Certified System
Quality
ISO 9001
SAI GLOBAL

CSE W Arthur Fisher

a division of CSE New Zealand

COMPREHENSIVE RANGE OF INSTRUMENTS & VALVES

OVER $1 MILLION STOCK IN AUCKLAND

URGENT ORDERS SHIPPED SAME DAY

CSE New Zealand
*a **CSE** global company*

www.cse-waf.co.nz Ph: 09 271 3810 E: sales@cse-waf.nz

CSE W Arthur Fisher
a division of CSE New Zealand

Teledyne 3290 Series Oxygen Analyser

Percent Oxygen Analyser; Wall Mounted; includes E-2 Cell and power supply

Good things come in small packages, and the Teledyne 3290 Percent Oxygen Analyzer proves it. This microprocessor based unit offers high accuracy, ease of use, and all the standard features demanded by end-user in a compact, budget priced design. Membrane keypad and a large, four digit LED display make setup and operation clear and quick.
Field-Configurable Range Options, depending on the application, this unit can be configured to utilize one of Teledyne's patented, Micro-fuel Cell sensors or zirconium oxide sensors, assuring the highest accuracy. With a long expected sensor life, the 3290 is as inexpensive to maintain as it is to purchase. Preferred by OEM for its reliability and performance.

Features:

- Auto-Ranging capabilities
- One high and one low alarm setpoint with corresponding relay contacts
- Sensor failure alarm
- Two field configurable ranges plus Cal range (0-25%)
- Signal output: 0-10 VDC for range identification
- Analytical output: 4-20 mADC negative ground and 0-10 VDC signals
- AC or DC powered versions available.

Foxboro 8000 Series Ceramic & PFA Lined Magnetic Flowtubes

15mm, 25mm, 40mm & 50mm Ceramic Lined Wafer DI Body with Platinum Electrodes
50mm PFA lined Wafer DI Body with 316SS Electrodes

Features

- Compact design.
- Ceramic lining is excellent selection for high temperature and highly abrasive processes.
- Retained PFA lined flowtube can withstand pressure and temperature extremes, excellent in corrosive environments and blistering resistance.
- Proven electrode seal design.
- Minimum fluid conductivity of 5µs/cm with recommended cable selection and installation.
- Large electrode surface area means less sensitivity to entrained air.
- Tapered inlets reduce profile effects.
- Wafer body mounts between ANSI or metric flanges.
- Standard 2-year warranty.

These compact, ceramic and PFA lined, wafer body flowtubes, together with a Model IMT25 Magnetic Flow Transmitter, combine to form an easy-to-use, versatile, dc pulsed Magnetic Flowmeter. The flowmeter is compatible with most conductive liquids, and produces a measurement signal directly proportional to volumetric flow rate. These flowtubes are offered in 1.6 to 150 mm (1/16 to 6 in) sizes. As symbolized by the CE Logo marking on the product, these flowtubes conform to the applicable European Union directives.

Foxboro 84W Series Vortex Flowmeter

25mm Wafer 316SS Body

The Foxboro Model 84 Series Intelligent Vortex flowmeters are the highest performing vortex flowmeters on the market. These instruments are designed for flexibility and reliability in harsh process environments. No other vortex flowmeter measures up to the Model 84 for accuracy in liquid, gas, and steam for process temperatures up to 800°F (430°C). The Model 84 incorporates patented DirectSense™ technology and Flexible Tuning for unmatched performance. DirectSense™ technology eliminates unreliable, mechanical sensor linkages used in other vortex meters. The result is a simpler, more reliable design that is more sensitive to flow and less sensitive to noise. Combined with Flexible Tuning, the Model 84 has the widest flow range capability of any vortex meter.

Features

- Liquid, gas, or steam applications.
- Wafer body designs: 3/4 to 8 in (DN 15 to DN 200) wafer body.
- Best in class accuracy: 0.5% of reading in liquids. 1.0% of reading in gas and steam.
- ActiveTuning™ algorithm: Real time Reynolds number (RD) low flow correction down to RD of 5000. Compensation for piping effects. Adaptive filtering and signal conditioning. Tunable for specific operating conditions.
- Widest rangeability in class.
- Low power versions available for use in battery or solar power applications.
- HART communication protocol, 4 to 20 mA and pulse output.
- *DirectSense*™ technology with lifetime sensor warranty.
- Pulse Output provides raw or scaled frequency, or total.
- CE marked; complies with EMC European Union and PED Directives, and NAMUR NE 21 Interface Immunity Requirement.
- Free-to-use, flow sizing program is available on the Internet at www.FlowExpertPro.com.

CSE W Arthur Fisher
a division of CSE New Zealand

Foxboro IMT25 Series Magnetic Flow Transmitter
For Foxboro 8000A, 8300, 9100A, 9200A, 9300A, and 2800 Series Magnetic Flowtubes; 24Vdc / 240Vac Powered

Features
- Digital precision, stability, and resolution ensure top measurement performance.
- Remote communication with HART communication protocol. (For FOUNDATION
- Fieldbus protocol, refer to PSS 1-6F5 B.)
- Remote configuration using PC-based configurator or HART Communicator.
- Local configuration using optional integral keypad, with backlighted, 2-line, LCD display.
- Scaled pulse or frequency output. Unidirectional or bidirectional flow.
- Analog output programmable for unidirectional, bidirectional, or multiple input range.
- Relay outputs with programmable functionality for alarms.
- Contact inputs with programmable functionality for remote operation.
- Automatic and manual zero lock. Online diagnostic help.
- Software configuration and totals protected in non-volatile memory in the event of power loss.
- Compact single or dual compartment. Enclosure meets NEMA 4X and IEC IP66.
- Field test mode using Foxboro Model IMTSIM Magnetic Flowtube Simulator.
- Conforms to applicable European Union Directives (product marked with “CE” logo).
- 85 to 264 V ac or 24 V dc input power options.
- Optional I/O access port allows direct external connection of remote configurator.
- Standard 2-year warranty.

