

Hazardous Area

IECEx approved Instrumentation, Over
Pressure & Asset Monitoring Products

Measurement Solutions Australia



BLANK PAGE

Contents

Level Instruments	4
Universal IV	4
USonic	4
DR7000	5
DR7100	5
ThePoint	6
Blocked Chute	6
ThePoint	6
Moisture Sensor	7
ThePoint	7
Water in Oil	8
UNI VI CM	8
Seperators	9
Desalter	9
Dumpstar	10
Water Well Level Monitor	11
CheckWell™	11
Vibration Monitoring	12
ST5484E	12
5550	12
5484C	13
SW6000	13
SETPOINT MPS	14
SETPOINT DPS	14
Pressure Transmitters	15
425X	15
Temperature Switches	16
TXR, TXL	16
Control Valves	17
Series II & III control valves	17
371MT7 Position Indicator	17
Rupture Discs	18
HPX and Sanitary HPX Rupture Discs	18
B.D.I.	18
Explosion Vent Panels	19
CFR & CFS	19

Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Level Instruments

Universal IV

Drexelbrook RF Admittance Level transmitter

Drexelbrook's Universal IV series of RF Admittance and RF capacitance level transmitters are suitable for liquids, slurries, granular and interface applications. The unique Cote-Shield™ electronics of the UNI IV enable the instrument to measure and thus ignore coatings that can alter or ruin other technologies. The UNI IV Can handle extreme pressure and temperature and is available with a large variety of wetted parts for corrosive or



Applications

- Liquids
- Slurries
- Granular
- Interface

IECEEx Hazardous area approvals

- Intrinsically safe: Ex ia IIC
- Explosion proof: Ex D [ia] IIC
Ex tD [ia] IIIC



USonic

Drexelbrook Ultrasonic Level transmitter

The USonic series of ultrasonic level transmitters offer high accuracy and long life. The patent SmartGain™ software automatically maps the internal obstructions to eliminate false echoes and unique pipe software enable measurements through long ferrules to open tanks or pits. Open channel flow is also available as standard.



Applications

- Liquids
- Slurries
- Open channel flow

IECEEx Hazardous area approvals

- Intrinsically safe: Ex ia IIC



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

DR7000

Drexelbrook Radar Level Transmitter

Ideal choice for long range or non-contact measurements too difficult for Ultrasonic type devices. The DR7000 an FMCW 26 GHz radar, offers state of the art design. The DR7000 is able to operate over a 2 GHz bandwidth: this ensures sharper resolution and higher accuracy.

Applications

- Liquids
- Slurries
- Granular

IECEEx Hazardous area approvals

- Intrinsically safe: Ex ia IIC
Ex iaD IIIC
- Explosion proof: Ex D IIC
Ex tD IIIC



DR7100

Drexelbrook Guided Wave Radar (TDR)

The DR7100 guided wave radar utilises a highly advances and narrow pulse width to capture thinner interfaces. This gives the user a higher accuracy and more reliable measurement that other guided wave products.

Applications

- Liquids
- Slurries
- Granular
- Interface

IECEEx Hazardous area approvals

- Intrinsically safe: Ex ia IIC
Ex iaD IIIC
- Explosion proof: Ex D IIC
Ex tD IIIC



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

ThePoint

Drexelbrook RF Admittance Level Switch

ThePoint range of RF Admittance level switches from Drexelbrook provide reliable level detection in just about any application imaginable. Patent Cote-Shield™ technology is used to ignore coatings and provide a maintenance free level switch for a wide range of application including level, interface, presence/absence flow, blocked chute and water in oil.

Applications

- Liquids
- Slurries
- Granular
- Interface
- Blocked chute
- Water in oil

IECEEx Hazardous area approvals

- Explosion proof: Ex D [ia] IIC
DIP A21
- Intrinsically safe: Ex ia IIC



Blocked Chute

ThePoint

Drexelbrook RF Admittance Level Switch for Blocked chute applications

Drexelbrook's range of blocked chute switches are designed with a flush mounted sensor and Cote-Shield™ technology to reliably detect blockages in the presence of build-up. The flush design ensures an unimpeded flow.

Applications

- Granular
- Presence/absence
- Blocked chute

IECEEx Hazardous area approvals

- Explosion proof: Ex D [ia] IIC
DIP A21
- Intrinsically safe: Ex ia IIC



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Moisture Sensor

ThePoint

Drexelbrook RF Admittance switch for reliable detection of moisture ingress

The advanced RF Admittance technology reliably detects the change in dielectric properties when water is introduced into a nonconductive medium. Ideal for leak detection on lubricating systems, gear boxes, storage tanks etc.

