

# Custom Controls

Your trusted partner in delivering innovative, world class solutions



Auckland | New Plymouth | Christchurch

[www.customcontrols.co.nz](http://www.customcontrols.co.nz) | [sales@customcontrols.co.nz](mailto:sales@customcontrols.co.nz)



# MARKETS & INDUSTRIES WE SERVE



Oil Refining



Power



Oil & Gas



Tank Management



Chemical



Food & Beverages



Pulp & Paper



Water Management



We have the total process solutions to keep your plant  
Safe, Efficient and Intuitive



**Customer Focus**



**3 Locations**



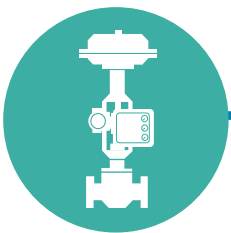
**19 x Engineers  
5 x Service Techs**



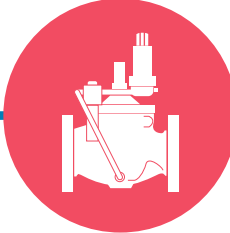
**Valve Connect  
Services**



**Education  
Services**



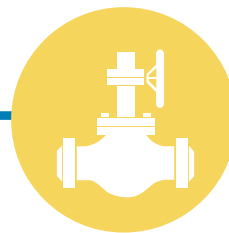
**Control Valves**



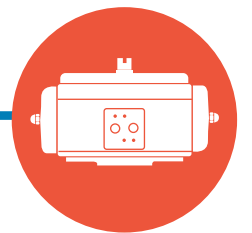
**Regulators**



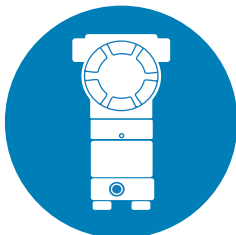
**Pressure Relief  
Management**



**Isolation  
Valves**



**Industrial  
Automation**



**Measurement  
Instrumentations**



**Networking**

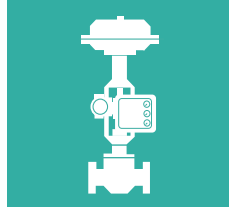


**Industrial Sensors  
& Systems**

**AUCKLAND**  
**Custom Controls Ltd**  
3 Mahunga Drive  
Mangere Bridge  
Manukau 2022  
NEW ZEALAND  
T: +64 9 634 1391  
F: +64 9 636 5976

**NEW PLYMOUTH**  
**Custom Controls Ltd**  
38 Young Street  
New Plymouth 4310  
NEW ZEALAND  
T: +64 6 753 4444

**CHRISTCHURCH**  
**Custom Controls Ltd**  
2-11 Radius Loop  
Rolleston 7675  
NEW ZEALAND  
T: +64 3 390 0086



## CONTROL VALVES



### Globe Valve

**Globe Valves** use a linear motion to move a closure member into and out of a seating surface. They have a body distinguished by a globular-shaped cavity around the port region. Many single-seated valve bodies use cage or retainer-style constructions to retain the seat ring, provide valve plug guiding, and provide a means for establishing particular valve flow characteristics. Cage or retainer style single-seated valve bodies can also be easily modified by the change of trim parts to provide reduced capacity flow, noise attenuation, or reduction or elimination of cavitation.

**FISHER** > ED | ES | ET | EZ | EW | easy-e Cryogenic | HP & EH | GX | Baumann | D | D3 | D4 | RSS DA | FB | D2T FloPro | 461 | YD and YS 3-way | GX-3 way | VONK Choke Valve



### Segmented Ball Valve

**Segmented Ball Valves** provide high capacity, precise control across a broad range of applications. They are similar to a conventional ball valve, but with a contoured V-notch segment in the ball. This control valve has good rangeability, control, and shutoff capability. The V-notch ball provides positive shearing action and produces an inherent equal percentage flow characteristic. It provides non clogging, high capacity flow control. The V-notch ball has been specially contoured to maximize capacity and enhance seal life and shutoff integrity.

**FISHER** > Vee-Ball V150 | Vee-Ball V200 | Vee-Ball V300 | Vee-Ball V150S Slurry | Vee-Ball V150E



### Hi Performance Butterfly Valves

**High-Performance Butterfly Valves** are used in throttling applications requiring large flow capacities and small installed footprints. They use a rotating eccentric disk to control flow through a pipe. The disk is generally operable through 90 degrees and provides a linear flow characteristic. Their advantages include a straight-through flow path, very high capacity, and ability to pass solids and viscous media. These valves have nominal sizes from DN50 to DN1800 (from NPS 2 to 72) and pressure class up to PN420 (CL2500 according to ASME) depending on the model.

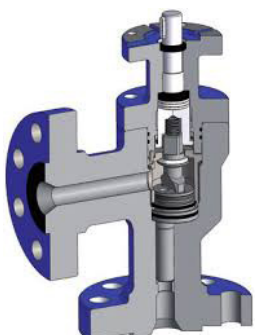
**FISHER** > Control-Disk | A11 | 8532 | 8560 | 8580 | 8590



### Eccentric Plug Valve

**Eccentric Plug Valves** combine globe valve ruggedness with the efficiency of a rotary valve so they're also referred to as rotary globe. They have a plug-shaped, flow restricting member that follows an eccentric path as it rotates.

**FISHER** > V500 | CV500



### Choke Valves

Choke valves offers reliable flow control and high-pressure drop for abrasive media in upstream oil and gas applications. The rotating disc design provides repeatable tight class V shutoff capability and prevents the flowing medium to be in direct contact with the valve seat. This enhances durability and reduces maintenance and repair frequency, which is essential requirement for plants processing harsh material such as crude oil and sour gas.

