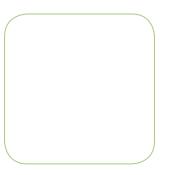
ACADÖRSODOTECH



Measure, Monitor and Control For The Process Industries





Product Overview 2019

Butterfly Valves

Solenoid Valves

Piston Actuated Angle Seat Valve

Modulating Angle Seat Control Valve

Ball Valves

Pneumatic Actuators

E/P, P/P Positioners

Electric Actuators

Pressure Transmitters / Switches

Rotameters

Level Transmitters / Switches

- Flow Switches Analytical Transmitters Temperature Gauges
- Temperature Transmitters
- Pressure Gauges / Chemical Seals















Metal Butterfly Valves



- · Wafer pattern, through shaft with or without pin design
- · Unique cartridge seat design offers easy seat replacement on site · Manually operated by lever or gear or can be retrofitted with pneumatic
- or electric actuator for automated process application
- · Operating pressure up to 16 bar with face to face according to API609, BS5155, DIN3202, ISO5752
- Body material in Cast Iron, Ductile Iron, SS304 or SS316 stainless steel, disc material in SS304 or SS316 stainless steel, seat material standard EPDM (PTFE on request)
- Nominal size from DN40 to DN600mm
- · Lug type, double flange and eccentric design on request

Solenoid Valves for Process



- 2/2 way solenoid valve
- · General purpose version
- Brass body with NBR seal (Stainless steel body and EPDM or FPM seal on request)
- · Servo-assist diaphragm type with pressure range from 0.15 bar up to 15 bar differential
- · Assisted lift type diaphragm type with pressure range from 0 bar up to 12 bar differential
- · Sizes from G1/4" to G3"
- Standard voltages 24VDC, 24VAC, 110VAC and 230VAC
- Ex version and special version on request

Piston Actuated Modulating Control Valve



- 2/2 way modulating control valve with smart digital positioner
- Normally Closed water hammer free flow below seat design
- · Linear or Equal percentage plug with PTFE seal
- 316L Stainless steel body with PTFE seal Media temperature up to +180°C
- Media pressure range up to +16 bar differential (Vacuum application up to 10⁻² mbar)
- Sizes from DN15 to DN50
- Threaded, tube weld ends, flanges or clamp ends connection
 Actuator housing can be rotated 360° for ease of pneumatic line installation
- Smart positioner with LCD display and auto calibration
- Front panel push buttons for easy configuration
 Fail Freeze or Fail Safe functions and optional 4 to 20 mA feedback signal
- Suitable for water, oil, aggressive media and steam application
- Sanitary version with wetted polished wetted surface for utility service

Plastic Butterfly Valves



- · Bi-Directional Centric Plastic Butterfly Valves
- FIP FE uPVC butterfly valve
- · For shut off or flow regulation
- · Wafer pattern through shaft design (Lug version on request)
- Stem completety isolated from fluid
- · Manually operated by lever or retrofitted with pneumatic or electric actuator for automated process application
- DN40 to DN200
- PN16 (DN40 to DN50), PN10 (DN65 to DN200) with water at 20°C
- Suitable for mounting between DIN and ASTM flanges
- uPVC valve material with EPDM seat (other material on request)

Solenoid Valves for Pneumatic



- 3/2 way and 5/2 way Solenoid Valves with Namur interface
- Individual or Gang mount 3/2 way and 5/2 way Solenoid Valves with Standard port. Extendable aluminum base for gang mounting
- High quality anodized aluminum body with stainless steel spool with special sealing for high reliability without stick slip effect
- Air inlet port G1/4" to G1/2" connection sizes
- · Available in Single or Double coil version with Standard voltages of 24VDC, 24VAC, 110VAC and 230VAC
- Operating pressure range from 2 to 10bar with Flow rate (QNn) of 1250l/min (G1/4") to 3000l/min (G1/2")
- · Manual override standard for all valves
- · Ex version available on request

Piston Actuated On/Off Valve



- 2/2 way Piston Pneumatic Actuated valve with Normally Closed, Normally Open or Double Acting function
- · Flow above seat or Bi-directional flow with water hammer free design
- · 316L Stainless steel body with PTFE seal (Bronze body with PTFE seal on request)
- Media temperature up to +180°C
- Media pressure range up to +16 bar differential (Vacuum application up to 10⁻² mbar)
- · Sizes from G1/2" to G2"
- Actuator housing can be rotated 360° for ease of pneumatic line installation
- · Suitable for water, oil, aggressive media and steam application
- · Sanitary version with wetted polished wetted surface for utility service



