CARLO GAVAZZI
Automation Components

Solutions for
Pumping Systems

CARLO GAVAZZI

Water Treatment Plants

This type of plant goes from simple water lift apparatus to full and complex water treatment systems:

- The **DWA01**, **DWB01, DWB02** and **DIB01** power and current relays are the solution to monitor dry running and overload situations without using float or pressure switches.
- Since human supervision/monitoring rarely occurs at remote installations, they are more sensitive to incorrect phase sequence or to phase loss; the **DPA51**, in its small housing, detects all of these failures.
- Starting the pumps can be managed by the **RSHR** softstarter, the **RVF** variable frequency drive, or the **DAC51** star-delta timer.
- The pumps for emptying and filling the basin can be controlled by the **CLD** level relay.

www.Gavazzi*Online*.com

Designed to Market Requirements
Dedicated application engineering teams design special products upon request from the customer.

Solution to Applications Challenges
Carlo Gavazzi's individual product ranges complement one another, thereby offering the customer all the advantages of a synergistic range of products in terms of application and availability.

Guaranteed Reliability
Each product group is designed and manufactured in a center of excellence to assure that each individual product is the best in its field. Carlo Gavazzi products are subject to stringent quality tests to guarantee they exceed the performance we specify.

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Our Product Range

Monitoring Controls
Failure conditions for the pump or the motor itself may lead to breakdown, including phase loss, incorrect phase sequence, overload and dry running. The use of monitoring controls is of primary importance to ensure that the pumping system is working correctly.
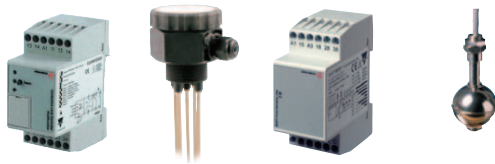
**DPA51
DPB01
DIB01/DIB71
DWA01
DWB01/DWB02**

Soft Starts, Drives, Contactors, Solid State Relays and Electromechanical Relays
The water column positioned over the pump can make the start extremely tough. For this need, and for all those requiring switching, we offer contactors, industrial relays, solid state relays and our new generation softstarters and drives, which minimize the inrush current and torque peaks.

**RSE/RSHR
RVF
CGMS
RZ3A
RM1A
RCP/RMI/RPY**

Level Relays, Sensors and Pump Alternating Relays
In instances where two or three pumps are used in parallel, the pump alternating relay allows uniform usage of all pumps, and allows all pumps to work together depending upon need. The level control relays for conductive liquids perform the combined functions of filling and emptying with minimum and maximum alarms, capable of controlling two pumps with just one amplifier.

**CLD
CLH
VN/VP/VT/VH
DLA71
ILM**

Timers
Star-delta function as well as several other delay types are easily achieved with our timers in the mini DIN rail mount housing, thus reducing the space required in the panel.

**DAA51/DAA71
DMB51/DMB71
DAC51**

Digital Panel Meters and Current Transformers
Our digital panel meters display the electrical parameters of the pumping system from current and voltage values to all types of power, pressure, flow, temperature and conductivity. They also give an immediate indication of the operating mode of the system. Alarm outputs are available to trigger the required actions.

**LDM35/UDM35
WM12/WM14
TADK/TAD
SCT**

Dupline®
The Dupline installation bus is ideal for irrigation systems for managing the branches on a vast area (up to 64 valves over distances up to 4.3 miles/ 7 Km). Reduces installation costs and increasing the flexibility in agricultural applications, golf courses and many other types of installations.

**GH6440442
GH34850000
G34860000**

Your Applications

Fire-fighting Systems

It is paramount that fire-fighting apparatus must always work. In this case you need relays like the **RMI**, **RCP** and **RPY**, to guarantee the operation when necessary.

The **DPB01** over and under voltage relay detects faults in the electrical mains to ensure the maximum efficiency of the system.

The **DLA71** pump alternating relay lets the pumps alternate, thus saving them from wear and tear.

For switching higher amperage pumps, the **CGMS** and **CGC** contactors are a cost-effective and ideal solution.

Pressurization Systems

A pressurization plant, according to its features, needs several types of components:

- When more than one pump is used, the **DLA71** lets them alternate and if necessary, a rescue pump runs; its small modular housing helps to reduce the cabinet space.
- A pump's start can be managed by the **RSHR** softstarter or **RVF** variable frequency drive. They guarantee starts in any condition, with the minimum wear and without high inrush current.
- The **DPA51** protects against incorrect rotation as well as from single phasing.
- Timers and monitoring relays complete our offering used within the electrical panel.

Your Applications

Irrigation Systems

In this type of application the common problem is low voltage (as they are often located in rural areas). This can be monitored by the **DPB01** over and under voltage relay. The **RSHR** softstarter or **RVF** variable frequency drive ensure starting the pump even in bad conditions. If the start choice is star-delta, the **DAC51** is the smallest timer doing this in a mini housing.

The **DAA51** and **DAA71** timers can perform several functions such as delay the start of more than one pump. Furthermore, with the **DHA51**, and its free programming software, it is possible to set specific irrigation timings.

When a big plant needs a complete management system, **DUPLINE** is the sound solution. The free wiring topology and the multi-network configuration provide management of big installation signals including pumping plants, storage tanks, pressure transducers, count of supplied water, weather parameters, etc.

Swimming Pools

Swimming pools have some problems that can be easily and smartly solved:

- Sometimes the mains aren't good enough to allow direct start, therefore the **DAC51** star-delta timer reduces the inrush current of the main pumps.
- **DLA71**, with no set up and easy and fast connections, allows the pumps alternate.
- Finally, the **RCP**, **RMI** or **RPY** electromechanical relays guarantee the maximum efficiency in every function of starting/stopping.
- The correct level, also for drop spillway pools, can be monitored by the **CLD** level relay.