Product Overview

Who we are

Carlo Gavazzi is an international group engaged in the design, manufacturing, and marketing of electronic control components for the global building and industrial automation markets. Its factories in Italy, Mexico, Lithuania, Malta, and China are certified to ISO 9001, ISO 14001, and ISO 45001 standards.

The company's product portfolio—including sensors, solid-state relays, energy meters and analyzers, IoT energy management systems, monitoring relays, soft starters, timers, power supplies, and safety devices—delivers comprehensive automation solutions for both industrial and building applications.

Typical customers include original equipment manufacturers in sectors such as access control, agriculture, conveyors, distributed energy resources, energy efficiency, energy storage, EV charging infrastructure, food & beverage, HVAC, mobile equipment, plastics & rubber, and semiconductors. In addition, system integrators and distributors play a key role as effective market channels.

Carlo Gavazzi markets its products worldwide through 23 wholly owned sales companies and approximately 60 independent national distributors, covering Europe, the Americas, and the Asia-Pacific region.

LoRa Alliance® Member

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Photoelectric sensors

Carlo Gavazzi offers a wide range of photoelectric sensors designed to be used extensively in applications such as material handling, packaging machinery, automatic door systems, etc. A variety of sensing principles are covered, to fit the requirements of virtually any application: diffuse-reflective (D), background suppression (B), retro-reflective (R) with or without polarization (P), for transparent objects (G), and through-beam (T). The sensors featuring IP69K ratings and ECOLAB approvals are designed for harsh environments.

Stand alone through beam PB10, PA12 & PE12

- Supply voltage: 10-30VDC
- Sensing distance: PB10/PA12 - 20m, PE12 - 15m, PD70 - 12 m
- Output: NPN/PNP - NO/NC
- Connectivity: cable or pig-tail
- Housing: PC, IP67
- Features: sensor mute input
- Approvals: CE - cULus (UL508, UL325)

PA18CA.., PA18CR..

- Supply voltage: DC 4-wire
- Sensing distance: < 20 m
- Output: NPN/PNP NO+NC
- Connectivity: cable or M12 connector
- Housing: PBTP, IP67, IP68, IP69K
- Sensor types: D, B, R, P and T
- Approvals: CE - cULus - ECOLAB

PH18CN..

- Supply voltage: DC 4-wire
- Sensing distance: < 20 m
- Output: NPN/PNP NO+NC
- Connectivity: cable or M12 connectors
- Housing: PBTP, IP67, IP68, IP69K
- Sensor types: D, B, R, P and T
- Approvals: CE - cULus - ECOLAB

EO18.., ER18.., EP18.. or ET18.. NPB housing

- Supply voltage: DC 4-wire
- Sensing distance: < 20 m
- Output: NPN/PNP NO+NC
- Connectivity: cable or M12 connector
- Housing: NPB, IP67
- Sensor types: D - 0,4m, R - 3m, P - 2m and T - 20m
- Approvals: CE - cULus

PD30C.., PD30E..

- Supply voltage: DC 4-wire
- Sensing distance: < 15 m
- Output: NPN/PNP NO+NC
- Connectivity: cable or M8 connectors
- Housing: ABS; IP67 Stainless Steel; IP69K
- Sensor types: D, B, R, P, G and T
- Approvals: CE - cULus - ECOLAB

PD30C.., PD30E.. with IO-Link

- Applications: Pattern Recognition, Speed & Length detection, Divider function, Object and Gap Monitoring
- Time Delays, Logic Functions
- Outputs: NPN, PNP, Push-Pull, External inputs
- Diagnostic function: QoT, QoR, Dust & Temp. Alarm, Operation hours, Power & Detection cycles, Max. and Min. Temp., Short-circuit, Maintenance, No of changes

LD30CPBR.. or LD30EPBR.. BGS with IO-Link and Red laser

- IO-Link Ver. 1.1
- Additional specifications: from PD30 with IO-Link
- BGS, FGS and Dual detection
- Logic: AND, OR, XOR, Gated SR-FF
- Housing: ABS; IP67 Stainless Steel; IP69K

LD30CNBI.., LD30ENBI.. ToF with IO-Link and IR laser

- IO-Link Ver. 1.1
- BGS - Time of flight sensor
- Time delay, ON, OFF, One shot
- Logic: AND, OR, XOR, Gated SR-FF
- Housing: ABS; IP67 Stainless Steel; IP69K
- Output and diagnostic function: from PD30 with IO-Link

PC50CN..