**VONK** > Model YCV | ICV | CHV/SCV



## Severe Service Ball Valves

**Severe Service Ball Valves** have a simplistic, two-piece floating ball design with integral metal seat meant to provide tight shutoff in high temperature, high pressure, and erosive applications across all industries.

**FISHER** > Z500



## Steam Conditioning Valves and Desuperheaters

**Steam Conditioning Valves** represent state-of-the-art control of steam pressure and temperature by combining both functions within one integral control unit.

**FISHER** > TBX | TBX-T

**Desuperheaters** inject a controlled, predetermined amount of water into a steam flow to lower the temperature of the steam.

**FISHER** > DMA | DMA/AF | DSA | DFA | DV

**YARWAY** > CIRC-Temp | Cryogenic | Probe Style | Venturi Style



## Fisher EasyDrive

Methane gas venting regulations are consistently becoming more stringent and failing to comply means you could get hit with expensive fines, not to mention diminished product returns. With Fisher easy-Drive electric actuator, you can achieve more reliable control without the product waste. Connect it to your existing Modbus network and remotely track the health of your wellhead at all times, without sending personnel to the field.

**FISHER** > D4 and D3 Control Valve with easy-Drive



## Cavitation Control Trims

Clean and Dirty Service Anti-Cavitation Trims prevent cavitation as the liquid undergoes a portion of the total pressure drop in each stage. This prevents the liquid in any stage from falling to or below its vapor pressure, avoiding cavitation. Cavitation is a concern for plant operators and maintenance personnel because it not only decreases flow capability through control valves, but it may also cause material damage, excessive noise, and excessive vibration. A wide range of cavitation-control technologies are available for clean and dirty service.

**FISHER** > Cavitrol III | CAV III Micro-Flat | DST | NotchFlo DST | Micro-Flat | CAV4



## Noise Control Trim

Aerodynamic and Hydrodynamic Noise Control Trims are trusted and tested to protect your personnel and the surrounding environment from excessive noise risks. High pressure drops and high mass flows involving liquids, gases, vapors, or steam can lead to unwanted and dangerous noise levels. Allowing this noise to continue puts you at risk of fence-line noise regulation fines or potential employee hearing loss. High noise levels can also lead to equipment damage through vibration and process control issues. Mitigate your risk by choosing Fisher products.

**FISHER** > Whisper Trim I | Whisper Trim III | WhisperFlo | Inline Diffusers | Vent Diffusers





## REGULATORS

### Air



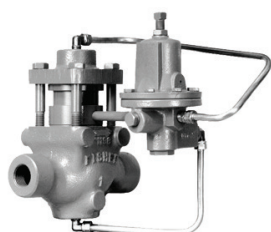
Manufacturing and process plants use compressed air as a power supply for many devices within the plant. Instrument air is used to power instruments, such as controllers, positioners, switching valves, panel loaders and volume boosters. Plant air or shop air runs from compressor throughout the plant. Pressure reducing regulators control the pressure to devices at each point of use of the air line. Instrument air can come from the plant air line or there may be separate air lines throughout the plant. In either case, the air supplied to the instruments must be cleaned and dried before it enters the instruments. Filters and dryers remove dust, moisture and other debris from the air.

**FISHER** > MR95 | MR98 | 67C | 627 | 63EG Series

**JEON** > RS

**CASH** > 30 Series

### Steam



Steam is used throughout industries for process and space heating. To minimize piping cost, steam is generated and distributed at much higher pressures and temperatures than required by the process load. Fisher™ regulators are utilized in these applications to reduce the steam pressure to a usable level and to accurately maintain process fluid temperatures.

**FISHER** > 92B | 92S | SR5 | MR95 | 92C | MR98 Series

### Liquids



Any substance that is capable of flowing or of being poured is known as a liquid. Liquids differ from gases as they are incompressible and viscous. Because of these characteristics, special consideration must be given when selecting a regulator. All regulator parts that touch the fluid must be compatible with the fluid. The regulator design may require modifications or special materials.

**FISHER** > MR105 | MR108 | 92W | 63EG-98HM | MR95 | MR98 | LR125 | LR128 | 1098-EG

**JEON** > DG Series

### Process Gas



Gases are used in chemical and industrial processes, such as analytical instrumentation, environmental compliance, electronic manufacturing, chemical production, reference gases and medical uses. All the devices in these systems must be compatible to prevent complications, such as corrosion, unwanted chemical reactions, ignition or explosion. Also, some of these process systems operate at very high or very low temperatures. Regulators must be constructed to withstand these temperatures. The regulators and relief/backpressure regulators covered in this section are available in materials that are chemically compatible with most process gases.

**FISHER** > 1098-EGR | MR95 | MR98 | OSE Slam Shut | EZR | 299H | 627

**TARTARINI** > FL | CORONIS

**JEON** > RS | JEQ | DG Series

### Fuel Gas



Natural gas (methane) is a clean-burning fuel gas used for many residential, commercial and industrial applications. This colorless, naturally occurring gas can be found in many countries around the world. For industrial applications, natural gas is used as a feedstock for making chemicals, such as anhydrous ammonia and as a fuel for boilers and furnaces.

**FISHER** > 310A | EZR | Y600A | 1098-EGR | EZH and EZHSO Series | 99 | 627 | OSE Slam Shut

**TARTARINI** > FL | CORONIS

## Tank Protection and Solutions

Maintaining product quality and safety is critical to your operation. Failure to have proper blanketing controls in place can result in costly product loss and environmental releases. Take control of your Tank Farm with our product range below to maintain a fixed and safe pressure in the space above the liquid inside the tank for total tank protection.



