



Programmable AC+DC Power Sources **N4A06**

The N4L offers the unique ability to generate both high frequency power waveforms up to 1kHz as well as low frequency power waveforms down to 0.01Hz. This feature enables the engineer to simulate low frequency power devices such as wind turbines with very low fundamental frequencies.



3kVA ~ 67kVA (DC+0.01Hz ~ 1kHz)

Selective Level Meter **SLM3505**

The SLM3505 was designed to provide a single instrument solution for the Electric Utility System Protection Engineer and Relay/Communications Technician responsible for the alignment and maintenance of Power Line Carrier, Audio Tone and FSK Communications Systems.



In 2013, Newtons4th UK was awarded Calibration Laboratory Accreditation by UKAS to ISO17025 for Voltage, Current, Power, Phase, Harmonics and Flicker. This is a first in our industry and gives users of N4L power analyzers a higher level of standard certification than any other power analyzer manufacturer. A great amount of time and engineering effort has also been spent on implementing a sophisticated IEC61000-3-2, IEC61000-3-3, IEC61000-3-11 and IEC61000-3-12 harmonics and flicker calibration facility. This additional certification is also accredited to ISO17025, making N4L the first power analyzer manufacturer to offer power analyzer products with ISO17025 accredited certification to presently defined measurement criteria for IEC61000 Harmonic and Flicker standards.



APPLICATIONS: Power Plants, Academic Institutions, Etc.

Capillary electrophoresis system	CAPEL 105M
<p>Capel-105M is a capillary electrophoresis system for fast and effective solutions in food industry, environmental applications, pharmaceutical and chemical industries, biochemistry and forensic science.</p>	

Mercury analyzer	RA-915M
<p>Mercury Analyzer is a portable multifunctional atomic absorption spectrometer with Zeeman background correction, which eliminates the effect of interfering impurities. It is the only high sensitivity and selectivity instrument that does not require gold amalgam pre-concentration and subsequent regeneration steps.</p>	

Versatile Zeeman Mercury Analyzer Ra-915m With Pyrolyzer Pyro-915+	
<p>RA-915M Mercury Analyzer with pyrolyzer PYRO-915+ (with large optical length of analytical cell and heated windows of the analytical cell is developed for unique direct mercury determination (no pretreatment procedures required) in complex organic samples at the level of few µg/kg.</p>	

Compact Mercury Analyzer	LIGHT-915
<p>Light-915 is a compact instrument designed to address the problems of mercury pollution in a workplace environment and sanitary control. As with all the other Lumex mercury analyzers, the principle of measurement is based on atomic absorption spectrometry with Zeeman background correction, which eliminates the effect of interfering impurities.</p>	

Liquid Mercury Analyzer	RA-915M/RP92
<p>RA-915M mercury analyzer with RP-92 attachment is used for determination of mercury concentration in liquid samples (water, blood, urine). RP-92 attachment is intended to transfer bound Hg from ion to atomic form using "cold vapor" technique.</p>	

Atomic Absorption Spectrometer	MGA-915MD
<p>The atomic absorption MGA-915MD spectrometers are intended for measuring the content of chemical elements in liquid samples, as well as in other species after their mineralization (soil, bottom sediments and sewage sludge, foodstuffs, fodder and raw stuff for its production, biological tissues, and petrochemicals).</p>	

Real-time Pcr Analyzer Ariadna	
<p>Polymerase chain reaction (PCR) is now often indispensable technique used in medical and biological research labs for a variety of applications. PCR analysis time (45 cycles) - 20 minutes, Microchips with ready-to-use immobilized PCR reagents, CFR 21 Part 11 compliant, Export results in industry standard data formats.</p>	

Ftir Spectrometer	PSM1735
<p>InfraLUM® FT-08: Our new FT mid-IR spectrometer InfraLUM FT-08 has been designed basing on our extensive R&D and expertise in the IR spectroscopy.</p> <p>InfraLUM® FT-12: Rapid analysis of grain quality parameters (determination of protein, moisture, gluten content, vitreousness and other parameters of wheat).</p>	


Panorama Spectrofluorometer	FLUORAT®-02
<p>FLUORAT-02 - PANORAMA spectrofluorometer is the most sophisticated instrument among the FLUORAT-02 family. It is intended for scientific research, chromatographic analysis, and for operation as part of multi module automatic measuring facilities. The spectral regions in the excitation and detection channels are set by built-in fast monochromators.</p>	