- Supply voltage: DC 4-wire or AC/DC 5-wire
- Sensing distance: D - 1 or 2m, B - 0,5m, P or R - 6m, T - 20m
- Output: NPN/PNP - NO+NC or SPDT 3 A
- Connectivity: cable or Turnable M12 connector
- Housing: ABS/PC, IP67
- Sensor types: D, B, R, P and T
- Approvals: CE - UL - CSA

PMD.., PMP.., PMR.. or PMT..

- Supply voltage: AC/DC 5-wire
- Output: SPDT 3 A
- Connectivity: cable outlet, terminals
- Housing: ABS/PC, IP67
- Sensor types: D - 0,8m, R - 10m, P - 6 or 12 m and T - 20m
- Approvals: CE - UL325 - UL508

Remote amplified sensors MOF.. or MOF.. + PAM03..

- Power supply: 24…42 VAC/DC
- Output from system: SPDT 1 mA to 1 A
- No crosstalk, Diagnostic, Auto setup
- Connectivity: Spring Terminals
- Housing: syst. PC/ABS, sens. PC IP67
- Sensor types: T, 20m or 50 m
- Approvals: CE - cULus (UL325 and UL508)

Remote amplified sensors MOF.. or MOF.. + S142..

- Supply from system: S142A, B or C
- Sensing distance: < 50 m
- Output from system: SPDT 10 A
- Connectivity: 11 pin socket
- Housing: syst. PPO, sens. PC IP67
- Sensor types: T, 20m or 50 m
- Approvals: CE - UL - CSA

Photoelectric sensors

Carlo Gavazzi offers a comprehensive range of sensors for Doors, Gates and Entrances, all approved to meet the latest European and North American regulations.
The motion and presence sensors are based on vision technology and have been developed for straight or curved sliding pedestrian doors. They provide easy set-up, easy adjustment of the detection zone and a cross-walk elimination function.

PA18CL..

- Supply voltage: AC 2-wire
- Output: AC 500 mA
- Connectivity: cable or M12 connector
- Housing: PBTP or NPB, IP67
- Features: D - 0,1...0,4 m
  R - 3m or P - 2 m type
- Approvals: CE - UL- CSA

Liquid level VP-sensor

- Supply voltage: DC 3-wire, AC 2-wire
- Sensing distance: direct contact
- Output: NPN/PNP/NO/NC, AC NO/NC
- Connectivity: cable or M12 connector
- Housing: PA12, PSU, Glass, NPB, stainless steel, IP67
- Approvals: CE - UL - CSA

Fork sensor PF74, for lifts

- Supply voltage: DC 3-wire
- Slot width: < 30 mm
- Output: NPN+PNP NO/NC
- Connectivity: cable outlet
- Housing: PC, IP65
- Features: High dust immunity, T type
- Approvals: CE

Automatic doors PD98

- Supply voltage: AC/DC 5-wire
- Sensing distance: < 30 m
- Output: SPDT 1 A
- Connectivity: cable outlet, terminals
- Housing: PC/ABS, IP54
- Features: sensor mute input, T type
- Approvals: CE - UL325

Automatic doors PD86

- Supply voltage: AC/DC 5-wire
- Sensing distance: < 30 m
- Output: SPDT 1 A
- Connectivity: cable outlet, terminals
- Housing: PC/ABS, IP54
- Features: sensor mute input, T type
- Approvals: CE - UL325

Automatic doors PD140

- Supply voltage: AC/DC 5-wire
- Sensing distance: < 60 m
- Output: SPST 1 A
- Connectivity: cable outlet, terminals
- Housing: Aluminium/PC, IP65
- Features: sensor mute input, T type
- Approvals: CE - UL325, EN 12445, EN 12453, EN12978,
- EN/ISO 13849-1 ESPE2