Vent Valves / Pressure & Vacuum Relief Valves



Emergency Pressure Relief Vents



Flame Arrestors



Emergency Pressure Relief Vents

## Pressure Controls

**AEROSPACE** > 26-1000 | 26-1200 | 26-2000 | VA/VG Series | 30 Series

**ALTERNATIVE ENERGY** > 20-1000 | 20-1100 | 20-1200 | 44-2600 | VA/VG Series

**MEDICAL & LIFE SUPPORT** > 26-2900 | 44-1100 | 44-1300 | BB-1

**ENERGY & ENVIROMENTAL** > 26-1500 | 44-2200 | 44-2600 | 44-3400 | NA-4 Changeover System

**OIL & GAS EXPLORATION & EXTRACTION** > 50-2000 | 20-2200 | 54-2000 | 54-2100 | 54-2200

**MANUFACTURING AND TESTING** > SG | 26-1700 | 26-2000 | 23-2300 | 44-1100 | DH | |ER3000

**LABORATORY & R&D** > 26-1700 | 26-2000 | 44-2200 | 44-3400 | WEGA 1&2

**LIFE SCIENCE** > PH-1600 | PH-1800 | PH-2200 | PH-2600 | PH-3200 Series

**CRYOGENIC** > CP / CP2 | SY-70C | A-32 | E-55 | LTC | FR | C-776

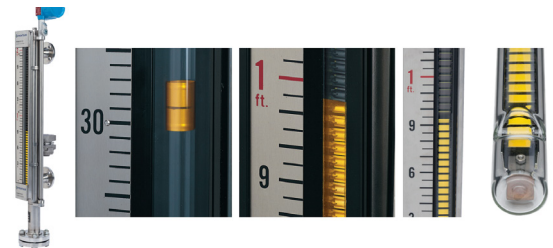
> TESCOM | CASH



## Level & Flow

Penberthy Multiview™ product line offers an extensive range of models and accessories to meet the needs of both simple and stringent level measurement applications in petrochemical processing, refining, compressors, water treatment, storage tanks and oil water separators.

> YARWAY | PENBERTHY



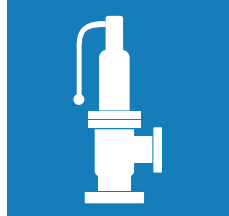
## Speciality Gas Panels

- > Pressure Staging Panels
- > Changeover Pressure Regulator Panels
- > Over Pressure Protection Panels
- > ESD Panels



**FISHER** **TESCOM™** **ENARDO™** **TARTARINI™** **PENBERTHY™**

**CASH VALVES** **VAREC™** **FRANCEL™** **SEMPELL™** **YARWAY™**



## PRESSURE RELIEF VALVES

### Spring Loaded Pressure Relief Valves



Emerson manufactures a complete range of spring loaded pressure relief valves from general pressure protection to extreme conditions. Designed, certified and tested in accordance to most codes and standards around the world like ASME, PED, CU-TR, AD-2000, API, EN. They are available in a large array of materials, from carbon steels to nickel alloys, duplexes, titanium, brass, with cast, forged or HIPS bodies. With metal or soft seats, threaded, flanged, welded or hub connections, the largest range of pressure relief valves builds on many decades of experience from our main brands.

**ANDERSON GREENWOOD** > Series 60 | Series 81 & 83 | 81P |

**CROSBY** > Style JOS-E & JBS-E | Style 900 OMNI-Trim | Style BP OMNI-Trim

**SEMPELL** > Type S | Type MAXI S | Type Mini S | Type VSEO

### Pilot Operated Pressure Relief Valves



With the broadest range of pilot operated pressure relief valves, Emerson is able to solve the most demanding pressure protection challenges, providing reliable protection at low operating costs. With pop or modulating action, from cryogenics to high temperatures, designed, certified and tested in accordance to most codes and standards around the world. Our pilot operated pressure relief valves are available in many materials and configurations to suit all applications, including dirty fluids, while reducing weight, enabling in-line checking and maintenance for lower cost of ownership. The configurations and options available provide the perfect match for any application that requires highly reliable protection and flexibility.

**ANDERSON GREENWOOD** > Series 200 | Series 400 | Series 400 ISO-DOME | Series 500 & 800

### Steam & Power Safety Valves



Protecting steam processes against over-pressure has always been one of the most challenging duties for engineers. Spring loaded, pilot operated or power assisted, with certifications from ASME I & VIII, PED, TÜV, CU-TR, SELO, LRS and others, Emerson has built on more than 140 years of experience to provide the safety valve that will fit your exact requirements to reliably protect assets. From low pressure steam to super-critical boilers, each safety valve is supported with some of the largest steam testing facilities in the world. Also available is a complete range of portable test equipment to maintain protection and reduce operation costs.

**CROSBY** > Style HSJ | Style HE ISOFLEX | Style HCI ISOFLEX | Style HCA-I ISOFLEX

**ANDERSON GREENWOOD** > Series 727 | Series 5200

**SEMPELL** > Type SOH /SOT | Type EPRV

### Low Pressure Relief Valves



Designed for extremely accurate low pressure protection with configuration flexibility for ease of maintenance and enhanced reliability. The soft seats are specially designed to provide extreme tightness even under the lowest pressures. These valves feature very large capacities for the most economical configuration. Type 9000 valves can provide protection for both pressure and vacuum, while the 96A vacuum breaker brings unrivalled extra large capacities for protecting the largest storage tanks. Designed, certified and tested in accordance to most codes and standards like ASME VIII, PED, CU-TR and API 2000

**ANDERSON GREENWOOD** > Type 9300 & 9300H | Type 9200 | Type 93 | Type 96A | Type MLCP



## Speciality Valves

In addition to pressure relief valves, Emerson's portfolio has been complemented over the years with safety devices further enhancing the safety of your assets and personnel.