Foxboro IMT31 Series Magnetic Flow Transmitter
For Foxboro 8400A, 8500A, 9500A, 9600A and 9700A Series Magnetic Flowtubes; 12-24Vdc Powered

The IMT31A transmitter provides a large variety of flowmeter and process diagnostic functions guaranteeing reliable measurements. Detection of deposits or coating on the electrodes, temperature and conductivity changes in the medium, gas bubbles or solids, and an empty pipe are good examples of process diagnostics functions. The transmitter is compatible with the 8400A, 8500A, 9500A, 9600A and 9700A flow tubes.

Highlights
- For operation with the 8400A, 8500A, 9500A, 9600A and 9700A flow sensors.
- For flow sensors over a diameter range from DN2.5 up to DN1200.
- Housing in aluminium with a polyester topcoat or in stainless steel (option).
- Tropicalized electronics to protect it from humidity (option).
- Available outputs: 4...20 mA current output, pulse/frequency output, status output/limit switch and Ex i I/O (option).
- HART® as standard.
- Communication to third party systems via HART ®, Foundation Fieldbus, Profibus PA/DP or Modbus.
- Control input option.
- Power supply via 100...230 VAC (standard) or 24 VDC or 24 VAC/DC (optional).
- Clearly readable values due to angle of the signal converter housing which prevents dirt and dust on the display.
- Extended calibration option for higher measuring accuracy down to 0.2% of the measuring Value.
- Excellent price/performance ratio.

Foxboro IMT96 Series Magnetic Flow Transmitter
For Foxboro 2800 Series Magnetic Flowtubes; 120Vac / 230Vac Powered

Features
- Patented eX-Pulse Coil Excitation provides Superior Performance on Liquids with Entrained Air, Non-homogeneous Slurries, Dense Slurries, and Pulsating Flow.
- Backward Compatibility with Existing 2800 Series Flowtubes.
- Unidirectional or Bidirectional Flow. Zero Signal Lock Capability.
- Digital, Analog, and Pulse Output Signals.
- Remote Communications via HART or FoxCom protocol using I/A Series Workstation, PC-based Configurator, or HART Communicator.
- Local configuration also available using integral backlit, 2-line, LCD indicator with keypad, if selected.
- Quick Start with automatic wiring check.
- Simple Menu-Driven Configuration via I/A Series System, PC-Based Configurator, or Local Onboard LCD Indicator/Keypad.
- Contact Inputs with Programmable Functionality for Remote Operation Capability.
- Relay Outputs with Programmable Functionality for Alarming.
- Software Configuration and Totals Protected in Non-volatile Memory.
- I/O Access Port Option allows Direct Connection of External PC-Based Configurator.
- Online Diagnostic/Help Capability. Complies with NAMUR Standard NE 43.
- Conforms to Applicable European Union Directives (Product Marked with “CE” Logo).
- Standard 2-Year Warranty

CSE W Arthur Fisher
a division of CSE New Zealand

Foxboro 875EC Electrodless Intelligent Conductivity Analyser & Transmitter

The Foxboro® Model 875CR is a microprocessor-based, line-powered intelligent analyser which, when used with Foxboro 871CR or 871CC sensors, provides high accuracy measurement for either contacting conductivity or resistivity, and when used with Foxboro 871EC or 871FT sensors, provides high accuracy measurement for electrodeless conductivity. Functions include measurement display, dual analog outputs, dual relay contacts, and an RS-232 Serial Port for remote configuration. A human interface guides the user through intuitive, menu-driven configuration, calibration, status, and troubleshooting procedures.

875CR Features:
- Easy to use; Ease of sensor configuration.
- Conductivity or concentration measurement.
- Optional HART Communication Protocol.
- Designed with your industry in mind.
- High Sensitivity, Wide Rangeability.
- RS-232 Port and Windows-based Configuration Utility.
- Application switching and storage of up to 3 sets of application configurations.
- Remote range and application switching using plc compatible contact inputs.
- Dual Alarms and Dual 4 to 20 mA Outputs.
- Chemical concentration control.
- History Log for up to 100 events.
- Remote auto-service for sensor cleaning and calibration.
- NEMA 4X and IEC IP65 protection for field mounted analyser, and for front surface of panel mounted analyser.

Foxboro 876EC Electrodless Intelligent Conductivity Analyser & Transmitter

The Foxboro® Model 876CR is a 2-wire loop powered intelligent transmitter that, when used with an appropriate electrochemical sensor, provides measurement, local display, and transmission of contacting conductivity, resistivity, or concentration. The transmitter outputs a HART digital signal and a 4 to 20 mA analog output.

876CR Features:
- 4 to 20 mA output with a HART(1) digital signal.
- Temperature prediction(2)
- Remote configuration/calibration with the HART Communicator or PC-based Configurator.
- Local configuration with the keypad on the integral local human interface.
- LCD indicator can display either one, two, or three measurement variables.
- Fault isolation to transmitter or sensor.
- Continuous transmitter/sensor diagnostics.
- Temperature compensation and concentration curves.
- Agency approved/certified as intrinsically safe device for use in hazardous area locations.
- FDT certified DTM (Device Type Manager).
- Wide measurement range.
- Two levels of passcode protection provided.
- Compatible with Foxboro 871EC, 871FT, EP307B, EP307G, and FT10 Series electrodeless conductivity sensors.
- Complies with applicable NAMUR standards, and EMC directive 2014/30/EU.
- Enclosure meets IP66 and NEMA 4X ratings.
- Output Hold.