Automatic doors PD180

- Supply voltage: AC/DC 5-wire, battery
- Sensing distance: < 30 m
- Output: SPST 1 A
- Connectivity: cable outlet, terminals
- Housing: PC, IP55
- Features: sensor mute input, T type
- Approvals: CE - UL325, EN 12445, EN 12453, EN12978
- EN/ISO 13849-1 ESPE2

Long range BGS PD112

- Supply voltage: DC 4-wire
- Sensing distance: < 2.5 m
- Output: NPN/PNP NO+NC
- Connectivity: cable or M12 connector
- Housing: PC, IP67
- Features: B, industrial or door mode
- Approvals: CE - cULus

Automatic doors MPF Sensors + MPF amplifiers

- Supply voltage: AC/DC or AC
- Sensing distance: 15 m
- Output: 2 x SPST 0.5 A or 2 A
- IP ratings: System IP40, sensors IP67
- Housing: system PC, sensors PC
- Features: sensor mute input, T type
- Approvals: CE, cURus UL325, cULus UL 508

Automatic doors PD70CNT...

- Supply voltage: 10-30VDC
- Sensing distance: 12 m
- Output: NPN/PNP - NO/NC
- Connectivity: cable or M8 connector
- Housing: PC, IP67
- Features: sensor mute input, T type
- Approvals: CE - cULus (UL508, UL325)

Reflectors

- High quality retro-reflectors
- Housing shape: square or round
- Round shape: Ø25 to Ø84 mm
- Square shape: 13x17 to 100x100 mm
- Mounting: adhesive or screws
- Material: PMMA/ABS

Mounting brackets AMB series

- Bracket style: Straight or angled
- Sensor size: Ø4, M8, M12, M18 or M30
- Bracket material: galvanized steel or stainless steel AISI316L or Nylon 66 plastic housing
- Adjustability: ±32°
- Head can be rotated 360°

CARLO GAVAZZI

Capacitive sensors

Carlo Gavazzi is renowned for its TRIPLESHIELD™ capacitive proximity sensors with outstanding electromagnetic immunity. The 4th Generation TRIPLESHIELD™ sensors feature several significant upgrades, including superior electromagnetic immunity and refined sensitivity adjustment with stability indication and are now also available with on-board IO-Link communication. New benefits include a dust and temperature alarm function. Featuring an ECOLAB certified sensor housing rated to IP69K standard, these sensors are exceptionally well suited for a precise detection in environments subject to high temperatures, harsh chemicals, steam and high-pressure cleaning. The sensors are ideal for a wide range of applications that require reliable measurements or monitoring of solid materials or fluids.

CA18 and CA30 4th Gen. Tripleshield™

- Supply voltage: DC 4-wire
- Sensing distance M18: 8 mm (F), 12 mm (NF)
- Sensing distance M30: 16 mm (F), 25 mm (NF)
- Output: NPN/PNP NO+NC
- Connectivity: cable or M12 connector
- Housing: PBT, IP67, IP68, IP69K
- Features: superior immunity to EMI

CA12...IO / CA18...IO / CA30...IO with IO-Link

- Additional: to standard 4th Gen. Tripleshield™
- IO-Link Ver. 1.1
- Time delay, ON, OFF, One shot
- Logic: AND, OR, XOR, Gated SR-FF
- Outputs: NPN, PNP or Push-Pull, External input
- Housing: PBT, Or AISI316L or PFTE, IP68, IP69K
- Diagnostic functions: Operation hours, Power cycles, Detection cycles, Temperatures, Short-circuit, Maintenance

CA18CB.. and CA30CB.. with LED bargraf

- Additional: to CA18…IO and CA30…IO
- Connectivity: cable or M12 connector
- Housing: PBT, IP67, IP68, IP69K
- LED Bargraqf for easy adjustment for objects that changes dielectric value e.g. Feed for chickens
- Approvals: CE - UL - CSA

CA18CL.., EC3016TB.. or EC3025TB.. Tripleshield™

- Supply voltage: DC 4-wire
- Sensing distance M18: 8 mm (F), 12 mm (NF)
- Sensing distance M30: 16 mm (F), 25 mm (NF)
- Output: NPN/PNP NO+NC
- Housing: PP or PVC, IP67
- Features: high chemical resistance
- Approvals: CE

CD34CNF..