Fluorescence Analyzer	FLUORAT-02-4M/ FLUORAT-02-5M
<p>FLUORAT-02 is the fluorescence analyzer, which is intended for a large number of fluorometric, photometric, and chemoluminometric techniques for analysis of water, air, foodstuff, etc. Such versatility allows an analyst to choose the optimal method for assaying each component being determined.</p>	


Mercury Monitor	RA-915AM
<p>Background mercury monitoring of ambient air, technological control. The monitors are designed for fully automated continuous measurement of the mercury concentration in ambient and indoor air, hydrocarbon and industrial gases. Atomic absorption with Zeeman background correction.</p>	


Automatic Water Flow Analyzer	AKMC-1, CKAT-1, CRAB, FLUORAT AE-2
<p>AKMC-1: It is used to monitoring the total content of calcium and magnesium salts in water. CKAT-1: It is used monitoring the content of suspended particles and petroleum products in water samples and monitoring the water color. CRAB: Optical sensing of water surface with IR radiation. Fluorat® AE-2: It is used to automatic monitoring the content of petroleum hydrocarbons in potable, natural, and waste water.</p>	


TORQUE & ROTARY TORQUE MEASURING EQUIPMENTS


Torque Sensors	RWT410/420 Series
<p>TorqSense RWT410/420 torque sensors replace the RWT310/320 series and feature all new electronics that have produced significant performance gains in resolution, frequency response, reduced sensor current consumption and faster digital data throughput. Transducer overload has also been increased to 300%</p>	

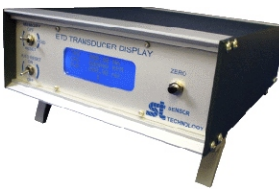
Torque Sensors	RWT430/440 Series
<p>The digital TorqSense RWT430 and RWT440 Series use the latest and same non-contact TorqSense technology as used in the RWT410/420 Series in three different body sizes for torque ranges from 1Nm to 13000Nm, with above 13000Nm on request. The only difference for this Series is that it may be more appropriate for some applications to have the sensor unit separate from the electronics unit due to space and/or environmental limitations.</p>	


Pulley/Sprocket Transducers	RWT450/460 Series
<p>TorqSense Digital RWT450 & 460 series pulley/sprocket transducers are suitable for torque monitoring and process control on any belt / chain driven machinery. They offer separate electronics and sensor either with fixed outputs (RWT450 Series) or user selectable outputs (RWT460 Series). USB and RS232 outputs are also available for direct PC interface.</p>	


Optical Rotary Torque Sensors	E200
<p>The E200 ORT (Optical Rotary Torque) transducers provide an ideal means for precise dynamic measurement of rotary and static torque of less than 500Nm at high speed and high bandwidth. Low inertia - High Speed capability because electronics are not fixed on to shaft. Non contact measurement - use of photovoltaic cells and lightweight gratings. High bandwidth (up to 50kHz).</p>	


Transducer Display Interface	E201/E202
<p>A Transducer Display Interface is required with the E200 ORT Series (Optical Rotary Torque) Transducer. Operates independently or under control from remote PC. Operates with TorqView to give advanced display modes. Two external analog input channels (Option only). Peak readings can be displayed and reset manually or automatically.</p>	


Strain Gauge Torque Sensors	SIT 105/110/120 Series
<p>The SIT 105/110/120 strain gauge reaction transducers are designed for operation in any industrial environment. Models are available in sizes ranging from 50Nm to 5000Nm, offering outputs from mV/V outputs, to ratiometric voltage outputs, to digital data connection via RS232 or USB. An option of a bench mount housing is available for torque wrench test and calibration.</p>	

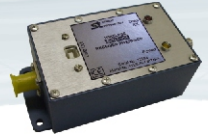
Transducer Display ETD	
<p>The Transducer Display ETD is a readout suitable for all RWT transducers. Although it is primarily used to display torque and peak torque, it can also display speed and power, provide access to the analog outputs from the transducer and connect the transducer to a PC for use with TorqView and the Transducer Control Program.</p>	

TorqView Advanced Torque Monitoring Software	
<p>TorqView is an easy to use advanced torque monitoring software application available to operate in conjunction with the RWT420 and RWT440 Series Transducers and any of the E102, E202 and E302 series Transducer Display Interfaces to provide a flexible display, real time plotting and data recording facility.</p>	


