


GE552Y052

GE552Y053

GE552Y055

Description

The new modular Wireless M-Bus centralization system includes a GE552Y052 datalogger (with integrated web server) and GE552Y053 radio signal repeater antennae. The system provides for:

- serialization of multiple wireless and wired devices, up to 500 readable devices.
- direct control of 500 wireless devices or 20 wired devices and 480 wireless devices.

The number of wired devices can be extended up to 250 by connecting multiple GE552Y050 local concentrators to the GE552Y052 datalogger while still controlling up to 250 wireless devices.

Advantages

- The integrated web server allows the set-up, the search and the consultation of data from all the devices that make up the M-Bus network directly on the display of the device.
- Through a dial-up router all data can be managed and viewed on a PC or smartphone.
- Management of alarms due to failure, tampering or the exceeding of configurable thresholds with the sending of email notifications.
- Scheduling for the generation and forwarding of reports on the data gathered.

Versions and product codes

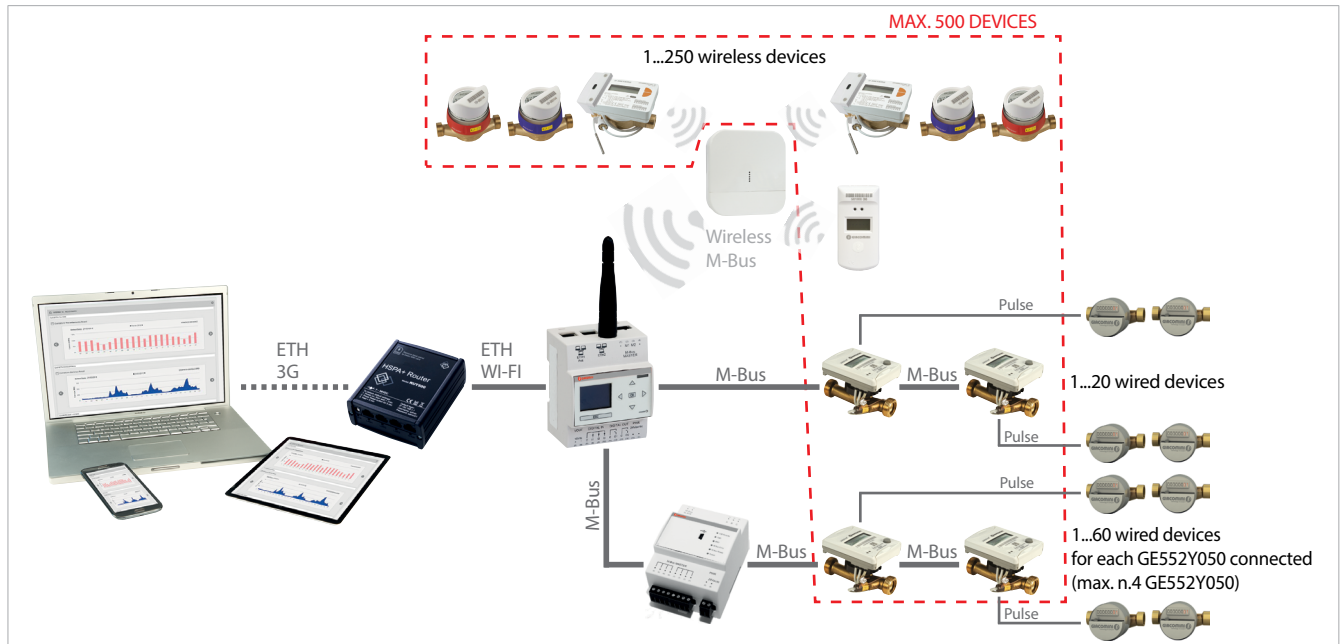
Product Code	Description
GE552Y052	Wireless M-Bus / M-Bus datalogger for acquisition, processing, recording of data originated by M-Bus wired or wireless devices. Directly controls up to 500 wireless devices and 20 wired devices
GE552Y053	Wireless repeater and concentrator to extend the device radio range and transmit data to the GE552Y052 datalogger.
GE552Y055	3G/EDGE/GPRS – wireless modem router for remote connection of the GE552Y052 datalogger.

