

"Fluid under control"



## **PRODUCT SUMMARY**

Control Valves & Accessories Measurement Control & Automation























## CONTROL VALVES and ACCESSORIES

#### **Pneumatic Angle Seat Piston Valves**

PP Serie :PP20, PP40, PP60, PP91, PP90 :Pneumatic Angle Seat Piston Valve. Type

On-off or proportional control

:1/2" - 2" G screwed, flanged, welding connection **Dimension** 

(on request NPT screwed)

Position : Normally Closed (N.C.), Normally Open (N.O.)

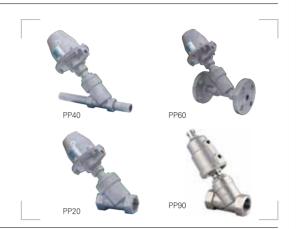
Working Temperature : -30 ... 180 °C Max. Working Pressure: 16 bar, vacuum lines Body, Actuator Material: Stainless Steel, AISI 316

Leakproofing Material : Standard PTFE (optionally Viton or EPDM)

Recommended Air Pressure: 6 bar Air Supply Connection :1/4" G Screwed

:Water, Air, Steam, Gas, Chemical Material. Application Types

Petroleum Products, Nutrient, Vacuum etc.



## **Pneumatic Rotary Type Actuators (RA Serie)**

Single Acting / Double Acting / Three positioned



: Aluminium extrusion, surface hardened aluminium **Body Material** coated, impregnated, epoxy painted.

Torque Rotational Moment: DA Serie: Double Acting 9 Nm - 2900 Nm SR Serie: Spring Return 11 Nm - 1600 Nm

: Steel (Nickel coated). Stainless Steel Shaft

Leakproofing material : Nitrile rubber, -20 °C ... 80 °C (on request VITON)

Bearing Material : Industrial Hardened Plastic Control Style : On-off and proportional control Actuator/Valve Connection Standard : ISO 5211 Solenoid Valve Connection Standard(3/2 or 5/2) : NAMUR Positioner and Limit Switch Box Connection Standard: NAMUR

: 4-6 Bar Air Supply

: Butterfly and ball valves, dampers; Application

on-off and proportional control

#### **Pneumatic Actuated Ball and Butterfly Valves**

: RAV 900 Pneumatic Ball Valve Serie

RAV 800 Pneumatic Butterfly Valve

**Ball Valve Connection** : Flanged, Screwed, Welded

Way : 2-way ball valves, 3-way ball valves

Valve's Body Material : Stainless Steel, Brass, Casted Iron, PVC : 1/2" - 8" (NW I5-NW 200)

Dimension of Ball Valve Ball Valve's Working Pressure : PN 16, 25, 40 bar

**Butterfly Valve Connection** : Wafer Type, Lug Type, Flange Type

Butterfly Valve's Working Pressure: PN 6 - PN 16

Control Style : On-Off or Proportional

Actuator Type : Double Acting, Spring Return, Three positioned,

180° Rotational



## **Limit Switch Box and Electro-Pneumatic Positioner**



#### **Limit Switch Box LS10 Serie:**

1) Mechanical 2) Proximity 3) Ex-proof Proximity Limit Switch Box

Application: Rotary Type Pneumatic Actuator, (D.A. or S.R.), used for butterfly, plug, ball

valve's position monitoring and receiving an electrical signal.

(Switch and Analog Output)

Connection: NAMUR

#### **TORK-EPR:**

Rotary type Electro Pneumatic Actuators and Smart Types & Ex-Proof Types

: 4-20 mA, 3-15 psi

Air Pressure: 6 Bar

Application: Rotary pneumatic actuators with proportional control and

actuated valves.

: Linear positioners also exist in our product range. Note



## **CONTROL VALVES and ACCESSORIES**

## Namur Solenoid Valve NM Serie (for on-off working of Pneumatic Actuators)

Serie : 1/4" - 5/2 one or two coiled Namur Type Solenoid Valve

1/4" - 3/2 one coiled Namur Type Solenoid Valve

: 220 V, 110 V, 24 V, 12 V, AC/DC (IP 65 and Ex-Proof) Coil Voltage

#### Hand Control Unit TORK-MOR Serie

Torque Rotational Moment: 100 Nm, 450 Nm, 750 Nm, 1500 Nm, 3500 Nm,

5000 Nm, 7500 Nm

: It is used for controlling the valve by hand especially in **Application** 

rotary type pneumatic actuated ball and butterfly valve

applications.