Plastic Ball Valves



- Double True Union Design Plastic Ball Valves
- FIP DUAL BLOCK® 2 way ball valve
- Patented lock system that ensures union nut tightening hold even in severe conditions such as vibrations or heat dilation
- Manually operated by lever or retrofitted with pneumatic or electric actuator for automated process application
- DN10 to DN50 (up to DN100 on request)
- PN16 with water at 20°C
- Connection available in Socket to DIN, ASTM or JIS (Spigot ends on a subscript). Threaded to DSD NDT or Dis Florend to DIN ANOL or US
- request), Threaded to BSP, NPT or Rc, Flanged to DIN, ANSI or JIS • uPVC valve material (PP, PVDF on request) with PTFE seat and EPDM seal (FPM on request)

2 pcs Design Ball Valves



- 2 pcs design full bore threaded ends ball valve
- Manually operated by lever (with locking device) or can be retrofitted with pneumatic or electric actuator for automated process application
- Blow out proof stem with self compensating stem seal design
- Body, ball and stem material in SS316 stainless steel (SS304 on request) with PTFE/FPM seat and seal.
- Nominal size from DN15 to DN100 mm
- Operating pressure up to PN100
- Connection available in BSP or NPT thread
- · Option available include oil and grease free version

3 Way Ball Valves



- 4 pcs design reduced bore 3/2 way ends ball valve (5 pcs design full bore type on request)
- Manually operated by lever (with locking device) or can be retrofitted with pneumatic or electric actuator for automated process application
- Blow out proof stem with self compensating stem seal design
- Body, ball and stem material in SS316 stainless steel (SS304 on request) with PTFE/FPM seat and seal. Special high temperature high pressure seat on request
- Nominal size from DN15 to DN50 mm (larger size on request)
- Operating pressure up to PN63 (1000 WOG)
- Connection available in BSP or NPT (flanged ends version on request)

3 pcs Design Ball Valves



- 3 pcs design full bore ball valve
- Manually operated by lever (with locking device) or can be retrofitted
 with pneumatic or electric actuator for automated process application
- Blow out proof stem with self compensating stem seal design
- Body, ball and stem material in SS316 stainless steel (SS304 on request) with PTFE/FPM seat and seal. Special high temperature high pressure seat on request
- Nominal size from DN15 to DN100 mm
- Operating pressure up to PN63 (1000 WOG)
- Connection available in BSP, NPT, Butt weld, Socket weld
- Option available include anti static, fire proof, cavity filled seat, oil and grease free version

Flanged Ball Valves



- 2 pcs design full bore flanged ends ball valve
- Manually operated by lever (with locking device) or can be retrofitted with pneumatic or electric actuator for automated process application
- Blow out proof stem with self compensating stem seal design
- Body, ball and stem material in SS316 stainless steel (SS304 on request) with PTFE/FPM seat and seal. Special high temperature high pressure seat on request
- Nominal size from DN15 to DN150 mm
- · Operating pressure in accordance to flange rating
- Flange connection standard available in ANSI, DIN and JIS standard
- Option available include anti-static, fire proof, cavity filled seat, oil and grease free version

Special Design Ball Valves

(example Tank Bottom, Cryogenic, V Port, Cavity Filled)



- · 3 pcs body V port design ball valve for modulating control application
- Cryogenic version for low temperature application
- Tank Bottom Valve for direct installation to base of tank
- High pressure (up to 4,000 psi) version
- · Cavity filled seat version for low dead volume requirement
- Tri-clamp version for sanitary connection
- Internal and/or external polish version
- Version without ISO mounting pad
- Low cost 1 pc body reduced bore version
- Manual operated version retrofitted with limit switch box
- Complete fully assembled and tested valve system

Pneumatic Rotary Actuators



- · Rack and pinion design rotary quarter turn pneumatic actuator
- Double Acting or Spring Return Version
- · ISO5211, DIN3337 and Namur interfaces for easy mounting to valve, limit switch box and positioner
- Suitable for indoor and outdoor application
- Torque output from 3Nm to 13,024Nm (DA version) and 4Nm to 6,584Nm (SR version)
- · Aluminium alloy housing with nickel plated pinion
- Travel angle 90° with travel stop adjustment of $\pm~5^\circ$
- · Operating pressure from 2 bar up to 8 bar at temperature from -20°C
- to +80°C · Can be retrofitted to any metal or plastic quarter turn valves, example ball valve, butterfly valve