Wireless Load Sensor	WLS - LS
<p>The wireless Load Sensor is a strain gauge based stainless steel tension type sensor. It has the capability of wirelessly transmitting its data to one of our compatible readouts and displays or recording its data locally. Its inbuilt 32MBit memory can hold up to 280 hours of data which can then be downloaded to a PC via its USB cable.</p>	


Handheld Receiver	WLS - HR
<p>The wireless receiver is used in conjunction with the wireless Load Sensor. It provides the user with an easy way to receive and output data from the Load Sensor. Enclosed in a hardwearing aluminium box the receiver is suitable to be installed into environments where it may be subjected to harsh conditions. An SMA connector allows the use of an external antenna.</p>	


Load Sensor Cabin Display	WLS - CD
<p>The LoadSense Cabin Display is a small, lightweight, cabin / window mounted unit which is used in conjunction with our LoadSense Wireless Load Sensors to display the reading from the load sensor. Our range of Load Sensors up to 25 tonnes are shown in datasheet WLS3625R. The display can be operated and charged from a 28V supply.</p>	


Receiver Interface	WLS - RI
<p>The wireless receiver is used in conjunction with the wireless Load Sensor. It provides the user with an easy way to receive and O/P data from the Load Sensor. Enclosed in a hardwearing aluminium box the receiver is suitable to be installed into environments where it may be subjected to harsh conditions. The receiver is easy to install as it only requires DC power to be supplied to the unit.</p>	


ISOKINETIC SAMPLING, SOURCE TESTING

Automatic Isokinetic Sampler	Isostack G4
<p>Automatic isokinetic sampler which provides high reliability, accuracy and sampling quality (QA/QC). In accordance with UNI EN 13284, EN 10169 and USEPA M5, M17. The Isostack G4 is available in two versions: all in one (G4-one) and split (G4-two), both available with a 4 or 8 m³/h pump to meet different types of use.</p>	


Flow Meter	Flowtest St
<p>Flowtest St is a flow meter which allows the operator to calculate the sampling point and define the sampling time for each point. Compatible with the majority of pitot tubes and thermocouples on the market, Flowtest St performs the measurement and records velocity, temperature and pressure point-by-point. In accordance with UNI EN 13284, ISO 9096, UNI 10169, USEPA M2.</p>	


Pitot Tubes	
<p>Constructed in Inox Steel AISI 316, equipped with thermocouple type K. Different lengths available.</p>	


EG Peltier cooling system	
<p>This cooling and condensing device is equipped with a Peltier system that ensures ideal temperature maintenance during sampling. The main advantages of the EG Peltier system are its light weight and small size. The glass kit is located in 3 cooled cylindrical containers. To use the system, it is not necessary to add water and/or ice.</p>	


Igloo	E201/E202
<p>Stainless inox cooling and condensing device, equipped with an independent refrigerating system. The IGLOO is equipped with an independent refrigerating system, which allows the unit to operate for long periods without ice or water at low temperatures. The Igloo is also available in the following versions: IGLOO P, IGLOO HP.</p>	


Water-cooled portable chiller	SIT 105/110/120 Series
<p>Water-cooled portable chiller produced in a compact and robust stainless steel case. Isofrost 2 allows temperature control and liquid recirculation. It is recommended for micropollutant condensing or temperature-controlled cooling baths.</p>	


Isokinetic probes	
<p>Sampling probes for different kinds of samplings. Tecora offers a wide range of isokinetic probes, integrated and dividable, plus a wide range of accessories to perform different kinds of samplings (manual, isokinetic, micropollutants, acids, etc), in accordance with EN and USEPA norms.</p>	

DDS	
<p>The DDS system assembles in a single rack the sampler and the dilution unit, supplied by an internal rechargeable battery with 7-hour autonomy. DDS is equipped with a membrane pump, a precision flow meter and a dry gas meter. The two streams are regulated independently, so the dilution ratio should be changed to satisfy different stack conditions.</p>	

Easy Gas	
<p>The sampler allows sampling with a flow rate from 0.2 to 1.2 l/min; it is supplied with a rechargeable battery with 10-hour autonomy and is equipped with a volumetric counter for low flow with a thermometer for temperature measurement. EASY GAS is equipped with a large silica gel trap and a protective filter.</p>	

DDS/EG Sampling probe	
<p>The DDS/EG sampling probe can be used for sampling gaseous compounds with or without use of the dynamic dilution system. The DDS/EG probe is equipped with a heated filter holder and a heated dilution chamber. Only stainless steel parts are in contact with gas. Sampling tubes are available in different shapes and lengths, according to standard sampling methods.</p>	