- Supply voltage: DC 4-wire
- Sensing: water-based liquids
- Output: NPN/PNP NO/NC
- Connectivity: cable or M8 4-pin pig-tail
- Housing: PBT, IP65, IP66, IP67, IP68, IP69K
- Features: automatic tankwall suppression
- Approvals: CE - cULus - ECOLAB

CD46CNC.. Tripleshield™

- Supply voltage: DC 4-wire
- Sensing distance: < 10 mm (F/NF)
- Output: NPN/PNP NO/NC, Teach
- Connectivity: cable or M12 pig-tail
- Housing: PBT, IP68
- Features: high immunity to EMI
- Approvals: CE - UL - CSA

EC55.. Tripleshield™

- Supply voltage: DC 4-wire
- Sensing distance: < 25 mm (F/NF)
- Output: NPN/PNP NO+NC
- Connectivity: cable or M12 pig-tail
- Housing: PC, IP67
- Features: high immunity to EMI
- Approvals: CE - UL - CSA

CD50CNF..

- Supply voltage: DC 4-wire
- Sensing distance: < 10 mm (F)
- Output: NPN/PNP NO/NC
- Connectivity: cable
- Housing: PPE-TPE, IP67
- Approvals: CE

CB18CLN12.. Ø18mm ATEX Zone 22

- Supply voltage: DC 4-wire, AC 2-wire
- Sensing distance: < 12 mm (NF)
- Output: NPN/PNP NO+NC, SCR NO/NC
- Connectivity: cable
- Housing: PBT, IP67
- Features: fixed ON-delay 30 sec
- Approvals: CE - UL - CSA - ATEX

CB32CLN.. Ø32 mm ATEX Zone 20

- Supply voltage: AC/DC 5-wire, AC 5-wire
- Sensing distance: < 20 mm (NF)
- Output: SPDT 2 A
- Connectivity: cable
- Housing: PBT, IP67
- Features: adj. ON or OFF delay 600 sec
- Approvals: CE - cULus (M24), ATEX

CB32CLN.. Ø32 mm ATEX Zone 20

- Supply voltage: AC/DC 5-wire, AC 5-wire
- Sensing distance: < 20 mm (NF)
- Output: SPDT 2 A
- Connectivity: cable
- Housing: PBT, IP67
- Features: adj. ON or OFF delay 600 sec
- Approvals: CE - ATEX

ECH3010.. High temp. capacitive sensor

- Supply voltage: DC 4-wire
- Sensing distance 4…15 mm
- Operating temperature: Sensor up -196°…180°C amplifier -25…70°C
- Connectivity: M12 connector
- Housing IP67: Sensor - PTFE + Stainledd Steel Amplifier - PBTP

Inductive sensors

Carlo Gavazzi offers a broad range of inductive sensors, primarily used for reliable contactless detection of machine moving or rotating parts. These extremely accurate and robust sensors are used in packaging and plastics machines, conveyor systems, agriculture and mobile equipment. They are available in a wide variety of styles, including cylindrical housings (from 4 to 30 mm) with a sensing distance of up to 40 mm, flat pack, and 40 x 40 rotable head. The ICS E1 series resists to high levels of shock and vibrations, wide temperature variations, voltage peaks of up to 200 V, high pressure and high temperature wash-down thanks to IP69K rating, and have an outstanding immunity to radiated noise of up to 200 V/m. The miniature series, from Ø4 to M8, can reach a frequency of up to 6 kHz and is also available with on-board IO-Link communication, as is the new ICB series, fully embracing the Industry 4.0 requirements.