Applications

- Pump protection
- Gearbox oil
- Pipeline detection
- Sumps
- Hydraulics
- Lubrication systems

IECEX Hazardous area approvals

- Explosion proof: Ex D [ia] IIC
DIP A21
- Intrinsically safe: Ex ia IIC



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Water in Oil

UNI VI CM

Water in Oil analyser. Cut monitor.

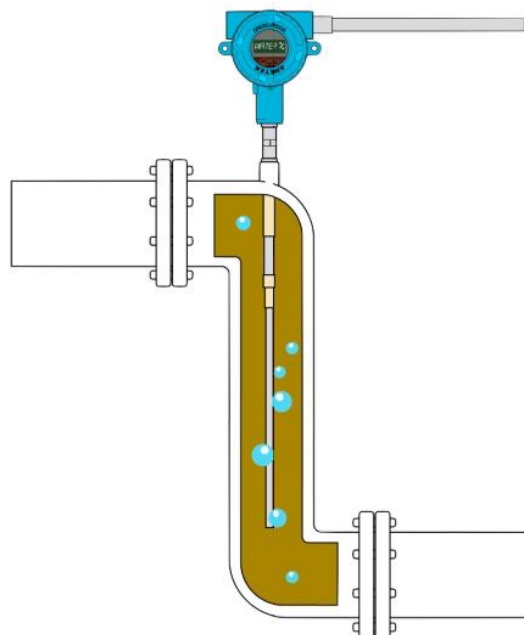
The Universal IV CM is a Water Cut Monitor that is built upon 50 years of applications expertise with RF Admittance. The Universal IV CM has a range of 0-50% in light oil and 0-80% in heavy oil. Our probes can handle pressures up to 10 MPa and temperatures up to 232°C.

Applications

- Automatic Well Testing (AWT)
- Lease Automatic Custody Transfer (LACT)
- Basic Sediment and Water (BS & W)
- Separation Vessels
- Pipeline Slug Detection
- Truck Unloading
- Pump Protection
- Dielectric Analysis
- Machinery Lube Oil Monitoring

IECEX Hazardous area approvals

- Intrinsically safe: Ex ia IIC
- Explosion proof: Ex D [ia] IIC
Ex tD [ia] IIIC



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Seperators

Desalter

Interface measurement for electrostatic separators

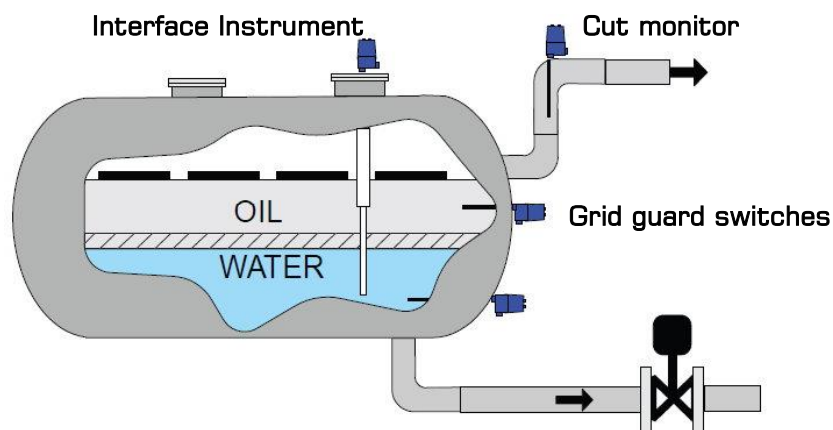
The Desalter Interface Transmitter provides an excellent solution for control of vessels that use electrostatic grids to accelerate separation. The Desalter Interface Transmitter accurately measures the electrical interface of the emulsion during normal and abnormal conditions. This measurement is critical because the separation vessel operates at maximum efficiency when the electrostatic grid is close as possible to the interface.

Applications

- Electrostatic separators
- Coalescers

IECEX Hazardous area approvals

- Intrinsically safe: Ex ia IIC
- Explosion proof: Ex D [ia] IIC
Ex tD [ia] IIIC



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Dumpstar

Retractable interface level switch for controlling water dump.

You can depend on Drexelbrook point level controls to help cut costs by increasing your operating efficiency by controlling water dump more precisely. Installation is easy and does not require the vessels to be empty. The electronic unit is integral with a retractable sensing element for simple insertion into existing block valves.

Applications

- Electrostatic separators
- Coalescers

IECEX Hazardous area approvals

- Explosion proof: Ex D [ia] IIC
DIP A21
- Intrinsically safe: Ex ia IIC



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Water Well Level Monitor

CheckWell™

Level measurement of wells and boreholes

The CheckWell™ Level Monitor, using field-proven RF technology with the convenience of “smart” technology to provides a dependable, low-cost, continuous measurement of level or drawdown in production, monitoring, observation, extraction, and remediation wells.