Bravo Series	
<p>Portable constant flow samplers with a wide range of flow rate, manually adjusted. Available in Basic and Plus versions, equipped with, membrane or rotary vane pump. Bravo Basic is the economic portable constant flow rate sampler suitable for dust and gas sampling either in stack or in ambient. Bravo Plus includes a controller module with microprocessor. Its electronic system allows you to program each sampling for a real date and hour.</p>	

Flowcal Air	
<p>Flowcal Air is a reference calibrator that measures: flow, absolute pressure, differential pressure, temperature (with optional probe). Flowcal Air allows you to test the accuracy of an instrument and to follow a quality system procedure. Flowcal Air allows you to perform all the necessary controls to verify the calibration of certain parameters which are normally measured by a sampler, like flowrate, pressure and temperature.</p>	

APPLICATIONS: Boilers, Power Plants, Cement Factories, Refineries, Glass Industries, Paper Mills, Pipelines.

The conventional method of detecting tube leaks such as monitoring make-up water, mass balancing or depending on the human ear to recognise a sound change, are not sufficiently sensitive or reliable on large boilers. By using these methods the leak is often large enough to have already caused serious consequential damage - sometimes to an entire boiler face - before anyone is aware of it.

Research on Acoustic Tube Leak Detection for power station boilers started during the 1970's and has since become the most advanced method of tube leak detection world-wide.

The INSPECTA FFT Acoustic Leak Detection System has been developed to detect steam tube leaks in power station boilers. Using Fast Fourier Transform (FFT) technology, the system continually monitors and analyses sounds in the combustion chamber, using up to 32, audio field sensors with head amplifiers placed around the boiler. A detected leak is then graphically displayed on the screen by Spectrum and Alarm Bar graphs providing an overview of the severity of the leak. The monitor displays are digitally averaged to allow for any spurious sounds which might otherwise distort the signals. 16 or 32 Channel



HOT SALE



Audio Sensor

- Bar Graph Alarm Display
- Spectrum Signature
- Auto Purge
- Field Equipment
- Mimic Display
- Trend Display


FIELD CALIBRATION:


Full system calibration is required at initial commissioning and at half yearly intervals thereafter.


CONCLUSION:


The INSPECTA FFT system is used in many coal fired power stations around the world including, South Africa, India, Australia and Germany. It has been tested to meet world standards such as CE and is manufactured under the control of an ISO9001 system.


CLIMOMASTER, ANEMOMASTER, HANDHELD PARTICLE COUNTER, DIGITAL DUST MONITOR, SOUND LEVEL METER, VIBRATION METER


Climomaster	6501 series
<p>The most accurate handheld hot-wire anemometer in its class. Probe Compatibility feature allows you to have spare probes. Detachable probe. Automatic Flow Rate Calculation function. USB connection to PC. Large data storage, stores up to 20,000 measurements.</p>	


Anemomaster LITE	6006
<p>Broad measurement range Detachable probe for zero downtime calibration or replacement Temperature compensation circuit for high accuracy Display readings in both metric and imperial units.</p>	


Rotating Vane Anemometer	6812, 6813, 6815
<p>High Accuracy: +/- 1.0 % of reading. 40 fpm of Air Velocity sensitivity. Temp. Measurements from -22 to 212F. Measure Relative Humidity from 5.0 to 95 %RH. Analog voltage and PC Communication output option. Rugged Metal Probe and Vane. Protective Rubber Boot Option.</p>	


Anemomaster	6113 Series
<p>High-Speed air velocity measurements - up to 9840 fpm (50 m/s). Probe Compatibility feature allows utilization of a spare probe. Simultaneously measures of air velocity, temperature, and pressure measurements. Large, easy-to-read LCD.</p>	


Handheld Particle Counter	3887
<p>NEW!! 3-year Service Packages are now available for calibration and repair services with purchase of new 3887s. Available in Gold and Silver levels, both service packages offer substantial savings and are the perfect way to keep your 3887 functioning in top condition. Simultaneously measures and displays 3 particle sizes. Stores up to 10,000 measurements.</p>	


Digital Dust Monitor	3443
<p>The Kanomax Dust Monitor 3443 is a compact and high quality instrument ensures highly accurate dust measurements via a user-friendly & intuitive interface. Applications include office, school, hospital, manufacturing, laboratory, and other applications where measurement of contaminants is required. It measures particle concentration of PM10.</p>	