IBS04 Ø4

- Supply voltage: 3-w DC
- Sn: ≤ 1.3 mm (F)
- Output: NPN/PNP - NO/NC
- Connectivity: cable or M8 connector
- Housing: stainless steel, IP67
- Special features: miniature series, operating frequency up to 6 kHz
- Approvals: CE - UL - CSA

ICS05 M5

- Supply voltage: 3-w DC
- Sn: ≤ 1.3 mm (F)
- Output: NPN/PNP - NO/NC
- Connectivity: cable or M8 connector
- Housing: stainless steel, IP67
- Special features: miniature series, operating frequency up to 6 kHz
- Approvals: CE - UL - CSA

IBS06 Ø6.5

- Supply voltage: 3-w DC
- Sn: 2 mm (F)
- Output: NPN/PNP - NO/NC
- Connectivity: cable or M8 connector
- Housing: stainless steel, IP67
- Special features: miniature series, short or long body
- Approvals: CE - cULus

IBS04..IO / ICS05..IO / ICS08..IO Ø4 - M5 - M8 with IO-Link

- Additional specifications: from standard IO-Link Ver. 1.1
- Time delay, ON, OFF, One shot
- Outputs: configurable NO or NC; NPN, PNP or Push-Pull
- Switching mode: 1P / 2P / W
- Adjustable Sn and hysteresis
- Rev. counter / Speed mon. / Temp alarm
- Approvals: CE - UL - CSA

ICS08 M8

- Supply voltage: 3-w DC
- Sn: ≤ 4 mm (F/NF)
- Output: NPN/PNP - NO/NC
- Connectivity: cable or M8 connector
- Housing: stainless steel, IP67
- Special features: miniature series, short or long body
- Approvals: CE - cULus

ICS08...M1 M8 with M12 connector

- Supply voltage: 3-w DC
- Sn: ≤ 4 mm (F/NF)
- Output: PNP - NO
- Connectivity: M12 connector
- Housing: stainless steel, IP67
- Special features: miniature series, short body
- Approvals: CE - cULus

ICB M12 - M18 - M30

- Supply voltage: 3-w DC
- Sn: ≤ 40 mm (F/NF/QF)
- Output: NPN/PNP - NO/NC
- Connectivity: cable or M12 connector
- Housing: nickel-plated brass, IP67
- Special features: complete range, short or long body
- Approvals: CE - cULus

ICB...IO M12 - M18 - M30 with IO-Link

- Additional specifications: from standard IO-Link Ver. 1.1
- Time delay, ON, OFF, One shot
- Outputs: configurable NO or NC; NPN, PNP or Push-Pull
- Switching mode: 1P / 2P / W
- Adjustable Sn and hysteresis
- Rev. counter / Speed mon. / Temp alarm
- Approvals: CE - cULus

ICS...E1 M12 - M18 - M30

- Supply voltage: 3-w DC
- Sn: ≤ 22 mm (F/NF)
- Output: NPN/PNP - NO/NC
- Connectivity: cable or M12 connector
- Housing: stainless steel, IP67, IP68, IP69K
- Special features: Mobile equipment applications. 8-60 VDC, Load dump protection, 200 V/m radiated immunity
- Approvals: CE - cULus - E1

ICF M12 - M18 - M30

- Additional specifications: from IO-Link
- Condition monitoring: Low margin alarm, Proximity alarm, Activation Level
- Find my sensor function
- Full metal face resistant up to 260 bar pressure for M12, 200 bar for M18 and 100 bar for M30
- Housing: stainless steel, IP67, IP68, IP69K
- Approvals: CE - cULus - ECOLAB

IRC40 Rotatable head

- Supply voltage: 4-w DC
- Sensing distance: ≤ 40 mm (F/NF)
- Output: NPN/PNP - NO+NC
- Connectivity: M12 connector
- Housing: PBT, IP67, IP68, IP69K
- Special features: rotatable sensing face, quick mounting system, 4 corner LEDs
- Approvals: CE - cULus

LDP - LDD Loop detector

- Supply voltage: 24-240 VAC/VDC 12-36 VAC/VDC [LDP]
- Input: 1 loop or dual loop
- Output: 2 x SPDT, relay output
- Mounting: plug [LDP], DIN-rail [LDD]
- Special features: automatic sensitivity boost, automatic frequency tuning, fail safe/fail secure, advanced diagnostics
- Appr.: CE - UL [LDP] - CSA [LDP] - cULus [LDD]