**ANDERSON GREENWOOD** > SSV (Safety Selector Valves) | ITV | Type RCRV



## Fike Rupture Disk - Pressure Protection

Leading Industry Specialists in Bursting Disks, Panels, Vents & Indicators. Rupture Disk

**FIKE** > Metal Rupture Disks | Graphite Rupture Disks | Rupture Disk Holders.



## PRV Wireless Monitoring Solutions Overview

Immediate notification of events to reduce severity of releases, monitoring relief valves real time without manual rounds, keeps employees safe.



**Acoustic Transmitter:**

Rosemount 708 Wireless

**Installation:**

Non-intrusive, install on pipe

**Detection Principle:**

Acoustic and Pipe temperature



**Position Transmitter:**

Fisher 4320 Wireless

**Installation:**

OEM Mounting Kit

**Detection Principle:**

Movement of Valve Stem



**Differential Pressure Transmitter:**

Rosemount 2051/3051 Wireless

**Installation:**

OEM Mounting Kit

**Detection Principle:**

Differential pressure between inlet & dome.

## Certification and Approvals

AD 2000 - A2

ASME Code Section I (V)

ASME Code Section VIII (UV)

ATEX 2014/34/34/EU (replaces 94/9/EC)

Canadian Registration (CRN)

China Manufacturer Licence (SELO)

CU TR 012

CU TR 032

EN ISO 4126

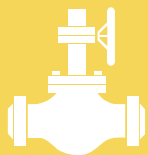
Korea Gas Safety Corporation

PED 2014/68/EU (replaces 97/23/EC)

Type approvals for Marine liquid gases and/or Offshore, ABS, BV, DNV-GL, LRS TRD 110

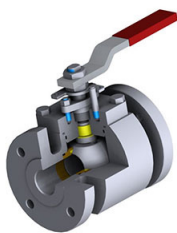
**CROSBY™ ANDERSON GREENWOOD SEMPELL™**

**Fike®**



## ISOLATION VALVES

### Floating Ball Valves



Our floating ball valve portfolio includes a diverse range that can be configured to suit most process applications or project packages. Soft seated designs that provide superior sealing; metal-seated valves that maintain tight shut-off and valves designed to maintain the performance of your process. Jacketed high temperature and lined options are also available.

> VIRGO | KTM | RMT | K-BALL

### Trunnion Ball Valves



Our trunnion mounted ball valves are utilised in virtually every industry and for some of the most demanding process conditions. An extensive range includes soft-seated designs, providing excellent leak-resistance; top entry valves with a one-piece body design allowing for in-line maintenance and metal-seated valves for superior operation at high temperatures as well as providing abrasion resistance in challenging applications. For buried service applications we offer a Welded body design, decreasing potential leak points and reducing the potential of fugitive emissions from flanges.

> VIRGO | KTM | RMT

### Cryogenic Valves



AEV Rotary <sup>2</sup>XC Double Eccentric C-ball “no contact type” is designed to meet the most stringent services. The two vectors movement (rotation/translation) provided by the double eccentricity design allow to open and close the valve without friction or wearing at the seat & “C” contact. Additionally during the closure end, seat is cleaned by sweeping. Rotary <sup>2</sup>XC Double Eccentric “C” ball does not have dead cavity as ball valve. No risk to trap over pressure and/or product in the body cavity. Reliable dual anti-friction bearing with metallic shield arrangement offer the best protection against particles Hence **No cavity, No spring, No Problem**

> AEV

### Butterfly Valves



Designed and manufactured to perform in a broad range of applications. With a Ductile Iron body material, the Keystone butterfly valve is able to be full rated for bi-directional dead-end service; these valves also meet or exceed the design requirements of MSS SP-67 and API 609. Wafer options together with Lever and gear operators are available. The Fisher range of high-performance Butterfly valves for throttling or on-off applications, with carbon steel, stainless or alloy materials and connection options of flanged, single flanged, double flanged, lugged or wafer.

> FISHER | KEYSTONE

### Triple Offset Butterfly Valves



The triple offset geometry and the special features reduce torque and provide increased valve life. Guaranteed 100% zero-leakage performance even during extreme temperature variations and pressure peaks. Anti blow-out shaft design and fugitive emissions control. Double block and bleed designs are available as are SIL 3.

> VANESSA

### Gate Globe Check



Complementing our suite of valves & actuators is our Gate Globe and Check valves suitable for Power, Oil & Gas, Geothermal, and mining applications.

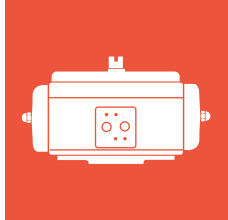
> SEMPELL | YARWAY

### Knife Gate Valves



Ideal for slurry service in Mining, Water and Waste Water, Power, Pulp and Paper, Chemical and Cement applications the knife gate valve offers a solution for wet or dry abrasive and corrosive media.

> CLARKSON



## ACTUATION

### Rack and Pinon

Rack and Pinion actuators are ideal for applications that require constant torque, such as a Butterfly valve. Custom Controls is able to supply modular designs that are field convertible from double acting to spring return and vice versa. Variable design options available with powder coated body and high corrosion resistant aluminium pinion design with stainless steel fasteners, also high strength LM25 body options for rugged heavy-duty applications. Offering a turnkey solution, the Bettis VOS includes an actuator, air filter regulators, relief valves, solenoid valves, limit switches, positioners, as well as the piping and engineering.

> EL-O-MATIC | HYTORK | BETTIS | KEYSTONE | BIFFI | MORIN



### Scotch Yoke

Offering a wide range of Scotch Yoke Actuators for ball, butterfly or plug valves. The compact Bettis CB series to the larger G series, available with SIL3 packages; the G series canted yoke option provides greater torque for applications where there is increased valve break torque. Full Stainless-Steel actuators offer a solution for harsh corrosive and erosive environments. All actuators available as double acting or single acting spring return.