Sound Level Meter	4431
<p>Lightweight and compact design. A, C, and F weighting modes. 28 to 130 dB measurement range. Measures Lp, Leq, Le, Lmax, Lmin and Lx. Equipped with highly sensitive electret condenser microphone. Large 4 digit display with 0.1 dB resolution with backlighting and analog bar graph.</p>	

Vibration Meter	4200
<p>The new Kanomax vibration meter is designed to be compact, lightweight and easy to use. The magnetic accelerometer attaches easily to machinery for increased accuracy and precise operation. It's the perfect tool to diagnosis problematic vibrations with your industrial machinery or manufactured products.</p>	


Portable Aerosol Mobility Spectrometer	PAMS
<p>PAMS is an electrical mobility size spectrometer designed for portable, mobile, or handheld aerosol sampling applications. It provides the number-weighted diameter distribution of aerosols over the entire submicrometer range (10 to 863nm) in one scan. The unit uses a nonradioactive bipolar aerosol charger to allow easy access to sampling sites with tight safety regulations.</p>	


Portable Particle Counter	3910 / 3905
<p>The new 3910 & 3905 are the smallest 6-channel portable particle counters in the industry; with a 50 LPM and 1 CFM flow rate respectively and a 0.3 micron sensitivity. Both units feature a large color touch screen, streamlined, user-friendly interface and pre-programmed standards mode to guide you through the measuring and certification process it may also be the most helpful.</p>	


Handheld Particle Counter	3886
<p>Measures 5 particle sizes; 0.3, 0.5, 1.0, 3.0 and 5.0 um in cf or m3 Built-in flow sensor (0.1 CFM +/- 10%) Optional Temp./RH and Air Velocity probes available Capable of measuring up to 4 parameters in one instrument</p>	


Airflow Transducer	6332 / 6332D
<p>The airflow transducer model 6332/D is designed for fixed installation. The units can be wired with local electric for power and can be connected to any device that can accept analog output. Transducers are a good choice if you need to simultaneously measure airflow at multiple fixed points that may not be in proximity to other points.</p>	


APPLICATIONS: The Semiconductor And HDD Industries, Automotive Industries, Etc.


Portable Air Quality Sensor	Series 500
<p>The Series 500 air quality sensor enables accurate real-time surveying of common outdoor air pollutants, all in an ultra portable handheld monitor. Air quality professionals typically use the Series 500 for short term air quality studies and carrying out checks on pollution “hot spots”. The Series 500 can also be deployed for short term fixed monitoring by adding an optional outdoor enclosure.</p>	


Portable Air Quality Testing	Series 200
<p>The Series 200 monitor is a cost-effective portable monitor that can be used to accurately measure a range of gases at different concentrations. It is an entry level air quality testing device designed for spot checking outdoor air pollutants, for personal exposure monitoring or for education purposes.</p>	


Ambient Air Monitoring Station	AQM 65
<p>The AQM 65 is a fully integrated air monitoring station that delivers ‘near reference’ levels of performance. The size of a large suitcase it can measure up to 20 different gaseous and particulate pollutants and environmental parameters simultaneously. The compact size has numerous advantages. The unit can be transported by car, carried by two people, and installed and operational in under 30 minutes.</p>	


Air Monitoring Station with Integrated Calibration	AQM 65
<p>This AQM 65 comes with a fully integrated calibration system which enables automatic scheduling of calibrations. It also greatly reduces the costs of servicing by removing the need to visit site to carry out calibrations. This has huge advantages where the costs of visiting site are high or the unit is operating remotely or in harsh environments, making site access difficult.</p>	


Dust Sentry Meter	PM10
<p>The Dust Sentry PM10 Dust Meter can be configured for many different applications: construction, waste, mining, transportation, consultancy and research. The instrument is designed to provide reliable real time indicative particulate measurement of PM10 using a well proven near forward light scattering nephelometer and high precision sharp cut cyclone. By changing the sharp cut cyclone the Dust Sentry can also measure PM2.5, PM1 or TSP.</p>	


Portable Indoor Gas Monitor	Series 300
<p>The Series 300 monitor is a versatile gas monitor with the ability to accurately measure a range of gases at different concentrations. The monitor can be fitted with any of the sensor heads listed on the Sensors tab. Sensor heads can be swapped quickly and easily, allowing one monitor to measure many different gases.</p>	