Foxboro 875PH & 876PH PH / ORP Intelligent Analyser & Transmitter

The Foxboro® Model 876PH is a 2-wire loop powered intelligent transmitter that, when used with appropriate electrochemical sensors, provides measurement, local display, and transmission of pH, ORP (Oxidation-Reduction Potential), or ISE (Ion Selective Electrode) concentration. The transmitter outputs a HART digital signal and a 4 to 20 mA analog output. Versions are available for use with both analog and Smart (digital) sensors.

The Foxboro® Model 875PH is a microprocessor-based, line-powered intelligent analyser, when used with compatible Foxboro DolpHin™ PH10 and ORP10, 871A, 871PH, or EP460 Series pH and ORP Sensors, provides high accuracy measurement of pH, ORP, or ISE. Functions include measurement display, dual analog outputs, dual relay contacts, and an RS-232 Serial Port for remote configuration. A human interface guides the user through intuitive, menu-driven configuration, calibration, status, and troubleshooting procedures.

875PH Features:
- Auto Buffer Recognition for flawless pH calibrations.
- Dual Alarms and Dual 4 to 20 mA Outputs.
- Single unit for either pH, ORP, or ISE.
- Compatible with a wide range of sensors.
- History log for up to 100 events.
- On-Line sensor and analyser diagnostics communicate real-time measurement faults.
- Remote auto-service for sensor cleaning and calibration.
- Secure data and calibrations.

876PH Features:
- Either single sensor input (pH, ORP, or ISE), or dual sensor input sensor (simultaneous pH and ORP).
- 4 to 20 mA output with a HART(1) digital signal.
- LCD indicator can display either one, two, or three measurement variables.
- Fault isolation to transmitter or sensor.
- Galvanically isolated output.
- High impedance inputs for glass and reference electrodes.
- Continuous transmitter/sensor diagnostics.
- Temperature compensation/calibration curves.

www.cse-waf.co.nz Ph: 09 271 3810 E: sales@cse-waf.nz

CSE W Arthur Fisher
a division of CSE New Zealand

Foxboro Conductivity Sensors
871EC Electrodeless Sensors

The Foxboro® Model 871EC Electrodeless Conductivity Sensors, in conjunction with a variety of supporting sensor accessories, provide fouling-resistant measurements in all types of process liquids. Because of the electrodeless technique and innovative sensor design, years of continuous operation and meaningful indication of solution conductivity will be realized.

Features:
- High Sensitivity
- PEEK material solves application problems
- Integral temperature sensing

The Foxboro® 871CR Series contacting conductivity and resistivity sensors are suitable for ionic measurements in most clean water applications found in power, semiconductor, pharmaceutical, and other process industries. Application flexibility is enhanced by the choice of insulator materials and numerous mounting hardware accessories.

Features:
- Two cell factors, 0.1 cm-1 and 10 cm-1, are available for ionic measurements. The cell factor used is dictated by the measurement range desired.
- The sliding bore piece design provides easy installation and reduces replacement costs since normally the mounting hardware is permanently installed in the process system.

Foxboro pH Sensors
PH10 Analog & Smart Sensors

The DolpHin Series is a family of high performance pH and ORP sensors with extensive features and accessories.

Breakthrough performance in stability, accuracy, and long life makes DolpHin the premier pH and ORP sensor for on-line process applications.

PH10 Smart Version

Extensive and successful field installations have proven DolpHin's superior performance. It outlasts other sensors in high temperature and temperature cycling applications up to 121°C (250°F). It remains fast and accurate, while conventional pH sensors lose sensitivity and are slow to respond to pH changes.

DolpHin products use a unique proprietary electrode glass formulation which makes the DolpHin exceptionally stable, accurate, and long lasting, even in the harshest process applications. Each component in the DolpHin sensor has been designed to maximize ease-of-use, long life, and accuracy, including:
- Precision reference junction
- High-temperature electrolyte
- Reference electrode with Nafion ion barrier
- Ultra-fast Automatic Temperature Compensation (ATC)
- Single, rugged body that fits the widest variety of mounting accessories

PH10 and ORP10 Analog Versions

The elegant DolpHin design delivers an easy-to-use sensor with unmatched pH and ORP measurement performance.

*The PH10-*S Smart sensor has internal, digital electronics, communicates digitally with a transmitter using low-cost, high-temperature cabling and carries sensor ID, calibration parameters and diagnostic history in its non-volatile memory.*

Foxboro SRP981 Pneumatic Valve Positioner
Single-Acting; Input Signal Range: 0.2 to 1bar / 3 to 15psi / 20 - 100kpa

The SRP981 Positioner is for operation of pneumatic valve actuators with pneumatic control signals. It is used to reduce the adverse effects of valve friction, for higher thrust and shorter positioning time.

Features:
- Independent adjustment of stroke, range and zero
- Adjustable amplification and damping
- Split range up to 4-fold possible
- Supply pressure up to 6 bar (90 psig)
- Low vibration effect in all directions
- Mounting according to IEC 534, part 6 (NAMUR)
- Rotation adapter for angles up to 120 °
- Ambient temperature –40 to 80 °C (–40 to 176 °F)
- Travel 8 to 100 mm (0.3 to 4 in)
- Angular range 30 ° to 120 °
- Modular system of additional equipment- Electrical limit switches; Electrical position transmitter; Booster; Connection manifold
- Protection class IP54 (IP 65 on request)
- Certificate No. 90/20226(E2) Lloyd's Register of Shipping for use on vessels
- Explosion protection- pn. basic device: ATEX II 2 G c IIC T6 constructive design; - el. additional built-in equipment: ATEX II 2 G EEx ib/ia IIB/IIC T4/T6; CU TR explosion protection

CSE W Arthur Fisher
a division of CSE New Zealand

Foxboro SRI986 Electro-Pneumatic Valve Positioner
4-20mA Electro-Pneumatic

The SRI986 Positioner is for operation of pneumatic valve actuators from control systems and electrical controllers with electric control signals. It is used to reduce the adverse effects of valve friction, for higher thrust and shorter positioning time.

