



## *Timing Solutions*

- *Mini DIN-rail Timers*
- *DIN-rail Timers*
- *Plug-in Timers*
- *1/16 DIN 48x48 mm Timers*



Control

## ON-Delay Timers

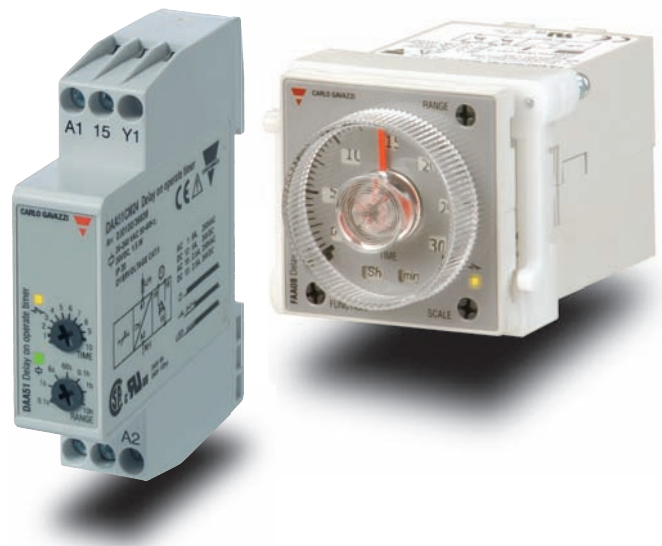
When discussing on-delay timers, Carlo Gavazzi provides absolute reliability to ensure that everything runs perfectly for years.

Set-up is simple and straightforward thanks to the clearly labeled front knobs. The **DAA** and **PAA** are adjusted using a screwdriver, so undesired changes are avoided.

### THE FEATURES

- Fully multivoltage
- Fully multirange
- Available with SPDT or DPDT relay output
- CE marked, UL and CSA approved; RINA approved (DAA51, DAA01, PAA01)

### DAA51, DAA71, DAA01, PAA01 or FAA01/08



## Multifunction Timers

A multifunction timer must be reliable, even in very bad conditions, always be ready with the needed function and be easy to set-up. Our **DMB51**, **DMB71**, **DMB01** and **PMB01** timers will not let the user down. The **FMB01** has the added feature in that it can be panel mounted or plugged into an 11-pin socket.

With power supply voltage ranges from 12 to 240V AC/DC, they can be used in various situations, while the extremely wide timing ranges maximize a minimal amount of inventory.

### THE FEATURES

- Fully multivoltage
- Fully multirange
- Multifunction: ON-delay, interval, interval on trigger open, double interval, OFF-delay, symmetrical recycler (ON or OFF first)
- Available with SPDT and/or DPDT relay output
- CE marked, UL and CSA approved; RINA approved (DMB51, DMB01, PMB01)

### DMB51, DMB71, DMB01, PMB01 or FMB01



# TIMING SOLUTIONS

Star-delta operation is a very reliable and proven solution to avoid undesired inrush current starting a motor and subsequent voltage drops. The **DAC51** is the smallest solution in this case, including the star to delta dead zone to avoid fast wear of the contactor.

## THE APPLICATIONS

- Pumps
- Saws
- Compressors
- Conveyor belts
- Cranes
- Mills

## Star-delta: DAC51



There are instances in which you only want to delay a contactor start. The **EAS**, **EBS** and **ECS** offer ON-delay, interval and recycler functions using just two wires. A solid state output is specifically provided to switch the contactor coil and wiring is extremely simple. They are also available with fast-on terminals, which are useful in applications with vibration.

## THE APPLICATIONS

- Doors
- Compressors
- Boilers
- Fans

## Directly Starting Contactor: EAS, EBS, ECS



In a variety of processes an event has to take place for a certain time and wait for another delay. The **DCB51**, **DCB01**, **PCB01** offer full flexibility both for ON and OFF time (0.1 second to 100 hours clearly adjustable of one another). The **DCB51** timing ranges and time setting are easily selected using the front knobs.

## THE APPLICATIONS

- Lubrication
- Swimming pools
- Industrial refrigerators
- Back up battery surveillance
- Water removal from air compressor

## Asymmetrical Recycler: DCB51



When an OFF-delay function is needed and there is just the power supply voltage to trigger the timer, the **DBB51**, **DBB01**, **DBB02**, **PBB01** or **PBB02** timers are perfect. Thanks to their supercapacitor or rechargeable battery, they continue to count time even without the power supply, and switch the output relay at the end of this time. Available in versions up to 10 hours.

### THE APPLICATIONS

- Wind energy generators
- Fans
- Hotel rooms
- Lights

## True Delay on Release: DBB51



Being able to power and be triggered by a sensor, the **DMC01** is capable of providing numerous timing functions when compared to other timers. It also offers the option to connect an external potentiometer for time management.

