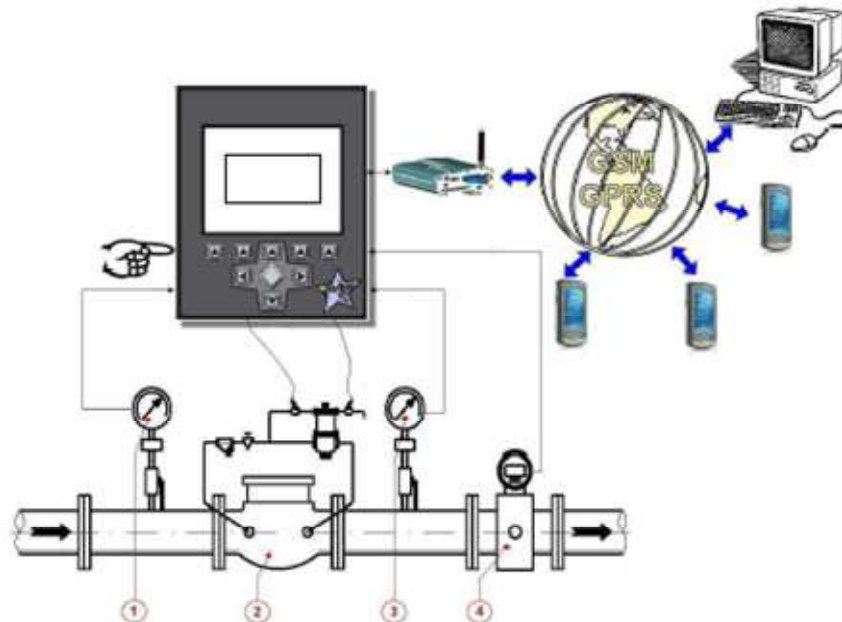


REMOTE ELECTRÓNIC CONTROL QUANTUM



DESCRIPTION

QUANTUM is a family of remote station solutions based on advanced technologies in remote and telecommunications. Offers maximum reliability, flexibility and performance, standing at the forefront of technology of remote control.

Remote station allows the regulation of different variables and manage a network of supply (pressure, flow, etc.) by applying a hydraulic automatic valve IRUA or similar.

The setpoint is changed regularly by using solenoids located in the hydraulic circuit of the valve; the remote station is acting on these solenoids

The distinguishing feature of **QUANTUM** is its modularity, because the system is composed of various discrete elements that can be combined by the user and in the future may be supplemented by additional modules.



TYPICAL APPLICATIONS

- Control the on/off valve at the entrance deposit
- Control the degree of opening of the tank filling valve
- Control of starting and stopping of pumps tank full
- Control of hydraulic or direct action pressure reducing valve on the basis of consumption flows
- Control of hydraulic or a direct action pressure reducing valve based on time slots, days, etc.
- Control of hydraulic flow valve
- Control of pressure sustaining valve

QUANTUM DEVELOPMENTS

Depending on the modules used in the station we will lead to different applications.

The most common are:

1) Pump-Storage Module:

Assumes to charge a specific subroutine in the remote station to control the filling of a tank from a pump station based on:

- The continued high level of deposit and / or buoys signals / switches maximum and minimum
- Continuous level suction tank and / or buoys signals / switches / low pressure switches to prevent idling

This module allows us to:



- · Control of the shutoff valve at the inlet of the tank
- · Control the degree of opening of the tank fill valve
- · Control starting and stopping of pumps tankfull
- · Control pressure sustaining valve

2) Pressure Regulating Valve Module:

That maintains a constant downstream pressure based on a set point of:

- a value entered locally using the touch screen
- a value sent remotely via SMS or FTP
- three bands of flow or consumption established through the touch screen.

The setup menu allows you to enter other control parameters:

- duration of the timeout in milliseconds
- duration of the trigger pulse width of the solenoid valves

Este módulo nos permite el:

- control de válvula reductora de presión hidráulica o de acción directa en función de caudales de consumo
- control de válvula reductora de presión hidráulica o de acción directa en función de tramos horarios, días, etc

This module allows us to:

- Control hydraulic or direct action pressure reducing valve on the basis of consumption flows
- Control hydraulic or a direct action pressure reducing valve based on time slots, days, etc.



3) Flow Regulating Valve Module:

Automatic control module that maintains a constant flow downstream of the valve based on a set point of:

- value entered locally via touchscreen
- value sent remotely via SMS or FTP
- three-level or other parameter set using the touch screen

This module allows us to:

- regulate a control hydraulic flow valve

TECHNICAL DETAILS

○ CPU with FreeScale ARM9126EJ-S 400 MHZ processor, 32 bits. Windows Embedded CE 6.0 with Compact Framework 3.5.

The factory setting is available in different versions:

- Configurations input / output (I / O):

- Setup # 1:

- 4 analog inputs 16-bit resolution, 4-20 VDC or 0-10 Ma
- 8 digital inputs, 0-30 V dc voltage or potential free contact.



- Setup # 2:

- · 4 digital inputs, 0-30 Vdc voltage or potential free contact.
 - · 4 digital outputs 600 mA transistor or relay 1 cc 250V/6A
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 - · Control Software Modules:
 - · Pressure control, flow control, height adjustment of water depth in tank, etc.,,
- · Power sources:
- 12 to 30 V AC, allowing power from batteries, solar panels, wind generators, micro turbines, etc. ...
 - or AC, 230 V for single-phase power from the mains.
 - or 230 Vac with UPS or UPS guarantees the temporary operation of the station for a power outage from the mains. This option includes a battery maintenance free and an automatic charger to ensure battery charging with the return of the mains voltage. GSM Remote QUANTUM equipped with this option automatically detects and generates an alarm outage from the network delivering the agenda of authorized mobile phones. It also offers the option of monitoring the level of battery charge.
- Incorporation of GSM modem for connectivity to the mobile phone network, integrated MODEM GSM / GPRS 4 you dipped with SMA antenna connector for indoor or outdoor 3dB gain directica up to 8 dBi. 3G optional router.
- Connection with ORION Scada system, real-time connection, dump auto / manual data, etc.,,
- Reply to SMS messages and issuing alarms to authorized users
- Touch Screen 7 "



- Monitoring of values and status in real time, automatically recording the values of user parameters, communications management, management and transmission of alarms, etc. .. 256 Mb of flash memory and SD (optional) up to 4 GB