Features:
- Independent adjustment of stroke range and zero
- Adjustable amplification and damping
- Split range up to 3-fold possible
- Input signal 0/4 to 20 mA, 0/2 to 10 V
- Supply pressure up to 6 bar (90 psig)
- Low vibration effect in all directions
- Mounting according to IEC 534, part 6 (NAMUR)
- Rotation adapter for angles up to 120
- Explosion protection: II 2 G EEx ia IIC T6 according to ATEX or Intrinsic safe acc. to FM, CSA, CU TR, INMETRO
- EMC in accordance with the international standards and laws
- Modular system of additional equipment: Limit switches, Position transmitter, Booster, Connection manifold
- *** Over 1 million supplied internationally***

Foxboro SRD998 Intelligent Valve Positioner
4-20mA HART 7 Communication Intelligent, Single and Double-Acting, Basic Diagnostics

The intelligent positioner SRD998 is designed to operate pneumatic valve actuators and can be operated from control systems (e.g. the I/A Series System and Evo™), controllers or PC-based configuration and operation tools such as the FDT/DTMs VALcare™. The positioner is available with HART 7 Communication Protocol. The extra large multi-lingual full text graphical-LCD, in conjunction with the rotary selector, allows a comfortable and easy local configuration and operation. For installations in contact with explosive atmospheres certificates are available.

Features:
- Auto-start with self-calibration
- Self diagnostics, status and diagnostic messages
- DTM for valve diagnostics and predictive maintenance
- Easy local operation with the rotary selector
- Extra large multi-lingual full text graphical LCD
- With HART 7 communication
- Stroke 8 to 260 mm (0.3 to 10.2 in) with standard lever; larger stroke with special lever
- Angle range up to 95° (up to 120° on request)
- Mounting onto any linear or rotary actuator
- Supply air pressure up to 10 bar (145 psig)
- Single or double acting
- Protection class IP 66
- Explosion protection: Intrinsic Safety according to ATEX/IECEx, INMETRO, NEPSI, PESO, CNS, EAC

Foxboro SRD991 Intelligent Valve Positioner
4-20mA HART Communication Intelligent; Single-Acting

The intelligent positioner SRD991 is designed to operate pneumatic valve actuators and can be operated from control systems (e.g. the Foxboro I/A Series System), controllers or PC-based configuration- and operational tools such as FDT/DTM Software. The positioner is available with different communication protocols. The multi lingual full text graphical LCD in connection with the 3 push buttons allows a comfortable and easy local configuration and operation. For installations in contact with explosive atmospheres, certificates are available

Intelligent
- Auto-start with self-calibration
- Self diagnostics, status- and diagnostic messages
- Easy operation with three key pads
- Multi-Lingual full text graphical LCD
- VALcare™ or Valve Monitor DTM for valve diagnostics and predictive maintenance

With communication
- HART, FOUNDATION Fieldbus H1, PROFIBUS-PA
- Configuration by means of local keys, handheld terminal (HART), PC with FDT-DTM or I/A Series system

Without communication
• Input signal 4 to 20 mA

COMMON FEATURES
- Stroke 8 to 260 mm (0.3 to 10.2 in) with standard lever; larger stroke with special lever
- Angle range up to 95° (up to 300° as option)
- Supply air pressure up to 6 bar (90 psig), with spool valve up to 7 bar (105 psig)
- Single or double-acting
- Mounting on linear actuators or rotary actuators
- Protection class IP 66 and NEMA 4X
- Approved for SIL applications
- Explosion protection: Intrinsic safety according to ATEX / IECEx, FM, CSA, INMETRO, NEPSI, EAC, and more

Foxboro Legacy Differential/Gauge Pressure Transmitter
IDP10, IGP10 & IGP20 Analogue or Digital

The Foxboro® brand I/A Series® Models IDP10, IAP10, IGP10, IAP20, IGP20 are an Intelligent, two-wire transmitters that provides precise, reliable, measurement of differential, absolute or gauge pressure, and transmits a 4 to 20 mA output signal with a superimposed HART® digital signal for remote configuration and monitoring.

Features:
- Silicon strain gauge sensors successfully field proven in many thousands of installations.
- Simple, elegant sensor packaging, with very few parts achieves exceptionally high reliability.
- Transmitter available with traditional or low profile structures (see photos).
- Aluminium housing has durable, corrosion resistant epoxy finish; 316 ss housing also available; both meet NEMA 4X and IP66 ratings.
- Can be provided as a sealed measurement system with numerous configurations of direct connect or capillary connected seals available.
- Remote configuration with HART communication protocol in a single loop or multidrop mode; or locally via optional LCD indicator.
- The IAP10 and IGP10 are offered with integral process connections for sanitary, and pulp and paper installations. Also, the IGP10 is offered for high gauge pressure applications to 52, 105, or 210 MPa (7500, 15,000, or 30,000 psi).
- Industry standard 316L ss, Co-Ni-Cr, Nickel alloy(1), Monel, or Tantalum sensor materials, depending on transmitter structure.
- Standard 5-year warranty. SIL2-Certified Transmitter offered as an option.