### THE APPLICATIONS

- Watchdog in conveyor systems
- Signal the presence of persons or objects in industrial applications or shops

## All in One Systems: DMC01



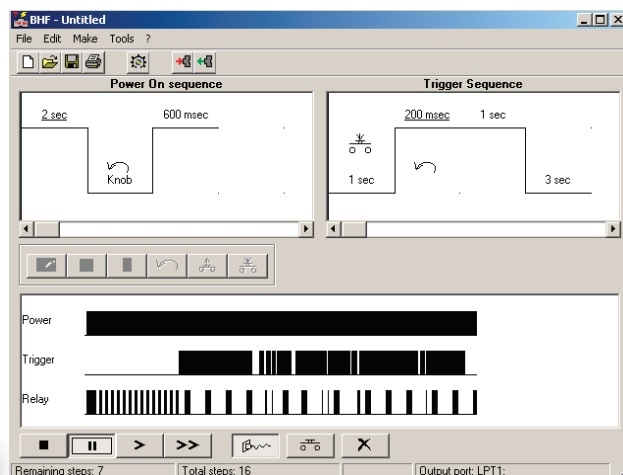
Where other timers come up short, Carlo Gavazzi offers **T-RUN!** If you need a peculiar function, or you don't want anyone to change it, ask for **T-RUN!**, and we'll tell you about all of its potential...by the way, programming software is free.

### THE APPLICATIONS

- Saunas
- Pumps
- Lubrication
- Wherever others fail



## Fully Programmable: DHA51, DHA52



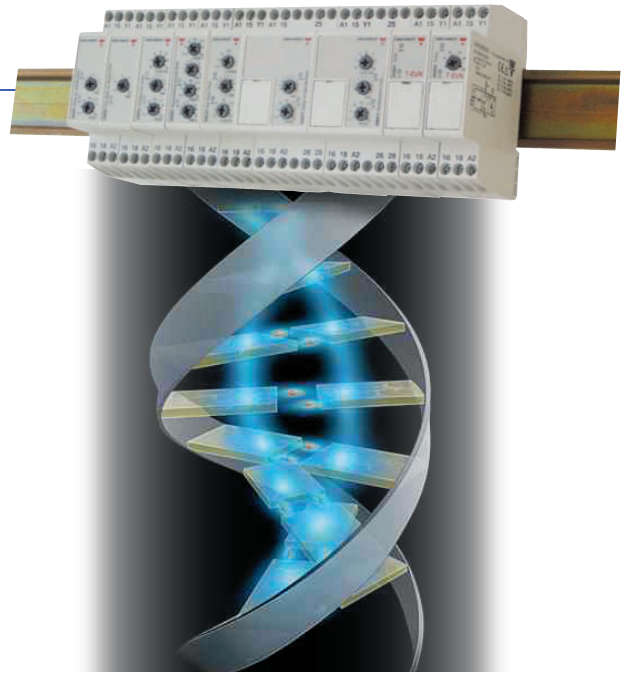
15:47

# A LIFETIME IN TIMERS

## A History of Timers

Since 1956 Carlo Gavazzi has had timers in our DNA. Many years of success have passed, and now creating timers means using our wealth of knowledge together with advanced technology. The result is components capable of providing a multitude of functions and provide unparalleled reliability.

The family is available with the same functions, in four different housings: the **standard DIN-rail type**, perfect for industrial panels, the **Plug-in housing** to allow fast and safe replacement (without moving cables), the **1/16 DIN 48x48 mm housing**, for direct changes of the parameter by the user, and the new **Mini-D housings** for DIN-rail mounting, that can be mounted in industrial panels as well as in smaller panels for buildings or for special industrial applications.



[www.GavazziOnline.com](http://www.GavazziOnline.com)

### ***Designed to Market Requirements***

Dedicated application engineering teams design special products upon request from the customer.

### ***Solution to Applications Challenges***

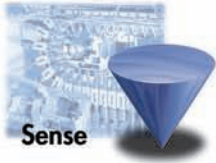
Carlo Gavazzi's individual product ranges complement one another, thereby offering the customer all the advantages of a synergistic range of products in terms of application and availability.

### ***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.

Visit [www.GavazziOnline.com](http://www.GavazziOnline.com) to download data sheets or to check price and delivery

# The Complete Product Package



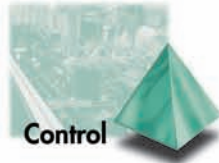
## Sense

Inductive Proximity Sensors  
 Tripleshield™ Capacitive Sensors  
 Photoelectric Sensors  
 Inductive Loop Detectors  
 Ultrasonic Sensors  
 Radar Sensors  
 Level Sensors  
 Limit Switches  
 Magnetic Switches



## Switch

Solid State Relays  
 Contactors and Overloads  
 Manual Motor Starters  
 Motor Controllers  
 Variable Frequency Drives  
 Electromechanical Relays  
 Pilot Devices  
 Cam Switches  
 Rotary Disconnects



## Control

Energy Management  
 Digital Panel Meters  
 PID Controllers  
 Switching Power Supplies  
 Time Delay Relays  
 Current Monitoring Relays  
 Voltage Monitoring Relays  
 Three Phase Monitoring Relays  
 Current Transformers  
 Enclosures



## Safety

Control Modules  
 Interlock Switches  
 Magnetic Sensors  
 Light Curtains  
 Stack Lights  
 Mat Systems



## Fieldbus

Dupline Field & Installation Bus  
 Building Automation Systems  
 Elevator Systems

## A Global Force in Industrial Automation

CARLO GAVAZZI has a multitude of sales offices spanning North America (not to mention our hundreds of distributors). Therefore, we can be viewed as "your local automation resource" - assisting you every step of the way in finding the proper solution for your various application requirements. Naturally, our job is greatly simplified as we have such a vast range of solutions to offer you via our comprehensive product package.

Our worldwide sales offices make us an ideal business partner, especially for manufacturers of exported machinery, as our products are available locally and they are CE marked.

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Timer Brochure 6/07

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