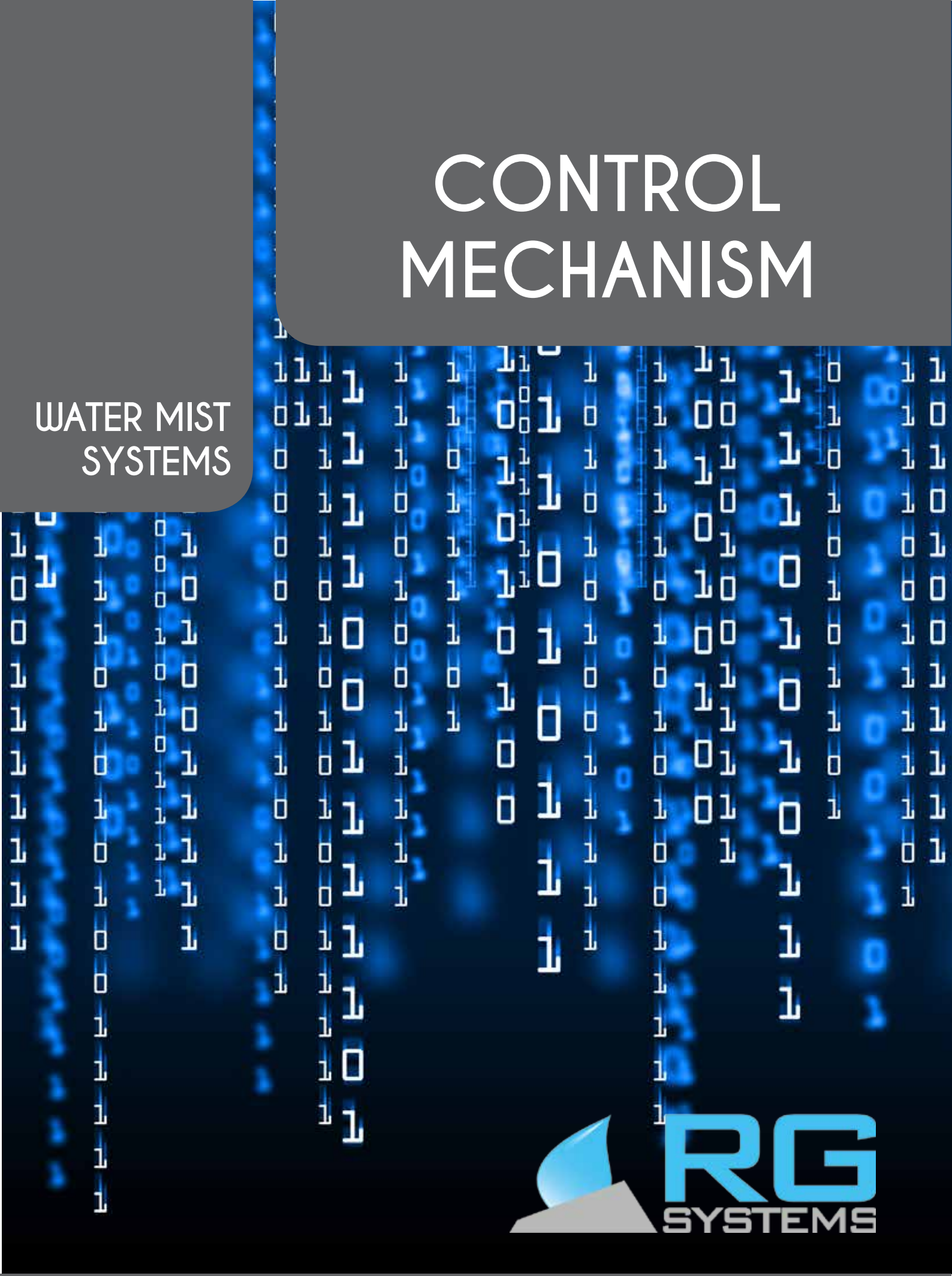
CONTROL MECHANISM

WATER MIST SYSTEMS



RG SYSTEMS

PRESSURE SWITCH

(POINPRE 6-40L / 15-40L / 6-40I / 15-40I)

It is usually used as an electrical contact for any type of functions (eg fans stop, closing trapdoors etc.). It can also be connected to the fire panel for sending an actual discharge signal of the extinguishing agent. This application is very useful in cases where in the gas is discharged accidentally (without activation of fire detection) and without anyone being aware of it.