## **Electric Actuators and Electric Actuated Valves**





Electric Actuator:

Serie : REA Rotary Type Electric Actuator

EAV 800 Electric Actuated Butterfly Valves

(NW 40 ... NW 800)

EAV 900 ElectricActuated Ball Valves

(NW 15 ... NW 250)

Application : Ball Valves, Butterfly Valves, Dampers

Torque Rotational Moment: It changes between 60 Nm and 3000 Nm

(12 different options)

Voltage :220 V AC, 380 V AC, 24 V AC/DC

:-20 °C - 70 °C Temperature

Flange Connection: ISO 5211 or DIN 3337 Standard

Control : On-off or proportional control

Accessories : Proportional Card, Limit Switch can be added, 4-20 mA output,

Smart Type Electric Actuators, Spring Return Actuators.

#### **Pulse Solenoid Valves**

EAV 800

## PL Serie (for dust filters with bag and bunkers)

Dimension : 3/4",1", 1 1/2" ... 3" Body : Aluminium injection

Diaphragm : Neoprene Working Pressure : 0.5 - 8 Bar Working Tem. : 0 °C - 80 °C

Coil Voltage : 220 V, 110V, 24V, 12V, AC/DC : IP 65 and on request Ex-proof Coil Protection Class

Time Relay : It is used for controlling PL serie solenoid valves.

On-off time and outlet quantity must be declared before.













#### General Purpose Solenoid Valves / Natural Gas Solenoid Valves and Gas Alarm Device/Filters

#### S1010, S1020, S1030, S1040 Serie (For air, water, gas)

: 1/88",1/4",3/8", 1/2", 3/4",1", 11/4", 1 1/2", 2 Dimension

Working Pressure : 0...16 / 0.5...16 / 0.5...40 bar

Working Temperature: -10 / 80 °C

Position : Normally Closed / Normally Open Coil Voltage : 220 V, 110 V, 24 V, 12 V, AC/DC, **Protection Class** : IP 65 and on request Ex-proof Coil

TORK-GV Serie (For Natural Gas)

: 1/2" ... 2"; 220 V AC 50 Hz, 12 V DC Dimension

Working Pressure : (0 ... 500 mbar)

TORK-GA Serie: Gas Alarm Device: It senses gas leakage and gives

alarm. It turns off the valve and also gas supply line

automatically.





#### **CONTROL VALVES and ACCESSORIES**

#### **Steam and Compressor Solenoid Valves**



#### S20 Serie (For hot water and steam)

Dimension : 1/8",1/4",3/8", 1/2", 3/4",1",1 1/4",

1 1/2", 2"

Working Pressure : 0-5 Bar, 0.5-5 Bar

Working Temperature: 160 °C

Position : Normally Closed / Normally Open Coil Voltage : 220 V, 110 V, 24 V, 12 V, AC/DC

#### S50 Serie (For compressor air with high pressure)

Dimension :1/8".....2"

Working Pressure : 0 ... 16 Bar, 0 ... 40 Bar

## Solenoid Valves with Stainless Steel and PVC Brass /Latching Solenoid Valves / Pinche Solenoid Valve



#### S60 Serie

Dimension : 1/8", 1/4", 3/8", 1/2", 3/4", 1"
Coil Voltage : 220 V, 110 V, 24 V, 12 V, AC/DC

Brass : AISI 316

Working Pressure: Various Pressure Values between 0-100 Bar

Application Types: Corrosive Fluid, Water, Oil, Acid etc.



PVC Body Solenoid Valve

## Fuel oil Solenoid Valves / Irrigation Solenoid Valves / Fuel Oil Pump Solenoid Valves

S40 Serie : For fuel oil, gas, burner, diesel oil,

and hydraulic oil)

Dimension : 1/8",1/4",3/8", 1/2", 3/4",1",1 1/4", 1 1/2", 2"

Working Pressure : 0-30 Bar / 0.5 – 16 Bar

Working Temperature: 160 °C

Position : Normally Closed (N.C.) / Normally Open (N.O.)

Coil Voltage : 220 V, 110 V, 24 V, 12 V, AC/DC

IP 65 and on request Ex-Proof Coil

S89 : For Automatic Irrigation Systems

S89 : For Filling Fuel Oil; Two Staged Solenoid Valve



## **Low Pressure and Vacuum Solenoid Valves**



S30 Serie (For air, water, gas, -10 ... 90 °C

Dimension : 1/8",1/4",3/8", 1/2", 3/4",1"

Working Temperature : -10/80 °C

Working Pressure : (-1, 0, 1, 2, 3) bar and vacuum

Position : N.C.