> BETTIS | BIFFI | MORIN



### Electric Actuated

For a range of applications where hydraulic or pneumatic actuation is unsuitable, we are able to select from a suite of electric actuation packages. Whether rising stem (linear) or rotary valve applications and regardless of the application; water, power, food and beverage, Oil and gas or metals and mining. Also offering a range of supply voltages, from +24 to 415v, ac or dc supply, as well as hazardous area models that meet the necessary certification requirements.

> BETTIS | BIFFI | FISHER



### Hydraulic

Incompressible fluids are used for applications that require higher torques, where compressible fluids necessitate increased safety requirements. We are able to provide a range of Hydraulic actuation options; Rack and Pinion, Scotch Yoke, Helical Spline or Rotary Vane. Suitable for a range of process and environment needs, such as remote sites, Automatic Line Break Valves and emergency shut down applications, these actuators are also available with hand pump operability in case of loss of power. Electro-hydraulic options are also available.

> BETTIS | SHAFER | BIFFI



### Valve Automation Integration Centre

Together with support from the world leading valve and actuator controls manufacturers, Custom Controls has the valve automation experience, know-how and product range to meet the needs of almost any applications in the industries we serve. Custom Controls can supply standard valve packages from our local inventory or provide bespoke solutions like HIPPS system that are tested in our workshop and shipped with the appropriate test certificates. We are committed to meet our customer's demands and expectations and agreed-upon requirements for all products and related services.



KEYSTONE™

VIRGO™

AEV™

BETTIS™

FISHER

SHAHER

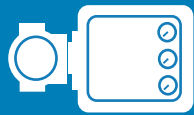


CLARKSON™

LUNKENHEIMER™

MORIN™





## ACCESSORIES

### Digital Valve Controllers & Traditional Positioners



**Digital Valve Controllers** are microprocessor-based instruments that are compatible with HART, FOUNDATION fieldbus and PROFIBUS communication protocols. The microprocessor enables diagnostics and 2-way communication to simplify setup and troubleshooting. FIELDVUE digital valve controllers have logged billions of operating hours and have sold over 2 million products since being introduced in 1994. They can be used in Safety Instrumented System to control the safety shutdown function of the valves.

**FISHER** > DVC6200 | DVC6200-SIS | DVC6200p | DVC2000



**Traditional Positioners** deliver pressurized air to the valve actuator so that the position of the valve stem or shaft corresponds to the set point from the control system. They are typically pneumatic or analogue I/P.

**FISHER** > 3570 | 3582 | 3852i | 3610J | 3610JP | 3620J | 3620JP | 3660 | 3661 | 3710 | 3720

### Transducers



**Electro-Pneumatic (I/P) Transducers** convert an electronic signal to a pneumatic signal. They are routinely used in control loops that require an electronic control signal from a programmable logic controller or distributed control system to be converted to a usable pneumatic signal for operation of a control valve. I/P transducers operate by using a current to pneumatic converter to produce a proportional pneumatic output.

**FISHER** > i2P100 | 846 | 646 | 546

### Pneumatic and Process Valve Controllers



**Pneumatic Controllers** are mechanical devices designed to measure temperature or pressure and transmit a corrective air signal to the final control element. Bourdon tubes, bellows, temperature elements, or displacers are used as the sensing elements. The power supply and output of a pneumatic controller is compressed air or natural gas.

**FISHER** > C1 | 4194 | 4195K | 4196 | 4600



**Wireless Products** provide access to valves and other equipment in hard-to-reach places where a wired solution is not feasible. A wireless position monitor eliminates the need for wiring to an on/off pneumatically actuated valve by monitoring the equipment position with a percent of span plus on/off indication.

**FISHER** > 4320 | 775 THUM™ Adapter



**Volume boosters** amplify or boost the volume of air supplied to the valve actuator.

**FISHER** > 2625 | VBL | ASCO 300 Series



**TopWorx™** Discrete valve control and GO™ Switch position sensing technology help you regulate and isolate your process with certainty absolute

**TopWorx™**> DXP | TXP | TVA | TXS | DXR | TVL | DXS | TVF | ESD | TVH

**Go Switch** > 11 | 21|31 | 81 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 7G | 7H | 7L



### Solenoid Valves

ASCO Solenoid Valves

**FISHER**

**TOPWORX™**

**ASCO™**



## MEASUREMENT INSTRUMENTATION

### Ultrasonic Flow Meters

The Daniel Gas and Liquid Ultrasonic Flow Meters provide higher accuracy, greater rangeability, advanced flow meter diagnostics, with no moving parts practically eliminating pressure loss common to other types of flow measurement devices. This advanced ultrasonic measurement technology can be applied to custody transfer, allocation measurement, check metering, leak detection and inventory control applications

**DANIEL** > 3400 | 3800

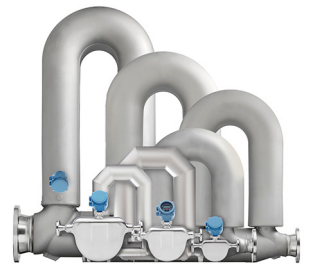


### Coriolis Meter

With Micro Motion Coriolis meters, Emerson provides a breadth of products that are tailored to your application needs. Our Coriolis flow meters are composed of a sensor, which contains the measurement tubes, and transmitter, which displays the outputs and allows the meter to be configured to your process. Read below to meet our Coriolis family – our sensors, transmitters, and software options that provide the ultimate solution for your most critical flow measurement needs.

**MICRO MOTION** > Sensors CMF / F / R / T / A

**MICRO MOTION** > Transmitters 5700 | 4200 | 2700 | 2500 | 2400 | 2200 | 1700



### Magnetic Flow Meter

Magnetic flow meters, also known as electromagnetic flow meters or mag meters, are often selected because they are obstruction less, cost-effective for aggressive chemicals and slurries and provide highly accurate volumetric flow measurement. A range of liner materials, electrode options and line sizes accommodate a wide variety of process applications. Mag meters can measure fluids bi-directionally, are effective for both very low and high-volume flow rates.