Pressure switches are also available either in NO or NC contacts. RG-Systems also features this device with ATEX version.

	Ø A	Bar	Material
POINPRE 6-40L	1/4" BSP	40 ± 8 Bar	Brass CuZn40Pb2 (CW617N)
POINPRE 15-40L	1/2" BSP	40 ± 8 Bar	Brass CuZn40Pb2 (CW617N)
POINPRE 6-40I	1/4" BSP	40 ± 8 Bar	Stainless Steel AISI 303
POINPRE 15-40I	1/2" BSP	40 ± 8 Bar	Stainless Steel AISI 303

- Its Installed in the collector or discharge pipe and if the functions is that of detecting a sudden increase in the manifold pressure produced by the discharge of the agent.
- Easy electric connection to the central fire detector, NO o NC.
- Quick resetting just by pulling the side knob.
- Effective and reliable for its simplicity of operation.
- Available in connections ¼ "or 1/2" GM
- Excellent long-term resistance against the complete electronic devices.
- Magnificent burst pressure and absence of leaks thanks to its design.
- Fully waterproof.
- Resistance to high surrounding temperatures; ensure optimal performance in extreme conditions.
- Available in AISI316 steel.
- Highly stable in the face of impact and vibration.
- ATEX versions.

FLOW SWITCH

(POINPRE 6-6L / 15-6L / 6-6I / 15-6I)

It has within its interiors a limit switch with two pins, one NC (normally closed) and one NO (normally open) which change state when the switch is activated and both can be used interchangeably according to the installation requirements.

- Primarily it is installed in the directional control or section valves, but can also be installed on the manifold or water discharge pipe.
- Easy electric connection to the central fire detector, NO o NC..
- Quick resetting just by pulling the side knob.
- Effective and reliable for its simplicity of operation.
- Available in connections ¼ "or 1/2" GM
- High activation sensitivity
- Excellent long-term resistance against the complete electronic devices.
- Magnificent burst pressure and absence of leaks thanks to its design.
- Fully waterproof..
- Resistance to high surrounding temperatures; ensure optimal performance in extreme conditions
- Available in AISI316 steel.
- Highly stable in the face of impact and vibration.
- ATEX versions

	Ø A	Bar	Material
POINPRE 6-6L	1/4" BSP	6 ± 2 Bar	Brass CuZn40Pb2 (CW617N)
POINPRE 15-6L	1/2" BSP	6 ± 2 Bar	Brass CuZn40Pb2 (CW617N)
POINPRE 6-6I	1/4" BSP	6 ± 2 Bar	Stainless Steel AISI 303
POINPRE 15-6I	1/2" BSP	6 ± 2 Bar	Stainless Steel AISI 303

PRESSURE SWITCHES (POPRENAXX / POPRENCXX)
FLAMEPROOF PRESSURE SWITCHES (POPRECO-AD XXX)

It is connected to the cylinder valve and there exist two variants, NC (normally closed, with open pressure) or NO (normally open, with closed pressure).

RG-Systems offers a wide range of pressure switches for the different demands of gas or pressure. Depending on the application area there are galvanized carbon steel pressure switches with IP54 pressure and regulatory pressures ranging from 20 to 300 bar, or ATEX pressure switches made of stainless steel for the most demanding and varied processes within the explosive atmospheres category.

The technology of the pressure switches is critical when an application needs to control the pressure. In the field of technology switches RG-Systems utilizes different techniques that allow us to offer the appropriate solution to our customers. Mechanical switches are used to connect and disconnect electronic circuits depending on the pressure. RG-Systems pressure switches provide security and reliable monitoring of the minimum pressure, plus the advantages of switching off automatically & pressure limit warning. The accuracy and number of cycles of electro pressure switches depends on the frequency and the changes in the pressure peaks, the number of charging cycles and the influence of temperature.