Foxboro S Series Differential/Gauge Pressure Transmitter
IDP05S, IGP05S & IGP10S Digital; 400:1 Turndown; NPT threaded, Flanged and Sanitary Connections

The competitively priced IAP05S, IGP05S, and IDP05S pressure transmitters provide a robust design without compromising quality. This transmitter family has been designed for applications requiring an accuracy of up to ±0.075% of span, and HART transmitters are SIL 2 certified.

The IAP10S, IGP10S, and IDP10S pressure transmitters cover most of the application needs with a single range. These transmitters offer embedded FoxCal™ technology and multiple points of calibration, which allow you to benefit from wide rangeability and one of the best reference accuracy turndowns on the market. These transmitters have an accuracy of up to ±0.05% of reading, and HART transmitters are SIL 2 certified.

Features:
- Absolute, Gauge, and Differential Pressure transmitters
- HART digital outputs, 4 to 20 mA outputs, low power analog outputs
- TÜV SIL 2 certification for HART transmitters
- 5-year proof test interval for pressure transmitters installed in SIL 2 Safety loops
- Accuracy up to ±0.075% of span for Value Performance; up to ±0.05% of reading for Advanced Performance.
- Innovative and dynamic FoxCal™ technology allows the Advanced Performance transmitters to store multiple factory-preset calibration ranges up to 30:1 turndown, while maintaining published accuracy without the need for field calibration.
- High Turndown Capabilities (up to 400:1)
- Response time of 100 ms for AP/GP transmitters and 125 ms for DP transmitters
- Time in Service meter features cumulative power-up time and time powered since last user reset for HART transmitters
- Standard 2-year warranty (optional 5-year warranty)

HEX Instrument Manifold
316SS Instrument 3 Valve Manifold

The HM53 Series is a three valve instrument manifold used to perform the block, equalizing and vent requirements of a differential pressure transmitter applications. Of importance in this design is the inclusion of a single mounting flange that allows the transmitter to bolt directly to the manifold which eliminates the piping of excess tubing and nipples. A mounting kit may also be specified to allow for installation to a pipe stand.

Features:
- Non-Rotating Tip (NRT) Stem: Provides tight, repeatable shutoff without the galling or cross-scoring that occurs on ball type stems.
- Minimum Emission Flange: Outlet flange face protrusion mates transmitter inlet cavity, providing a gasket ID barrier that offers maximum protections against gasket cold flow and fugitive emissions.
- Removable Bracket Option: Specify our removable bracket option and mount the manifold, not the transmitter.
- Fully Back seated Bonnets: Prevent accidental stem removal and blowout. Unique design minimises emissions while offering easy access to the packing.
- VOC Emission Compliance: Unique TFE-Chevron and high temperature 1652G/Graphoil/1652G packing designs have been certified to meet and exceed the 100ppm EPA 1998 Emission standards.

Fairchild Model T6000 Electro-Pneumatic I/P Transducer

Input: 4-20mA; Output: 3-15psig / 6-30psig; DIN Connections

The T6000 Series is an electro-pneumatic device that converts a DC input signal to a pneumatic output. It is designed for precision applications providing maximum versatility. The modular construction permits any basic unit to be used in the explosion-proof, rack, wall, pipe, panel, DIN rail or 3, 5, 10, or 15 unit manifold configurations. Servicing or calibration is quick and easy.

Features:
- Field reversible.
- RFI/EMI Protection.
- Six output pressure ranges.
- Six input signal ranges.
- Compact size.
- Explosion-Proof NEMA 4X, IP65, Type 4 Enclosure available.
- Input and Output ports on both front and bottom.

Benefits
- Provides output which is directly or inversely proportional to the input signal.
- Eliminates susceptibility to electromagnetic and radio interference.
- Meets final control element requirements for most applications.
- Meets most process and machine requirements.
- Permits use in space restricted areas.
- Well suited for outdoor and indoor installations.
- Simplifies installation and pneumatic piping.

Fairchild Model T7800 Electro-Pneumatic I/P Transducer

Intrinsically Safe; Input: 4-20mA; Output: 20-100kPa / 6-30psig; DIN Connections

The T7800 Series converts a DC input signal to a linear proportional pneumatic output. High performance at economical process is available from these piezo-ceramic actuated I/P transducer. These units offer state of the art accuracy up to 0.15 FS. The disc actuation mechanism provides a product that is totally impervious to shock, vibration and positional orientation.

Features:
- 18 available output ranges; Split range operation.
- Accuracy as low as 0.15%.
- Field Reversible Feature.
- RFI/EMI Protection.
- Internal Electronic Feedback and Piezoelectric Actuator.
- Damping Adjustment.
- NEMA 4X, Type 4 Enclosure and IP65 rated.
- FM, CSA, ATEX and IECEx approvals

Benefits
- Tremendous versatility for application design.
- High precision reliable operation.
- Eliminates susceptibility to electromagnetic and radio interference.
- Provides precise control of output pressure regardless of vibration or position.
- Allows for optimum tuning response.
- Allows common signal source control two or more functions.
- Carries Global approval for Intrinsic Safety and Hazardous Location operation.

Fairchild Model 20 Pneumatic High Capacity Volume Booster

Ratio 1:1; 1/4" NPT or 3/8" NPT

The Model 20 Pneumatic High Capacity Volume Booster uses a pneumatic input signal to accurately control output pressure. It is ideal for system requiring the conversion of a low flow control signal to the higher flow requirements of an operating system. It can be used in a variety of applications including: Volume Amplifications, Web Tension, and Clutch and Brake Control System.

Features:
- Flow capacity of 45 SCFM (76.5 m3/HR).
- Ten available pressure ratios.
- Optional Adjustable By-Pass Needle Valve option includes bubble tight exhaust valve.
- Optional Fixed Negative Bias.
- A separate Control Chamber isolates the diaphragm from the main flow.
- Unit construction.
- Mounting Bracket available
- Canadian Registration Number (CRN) Certification.