**ROSEMOUNT** > Sensor 8705 | 8707 | 8711 | 8750W | 8721

**ROSEMOUNT** > Transmitter 8712 | 8732



### Vortex

Vortex flow meters offer many advantages for flow measurement including easy installation without impulse lines, no moving parts to maintain or repair, less leak potential and a wide flow turndown range. Vortex meters also offer very low power consumption, allowing for use in remote areas. Additionally, Vortex meters are unique in that they can accommodate liquids, gasses, steam and corrosive applications. Vortex flow meters are also able to withstand high process pressures and temperatures.

**ROSEMOUNT** > 8800 | 8600



### Turbine

Daniel Turbine meters are simple to operate and maintain, and in service worldwide as a reliable, cost-effective method for achieving accurate flow measurement. Turbine flow meters are designed to maximize throughput and minimize pressure drop, maintain high flow rates over an extended flow range and offer pulse output that is linear to the flow rate. The turbine meters also minimize fiscal measurement uncertainty by delivering high-frequency pulse resolution to account for minute increments of the flow rate.

**DANIEL** > 1200

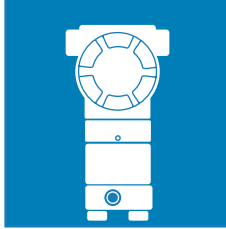


**ROSEMOUNT™**

**MICRO MOTION™**

**DANIEL™**

**ROXAR™**



## MEASUREMENT INSTRUMENTATION

### DP Flow



As one of the most common technologies for measuring flow, differential pressure (DP) flow has a long history of achieving high accuracy and durability. This measurement technology enables compensated flow, pressure, and temperature readings from a single flowmeter solution, in some cases eliminating the need for impulse lines. Rosemount and Daniel flowmeters can be delivered pre-configured, leak tested, and ready-to-install, reducing installation time and costs while increasing overall plant productivity

**ROSEMOUNT** > 405 | 485 | 585 | 1195 | 1495 | 1496 | 1595 | 3051CFA | 3051 CFC | 3051 SFC | 3051 SMV | Daniel

### Multiphase Flow Measurement



Operators today are looking for flexible, scalable and accurate multiphase meters that meet field requirements, yet also provide value for money in the most challenging of fields. Through developments in signal processing and field electronics alongside a modular approach, multiphase meters are rising to the challenge, delivering increased flow assurance and production optimization and meeting all field and cost requirements

**ROXAR**

### Density/ Viscosity Meters



A high performance, multivariable Fork Viscosity Meter that delivers reliable viscosity, density and temperature measurement in pipelines, bypass loops and tanks

**ROSEMOUNT** > FGM | FDM | FVM | SGM

### Pressure Measurement



Pressure technology solutions include capacitive, piezoresistive and other sensors to provide essential process data in differential, gage and absolute pressure applications. These sensors measure pressure, level, flow and derivatives by physically responding to the changes in process pressure, converting the physical movement into an electrical signal

**ROSEMOUNT** > 2088 | 2090 | 2051 | 3051 | 4600

### Liquid Analytical



Rosemount liquid transmitters and sensors provide the most complete range of continuous inline measurement for pH, ORP, conductivity, dissolved oxygen, ozone, chlorine and turbidity. Applications are in chemical process, power, refining, food & beverage, pharmaceutical and water & wastewater.

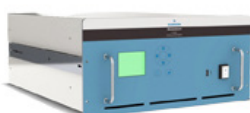
**ROSEMOUNT** > Conductivity 140/150/222/225/226/228/328/400/403/410/490/499

**ROSEMOUNT** > pH 389/396/397/398/3500/3900

**ROSEMOUNT** > Transmitters 56/1056/FCL/1066/5081

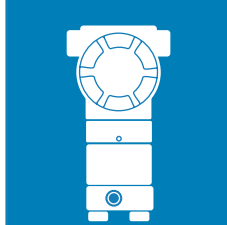


### Gas Analytical



From C6+ natural gas measurement to combustion, to complex processing applications and emission monitoring solutions for regulatory compliance, Emerson's Rosemount analysers and integrated systems can solve the toughest gas analysis challenges for a wide range of industries and applications.





## MEASUREMENT INSTRUMENTATION

### Temperature Measurement

Temperature is the most measured variable in process industries and is often the most critical factor. An inaccurate measurement, however small, can have a detrimental effect on efficiency, energy consumption and product quality. Measurements are typically made with a resistance temperature detector or thermocouple sensor and signal conditioning circuit (either a transmitter or input card channel to a Distributed Control System or Programmable Logic Controller), to amplify the signal to 4-20mA.

**ROSEMOUNT** > Transmitter 3144 | 644 | 648 | 248 | 848T

**ROSEMOUNT** > Sensors 114C | 214C | 65 | 085 | 86 | 68Q



### Level Measurement

#### Continuous

Get full insight into your tank with Rosemount™ continuous level measurement products. Tracking level throughout your process is key for total control. With the Rosemount™ portfolio you will find reliable and accurate devices for level measurement to optimize your processes even in challenging applications.

**ROSEMOUNT** > 2051 | 3051 | 3100 | 5300 | 5400 | 5600 | Inventory Tank Gauging

**FISHER** > 249 | 2500 | DLC3010



#### Point

Point level detection is ideal for high and low level alarms, overflow prevention, pump protection, and pump control. It can also be used to simply indicate a full or empty state. Emerson's portfolio of point level measurement devices offers flexible installation options, ensuring the right fit for your application.