- Core installation on cylinder valves.
- Easy electric connection to the central fire detector, NO o NC or commutated.
- Micro size, without the need for voluminous protecting casings in explosive atmospheres.
- Effective and reliable for its simplicity of operation.
- Compact and robust design
- Long load duration.
- Low installation costs
- Quick and easy to handle
- Fast and convenient regulation through screw.
- ATEX Versions.

Modelo IP54

PRESSURE SWITCH POPRENAxx / POPRENCxx / POPRECO

Regulation field for Inert gases: POPRENA250	100-250 bar
Valve connection	1/8” NPT
Electrical terminals	Faston
Maximum voltage	48 V
Inductive current	0.2 A
Resistant current	0.5 A
Protection index	IP 54
Mechanical life	10^6 ciclos
Contact type	NO / NC

APPROVALS

UNITED STATES AND CANADA

- Class I, Division 1 and 2, Groups A, B, C & D
- Class II, Division 1 and 2, Groups E, F & G
- Class III
- Class I, Zone 1, Group IIC
- Enclosure Type 4X
- Pressure: UL 508 & 698; CSA C22.2 No. 14, 25 & 30 -
- File # E40857
- Temperature: UL 873, 1203; CSA C22.2 No. 24, 25 & 30 -
- File # E43374
- Dual seal certified to ISA 12.27.01 (meets CEC secondary seal requirements)

RUSSIA

- Gosgortechnadzor Permit (OPTIONAL – code M406)
- 0ExialICT6
- Tamb = -50°C to +60°C
- 1ExdIICT6X
- Tamb = -56°C to +85°CNANIO CCVE Certification Center
- Certificate # RSS 00-22739
- GOST R 51330.0, 51330.1, 51330.10 y 51330.14

UKRAINE

- Gosnadzorohrantruda Permit (OPTIONAL - códe M404)
- 1ExdIICT6X
- Tamb = -56°C to +85°C
- Certificate #1868.04.30 -31.62.4

PRESSURE SWITCH POPRECO- AD xxx

Regulation field for Inert gases: POPRECO-AD 413.7	137.9-413,7 bar
Valve connection	1/8” NPT
Maximum voltage	250 VAC
Current	5 A
Protection index	IP66
Contact type	SC (NO and NC)
Approvals	UL-EX 12345 FM-1234567

Modelo ATEX

Max. voltage	250 Vac
Current	6 (2) A
C/O contacts	SPDT
Adjustable hysteresis	10% - 30% of set-point
Temperature range	-30ºC to +140 ºC (according to diaphragm / gasket material)
Max. cycle rate at 25ºC	120/ min (diaphragm type)
Max. cycle rate at 25ºC	60/ min. (piston type)
Protection	IP 65 DIN 40050
PG 09 or PG11 connector	DIN 43650
Mechanical life	10^6 operations
tightening torque max.	5 Kg.

EUROPEAN UNION

- ATEX Directive 94/9/EC
- II 2 G Ex d IIC T6
- II 2 D T+85C
- Tamb = -50°C to +80°C
- IP 66
- UL International DEMKO A/S (N.B.# 0539)
- Certificate # DEMKO 07 ATEX 0717128X
- EN 60079-0, 60079-1, 50281-1-1
- II 1 G EEx ia IIC T6 (OPTIONAL – code M405)
- Tamb = -50°C to +60°C
- UL International DEMKO A/S (N.B.# 0539)
- Certificate # DEMKO 03 ATEX 0335063
- EN 50014, 50020 y 50284 Pressure Equipament Directive (PED) 97/23/EC
- Cumpliant to PED
- Products rated lower than 7,5 psi are outsider the scope of the PED
- Low voltage Directive (LVD) 73/23/EC & 93/68/EEC
- Compliant to LVD
- Products rated lower than 50 VAC and 75 VCD are outsider the scope of the LVD
- The Low Voltage Directive does not apply products for use in hazardous locations

PRESSURE GAUGES WITH ELECTRICAL CONTACTS

(5140-E60 / 5140-E100 / 5140-E250 / 5140-E315)

Gauges with electrical contacts are usually simple devices, intended to lower cost applications or constructed for reliability depending on the to be transmitted frequency of the switching signal

- **Requires no configuration (“plug and play”)**
- **Easily readable analogue indicator**
- **Measurement of pressure from 0 to 400 bar**
- **For gaseous and aggressive media**
- **Safety instrument S3 according to EN 837-1**
- **Nominal diameter 40 mm**
- **Frontal heavy duty polycarbonate.**

CONTINUOUS WEIGHING SYSTEM

Based on eccentric use of technology, that ensures impeccable operation through it reliability and high quality bearings seats,.