Positioners, Smart Positioners



- · Electro-Pneumatic or Pneumatic-Pneumatic version
- · Linear or Rotary version
- Single acting or Double acting function
- Input signal 4 to 20 mA (E/P version) or 3 to 15 psi (P/P version)
- · Supply pressure 1.4 to 7 bar
- Protection class to IP66
- · Aluminium diecast housing
- Linearity ± 1% FS (SA version), ± 2% (DA version)
- Hysteresis ± 1% FS
- Repeatability ± 0.5% FS
- Sensitivity ± 0.2% FS (SA version), ± 0.5% FS (DA version)
- Option available include position feedback transducer, limit switches,
- Ex version, full stainless steel version, dome cover visual indicator

UM Series Electric Rotary Actuators



mit-UNID-cns

- UM Series Rotary quarter turn electric actuator for quarter turn valve
- On/Off or Continuous control version
- 24 Hours Operating, 100% Duty Cycle version on request
- · Compact high torque motor with overheat protection device
- Manual override by wrench or handwheel
- · Self-locking function by worm and wormgear
- · Mounting interface dimension in accordance to ISO5211
- Mechanical position indicator and Limit switches for Open/Close
- position feedback

Pneumatic Actuator Accessories



- · Limit switch box for position feedback
- Aluminium die-cast housing with polycarbonate visual position indicator Weather proof to IP67 (Ex-version available on request) Standard with 2 x SPDT mechanical switches with rating of 250VAC/16A, 30VDC/10A (proximity switches and positioner transducer version on request)
- · Air Filter Regular with pressure gauge Various sizes and capacities available
- · Declutchable manual override gearbox
- Various operating torque sizes to match different sizes of actuator Pilot 3/2 way and 5/2 way Solenoid Valves
- G1/4" to G1/2" connection sizes with Namur interface Standard voltages 24VDC, 24VAC, 110VAC and 230VAC

JMO Series Electric Rotary Actuators



- · Rotary quarter turn electric actuator for quarter turn valve
- · On/Off or Continuous control version
- · Squirrel cage asynchronous motor with stall protection
- Manual override standard
- · Self locking function by worm and wormgear
- Mounting interface dimension in accordance to ISO5211
- · Limit switches for Open/Close position feedback
- Torque output from 30Nm to 1,000Nm
- · Aluminium alloy housing with steel/aluminium bronze gear
- Travel angle 90° with ± 10° adjustment
- · Available in standard voltage of 24VDC, 110VAC and 220VAC
- · Can be retrofitted to any metal or plastic quarter turn valves, example ball valve, butterfly valve



- · Mechanical position indicator and Limit switches for Open/Close position feedback
- Torque output from 90kgf-cm to 30,000kgf-cm
- Nylon PA6 or Aluminium alloy housing
- Travel angle 90° (special angle on request)
- · IP67 rated waterproof and dustproof enclosure Available in standard voltage of 24VDC, 24VAC, 110VAC and 220VAC
- · Can be retrofitted to any metal or plastic quarter turn valves, example ball valve, butterfly valve



Pressure and Differential Pressure Switches



- Diaphragm, piston and bellow type sensing element
- Choice of die cast aluminum or steel plate enclosure with AISI 316L, AISI 304 or bronze wetted material
- Protection IP32 or weather proof IP66
- Adjustable setpoint
- Choice of different pressure range up to 40 bar
- 1 SPDT micro switch rated 15A (250VAC) and 0.2A (220VDC)
- 1/4", 3/8" NPT or BSP female or male connection
- Many options are available. Example different process connection, pressure range, temperature range, material, scale or protection

Pipeline Metal/Glass Rotameters



- Stainless steel SS304 body construction, glass tube with laminated glass cover, float material of SS304 stainless steel or PTFE
- Suitable for air and liquid and for indoor and outdoor application
- Robust design, easy to install and maintain
- Wide choices of scaling range with accuracy of ±5%
- Working pressure up to 10 bar and up to 120°C media temperature
 Sizes available from DN15 to DN100mm with connection in flanged
- ends or threaded ends
- Options available include customized scale range, SS316 stainless steel body and float. Different flange and thread standard are available on request