Fixed Gas Monitor	SM70
<p>Our SM70 Fixed Gas Monitors are low cost and feature-packed designed for a wide range of indoor and industrial applications. The gas monitors come with an integrated LCD display, RS232 and 0-5V outputs and audible alarm, which can be configured to a user defined set point.</p>	

Fixed Gas Monitor	Series 930
<p>The Series 930 Fixed Gas Monitor is a flexible monitor compatible with a range of gas sensors as well as a temperature and humidity sensor, if required. The sensor is housed in a robust IP65/NEMA 4 rated water resistant enclosure protecting it from water damage. The Series 930 outputs are designed to measure and control gas concentrations and communicate to a variety of hardware systems.</p>	

Fixed Gas Monitor	Series 940
<p>The Series 940 Fixed Gas Monitor is a pumped monitor compatible with ozone or VOC gas sensors as well as a temperature and humidity sensor, if required. Its pumped design means the Series 940 is capable of measuring gas in remote locations such as a duct or separate room. A filter can also be installed on the inlet which will extend the life of the sensor when used in dusty environments.</p>	

Fixed Ozone Gas Detector	Series 900
<p>The Series 900 Fixed Ozone Gas Detector is a flexible monitor compatible with 4 ranges of ozone sensor as well as a temperature and humidity sensor, if required. It is designed to measure and control ozone concentrations and communicate to a variety of hardware systems. The monitor can operate in three ways: relay controller, ozone transmitter, ozone network.</p>	

OEM Module	UV-1
<p>The UV-1 OEM module is designed for measurement and control of ozone in the range of 0-200ppm. It uses a single beam UV photometer which allows for increased accuracy and stability of the ozone measurements. The instrument has an inbuilt nafion dryer to avoid condensation inside the optical bench and each module is calibrated to give a linear output with gas concentration.</p>	

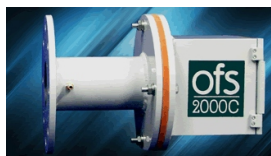
Ozone Sensor Circuit	SM50
<p>Aeroqual manufactures a multi-functional ozone sensor circuit designed for use by Original Equipment Manufacturers (OEMs) who wish to access our state of the art sensor technology and integrate it into their own equipment. The SM50 ozone sensor circuit provides ppb level ozone measurement in a flexible cost effective package.</p>	

OPTICAL FLOW SENSORS, WEATHER SENSORS, AUTOMATED WEATHER OBSERVATION SYSTEMS

Optical Flow Sensor [Combustion Air]

OFS-2000C

The OFS 2000C model is enhanced with temperature and pressure sensors to provide data for mass flow measurement. This latest development of our renowned air flow sensor offers operators more accurate control* of the combustion process resulting in increased efficiency, fuel cost savings and reduction of greenhouse gas emissions.



Optical Flow Sensor [with AGC]

OFS-2000W

The OFS 2000-W model is equipped with Automatic Gain Control (AGC) to compensate for variations in opacity caused by particulate matter or moisture carried in the stack flow. The OFS uses EPA Method 14 optical scintillation technology with Digital Signal Processing (DSP) electronics to provide highly accurate, path-averaged air velocity measurements for Continuous Emissions Monitoring Systems (CEMS).



Optical Flow Sensor [Flare Gas Flow Monitor]

OFS-2000F

OFS 2000F is specially developed for refinery flare stack applications where increased velocity scale, wider temperature range, and quick response time are necessary. OSI's optical scintillation technology with advanced Digital Signal Processing (DSP) provides the most reliable, path-averaged air velocity measurements of any flare gas monitor.



Optical Flow Sensor

OFS-2000

Our original patented and still unequalled stack/duct flow velocity sensor for Continuous Emissions Monitoring Systems (CEMS). The OFS uses EPA - approved Method 14 optical scintillation technology. Optical scintillation technique uses advanced Digital Signal Processing (DSP) electronics to measure the movement of turbulence found in a gaseous flow stream to provide highly accurate, path-averaged air velocity measurements



Long-baseline Optical Anemometer

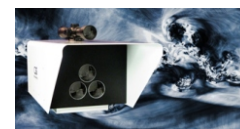
LOA-105

The LOA-105 is specially designed for superior performance in tough environments. The sensor uses proven optical technology. The eye-safe LED transmitter and twin photodiode receiver simply need to "look" through the area to measure the airflow. It's maximum path length of 3 km makes large areas easy to handle. The LOA-105 has received the seal of approval from the US government for EPA Method 14 equivalency.