Benefits
- Fast responsive operation.
- Easily suits your downstream pressure requirements.
- Allows tuning for optimum dynamic response (1:1 ratio only) and cycle free operation with Valve Positioners.
- Facilitates use with pneumatic signal devices that cannot be adjusted to zero signal pressure.
- Eliminates hunting and buzzing.
- Allows servicing without removal.
- Easy installation in the field.

Fairchild Model 10 (Precision) & Model 63 Pneumatic Filter Regulator

Pressure Range 0.5-60psig / 2-150psig; 1/4" NPT

The Fairchild Model 10 is a precision pressure regulator designed for applications that require high performance and accurate process control. Stability of regulated pressure is maintained under varying flow conditions through the use of an aspirator tube which adjusts the supply valve in accordance with the flow velocity. The Model 10 features control sensitivity of 1/8" water column and a balanced supply valve to deliver consistent and reliable precision accuracy to maintain your desired set point regardless of supply pressure changes or conditions.
The Fairchild Model 63 filter regulator is a general purpose service regulator with an integral 5 micron filter within its dripwell bowl. The Model 63 pressure regulator is well suited to these applications as it has a standard 5 micron filter and has the highest flow capacity of any regulator in its class. In addition, the Model 63 features control sensitivity of 1" water column and an integral relief valve to deliver consistent and reliable performance to maintain your desired set point regardless of supply pressure changes or conditions.

Features:
- No "yellow Metals" internal construction.
- Epoxy coated finish.
- Non-bleed design.
- Standard Gauge Port.
- Standard Tapped Exhaust
- Soft Relief Seat.
- Several pressure ranges available.
- Check valve option.

Benefits
- Minimizes internal contamination. Well suited to harsh environments.
- Allows user to easily drain trapped liquids.
- Fast and easy venting of exhaust.
- Highest accuracy pressure regulator available (Model 10).
- Prevents supply pressure changes from affecting the setpoint.
- Isolates diaphragm from flow to eliminate hunting and buzzing.
- Compensates downstream pressure droop under flow conditions.
- Select the range best suited for your application.
- Permits backflow of downstream pressure.

Fairchild Model 16 Vacuum Regulator

Pressure Range Vacuum -10psig; 1/2" NPT

The Fairchild Model 16 Vacuum Regulator is designed for systems that require system pressure control above and below atmospheric pressure. Stability of regulated vacuum or pressure is maintained under varying flow conditions through the use of an aspirator tube which adjusts the inner valve in accordance with the flow velocity. The Model 16 pneumatic vacuum regulator features control sensitivity of 1/2" water column and a balanced supply valve to deliver consistent and reliable precision accuracy to maintain your desired set point regardless of supply pressure/vacuum changes or conditions.

Features:
- Handles positive pressure into vacuum
- Control sensitivity of 1/2" water column
- Balanced Supply Valve
- Aspirator Tube
- Separate Control Chamber isolates the diaphragm from the main flow
- Unit construction
- Mounting Bracket available

Benefits
- Highly accurate control of low pressures or light vacuum
- Allows use high in precision applications
- Minimizes the effects of any supply pressure variation.
- Compensates downstream pressure droop under flow conditions.
- Eliminates any hunting and buzzing.
- Allows you service the Model 16 without removing it from the line
- Easy to install in assembly or in the field

INOR IPAQ Programmable Universal 2-wire Temperature Transmitters

Input: RTD, T/C, Ω, mV; Output: 4-20mA; Configuration: PC (via USB Interface), App, HART, DD, DTM

Rail Mounted and Compact, Programmable Universal 2-wire Transmitters, are digital, easy-to-use temperature transmitter developed specifically to meet the highest requirements on flexibility, accuracy and reliability. With the new runtime counter function you can easily supervise the elapsed operational time between calibrations.
IPAQ R202 & C202 specifically developed for measurement with pt100 sensors..
IPAQ R330 & C330 Universal transmitter compatible with RTD, thermocouples, voltage and potentiometer sensors. Supports wireless communication via NFC® (Near- field communication) and Bluetooth® which makes it possible to configure and monitor the transmitter through a smartphone or a tablet.
IPAQ R530 & C530 Universal HART 7-compatible 2-wire transmitter with wireless communication.

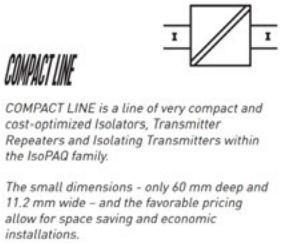
Features:
- Input options: Pt100 in 3-wire connection; 2-, 3-, 4-wire connection
- Accepts RTD, T/C, mV and ohm
- PC configurable measuring ranges without need for calibration
- Floating zero with minimum span 20°C
- USB communication; *NFC® and Bluetooth®* communication
- Withstands vibrations up to 10 g
- High accuracy and long term stability. Excellent EMC immunity
- Sensor error correction. Low temperature drift
- High security - Password protection and date of changes logged
- Robust terminals. Temperature linear output. Runtime counter.

INOR IsoPAQ-110L Single & Dual Channel Loop Powered Isolators for 0(4)-20mA Signals

Type: Passive; Signal: mA; Isolation Level: 2.5kv, 50Hz; Accuracy: +/- 0.15% of FS; Housing: Compact line

IsoPAQ-110L is a loop powered isolator, available in 1- and 2-channel versions. It is used for electrical isolation of 0(4)-20 mA signals to avoid measurement errors due to different voltage potentials or ground loops in an instrument installation. The 2-channel version, IsoPAQ-110L offers a very cost effective alternative combined with a high-density mounting. The isolator need no power supply, which contributes to reduced installation costs compared to Isolation Transmitters. The high reliability ensures a safe system operation and low maintenance costs.