Switching mode: 1P: Single point / 2P: Two points / W: Windows mode - Rev. counter: Revolution counter / Speed mon.: Rotational speed monitoring / Temp alarm: Temperature alarm

CARLO GAVAZZI

Ultrasonic sensors

The ultrasonic sensors from Carlo Gavazzi provide superior sensing solutions for a variety of industrial applications. The UA sensors are excellent for contactless position and distance measurement and are able to detect any sound reflecting targets regardless of colour, transparency or surface. Due to their resistance to temperature variations and immunity against dust, steam and fumes, these sensors are especially well suited to harsh environments. The sensors come in a two switching output version and a combined version with one switching and one analogue output. Thanks to improved technology, an extended sensing distance and a reduced housing length, these sensors provide a state-of-the-art sensor family with high accuracy, versatility and resilience.

UA12ASD..BPM1IO
M12 plug with IO-Link

- Supply voltage: 18...30 VDC
- Sn: 200 or 400 mm teach-by wire
- Output: Push-Pull, NPN, PNP
- Timer functions: ON delay, OFF delay
- Housing: NPB, IP67
- Switching mode: 1P / 2P / W / R
- Diag: T° / OpH / PwrCyc / ErrCnt
- Approvals: CE - cULus

UA12ASD..APM1IO
M12 plug with IO-Link

- Supply voltage: 18...30 VDC
- Sn: 200 or 400 mm teach-by wire
- Output: 0...10V, 0...20mA or 4...20 mA, Teach input or Push-Pull, NPN, PNP
- Timer functions: ON delay, OFF delay
- Housing: NPB, IP67
- Switching mode: 1P / 2P / W / R
- Diag: T° / OpH / PwrCyc / ErrCnt / DevStat
- Approvals: CE - cULus

UA18ASD..BPM1IO
M12 plug with IO-Link

- Supply voltage: 18...30 VDC
- Sn: 800 or 1500 mm teach-by wire
- Output: Push-Pull, NPN, PNP
- Timer functions: ON delay, OFF delay
- Housing: NPB, IP67
- Switching mode: 1P / 2P / W / R
- Diag: T° / OpH / PwrCyc / ErrCnt / DevStat
- Approvals: CE - cULus

UA18ASD..APM1IO
M12 plug with IO-Link

- Supply voltage: 18...30 VDC
- Sn: 800 or 1500 mm teach-by wire
- Output: 0...10V, 0...20mA or 4...20 mA, Teach input or Push-Pull, NPN, PNP
- Timer functions: ON delay, OFF delay
- Housing: NPB, IP67
- Switching mode: 1P / 2P / W / R
- Diag: T° / Op.H. / Pwr.Cyc. / Err.Cnt. / Dev.Stat.
- Approvals: CE - cULus

UA30ASD30BPM1IO
M12 plug with IO-Link

- Supply voltage: 18...30 VDC
- Sn: 3000 mm teach-by wire
- Output: Push-Pull, NPN, PNP
- Timer functions: ON delay, OFF delay
- Housing: NPB, IP67
- Switching mode: 1P / 2P / W / R
- Diag: T° / OpH / PwrCyc / ErrCnt / DevStat
- Approvals: CE - cULus

UA30ASD30APM1IO
M12 plug with IO-Link

- Supply voltage: 18...30 VDC
- Sn: 3000 mm teach-by wire
- Output: 0...10V, 0...20mA or 4...20 mA, Teach input or Push-Pull, NPN, PNP
- Timer functions: ON delay, OFF delay
- Housing: NPB, IP67
- Switching mode: 1P / 2P / W / R
- Diag: T° / OpH / PwrCyc / ErrCnt / DevStat
- Approvals: CE - cULus