Weather Sensors & AWOS

OWI Weather Sensors:
Our original research resulted in a series of weather sensors with unprecedented accuracy and reliability. OSI Automated Weather Observation Systems (AWOS):
Our MAWOS sensors now have expanded processing power to handle added sensor inputs, and enhanced communications options for network, cell phone, and VHF interface.



Sample Image

APPLICATIONS: Power Plants, Cement Factories, Refineries, Glass Industries, Paper Mills, Pipelines, Etc.

LEAK DETECTION, PRESSURE TRANSMITTER, CALIBRATORS, TRANSMITTERS

Production Line Leak Detector

FC0770

The FC0770 is the latest high specification leak detector from Furness Controls and builds on the highly successful FC0750. Suitable for bench-top mounting or integration into automated assembly fixtures, the FC0770 offers a touchscreen graphical interface to combine great functionality with simplicity of use.



Production line Flow Meter

FC0752

The FC0752 offers a no-compromise approach to all production line flow measurement requirements. In addition to standard flow tests the FC0752 can be used for leak testing as well as carrying out blockage tests for determining partial blockages in products and components. The FC0752 is quite possibly the most flexible, reliable, and diverse flow meter available today.



Portable Pressure & Flow Calibrator

FC0560

The FC0560 fulfils the requirements for low differential pressure calibration of transmitters, transducers and pressure switches. An external 4-20mA loop powered pressure transducer may be used as a reference for calibration of higher pressure. The unit can also be combined with Laminar Flow Elements to provide a flow calibrator which can cover flows from less than 1 ml/min to over 30,000l/min.



Differential Pressure Transmitter

FC0332

The FC0332 is the ideal cost effective option for air handling applications as well as glove boxes and clean rooms. It's versatility allows easy re-configuration as well as providing various voltage outputs along with standard 4 - 20 mA. The optional LCD display enables it to be used for a multitude of applications.



APPLICATIONS: Boilers, Power Plants, Cement Factories, Pipelines, Etc.

TURBINE FLOW METERS, MAGNETIC PICKUPS, FLOW COMPUTERS, SIGNAL CONDITIONERS, BATCH CONTROLLERS

<p>Turbine Flow meters</p> <p>The Flowmetrics Tangential turbine flowmeter is a unique volumetric device. This uses a dual orifice design to direct a stream of fluid tangent to a low mass/balanced rotor and a precision bearing to provide maximum sensitivity. Exceptionally reliable digital outputs. Used for a variety of liquid and gas flow sensing applications.</p>	<p>AN/MS Flare Connection</p> 	<p>MAG/RF Pickups</p> <p>These pickups are suited for harsh environments and years of reliable service. They are hermetically sealed for resistance to moisture and other atmospheric contamination and can withstand repeated thermocycling in temperatures ranging from -450°F to 450°F. These pickups are also being used in cryogenics for their ability to operate dependably at extremely low temperatures for long periods of time.</p>	<p>Premium Magnetic Pickups</p> 
<p>Flow Computers</p> <p>Instrument Verification Set (IVS) is a portable instrument verification and diagnostic measuring tool designed to verify flow, pressure and temperature of hydraulic systems and instruments. Flow rate is measured by turbine flow meter, an effective and reliable flow measuring technology. Temperature sensor is Microprocessor based with rugged, corrosion-resistant 316L stainless steel housing.</p>	<p>IVS P/N:101199-100</p> 	<p>Positive Displacement Flowmeters</p> <p>The force of the liquid moving through the flow meter drives the measuring gears. The liquid stream is divided into the fixed volume cavities between the gear teeth and metering body. The movement of gear is measured by means of a pick-up sensor located in the cover. When the measuring gears rotate by one tooth pitch, the sensor emits a signal/frequency, which corresponds to the geometrical tooth volume.</p>	
<p>Signal Conditioners & Converters</p> <p>The SC-FI is a two wire frequency to analog converter that converts a pulse rate input into a 4-20 mA output signal proportional to frequency or rate. The amplified frequency signal is then converted to an analog signal using a precision frequency to analog converter. The output stage derives it's power from the output current loop.</p>	<p>SC-FI SERIES</p> 	<p>Batch Controllers</p> <p>5 digit scaling factor. Display rate, batch size, and batch or grand total. Second B relay programmable for output at prewarn or selected batch/grand total Pulse input - 10 kHz Max. Security lockout. RS422/RS232 serial communication. NEMA 4X / IP65 front panel.</p>	<p>914-MB2</p> 
<p>Variable Area Flow Meter</p> <p>The Flowmetrics 2000 Series Variable Area Flow Meter is a rugged industrial Flow Meter available in a wide range of liquid and gas flow rates. Horizontal end fitting rotateable in 90° increments. Triple o-ring seals. Heavy duty shields; front & rear. Stainless steel bezels.</p>	<p>Series 2000 Industrial</p> 	<p>Field Indicators</p> <p>Featuring 5 digits of rate and 8 digits of total, the 915-BATRT-M is a battery or loop powered indicator capable of accepting magnetic pickup, DC pulse and switch closure inputs from pulse producing flow meters. The unit can be ordered with an optional 4-20mA output. The 915-BATRT-M uses the 4-20mA loop to provide power when this output is used.</p>	<p>915-BATRT-M</p> 