Features:
- Input to output galvanic isolation: Protection against erroneous measurements due to parasitic voltages or ground loops.
- 1 and 2 channel versions: Allows for optimal cost efficiency.
- No power supply required: Reduced wiring saves installation costs.
- Fixed ranges: Ready to use without any settings.
- Protective Separation acc. to EN 61140: The design and high isolation level (2.5 kV) provides protection for service personnel and downstream devices against impermissibly high voltage.
- Compact DIN-rail mounting: 11.2 mm (0.44”) housing combined with very low self heating allows for high density mounting. With a depth of only 60 mm, compact standard boxes can be used.

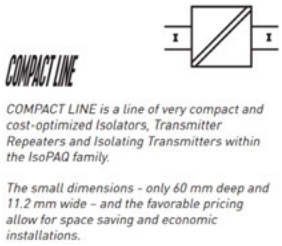


INOR IsoPAQ-110R Transmitter Repeater for Powering and Isolation of 2-wire Transmitters

Type: Active; Signal: Transmitter; Isolation Level: 2.5kv, 50Hz; Accuracy: +/- 0.1% of FS; Working Voltage: 600VAC/DC; Housing: Compact line

IsoPAQ-110R is a Transmitter Repeater for powering and isolation of a non-isolated 2-wire transmitter. Thanks to the isolation, the 4-20 mA transmitter signal can be connected to a grounded input circuit of a control system without risk for measurement errors due to ground loops. The Transmitter Repeater needs no power supply, which contributes to reduced installation costs. The high reliability ensures a safe system operation and low maintenance costs.

Features:
- Transmitter isolation: Problem-free connection of non-isolated 2-wire transmitters to grounded control system inputs.
- Transmitter powering: The 24 VDC power from the control system is transferred to the 2-wire transmitter.
- High accuracy: Negligible additional measurement errors in the loop.
- HART communication: Separate input terminals with built-in 250 Ω load resistor
- Fixed ranges: Ready to use without any settings.
- Protective Separation acc. to EN 61140: The design and high isolation level (2.5 kV) provides protection for service personnel and downstream devices against impermissibly high voltage.
- Compact DIN-rail mounting: 11.2 mm (0.44”) housing combined with very low self heating allows for high density mounting. With a depth of only 60 mm, compact standard boxes can be used.



Crane #150/300 Trim 8 Gate, Globe & Check Valves

Cast Steel 2" - 6" ANSI #150/300 Trim 8 Gate Valves

Crane Cast Steel Gate Globe and Check valves offer the ultimate in dependable service for steam, air, gas, oil, oil vapor, and high pressure installations. All Gate valves have straight-through ports to assure minimum turbulence, erosion, and resistance to flow. Crane globe valves are highly efficient for services requiring frequent operation and throttling when pressure drop across the valve is about 20% of inlet pressure.

Features:
- Sizes: 2” to 12”.
- Pressure Class: ANSI 150, 300 & 600
- API Trim 8 & Trim 5 with 17-4PH Stem
- All seat rings are seal welded as standard.
- Quality process fully documented, materials fully traceable.
- Full range of special trims and options available.
- Basic design in accordance with applicable requirements of API 600 specs.
- Wall thickness in accordance with API 600.
- RF Flanged & Drilled in accordance with ASME B16.5.
- Face to Face dimensions in accordance with ASME B16.10.
- Pressure/Temperature rating in accordance with ASME B16.34.
- Pressure tests in accordance with API 598.
- Trim 5 to NACE specification standard MR-0175.

CSE W Arthur Fisher
a division of CSE New Zealand

WAF V202S Globe Style General Service Control Valve

S.S. 15mm - 50mm BSPT Screwed-end Globe Style Body; Cv8 - 48; Pneumatically Actuated Diaphragm Actuator

CSE-WAF V202S General Service Control Valve (Made in NZ) for control applications for food-grade liquids, steam or gases. V202S Series Control Valves have stainless steel bodies and trims, making them suitable for low pressure, non-critical control systems where bronzed bodied valves are not acceptable.

Features:
- 316 stainless steel valve body with BSP Screwed end connections; rated to 200 psi WOG 13.8 bar / 1000KPa (150psi) saturated steam.
- Sizes- 15mm to 50mm; Cv's- 8 to 48 (Reduced Cv's available).
- Equal Percentage, Linear or On/Off plug characteristics.
- Industry proven pneumatic diaphragm actuators and positioners.
- PEEK guide bush as standard, ensuring long-life and reliability from its superior wear characteristics.
- Accessories for signal conversion, positioning and feedback.
- Valves assembled in-house, **often available overnight** or within few days after ordering.
- Spares available ex-stock, no need to wait days or weeks for expensive parts from overseas.

WAF V972 Saniflow Sanitary Service Control Valve

S.S. 25mm - 76mm Triclover connection Angle Body, Cv20 - 197, Pneumatically Actuated Diaphragm Actuator

CSE-WAF V972 Saniflow Sanitary Control Valve (Made in NZ), is extensively versatile and can be used whenever a constant liquid level, pressure or temperature must be accurately maintained in a process. Easy cleaning and low maintenance make it ideal for use in Dairy and Food Industries. Assembly and dis-assembly is made simple using heavy duty clamps and metal to metal locating. Open yoke and visible stem coupler are designed to meet rigid hygiene requirements. All wetted parts can be cleaned and sanitised during CIP by valve oscillation. General service rating is up to 700kPag at 120°C using EPDM seal. (Contact us for higher ratings.)