Optional accessories

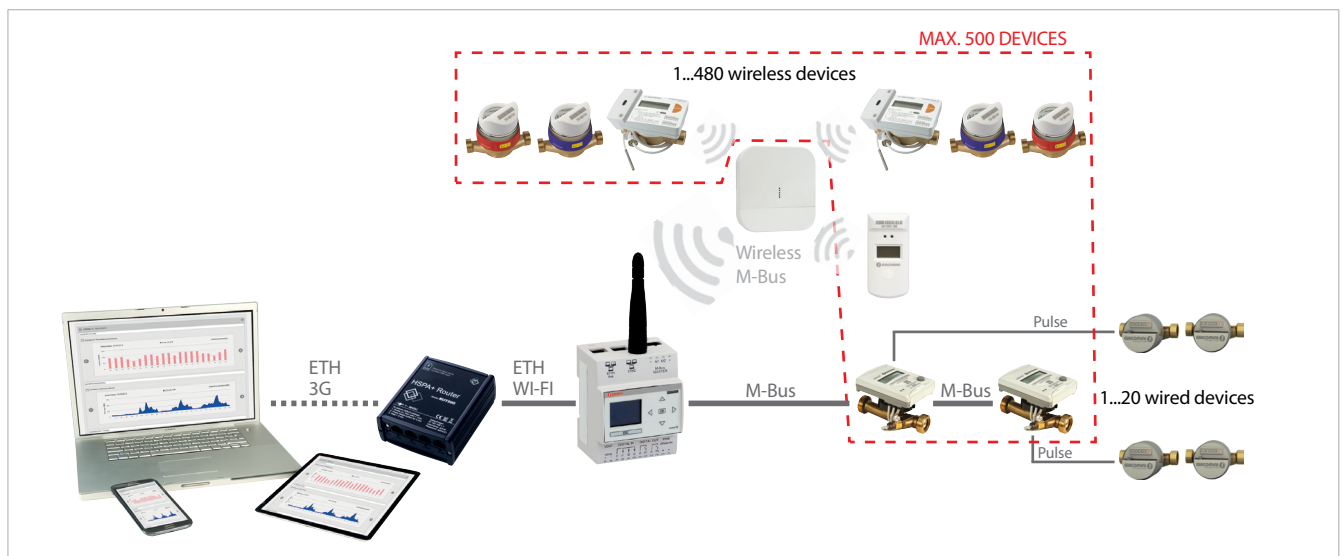
- **GE552Y050:** local concentrator for acquisition, processing and recording of data originated by the M-Bus network wired devices. Provides for control of up to 60 devices.

Example diagram

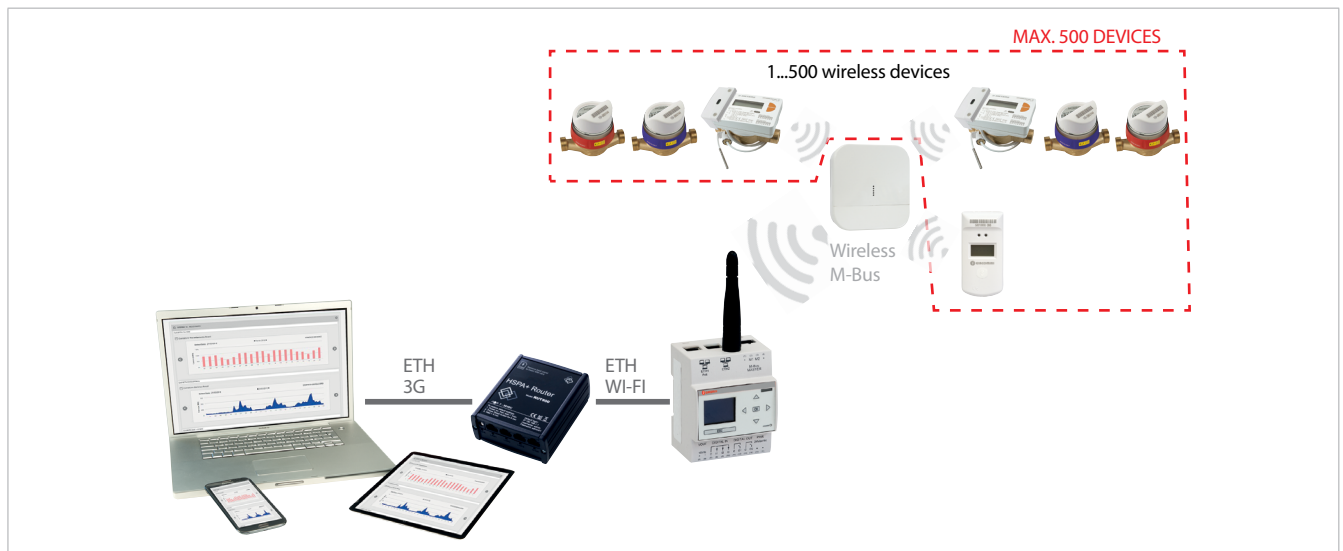
- 250 wired devices & 250 wireless devices