Coil Voltage : 220 V, 110 V, 24 V, 12 V, AC/DC

Coils : C10, C11, C20, C21

Coil Voltage : 220 V, 110 V, 24 V, 12 V, AC/DC

IP 65 protection class and on request

Ex-Proof Coil



## FLOWMETERS / FLOW SWITCHES

#### Flowmeters with Float and Glass Tube Float

Body : Trogamit or polisulphone, glass tube

Measurement Range: 0,1 - 60,000 lt/hours : It indicates instant flow, Indicator Switch Output : Switch output or 4-20 mA Fluid Types : Water, air, alkali, gas



#### Flowmeter Mechanical Indicator



Body : Stainless Steel, AISI 316 Measurement Range: 0,1 lt/h - 1,000 m3/hour

Connection : DN 15 - DN 150 (1/4"-1/2", 3/4") Output : Instant Flow, Analog Signal Output 4-20 mA switch output, totalizer

Fluid Types : Water, air, gas

## **Electro Magnetic Flowmeters / Ultrasonic Flowmeters**

: PP, PTFE, PVDF, hard rubber covered Measurement Range: 5-200 lt/min... 150-7000 m3/hour Connection : DN3 ... DN500 wafer, screwed,

flanged, clamp type

: Instant Flow Rate, Total Flow Rate, Output

4-20 mA or Pulse Output

Fluid Types : Conductor Liquid Types (viscousity and

independent from concentration)



## **Screwed Flowmeters with Turbine / Variable Area Flowmeters**



Flowmeter, switch output Body

: Brass, stainless steel, PPS, PVDF,

Acrylics

Measurement Range: 0.02 lt/min...150 lt/min

: Instant Flow and Optional Switch **Digital Indicator** 

Output + Digital Indicator with 4-20 mA

Fluid Types : Water, air, oil acrylics, Fluid with High

Viscousity, High Pressure (PN 300 max)

## Flowswitches (Flow Switches), Accustable Flow Flowswitches

Paddle Type, Piston Type Flowswitch

Body : Brass, Stainless Steel or plastic Measurement Range : (1/8" ... 1") or DN 15 ... DN200 : max 125 °C, 350 °C (on request) Temperature Switch

: Reed Switch, one switch two ways or type with indicator. Ex-proof Models

Mounting : Mounting opportunities are provided in

various positions.

**Application Types** : Air, water, oil, acid etc.





## LEVEL MEASUREMENT AND CONTROL DEVICES

#### **Level Switch with Float**

Body : Brass, PP, Stainless Steel Switch : Normally Open (N.O.)

Normally Closed (N.C.)

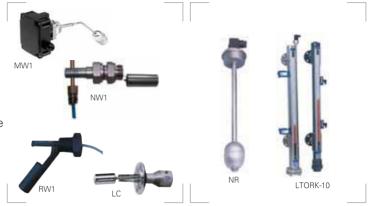
Connection :1/2", 3/4", 1"

Temperature :-25 ... 105 °C, 180°C, 300°C

#### Ex-proof models exist.

: Liquid, Burnable, Explosive Atmosphere Fluid Types

(Ex-proof atmosphere)



#### Level Switch with Rotary Paddle / Level Switch with Diaphragm / Level Switch for Solid and Liquid Vibrating System



: Plastic, Aluminium, Stainless Steel Body

Switch : Normally Open (N.O.)

Normally Closed (N.C.)

Connection : 1/2", 3/4", 1"

Temperature : -20 ... 80 °C, 115 °C Fluid Type

: Fluid with particles, (wheat, rice,

cement, ceramics, coal) Liquids; (LD 60, LD 61 Types)

#### **Level Switch with Float**

Body : PVC, Stainless Steel, PTFE Measurement Range: 0.5 ... 96 Meters and insertion

types (to 250 mt.)

Connection : Screwed, Flanged Pressure : PN 16 (optionally 320 bar) Output : Switch and 4-20 Ma output

(Ex-proof models exist)

**Application Types** : Liquids, Ex-proof Atmospheres,

Storage, Deep Wells.



#### **Ultrasonic Level Switch / Level Measurement with Smart Transmitter**



: PVC, Stainless Steel, PTFE Type

Measurement Range: 1.5 ... 6 Meters

Sensitivity :3% Temperature : 0 ... 60 °C

Output : 4-20 mA max. Switch, and instant

level monitoring

Voltage Supply :24 V DC / 220 V AC

**Application Types** : Solid, Liquid, Chemical Fluid Type,

Cabled Level Switches are used in liquid and fluid which contains solid particles in it. Special hygienic model exists for ex-proof atmosphere and

potable water types.



#### PRESSURE MEASUREMENT AND CONTROL

#### **Manometer / Screwed Connection**

: BURDON tubed, plastic body, stainless steel, Type

panel mounting type etc.

Measurement Range: 0 ... 60 mbar, 1 bar ... 10.000 bar

Indicator Diameter : Ø 63, Ø160 mm outlet from upside and downside.