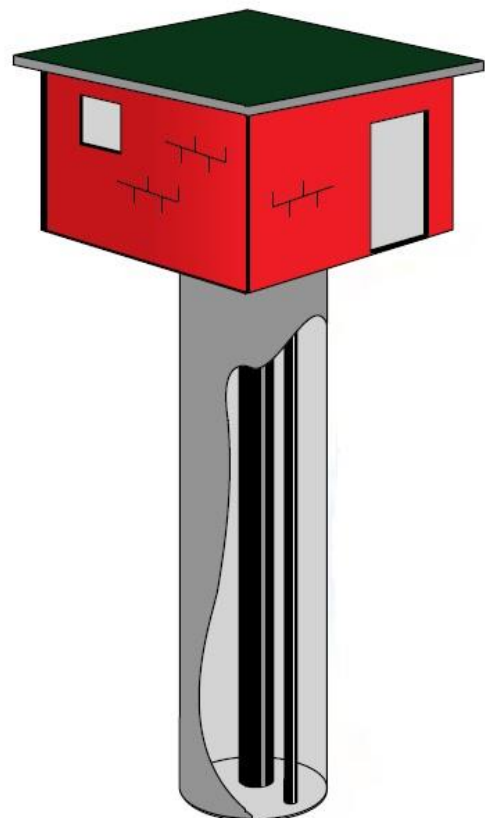
CheckWell™ is unaffected by changes in salinity, density, oil layer on water and electrical noise.

Applications

- Wells
- Borehole
- Dewatering

IECEX Hazardous area approvals

- Intrinsically safe: Ex ia IIC
- Explosion proof: Ex D [ia] IIC
Ex tD [ia] IIIC



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Vibration Monitoring

ST5484E

Metrix vibration transmitter

Metrix's ST5484E is a premium, true RMS, vibration transmitter. The ST5484E provides high accuracy over a wide frequency range and can be mounted directly on the machine case or bearing housing. Aside from the 4-20 mA output a buffered dynamic data output can be provided for connection to vibration analysers or condition monitoring equipment.

Applications

- Rotating equipment
- Reciprocating compressors
- Bearing monitoring

IECEX Hazardous area approvals

- Intrinsically safe: Ex ia IIC
- Explosion proof: Ex D IIC



5550

Metrix Vibration Switch

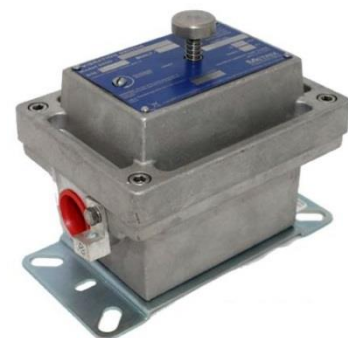
A simple yet highly reliable snap action mechanism is at the heart of the 5550 vibration switch. The proven design offers basic shutdown capability for many base of plant machinery including fans, pumps and blowers. The 5550 Vibration switch is available in IP66 and NEMA 4X housings and can be optioned for IIC environments. Remote reset and start up delays are also options.

Applications

- Rotating equipment
- Reciprocating compressors

IECEX Hazardous area approvals

- Explosion proof: Ex D IIB+H2 or Ex D IIC
Ex tb IIIC



Industrial Instrumentation, Over Pressure & Condition Monitoring

Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

5484C

Metrix high temp vibration transmitter

The 5485C employs a zero friction coil suspension for clean, accurate and repeatable vibration measurements over a wide range of amplitude and frequency. They are constructed to operate continuously at elevated temperatures. The 5485C is the common choice for turbine monitoring and other high temperature applications.

Applications

- High temp vibration monitoring
- Turbines

IECEX Hazardous area approvals

- Intrinsically safe: Ex ia IIC



SW6000

Electronic Vibration Switch

This electronic switch is a versatile excessive vibration protection instrument. In its standard configuration, the SW6000 is an economical single set point vibration switch loaded with standard features and packaged in industrial grade housing.

Fully configured, the SW6000 provides for local machine control with optional LCD readout, real time remote operator interface via 4-20 mA and an external BNC (weather-proof only) for easy analyst access to the buffered dynamic vibration signal. Optional hazardous area certifications.