**ROSEMOUNT** > 2100 & 2500 Series



### Flame and Gas Detection

No matter how extreme or demanding the conditions, your people and facilities come first. That is why Emerson is dedicated to offering the most comprehensive and advanced flame and gas detection technologies available. Our integrated flame and gas monitoring systems are designed to excel under the toughest conditions to help you streamline day-to-day operations and, more importantly, keep your people safe.

**ROSEMOUNT** > 628 | 928 | 975 | SC310 | SC3 | ST | SC1100 | Ultrasonic





## NETWORKING

### Wireless Input/Output (I/O), Gateways & Modems

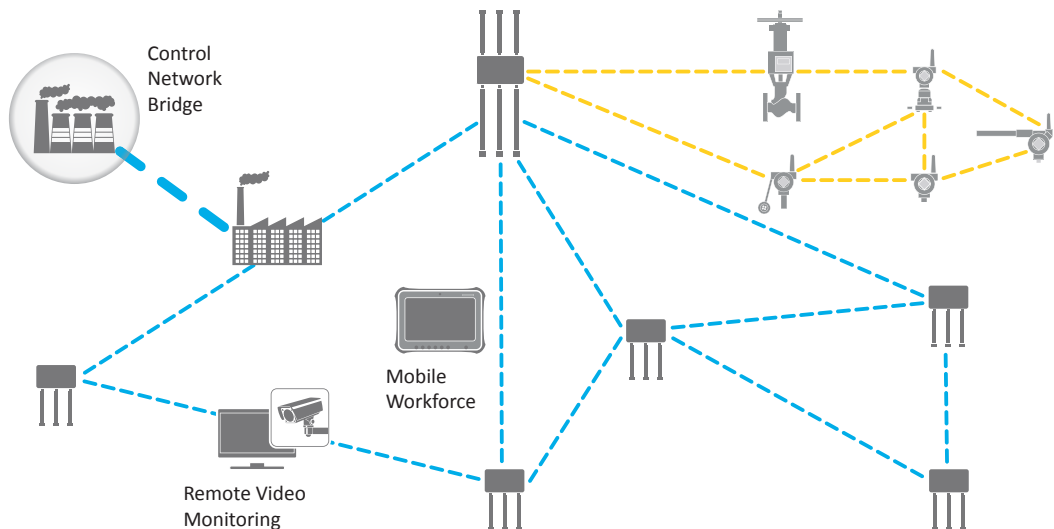
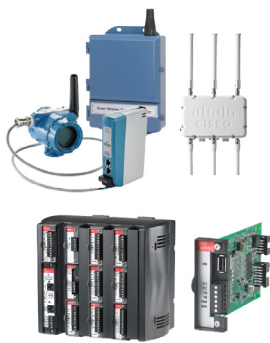


Wireless I/O, or Radio Telemetry, is a method of transmitting information over wireless links. Signals such as switch status or analog signals can be transmitted from a remote location to a monitoring or control system. Wireless I/O connects directly to analog, discrete and pulse transducer signals. The signals are transmitted by radio using ELPRO's intelligent wireless protocol. The signals are either re-created as output signals, or output via serial link or field-bus.

ELPRO > 415U | 915U | 215U | 115E | 105U | 905U | 505U | 905U | 105U | 905U | 115S |

### Emerson Wireless Technology

Our wireless solutions provide your facility with reliable, continuous data that improves safety, efficiency and the environment through monitoring of process measurement. And now you'll be able to monitor points that previously were too costly or unsafe to access.



### Beamex



We offer various calibrators, calibration software and related services. For calibrators we make pressure calibrators, temperature calibrators and electrical calibrators. Our calibrators come as portable calibrators or calibration benches for workshops. For calibration in hazardous Ex areas we make dedicated Ex calibrators. We combine field communicators in selected calibrators for you to have less to carry out in the field. Our calibrators are documenting calibrators enabling paperless calibration when used together with calibration software.

BEAMEX > MC2, MC4, MC6, FB, MB, Software

### Spartan

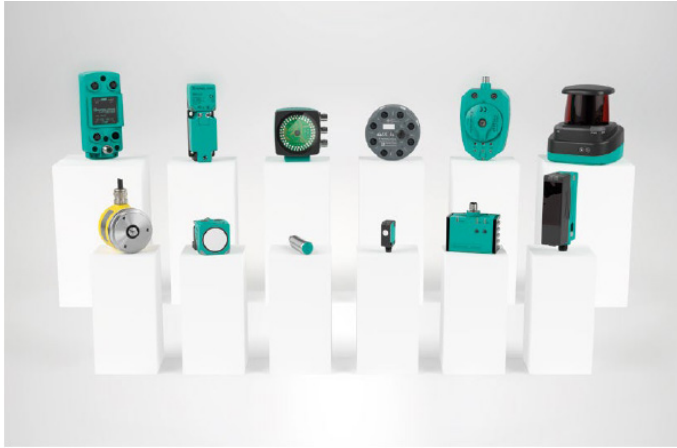


REM Technology Inc. (RTI) is a technology development company specializing in the optimization, monitoring, diagnostics and control of reciprocating machinery with emphasis on high reliability. RTI technology solutions come as packaged control systems with application software, application specific engine/compressor modifications and end devices matched to Customer needs.



## Industrial Sensors

Pepperl+Fuchs has been developing and distributing industrial sensors and sensor systems with the highest quality standards for use in automation technology. Our product portfolio of industrial sensors for factory automation is characterized by a high degree of innovation.