UA30ASD60BPM1IO
M12 plug with IO-Link

- Supply voltage: 18...30 VDC
- Sn: 6000 mm teach-by wire
- Output: Push-Pull, NPN, PNP
- Timer functions: ON delay, OFF delay
- Housing: NPB, IP67
- Switching mode: 1P / 2P / W / R
- Diag: T° / OpH / PwrCyc / ErrCnt / DevStat
- Approvals: CE - cULus

UA30ASD60APM1IO
M12 plug with IO-Link

- Supply voltage: 18….30 VDC
- Sn: 6000 mm teach-by wire
- Output: 0...10V, 0...20mA or 4...20 mA, Teach input or Push-Pull, NPN, PNP
- Timer functions: ON delay, OFF delay
- Housing: NPB, IP67
- Switching mode: 1P / 2P / W / R
- Diag: T° / OpH / PwrCyc / ErrCnt / DevStat
- Approvals: CE - cULus

UA18CSD...
Short body PBT housing

- Supply voltage: DC 4-wire
- Sn: 300 or 800 mm teach-by wire
- Output: NPN/PNP - NO/NC
- Output: analogue 4-20 mA/0-10 V
- Connectivity: cable or M12 connector
- Housing: PBT, IP67
- Features: switching, positive or negative slope
- Approvals: CE - cULus

UA18ESD...
Short body stainless steel

- Supply voltage: DC 4-wire
- Sn: 300 or 800 mm teach-by wire
- Output: NPN/PNP - NO/NC
- Output: analogue 4-20 mA/0-10 V
- Connectivity: cable or M12 connector
- Housing: AISI316L stainless steel, IP67
- Features: switching, positive or negative slope
- Approvals: CE - cULus

Switching mode: 1P: Single point / 2P: Two points / W: Windows mode / R: Reflex mode - Diagnostics: T°: Temperature / OpH: Operation hours / PwrCyc: Power cycles / ErrCnt: Error count / DevStat: Device status

Magnetic sensors

Carlo Gavazzi offers a comprehensive range of proximity magnetic sensors to be used in detection applications. They are employed in conjunction with an external magnet: when the sensor approaches the magnet, the output from the sensor changes the status. There is a wide variety of styles available including rectangular, cylindrical and slotted. Safety magnetic sensors with special coded magnets are available in compact or standard rectangular housings, the ideal solution to monitor sliding, hinged and removable safety guards. Magnetic sensors are frequently used for elevators and lifts, gate control, level detection and access control. Some proximity and level sensors are certified for use in explosive environments (ATEX).

FMMP Ø 6

- Max. switch. power contact: 10 VA
- Operating distance: > 8 mm
- Output: NO
- Connectivity: 0.5 m twin lead cable
- Housing: plastic, IP67
- Special features: cylindrical series
- Approvals: CE

FS Ø 13,5

- Max. switch. power contact: up to 120 VA
- Operating distance: 3 - 12 mm
- Output: NO, NC, CO
- Connectivity: 0.5 m PVC cable
- Housing: plastic, IP67
- Special feature: cylindrical series
- Approvals: CE

FMM M8

- Max. switch. power contact: up to 10 VA
- Operating distance: 8 - 28 mm
- Output: NO, CO
- Connectivity: 2 m PVC cable
- Housing: stainless steel or NPB, IP67
- Special feature: cylindrical series
- Approvals: CE

FM, FS M10

- Max. switch. power contact: up to 120 VA
- Operating distance: 7 - 36 mm
- Output: NO, CO
- Connectivity: 2 m PVC cable
- Housing: brass or NPB, IP67
- Special feature: cylindrical series
- Approvals: CE

FM, FMP, FSM M12

- Max. switch. power contact: up to 120 VA
- Operating distance: 2 - 20 mm
- Output: NO, NC, CO, bistable
- Connectivity: 2 m PVC cable or 2 m silicone cable
- Housing: brass, NPB, plastic, IP67
- Special feature: includes a special family for elevators
- Approvals: CE

FS M16

- Max. switch. power contact: up to 100 VA
- Operating distance: 5 - 32 mm
- Output: CO, Bistable
- Connectivity: 2 m PVC cable or 0.5 m silicone cable
- Housing: brass, plastic, IP67
- Special features: includes a special family up to 150°C
- Approvals: CE