- 20 wired devices & 480 wireless devices



- 500 wireless devices





GE552Y052 wireless datalogger

Description

Datalogger for acquisition of data originated by GE552Y053 repeaters which, by means of the mesh network, collect information from the devices using the standard wireless and wired M-Bus protocol, such as metering units, consumption distributors, digital inlets/outlets, analogic inlets/outlets. Controls up to 500 devices* saving daily data for 10 years. The integrated web interface provides for data reading, report generation, setup of M-Bus networks and I/O control.

Equipped with graphic display for setup, real time data reading and I/O status without using a computer.

Inlets and outlets for system interaction and sending of emails, actuations with AND/OR combination logics and manual controls via WEB interface.

The datalogger can be connected directly with up to 20 wired M-Bus devices; by using a GE552Y050 local concentrator the number of wired devices can be extended up to 250. The package includes a reassemblable antenna with 1,5 m of cable for simplified installation.

* Max. number of devices for each datalogger

Wired devices	Wireless devices
250 (with GE552Y050 local concentrator)	250
20	480
0	500

Characteristics

- **User-friendly:** the graphic display enables to commission the metering system in a few steps guided by the configuration wizard. The main settings are performed locally on the display or through the web interface. It includes two ethernet ports with switch functions, provides for connection of multiple cascade-configured devices without network systems and the device can be powered also via Power over Ethernet (PoE).
- **Constantly updated:** the device verifies possible updates through internet and notifies the user who may install them by clicking on the web interface.
- **Smart:** the user can scan the M-Bus network to acquire the wired devices using just one button. The device automatic identification enables to promptly acquire the data and automatically create reports with preset data groups which can be edited by the user and equipped with metering unit, type of dimension and description (translated), with corresponding deletion of additional required activities by the user.

Electric characteristics

- Power: 24 Vdc \pm 10 %, 24 Vac (min. 20 Vac, max. 40 Vac) or PoE (IEEE 802.3)
- Installation category: class II
- Max. consumption: 7,5W
- Ethernet: N.2 (1 MAC): ETH1: Ethernet 1(PoE), ETH2: Ethernet 2
- Field bus: Total number of supported metering units: 500 (wireless + wired)
 - M-Bus wired interface max. 20 metering units
 - M-Bus wireless interface
- Digital inlets: N.3 - OFF = $V_{in} < 12$ Vdc, ON = $V_{in} > 12$ Vdc, max. $V_{in} = 24$ vdc
- Digital outlets: N.2 relay, contact range:
 - 5 A @ 250 Vac (Resistive load)
 - 5 A @ 30 Vdc (Resistive load)
 - 2 A @ 250 Vac (Inductive load $\cos\phi=0,4$; L/R=7 ms)
 - 2 A @ 30 Vdc (Inductive load $\cos\phi=0,4$; L/R=7 ms)
- Auxiliary voltage for digital inlets: 15 Vdc max. 10 mA

Mechanic characteristics

- Operational temperature range: -20÷55 °C
- Storage temperature range: -25÷65 °C
- Dimensions: 90x71x62 mm (HxLxP) – DIN
- Installation: 35 mm DIN rail (EN60715)
- Protection degree: IP20 (EN60529)

Wired M-Bus interface

- Rule of ref.: EN13757-2 (Physical Layer), EN13757-3 (Application Layer)
- Baud rate: Min. 300 bps – Max. 9600 bps
- N. of supported wired M-Bus devices:
 - connected directly: 20; through GE552Y050: max 250.
- Reading schedule: 15 mins / 60 mins / 6 hrs / 12 hrs / 1 day / 7 days / 1 month
- Collision identification on M-Bus network: yes
- Device research/acquisition: through Primary and Secondary Address

Wireless interface

- Frequency: 868 MHz
- Max. n. of supported GE552Y053: 23
- Supported Application Layers: Wireless M-Bus
- Metering unit identification mode: automatic or by system file import

Datalogging

- Data storage: 1 year for intra-day data originated by wired metering units, 2 months for intra-day data originated by radio metering units.
- Reports: XLS or CSV format
- Transmission: SMTP, FTP (Client), Webserver (report generation and download)
- Report generation planning: Daily / Monthly / Bimonthly / Quarterly / Four-monthly/ Six-monthly / Yearly