APPLICATIONS: Aerospace And Aviation, Chemical/petrochemical Industries, General Industries, Etc.

PRINCIPALS

<p>LAND</p> <p>Combustion Efficiency & Emission Monitoring www.landlist.com</p>	<p>instrotech INSTRUMENTATION AND PROCESS CONTROL</p> <p>Acoustic Boiler Tube Leak Detection Systems www.instrotech.co.za</p>	<p>SENSOR TECHNOLOGY</p> <p>Torque Measuring Equipment Rotary Torque Transducers & Systems www.torgence.com</p>	<p>NEWTON4</p> <p>Precision Power Analysers, Sweep Frequency Response Analysers & Selective Level Meter www.newtons4th.com</p>	<p>CHANGSHA</p> <p>Changsha Kaiyuan Instruments Coke, Coal & Ash Testers & analysers www.chs5e.com</p>
<p>AQUA READ</p> <p>Water Quality Analyzer www.aquaread.co.uk</p>	<p>Video Technology Ltd</p> <p>Furnace CCTV System & Video Instrumentation</p>	<p>KANOMAX The Ultimate Measurement</p> <p>Airbourne Particle Counters- Portable & Fixed Vane Anemometer, Temp/Rh Measurement www.kanomax.co.jp</p>	<p>LUMEX</p> <p>Environmental Mercury Analyzers www.lumex.biz</p>	<p>aeroQUAL</p> <p>Making the visible invisible Environmental Air Quality Monitors www.aeroqual.com</p>
<p>MPALTRI PURE PRODUCTS WORLD WIDE</p> <p>Particle Counters for Oils & Liquids www.hydraulicparticlecounter.com</p>	<p>tecora</p> <p>Stack Emission Sampling Systems Industrial Hygiene Devices Continuous Dioxin Wmission Samplers Oxygen and Combustion Control Analyzers</p>	<p>ACES SYSTEMS</p> <p>Visual Aviation Diagnostic Instruments</p>	<p>Furness Controls Industrial & Scientific Instrument Manufacturers</p> <p>www.furness-controls.com</p>	<p>CHROMALOC EC GROUP</p> <p>VOC, Sulfur and perma-nent gases analysis at trace and ultra trace levels</p>

CUSTOMER SUPPORT SERVICES

MARVEL ENGINEERING has been engaged in extending timely and dedicated service to all its customers both in the Public and Private Sectors. MARVEL has been making available equipment of the best kind manufactured by reputed and quality conscious Foreign Organisations that should be ideal for improving plant performance and Operation.

Through MARVEL ENGINEERING, many pieces of unique and top-of-the line instrumentation have gone into Large Thermal, Captive, Combined Cycle Power Projects / Stations; Space Research Centres; Defence Establishments; Pharmaceutical Units; Fertilizer Factories; Heavy Engineering Units; Chemical Plants; Cement Plants; Steel Plants: Technological, Engineering and Research Institutions.

Products marketed by us are contributing to uninterrupted Power Generation, Optimum Boiler Performance, Energy Conservation, Pollution Abatement, Extended Plant Availability, Personnel Safety and such other tangible benefits, besides considerable savings in investment and maintenance costs. MARVEL's backup support, in an extraordinary fashion takes care of installation, commissioning and other activities and Marvel stays with the customers, facilitating them to get the best out of the products acquired through them.

MARVEL has fully staffed and equipped SERVICE CENTRE where systems / instruments are examined / repaired / rectified to the satisfaction of customers.

Our MOTTO is to win CUSTOMER CONFIDENCE and build the same, by CONSISTENT SERVICE SUPPORT.

PARTIAL CUSTOMER LISTING



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