Being totally mechanic makes it useful for any place that due to special situations cannot be with power supply and as in other systems of continuous weighing depending on it.

It supplied with anchoring system which can raise the bottle easily, connectors with pigtails assembled for connection and other complements.

The weighing system remains calibrated at all times, and detects the weight loss of 4% due to hub falling by sliding mechanically the two internal eccentric.

- **Absence of electronic components.**
- **Robust and reliable measurements.**
- **No need for power supply.**
- **Fully autonomous and unattended.**
- **With control standard stroke end or ATEX.**

LIMIT SWITCH FOR SHUT OFF, DIRECTIONAL VALVES, ETC

- **Standard dimensions of the sector**
- **Compact size**
- **Various mounting options**
- **Wide range of operating voltage and nominal current ratings**
- **Accurate & compact models**
- **Wide range of operating voltage and nominal current ratings**

These are called position switches, limit switches or limit switches mainly used in our systems of shutoff valves, three-way valves, directional valves, pressure switches, weighing device, etc. Transmitted to the data processing system: presence / absence, passing, positioning, limit switches. Its features and technical / economic and security commitment have transformed it into irreplaceable detection element. They are easy to install devices offering many advantages.

The compact limit switches used by RG-Systems are small and resistant. They are ideal for installation in areas too small for traditional NEMA style limit switches. It provides durability and standard mounting dimensions of the sector, and operational characteristics for optimal application flexibility.

ELECTRICAL ADVANTAGES:

- Galvanic separation of circuits.
- Good low-current switching and high electrical strength.
- Good resistance to short-circuits if they are well coordinated with the appropriate circuit breakers.
- Immunity to electronic parasites.
- High tension uses
- More than 10 million operating cycles.

MECHANICAL ADVANTAGES:

- Positive opening of contacts.
- High resistance to various industrial environments.
- Good fidelity and repeatability of the signal.
- High degree of protection.

EXCESS PRESSURE VALVE / RELIEF

(WFH-30 / 60 / 120)

The relief valve is used to protect the system components against overload as a result of a pressure spike. In addition, the valve is designed for controlling / limiting the system pressure by draining the excess water of the pump unit, and sending it back to the main supply tank.

- **Excellent functional characteristics.**
- **Easy to clean surface.**
- **Corrosion resistant parts (stainless steel, AISI 304 and 316)**
- **High discharge capacity, 120 l / min.**
- **Low noise level at high pressure.**
- **Easy to assemble.**
- **Three size models, 30, 60 and 120 lpm.**

BREAK AND SAFETY VALVE FOR MANIFOLD

(VREC / VRECO)

The safety diaphragm is mounted in the factory with the proper torque for possible activation. It is advisable that the relief pipe discharge towards outdoors, away from the protected area or cylinder battery storage area.

They are safety mechanisms to prevent excess pressure occurring in the manifold when in the end we have shutoff valves that prevent the output of extinguishing agent.

- **Simple, robust and low maintenance component.**
- **It allows quick change of the safety valve and the replacement of its membrane by simply using an Allen wrench.**
- **The design of the safety valves, ensures maximum protection against sudden overpressure in the discharge manifold.**
- **An exhaust pipe can be directly mounted while being driven to the outside through the available female thread.**
- **The disc or internal membrane has a seat ensuring “hermetic” closure.**

C. Alfoz de Bricia, 4 P.I. Villalonquéjar
09001 BURGOS (SPAIN)

Tlfno. +34 947 28 11 30
Fax. +34 947 28 11 12

www.rg-systems.com

RG SYSTEMS