User interface

- Display: graphic, backlit, 16 scale gray shades, multi-language
- Keypad: 6-buttons tactile membrane
- Led Power: operational status
- HTTP: multi-language webserver for data reading and configuration

Logics/Alarm signals/Planning

- Alarm notification by device network: metering unit anomalies/alarms, communication anomaly, limit exceeding.
- On-board I/O: email notifications for digital inlet status.
- Logics: AND/OR based on local I/O and M-Bus network
 - Limit exceeding (max., min. value, range, max. consumption)
- Planned actions: reading report transmission



GE552Y053 wireless repeater and concentrator

Description

Wireless repeater able to acquire the signal of one or multiple metering units communicating according to the M-Bus Wireless (868 and 169) standard and to retransmit the received data to a network of other repeaters to extend the metering unit wireless range.

The data can also be acquired by the GE552Y052 datalogger.

Every repeater can control up to 500 metering units and cover a 500 m distance in free air and 40 m inside a building. The plastic housing with its linear and refined design, the totally concealed electric connections, the antennae integrated in the device itself, make this repeater the perfect solution for wall-mount installation, also for exposed assembly. Commissioning of GE552Y053 repeaters is made easier by the on-board led indicators which show the signal intensity; the device can be powered via USB for an easier research of the best installation point as the best signal/distance ratio can be identified in motion. An IP65 protection extension kit is available as optional for outdoor installation.

Characteristics

- **Multi-hop and open:** GE552Y053 repeaters feature the Multi-hop function which provides for extension of the network coverage when used with other repeaters; it can also control metering units with Wireless M-Bus (868 and 169) and OMS protocols. The received signals are immediately retransmitted with no time-shifting so as to obtain real time consumption data.
- **Smart:** The repeater supports the stand-alone mode as it saves the last data received by each metering unit, enabling the user to download the acquired data via USB port by means of the GE552Y056 software.

Benefits

- Multi-hop control with identification of system ID network.
- Opening to Wireless M-Bus multi-brand transmitters.
- Control of various operational modes (S-T-C).
- Extremely easy configuration by use of: on-board indicators, GE552Y052 web interface.
- On-board USB port for reading of last received data, updated firmware and power (specifically suitable for commissioning).
- Network power (no need to replace the batteries).
- Constant data filing.
- Management of data transmitted by devices communicating with a frequency up to 10 seconds (Wireless M-Bus channel reception always available).
- Extended coverage compared to any other wireless M-Bus available on the market.
- Non-bidirectional control of up to 500 wireless M-Bus transmitters.

Electric characteristics

- Power: 100..240 Vac @ 50-60 Hz
During commissioning/data reading: 5 Vdc via USB port (500 mA)
- Installation category: class II
- Max. consumption: 4,5 W

Mechanic characteristics

- Operational temperature range: -20÷85 °C
- Storage temperature range: -10÷85 °C
- Dimensions: 160x160x35 mm (HxLxP) – DIN
- Installation: wall-mount with screws / rail with special optional kit
- Protection degree: IP40 (EN60529)

Mesh network interface

- Frequency: 868MHz – max. transmission 27 dBm
- Max. distance between two GE552Y053: 500 m in free area – 40 m inside building

Wireless network interface

- Rule of ref.: EN13757-4 (Physical Layer), EN13757-3 (Application Layer)
- Supported application layers (combined to GE552Y052 or GE552Y056):
Wireless M-Bus, OMS
- Frequency: 868 MHz
- N. of supported wireless M-Bus metering units: 500
- Wireless M-Bus Mode: C1+T1+T2, S1+T1, T1+T2, T1
- Metering unit identification mode: based on data reception
based on SND_IR message reception
import of metering unit list from file

User interface

- Led Power: operational status.
- Signal strength led indicators: N.4 leds to display signal strength of the wireless network.
- TX/RX status led: N.4 leds to display the reception/transmission status of the wireless network and metering units.

GE552Y055 modem router

Description

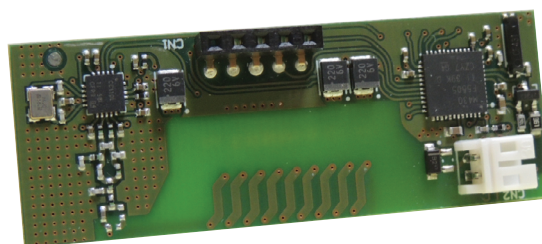
3G/EDGE/GPRS wireless modem router for remote connection of GE552Y052 datalogger.