Level Float Switches



- · Simple design float switches for easy installation and usage
- High reliability
- Available in stainless steel and plastic material
- Horizontal and vertical version
- SPST NO/NC contact with rating of AC250V/5A
- Process connection from 1/8" to 1/2"
- Working pressure up to 15 bar and temperature up to 80°C
- Protection class to IP68
- Available in single point or multi-point configuration
- Custom make level system to meet special application available on request

Pressure Transmitters



- Ceramic Sensor or Straingauge sensing element for extremely low hysteresis and high repeatability
- Pressure range gauge or absolute from -1 to 0 up to 0 to +600 bar
- Standard output signal 4 ... 20mA
- Power supply 12 to 32 VDC
- Accuracy of ± 0.5% or ± 0.25%
- Working temperature up to +200°C (with high temperature type)
 1/4" or 1/2" NPT or BSP threaded connection or ferrule 11/2" for sanitary application
- Options include add-on digital display module available for local display, 0 ... 10 VDC, 1 ... 5 VDC or 0 ... 5 VDC output

Pipeline Plastic Rotameters



- Acrylic or plastic molded housing, polycarbonate tube, PP, SS304 stainless steel or uPVC connectors with SS304 stainless steel or ABS float
- Idea for clean water and suitable for indoor and outdoor application
- \bullet Dual scale range with accuracy of $\pm 5\%$
- Working pressure up to 6 bar and up to 55°C media temperature
- Connection available from 1/2" to 2" NPT/BSP threaded or socket ends from Ø20 to Ø75mm for plastic connection.
- Options available include customized flow range, FKM seal and SS316 stainless steel float
- Alarm Switches also available for high or low or both alarm positions. These can be retrofitted on to series 717, Z500, Z6000 and FA40 pipeline rotameter. 24V power supply, Max 0.3A current, working temperature up to +55°C. Protection class to IP65

Flow Switches



- Paddle principle flow switch for detecting liquid flow and no flow condition in pipe
- Paddle length can be cut at site depending on flow rate required
- Aluminium Alloy housing and SS304 stainless steel paddle
- Suitable for media temperature up to +150°C and pressure up to max. 24 bar
- Low pressure drop of 0.2 bar
- SPDT magnetic reed contact with rating of 30W / 200VDC
- Connection in 1/2" BSPT
- Protection class to IP65



Level Transmitters





- Non-contact microwave, 2 wire, compact or integrated design,
- measuring range up to 23m
 Guided microwave, 2 wire, rod or cable probes, compact design, measuring range up to 24m
- Capacitive, 2 wire, fully or partly insulated probes, compact design, measuring range up to 20m
- Hydrostatic, 2 wire, compact with stainless steel diaphragm with measuring range up to 400 bar or 2 or 3 wire submersible type with measuring range up to 200m
- Magnetostrictive, 2 wire compact type, wetted parts in stainless steel or plastic with measuring range up to 15m
- Ultrasonic, 2 or 4 wire compact or integrated design, measuring range up to 25m for liquid and 60m for solids
- Ex version available on request

Analytical Transmitters



- pH/ORP 2 wire compact or integrated transmitters. Separated version up to 10m. Temperature compensated. Process temperature up to +100°C. Process pressure up to 16 bar. Measuring range; pH 0 to 14 pH; ORP +/- 1000 mV. 4 to 20mA and relay output
- Conductivity 2 wire mini compact transmitters. Process temperature up to +70°C. Process pressure up to +16 bar. Measuring range 1 to 20μS/cm; 10 to 200μS/cm and 100 to 2000μS/cm. 4 to 20mA output
- Dissolved Oxygen 2 wire compact transmitters. Separated version up to 10m. Temperature compensated. Process temperature up to +50°C. Process pressure up to +1bar. Measuring range 0 to 10ppm and 0 to 20ppm. 4 to 20mA and relay output
- · ATEX approval for some types on request

Temperature Gauges



- All stainless steel construction for demanding application and harsh
 environment
- Bi-metal strip coil sensing element with choice of stem length from 85 to 300 mm (special length on request)
- AISI 316L stainless steel stem with AISI 304 casing
- Available dial face Ø 50, 80, 100, 150 mm
- Scale range from 0 ... 100°C to 0 ... 500°C
- 1/4" NPT or BSP connection with center back, bottom mounting
- Options available include shatterproof glass / safety glass, custom designed dial face, thermowell in AISI 304 or AISI stainless steel, remote version with capillary, "any angle dial face" version for easy readout