Applications

- Rotating equipment
- Reciprocating compressors

IECEX Hazardous area approvals

- Explosion proof: Ex D IIB+H2



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

SETPOINT MPS

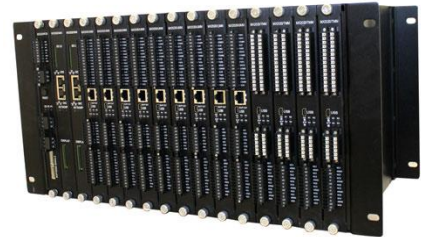
Machinery Protection system

The SETPOINT system features up to 56 channels of vibration monitoring or 84 channels of temperature and process variable monitoring in any mix. 4-, 8-, and 16-slot rack sizes provide maximum flexibility with options for panel, 19" EIA, and bulkhead mounting. An optional door and touchscreen display can be mounted such that wiring can land on the front or back of the rack, maximizing installation flexibility.



Applications

- Turbines
- Compressors
- Pumps
- Fans
- Gearbox/motors



IECEEx Hazardous area approvals

- Non sparking: Ex nA IIC



SETPOINT DPS

Digital Proximity System

The world's first digital proximity probe system. Fully programmable. Fully digital. Fully API 670-compliant. Fully awesome. Now, a single programmable device can be configured to work with nearly any probe/cable/target-material combination, and supports probes from a variety of manufacturers including Metrix and Bentley Nevada. Available in both a 4-20mA transmitter version and a 200mV/mil probe driver version.



Applications

- Turbines
- Compressors
- Pumps
- Fans
- Gearbox/motors

IECEEx Hazardous area approvals

- Intrinsically safe: Ex ia IIC¹
- Non Sparking: Ex nA IIC¹



Industrial Instrumentation, Over Pressure & Condition Monitoring

Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Pressure Transmitters

425X

Barksdale Explosion proof pressure transmitter

The explosion proof 425X pressure transmitter from Barksdale offers superior EMS, ESD and RFI protection in a rugged, all stainless steel, housing. Temperature compensation is standard.

These transmitters are ideal for monitoring in hazardous, harsh or corrosive environments

Applications

- Oil & gas pipelines
- Oil patch
- Petrochemical plants
- Refineries
- Pulp and paper mills

IECEX Hazardous Area Approval

- Explosion proof: Ex d IIC
Ex tb IIIC



445

Barksdale Intrinsically safe pressure transmitter

Offering the same EMI, ESD and RFI resistance of the 425X in an intrinsically safe, IECEx approved, package.

Applications

- Oil & gas pipelines
- Oil patch
- Petrochemical plants
- Refineries
- Pulp and paper mills

IECEX Hazardous Area Approval

- Intrinsically safe: Ex ia IIC
Ex ia IIIC



Industrial Instrumentation, Over Pressure & Condition Monitoring

Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Temperature Switches

TXR, TXL

Barksdale temperature switch

Explosion proof temperature switches for remote or local installation and conform to MIL-STD 202F and MIL-STD 901C for vibration and shock.

These thermostats are ideal for freeze protection or temperature control in hazardous applications

Applications

- Compressors
- Heat trace
- Ambient detection

IECEEx Hazardous Area Approval

- Explosion proof: Ex d IIC
Ex tb IIIC
- Intrinsically safe: Ex ia IIC (Simple apparatus)
Ex ia IIIC (Simple apparatus)



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Control Valves

Series II & III control valves

Barksdale pneumatic and hydraulic control valves

For over 50 years, Barksdale Shear-Seal® technology has proven to be dependable in the toughest industrial applications. This is the same sealing technology utilized in the Series II valve family which allows media to flow through internal galleries in the sealing components rather than across sensitive sealing faces. Therefore, metallic particles or other contaminants commonly found in fluid power systems are handled with ease and without causing damage that can lead to leakage.

The Series II valve is constructed of bronze and stainless steel, providing superior corrosion resistance in marine service and other harsh industrial environments. Internal components are hardened 400 Series Stainless Steel providing compatibility with most common medias.



Applications

- Fluid/gas control
- BOP
- Refineries and chemical processing plants

371MT7 Position Indicator

Barksdale position indicator for Series II & III actuated valves

The 371MTT7 provides reliable valve position feedback for Series II & Series III-L Valves.

Applications

- Remote indication

IECEX Hazardous area approval

- Intrinsically safe: Ex ib IIC
- Explosion proof: Ex d IIC
Ex tb IIIC



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Rupture Discs

HPX and Sanitary HPX Rupture Discs

Continental Rupture Discs with true 95% operating ratio

The HPX® Rupture Disc is a scored, reverse acting rupture disc. It is a differential pressure relief device that provides an instantaneous full-open, non-reclosing design for protecting equipment, vessels and systems from an overpressure condition. The HPX® Rupture Disc is a high precision reverse acting rupture disc that offers proven performance in excess of 250,000 cycles at 95% operating ratio.