Characteristics

- Internal 3G/EDGE/GPRS modem with up to 7.2 Mbps downlink and 2 Mbps uplink. No external cards required for 3G connection.
- High speed 54 Mbps 802.11 b/g wireless network. No need to drill holes or run Ethernet cabling to set up your network.
- Advanced secure wireless network with Wi-Fi Protected Access™ (WPA/WPA2).
- 10/100 BASE-T with auto MDIX. No need for crossover cables.
The router is pre-configured to accept telephone TIM telephone SIMs without pin code. It is possible to use WIND as an alternative operator, as long as the router is suitably reconfigured.
We recommend you should use a data sim with a "traffic" contract, rather than a "time" one.

Additional information

For additional information please check the website www.giacomini.com or contact the technical service: ☎ +39 0322 923372 📠 +39 0322 923255 ✉ consulenza.prodotti@giacomini.com
 This pamphlet is merely for information purposes. Giacomini S.p.A. retains the right to make modifications for technical or commercial reasons, without prior notice, to the items described in this pamphlet. The information described in this technical pamphlet does not exempt the user from following carefully the existing regulations and norms on good workmanship.
 Giacomini S.p.A. Via per Alzo, 39 - 28017 San Maurizio d'Opaglio (NO) Italy


GE552Y027

Descrizione - Description

La scheda wireless GE552Y027 è un modulo di comunicazione applicabile ai contatori di energia GE552Y215-216-217. Permette la centralizzazione via radio dei consumi e dei dati registrati dal contatore.

The GE552Y027 wireless board, is a communication module applicable to GE552Y215-216-217 energy meters. It allows to send consumptions via radio and monitor data recorded by the meter.

Versioni e codici - Versions and product codes

Codice Product code	Utilizzo con contatori di energia Use with energy meters
GE552Y027	GE552Y215, GE552Y216, GE552Y217

Contenuto della confezione - Package content

- Scheda wireless
- Sigillo installatore
- Istruzione
- Wireless board
- Installer sticker-seal
- Instruction

Dati tecnici - Technical data

- Alimentazione: batteria al litio (dal contatore di energia)
- Durata batteria contatore con scheda wireless: fino a 6 anni *
- Trasmissione radio: 868 MHz WMBUS Standard EN13757-4, compatibile OMS
- Potenza trasmissione: ≤10 dBm
- Copertura della trasmissione: fino a 300 metri **
- Campo di temperatura: -10÷55 °C
- Peso: 5 g

* In condizioni ambientali adeguate, da inizio vita contatore

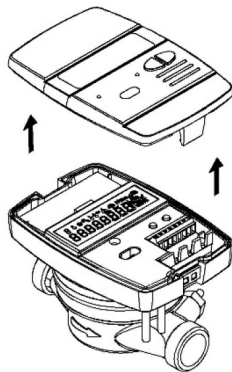
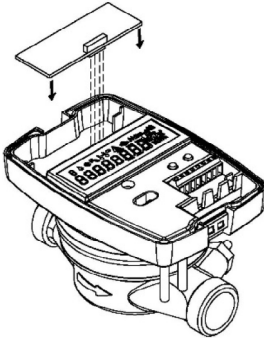
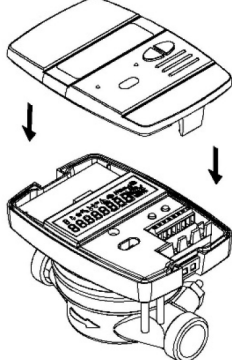
** In condizioni di propagazione ottimali

- Power supply: lithium battery (directly from the meter)
- Battery life: up to 6 years *
- Radio transmission: 868 MHz WMBUS Standard EN13757-4, OMS compatible
- Transmission power: ≤10 dBm
- Transmission coverage: up to 300 meters **
- Temperature range: -10÷55 °C
- Weight: 5 g

* Under proper environmental conditions, starting from the beginning of meter's lifetime

** Under optimal propagation conditions

Installazione - Installation

	<p>1) Rimuovere il coperchio del contatore di energia.</p> <p><i>Remove the cover of the meter.</i></p>
	<p>2) Installare la scheda wireless inserendola nel pettine come mostrato in figura e assicurarsi che sia ben saldo.</p> <p><i>Plug the wireless board as showed in figure and make sure that it is totally secure.</i></p>
	<p>3) Richiudere il coperchio del contatore di energia. E' consigliabile inoltre applicare il sigillo installatore fornito.</p> <p><i>Close the cover of the meter. It is recommended to apply the Installer sticker-seal supplied</i></p>



Avvertenza. Warning.