- Complete range of level switches with different working principles
 Low cost PP Float type, hermetically moulded, double chamber, for
- potable water to sewage in tanks or sumps, max. 1 bar
- · Conductivity with rod probes up to 3m, for conductive liquids
- Magnetic, coupling types, side or top mount, for liquids with min. 0.7 kg/dm³ density or tracking types with up to 5 switch points, for liquids density of 0.4 or 0.8 kg/dm³
- Vibration Rod, no moving parts, solid rod or flexible cable extension up to 20m, ideal for granular and powder with min. 0.05 kg.dm³ bulk density
- Vibration Fork for liquids, no moving parts, standard length or solid rod extension up to 3m, various output and connections options, suitable for corrosive, thick, turbulent and flowing liquids with min. 0.7 kg/dm³ density and max. 104 mm²/s viscosity
- Vibration Fork for solids, no moving parts, standard length or solid rod extension up to 3m, various output and connections options, suitable for granular material particulate and powder with min. 0.01 kg/dm³ bulk density
- RF-Capacitance, intelligent electronic level switch, easy calibration, rod or cable extended versions up to 10m, for solids and liquids with min. relative dielectric constant 1.5
- · Ex version available on request

Ultrasonic Level Transmitters

HONDA ELECTRONICS CO.,LTD.



- Non contact ultrasonic principle for liquid & powder level measurement
- \cdot Compact or 2 input channel remote version with accuracy \pm 0.25% FS
- Wide measuring range from 0.15m ... 4.0m up to 0.3m ... 10m
- (compact) and 0.06m ... 0.45m up to 1.2m ...60m (remote)
 Rich information display by graphic LCD covering TOP distance, BOTTOM level, Current output and Reflected waveform for easy installation and maintenance
- Sensor housing in PP (compact), PP, PVDF and PVC (remote)
- Power supply 24VDC, output 4...20mA (compact) / 100 to 240VAC,
- output 4...20mA, 250VAC/5A relay contact (remote) • Configurable for Open Channel Flow Measurement application

Temperature Transmitters



- Stem type thermal resistance RTD with or without thermowell
- AISI 304 or 316 stainless steel stem with aluminum die cast housing
- AISI 304 or AISI 316 thermowell option
- Various temperature range available, from -200 up to +1600°C with accuracy of ≤0.5% FS
- Power supply 12 to 30VDC with 4 to 20 mA output
- 1/4" NPT or BSP male connection, Tri-Clamp and many other connections on request



General Purpose Pressure Gauges for non-aggressive media



- · Economical for general industrial application
- Copper alloy bourdon tube with powder coated steel or AISI 304 casing
- Available dial face Ø 40, 50, 63, 80, 100, 150 and 250 mm
- · Dual scale dial face
- Scale range from -1 ... 1 kg/cm² to 0 ... 400 kg/cm² (-30 inHg to 0 ... 6000 psi) with accuracy of \pm 1.6% F.S (\pm 2.5% F.S. for dial face 40 & 50 mm)
- 1/4" NPT or BSP connection with center back, lower back, bottom or push fit type mounting
- Options available include shatterproof glass / safety glass, liquid filled, chemical seal and custom designed dial face

All Stainless Steel Pressure Switches / Gauges



- DIN electrical connector
- Single or double contacts
- CE & ATEX approved electrical contacts
- AISI 316L bourdon with AISI 304 casing
 Available dial face Ø 100, 150 mm
- Wide measuring range available (similar to 721AL)
- ± 1.0% F.S Accuracy (according to EN 837-1) Contact setting arc of 270° over scale range
- 1/4" NPT or BSP connection with bottom mounting
- Options available include liquid filled, dual scale dial face, custom designed dial face and chemical seal

Pressure Gauges for aggressive media



- · All stainless steel construction for demanding application and harsh environment
- · AISI 316L stainless steel bourdon tube and wetted parts with AISI 304 casing
- Available dial face Ø 50, 63, 80, 100, 150, 200 and 250 mm
- Scale range from -1 ... 1 kg/cm² to 0 ... 1000 kg/cm² (-30 inHg to 0 ... 15000 psi) with accuracy of \pm 1.6% F.S (\pm 2.5% F.S. for dial face 50 mm)
- 1/4" NPT or BSP connection with center back, lower back, bottom or push fit type mounting
- · Options available include shatterproof glass / safety glass, liquid filled, chemical seal and custom designed dial face