Applications

- Over pressure protection
- Fail safe relief



B.D.I

Universal Burst Disc Indicator

Continental Disc Corporation's Burst Disc Indicator (B.D.I.) Alarm System is designed for use with C.D.C. Rupture Discs. Upon disc rupture, the Burst Disc Indicator strip is severed, disrupting the flow of electric current through the strip. An attached alarm monitor can then transmit a warning and/or activate appropriate equipment.



Applications

- Ruptured disc detection

IECEX Hazardous area approval

- Intrinsically safe: Ex ia IIC (simple apparatus)

Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481

Explosion Vent Panels

CFR & CFS

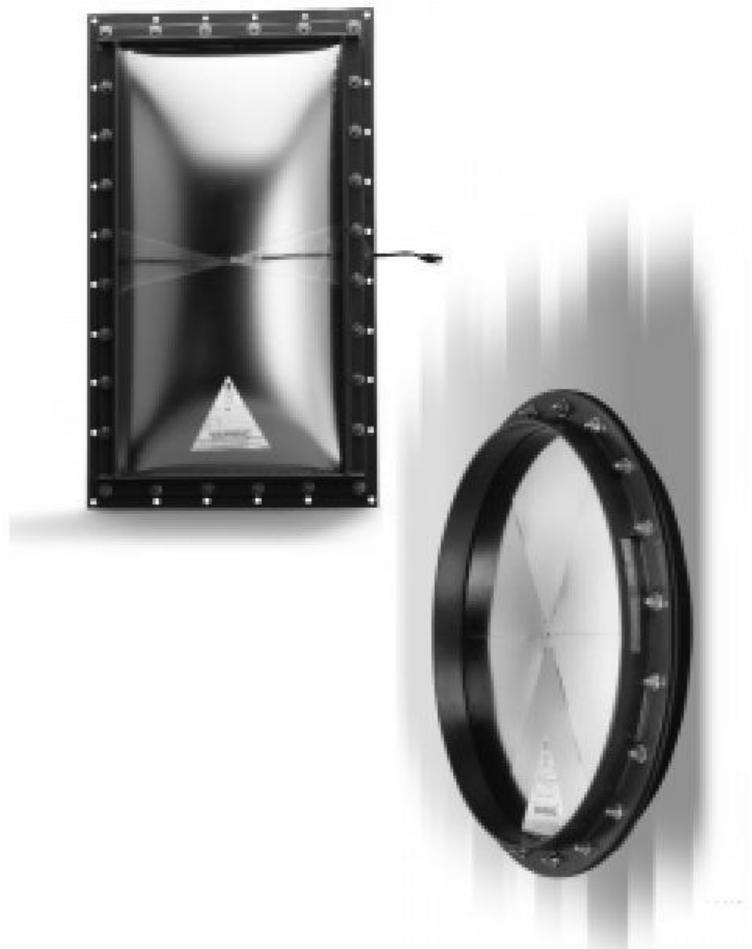
Vent and Explosion Panels

Continental Disc's vent panels are designed to provide instantaneous overpressure protection for pressurized equipment like dust collectors, driers, silos, spreaders, elevators, air scrubbers, sieves, and other various types of dry, bulk handling and storage equipment.

The vent panels are designed to allow a full and immediate opening to minimize structural or mechanical damage that maybe caused by expanded gases, which can result from the deflagration or dust, gases, or mists in equipment, rooms, buildings, or other enclosures.

Applications

- Over pressure protection
- Relief of expanding gasses
- Protection of silos
- Protection of electrical panels



Industrial Instrumentation, Over Pressure & Condition Monitoring

□ Unit 39/10 Gladstone Road Castle Hill NSW 2154 Australia ■ Phone: (02) 9894 4300 ■ Fax: (02) 9894 4301
■ sales@measurement-solutions.com ■ www.measurement-solutions.com ■ ABN: 82 002 914 481



Measurement Solutions

Measurement Solutions specialises in the application and supply of process measurement sensors, switches, transducers, direction control valves, condition monitoring and over pressure protection equipment. We have a commitment to the application of sound engineering principles and to supply quality assured products in our endeavour to provide the most appropriate solution to your process measurement or over pressure application.

Toll Free: 1800 623 303
Head Office

Address

39/10 Gladstone Road
Castle Hill NSW 2154

Postal address

PO BOX 6826
Baulkham Hills BC NSW 2153

Phone: (02) 9894 4300

Fax: (02) 9894 4301

Email: sales@measurement-solutions.com

Web: www.measurement-solutions.com