Durante il processo di installazione, maneggiare il modulo con cura. Non schiacciare; non piegare; non esporre a cariche elettrostatiche che potrebbero danneggiare irrimediabilmente il dispositivo.

During the installation procedure, handle the module with care. Do not crush; do not bend; do not expose to electrostatic charges that might damage the device.



Configurazione - Configuration

**Nota. Note.**

La configurazione della scheda wireless può essere eseguita solo quando essa è installata nel contatore di energia.

The configuration of the board can be performed after correct installation on the energy meter only.

Per effettuare la configurazione è indispensabile:

- Un PC (Windows) in cui eseguire il software di configurazione
- Software GESWY001
- Antenna ricevitrice dati wireless GE552Y043

To perform the configuration it is necessary:

- A (Windows) PC to run the configuration software
- Software GESWY001
- Antenna for wireless data receiving GE552Y043

Procedura di configurazione - Configuration procedure

- 1) Impostare il software GESWY001 per effettuare la configurazione.
- 2) Accedere al livello 3 - Configurazione* del display e una volta raggiunto il sub-livello 3s.16, attivare l'invio del pacchetto richiesta configurazione.
- 3) Aspettare la conferma di configurazione eseguita dal software.

* Per ulteriori dettagli sul funzionamento del contatore di energia, fare riferimento alla scheda tecnica 0856IT

- 1) Start and set the GESWY001 software to perform the configuration.
- 2) Enter the level 3 - Configuration* of the display and once you reach the sub-level 3s.16, enable the sending of the radio packet containing the configuration request.
- 3) Wait for the successful configuration notification by the software.

* For further details on the heat meter functions, refer to the datasheet 0856EN

Avvertenze per una migliore configurazione della scheda wireless

La scheda wireless GE552Y027 prevede l'invio delle seguenti informazioni:

- Energia misurata (calorie - utilizzo per riscaldamento)
- Volume utile alla contabilizzazione
- Allarmi

E' previsto inoltre l'invio di informazioni supplementari selezionabili:

- Temperatura sonda di mandata
- Temperatura sonda di ritorno
- Energia misurata (frigorie - utilizzo per raffrescamento)
- Informazioni aggiuntive input impulsi (C1 IN e C2 IN)
- Dati storici (fino ad un massimo di 12 mesi)

Si consiglia di impostare una configurazione della trasmissione radio del modulo idonea all'utilizzo del contatore di energia allo scopo di ottimizzare la vita del dispositivo. L'invio delle informazioni supplementari aumenta la lunghezza della trasmissione richiedendo maggior energia alla batteria.

Warnings to follow to achieve a better wireless board configuration

The GE552Y027 wireless board sends the following information:

- Accounted energy (Heating units – heating usage)
- Volume
- Alarms

It's also allowed to set some additional information sending:

- Supply pipe temperature
- Return pipe temperature
- Accounted energy (Cooling units – cooling usage)
- Additional information on the pulse inputs (C1 IN and C2 IN)
- Historical data (up to maximum 12 months)

Set a configuration according to the use of the heat meter allows to extend the module's life, sending the additional information increases the duration of the transmission by increasing the consumption of battery.

Altre informazioni

Per ulteriori informazioni consultare il sito www.giacomini.com o contattare il servizio tecnico: ☎ +39 0322 923372 📠 +39 0322 923255 ✉ consulenza.prodotti@giacomini.com

Questa comunicazione ha valore indicativo. Giacomini S.p.A. si riserva il diritto di apportare in qualunque momento, senza preavviso, modifiche per ragioni tecniche o commerciali agli articoli contenuti nella presente comunicazione. Le informazioni contenute in questa comunicazione tecnica non esentano l'utilizzatore dal seguire scrupolosamente le normative e le norme di buona tecnica esistenti. Giacomini S.p.A. Via per Alzo, 39 - 28017 San Maurizio d'Opaglio (NO) Italy

Additional information

For additional information please check the website www.giacomini.com or contact the technical service: ☎ +39 0322 923372 📠 +39 0322 923255 ✉ consulenza.prodotti@giacomini.com

This pamphlet is merely for information purposes. Giacomini S.p.A. retains the right to make modifications for technical or commercial reasons, without prior notice, to the items described in this pamphlet. The information described in this technical pamphlet does not exempt the user from following carefully the existing regulations and norms on good workmanship. Giacomini S.p.A. Via per Alzo, 39 - 28017 San Maurizio d'Opaglio (NO) Italy