Pressure Gauges with Plastic Case

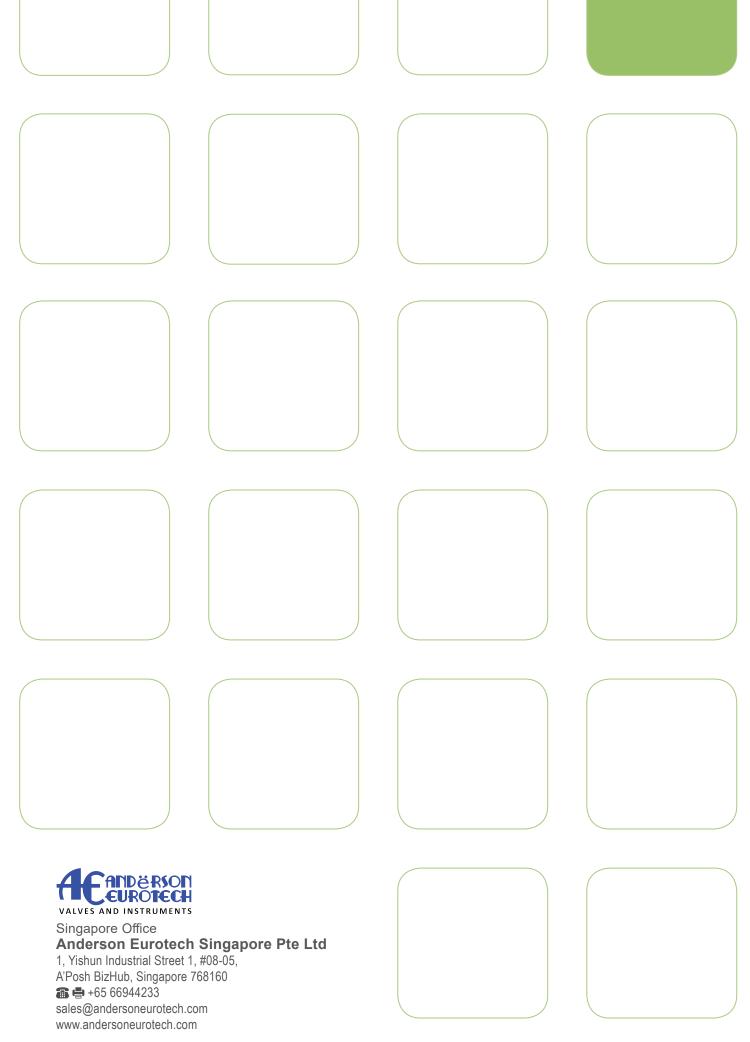


- Polypropylene or solid front thermoplastic case for corrosive environment and aggressive media
- · AISI 316L stainless steel bourdon tube
- Available dial face Ø 100, 150 mm (725AC) and 41/2" (725AE)
- Scale range from -1 ... 0 kg/cm² to 0 ... 1600 kg/cm² (-30 inHg to 0 22000 psi) with accuracy of \pm 1.0% F.S (725AC) and \pm 0.5% F.S. (725AF)
- 1/4" NPT or BSP connection with lower back, bottom or panel type mounting
- Options available include Plexi glass, liquid filled, chemical seal, dual scale dial face and custom designed dial face



Wide configuration and design of chemical seals that can be retrofitted with the different type of pressure gauges and switches. Some commonly available types include Slip Ring Coupled Chemical Seal, Heavy Duty Welded Chemical Seal, Direct Coupled Chemical Seal, SMS Floating Chemical Seal, Screwed Flush Chemical Seal, Sanitary Seal (Clamp Type) Chemical Seal, Direct Flanged Flush Chemical Seal, Direct Flanged Insert Chemical Seal, Extended Neck Chemical Seal, Wafer (Pan Cake Type) Chemical Seal and Pulp Seal (Floating Ring Type) Chemical Seal. Mostly available in SS316 or SS304 housing material with different choices of sealing for high pressure and temperature application. Plastic and uPVC housing material are also available for lower pressure and temperature aggressive media application.





The specifications given in this document represent the state of engineering at the time of publishing. We reserve the right to make modifications to the specification and materials