Features:
- High quality 316 stainless steel sanitary valve body made in New Zealand.
- Industry proven pneumatic diaphragm actuators and positioners.
- Available with Triclover and butt weld connections.
- Port sizes from 25mm through to 75mm with Cv's from 8 through to 197.
- Equal Percentage, Linear or On/Off characteristics available.
- Optional construction for 50 bar pressure application.
- Optional Stainless-Steel actuator housing.
- Fractional Cv construction option.
- Full range of accessories for signal conversion, positioning and feedback.
- Peek guide bushing in bonnet and actuator gland to reduce wear.

Wouter Witzel EPDM Lined Ductile Iron Butterfly Valves

3" - 12"; Wafer/Lugged to ANSI150/Table-E; DUPLEX SS Disc & Stem; EPDM Lined; Ductile Iron Body

Wouter Witzel Butterfly Valves (Made in the Netherlands) for isolation and modulating control services water and waste water industry. EPDM Lined Ductile Iron Body with DUPLEX Stainless Steel disc and stem.

Features:
- Vulcanised EPDM Liner
- Sizes from 3" to 12".
- End connections in Wafer and Lugged Style, ANSI150 & Table E.
- Maximum Pressure: 10 / 16bar
- Manual Hand lever in Cast Silumin; 7-Position; Snap Lock.
- Gearboxes with 125Nm - 800Nm output range.
- Airtorque Pneumatic Rack & Pinion Rotary Actuator, Single / Double-Acting AT101 - AT651; 10Nm - 1000Nm Output Torque; Aluminium Housing.
- Bernard Controls Electric Actuator, EZ10 - EZ60; 50Nm - 600Nm Output Torque; Logic On-Off / Positioning; 24Vdc and 240Vac 1ph 50Hz.
- Accessories: Limit Switch Box; Solenoid Valves.
- Design Code: EN593
- Face to Face: EN558-1/2 Series 20, API 609 Cat. A
- Seat Tightness: Bi-directional – ISO 5208 rate A

CSE W Arthur Fisher

a division of CSE New Zealand

OUR SERVICES AND CAPABILITIES

- Long History: Business established since 1927 and still supplying innovative solutions.
- No middleman: direct supply of Valves, Actuators, Pneumatic Controls, Field and Analytical/Detection Instruments.
- Sizing and Selection: Valves, Actuators and Instrumentation specific to the application service conditions provided.
- Mounting and testing of the actuators on to any brand of linear or rotary valves in our workshop.
- Response time: our well experienced team aim to initially respond within 24 hours and work with you to understand your requirements and present a solution.
- After sales support: we supply and we support.
- Integrated solutions: 4 key product divisions (Flow Control & Instrumentation; Plant Automation & Telemetry; Substation Automation & Protection; Communications), we can supply virtually all equipment for the majority of industrial process control and automation needs.
- Project supply: Our diversity of product solutions and experience makes us the logical choice for your project. We have delivered many high value projects in addition to everyday MRO requests.
- Industries we supply: Dairy, Other Food & Beverage, Pulp & Paper, Other Wood Processing, Power, W&WW, Petrochemical, Oil & Gas, Pharmaceuticals, Mining.

OTHER INSTRUMENTS AND VALVES WE SUPPORT:

INSTRUMENTS

DURAG/HEGWEIN	Environmental monitors, Combustion controls, Pilot burners, Monitoring & Ignition Systems
FAIRCHILD	Air pressure regulators, Air volume boosters, I to P transducers, Pressure sensors
FOXBORO	Control systems, Process control instruments
GDS TECHNOLOGIES	Gas Detection, LEL and Toxic Gas
HORIBA	Environmental Emissions Monitoring, CEMS, Water & Gas analysis
MACNAUGHT	Positive Displacement Flowmeters
MOISTTECH	Moisture measurement - Online and Laboratory
NOVATECH	Oxygen & Combustion Analysers
OMNI	Flow computers
STEINFURTH	Analysers & dataloggers for the beverage industry
TELEDYNE ANALYTICAL	Process gas analysers, Emissions Monitoring
TELEDYNE GAS and FLAME	Gas Detection LEL and Toxic gases

VALVES & ACTUATORS

AUMA	Electric Actuators & Gearboxes
BIRKETT	Safety relief valves
BROOK	Isolation valves
COPES-VULCAN	Desuperheaters, Severe Service & General Service Control Valves
CRANE	Isolation & Flow Regulation Valves, Sleeved, Fully Lined & Access Jacketed valves
CSE-WAF	Control valves, Temperature & Level probes
CYL	Knife gate valves
DELATITE	High pressure/High Temperature Isolation Valves
EVOLUTION	Advanced valve solutions for severe service applications
FLOWSAFE	Safety relief valves
JORDAN	Pressure, Back Pressure & Temperature Regulators, Control valves, Steam traps
MARWIN	Firesafe Ball Valves, Speciality & Severe Service valves
DIXON VALVE	Multi-Port Ball Valve
RED POINT ALLOYS	Customised valve solutions (Made to Order)
POLYJET/BAILEY	Sleeve valve for high energy dissipation
RTK	2 and 3 way Shut-off & Control valves
STERIFLOW	Sanitary valves & Regulators
SOMAS	Ball-Segment valves, Triple offset Butterfly valves
WOUTER WITZEL	Lined Butterfly valves
PEKOS	SIL rated Ball Valves
SCHROEDER VALVES	Pump Protection Valves
NASH	Engineered Vacuum Systems, Liquid Ring Vacuum Pumps, Ejectors and Condensers

www.cse-waf.co.nz **Ph: 09 271 3810** **E: sales@cse-waf.nz**