Proximity Sensors | Photoelectric Sensors | Industrial Vision | Ultrasonic Sensors | Rotary Encoders  
Positioning Systems | Inclination and Acceleration Sensors | Industrial Communication | Identification Systems | Displays and Signal Processing | Connectivity | Accessories | Software

## Explosion Protection



Intrinsic Safety Barriers | Signal Conditioners | FieldConnex Fieldbus Infrastructure  
Remote I/O Systems | HART Interface Solutions | Surge Protection | Wireless Solutions  
Intrinsically Safe Mobile Devices | HMI Systems | Electrical Explosion Protection Equipment  
Purge+Pressurization Systems | Power Supplies | Level Measurement | Software

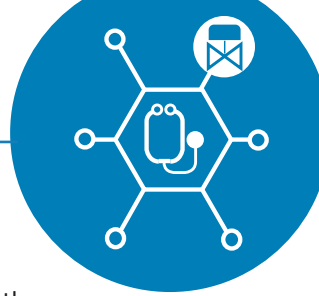
## Process Display Instrumentation

Process display instrumentation for use in hazardous and safe areas.

Loop Powered Indicators | Panel Meters Set Point Stations  
Rate Totalisers | Counters | Tachometers | Timers or Clocks  
Serial Text Displays | Fieldbus Indicators | Displays Flow Batch Controllers  
Indicating Temperature | Sounders & Beacons | LED Cluster Lamps







## VALVE CONDITION MONITORING

Optimization of control valve assets depends on an effective maintenance philosophy and program. Three of the most basic approaches are Reactive, Preventive and Predictive. Although both reactive and preventive programs work, they do not also optimize valve potential. Today, plant operators often extend the time between turnarounds to three or four years, and even longer, in order to maximize plant uptime. These extended run times offer less opportunity for traditional, out-of-service valve diagnostics.

Preventive maintenance represents a significant improvement, especially the use of micro-processor based valve instruments like Fisher FIELDVUE™ DVC6200 Digital Valve Controller. Leveraging in-service diagnostics capabilities has allowed companies to redesign their control valve maintenance work practices.

At Custom Controls, we can offer our valve condition monitoring services to assist you with gathering valve data, digesting information, and interpreting conditions into actionable items. We can help you move from Reactive, Preventive maintenance to Predictive maintenance using AMS valvelink software which can be plug-in to Emerson or other DCS.



### Stranded Diagnostics



### Diagnostics Tools & Analysis

- > Valve signature
- > Dynamic error band
- > Step Response
- > Friction
- > Supply air check
- > Actuator leakage
- > Partial Stroke Test
- > Sol Test
- > Drive Signal

### Field Diagnostic Alerts (NE107)

- Normal
- Maintenance required
- Out of specification
- Check function
- Failed

### Reactive to Predictive



Interpreting conditions into actionable items.



## EDUCATION SERVICES

Train new hires, improve your current workforce skills, or help your team adapt to new technology or products. Courses are offered through our local sales offices or at your facility. Check our websites for Courses and Schools time-table.

### CONTROL VALVES

Course 1300 - Control Valve Engineering I (Basic)

Course 1350 - Control Valve Engineering II (Advance)

Course 1400 - Control Valve Technician

### PRESSURE RELIEF VALVES

Course PRV101 - Pressure Relief Valve School

### PRESSURE REGULATOR TRAINING

Course REG101 - Pressure Regulator School

### FIELDVUE & INSTRUMENT TRAINING

Course 1751 - Fundamentals of FIELDVUE™ Digital Instruments & the Handheld Communicators

Course 1752 - ValveLink Software for ValveLink™ & Diagnostics for FIELDVUE™ Operation

Course 1759 - ValveLink™ & Diagnostics for FIELDVUE™ Data Interpretation





## LIFE CYCLE SERVICE

### OUR SERVICE CAPABILITIES

Custom Controls aims to be your one-stop headquarters for instrument and valve repair, equipment start-up services & commissioning, diagnostic services, and calibration. Through Custom Controls Life cycle Services we service valves, regulators, instruments, and almost any other control equipment in your operation. Either at your site or our service center near you, we can service your control equipment whether that equipment is manufactured by Fisher or by other major manufacturers.

We handle large planned outages & turnarounds and are standing by 24 hours a day, 365 days a year with factory-certified technicians in case of any planned or unscheduled events. We know that your repairs must be done safely, correctly and quickly so that your process is up and running with a minimum of lost production. Your Choice For a Service Partner 24 x 7 / 365. Whether your process is power production, hydrocarbon refining, oil and gas, chemical, or food processing, we will send qualified technicians with the experience and training to correct the problem.

#### Start Up & Commissioning

#### Shutdown, Turnaround & Outages

#### Onsite Troubleshoot

#### 24 x 7 / 365 - After Hours Support

#### Service and Repair

- > Control Valves & Regulators
- > Pressure Safety Relief Valves
- > Isolation Valves
- > Actuators
- > Instrumentation

#### Fisher Authorised Repair Associate



### SUPPORT > ENGINEERING | SERVICE CENTRES | LOCAL INVENTORY

At Custom Controls, we're dedicated to delivering technical support at any time and place you might need it. Whether it's startup services, comprehensive maintenance, or on-demand troubleshooting, our knowledgeable, results-oriented staff will help keep you operating at peak efficiency 24 hours a day, 365 days a year.

**Spares Parts** > Local Inventory on Parts and Full Valve Assembly

**QuickShip Program**> Local Inventory | ANZ Fisher LBP Inventory Network | QuickShip



 **PARTS**  
**By FISHER**  
Genuine Quality Parts ...Reliable Always





---

Local Business Partner

**AUCKLAND**  
**Custom Controls Ltd**  
3 Mahunga Drive  
Mangere Bridge  
Manukau 2022  
NEW ZEALAND  
T: +64 9 634 1391  
F: +64 9 636 5976

**NEW PLYMOUTH**  
**Custom Controls Ltd**  
38 Young Street  
New Plymouth 4310  
NEW ZEALAND  
T: +64 6 753 4444

**CHRISTCHURCH**  
**Custom Controls Ltd**  
2-11 Radius Loop  
Rolleston 7675  
NEW ZEALAND  
T: +64 3 390 0086