Switch : Indicator one switch, two switches

Sensitivity :1 %, 1.6%

**Application Types** : Air, water, medical devices, compressor,

> petrochemistry, purifying, burner, vacuum, exhaust gas, hydraulic systems, beverage,

various fluid types, steam etc.



#### **Manometer with Diaphragm / Test Manometers**



: Stainless Steel Body

Switch : Indicator with one switch, two switches : Teflon, Stainless Steel, Variable Applications Diaphragm

Measurement Range: 0 ... 25 mbar ... 400 bar, 1600 bar

Indicator Diameter : Ø100, Ø160mm Sensitivity : 1.6 %, 2.5%

Application Types : Biochemistry, nutrient, filling stations,

petrochemistry, beverage, water etc.

#### **Manometer with Differential Pressure / Pressure Switch (Mechanical and Electronical Type)**

Type : With Burdon Tube and Diaphragm Switch Output : Analog and digital indicator

Sensitivity

Measurement Range: 0... 400mbar... 25bar... 100 bar

**Pressure Switches** 

: Brass, stainless steel, steel

Measurement Range: -1 ... 10 bar / 5 ... 70 bar / 50 ... 400 bar : Chemistry, Oil Refinery, Pneumatic, **Application Types** 

Hydraulic Lines, Vacuum,

(various pressure measurement)



#### **Pressure Transmitters/Smart Type Transmitter/ Differential Pressure Switches**



#### **Pressure Transmitters**

**Output Signal** : 4-20 Ma(on request mV output) Measurement Range: Vacuum, between 0 ... 8000 bar based

on your choice.

Expoof models exist,

#### **Differential Pressure Switches**

: Brass, stainless steel, steel

Measurement Range: -1 ... 10 bar / 50 ... 400 mbar / 0-200 mbar etc. Application Types : Purifying, Filter, Washing Machine, Nutrient,

Car Wash etc.

#### Vacuum Switch/Pressure Switch/Low Pressure Switches/Load Celler

Measurement Range: -50 mbar ... 0 bar, 5 ... 200 mbar

200 ... 1000 mbar, 0 ...4, 110, 15 bar

Switch Output : One Contact Two Ways / Two Contacts

Two Ways

: Stable / Manual controlled Adjustment Style

**Application Types** : Purifying, Filter, Washing Machine,

Nutrient, Car Wash etc.

Load Cell : For measuring weight, tension and pressure

force. There are too many types of usage areas.



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# TEMPERATURE MEASUREMENT AND CONTROL THERMOCOUPLE THERMOCOUPLES AND TEMPERATURE MEASUREMENT

## **Thermocouples and Temperature Measurement Control Panels**

Thermocouple and PY100 sensors are used for sensing temperature. PT 100, Fe-const, NiCr-Ni, , PtRd Pt measurements (-250°C ... 1600 °C) are suitable for these devices. It is chosen according to the process.

Control Panels: Instant indicator, switch output, two-switches output, analog output (4-20 mA) types exist. It is chosen according to the process.

Smart Transmitters: For sensitive measurement of temperature, level, pressure.



## Remote Thermometers / Bi-metal Thermometers/ Humidity Control Hygrostats



Outlet : From downside and upside

Measurement Range : -200 °C ... 700 °C It is chosen according to the process. It indicates instant temperature.

Humidity Control Device: It is for measuring room and canal humidity.

It supplies switch output.

Tmax : max 100 °C

Measurement Range : 95% humidity

#### **Electro Pneumatic I/P Converters- E/P Converters**

Type : Bellofram TORK-1000

Sensitivity : 0.1 % Voltage Supply : 24 V DC, AC

Signal Input : 4-20 mA, 0.5V, 0-10V, 0-15V

Pneumatic Outlet: 3-15 psi Air Supply: max. 7 bar



#### Sensitive, Air Regulated Process Control Regulators (for air and gas)



Type : GR90/GR91/GR92 Series

Sensitivity : 0.5%

Connection : 1/8", 1/4", 1/2" BSP, NPT

Flow Rate Capacity : 400 - 1150 lt/min
Pressure : 27 bar - 280 bar
Regulatable Pressure : 0-8,5 bar

Application Types : - For regulating process air pressure.

- It is used in LPG and natural gas

applications.

#### Air Filter+Regulators (For Pneumatic Systems) FR

For regulating air pressure in pneumatic systems and filtering dust particles located in air.

Filter Capacity : 5 mm

Body : Aluminium

Connection : 1/4"

Max Temperature : 70 °C

Manometer Connection : 1/8"'d3

Outlet Pressure : 0 ... 8bar

Inlet Pressure : 15 bar



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