S, SP, M, MS, MM Flat type

- Max. switch. power contact: up to 120 VA
- Operating distance: 5 - 40 mm
- Output: NO, NC, CO, bistable
- Connectivity: PVC cable, pig tail, twin lead cable
- Housing: plastic, IP67
- Special features: includes a family with 2xNC outputs
- Approvals: CE

IL Level (inox)

- Max. switch. power contact: up to 120 VA
- Float diameter: Ø 28, Ø 53
- Output: NO, NC, CO, NO/NC
- Connectivity: silicone cable, XLPE cable
- Housing: stainless steel, IP67, IP68
- Special feature: includes a family up to 200°C
- Approvals: CE

IL Level (plastic)

- Max. switch. power contact: up to 120 VA
- Float diameter: Ø 25, 17.5, 31, 44, 45 mm
- Output: NO, CO, NO/NC
- Connectivity: PVC cable, silicone cable, XLPE cable
- Housing: plastic, IP67, IP68
- Special feature: possibility to reverse the output function
- Approvals: CE

FSQ, ILM, MQ ATEX

- Max. switch. power contact: up to 100 VA
- Operating distance: 8 - 35 mm
- Output: NO, NC, CO
- Connectivity: silicone, HF PUR, PVC cable
- Housing: stainless steel, self-ext. plastic, IP66, IP67
- Special features: Category 2G, 2D or 1G, 1D
- Approvals: CE - TUV Sud

MC88 Safety sensors (standard)

- Max. switch. power contact: 6 W
- Operating distance (Sao): 5 mm, 8 mm, 18 mm depending on actuator
- Output: 2 NO, 1 NO + 1 NC, 2 NO + 1 NC
- Connectivity: PVC cable, M8-plug, pig-tail with M12 connector
- Housing: rectangular, plastic, IP67, IP69K [Plug version without LED]
- Approvals: CE - cULus

MC36 Safety sensors (compact)

- Max. switch. power contact: 6 W
- Operating distance (Sao): 5 mm
- Output: 2 NO, 1 NO + 1 NC, 2 NO + 1 NC
- Connectivity: PVC cable, M8-plug
- Housing: rectangular, plastic, IP67, IP69K [Plug version without LED]
- Special features: compact dimensions, left or right exit, with or without LED
- Approvals: CE - cULus

Connectivity, industrial networking and wind sensors

To support its wide range of sensors, Carlo Gavazzi also offers a number of accessories and connectors for all market needs, that are characterized by high quality standards. The SCTL55 is the Industry 4.0 portable and user-friendly configurator for IO-Link sensors, providing simple configuration, monitoring and advanced diagnostic data. Y-series IO-Link masters allow connection of up to 8 smart devices to the higher-level control system and support EtherNet/IP™, PROFINET IO, and MODBUS TCP. Thanks to the integrated web server and IODD interpreter it is easy to configure and access diagnostic information via a web browser, also remotely from PC or tablets. Wind sensors are designed for measuring wind direction and wind speed in a wide variety of applications including wind turbines, cranes, weather stations and solar panels.

YN Series IO-Link masters

- DIN rail fielbus module
- IO-Link v1.1 and v1.0
- Integrated web server accessible via browser
- 8 IO-Link outputs, 2 Ethernet ports
- EtherNet/IP™ or PROFINET IO, Modbus TCP
- OPC UA support
- Pluggable push-in and screw terminal connectors
- Approvals: CE - UL - FCC

YL Series IO-Link masters

- Machine mount fielbus module
- IO-Link v1.1 and v1.0
- Integrated web server accessible via browser
- 8 IO-Link outputs, 2 Ethernet ports
- EtherNet/IP™ or PROFINET IO, Modbus TCP
- M12 connectors
- OPC UA support
- Approvals: CE - UL - FCC

SCTL55 Smart configurator

- Handheld device for easy monitoring, diagnostics, configuration and cloning of IO-Link sensors
- IO-Link v1.1
- 5.5" HD touch screen display
- Automatic IODD file download via Wi-Fi
- High capacity rechargeable battery
- M8 3-wire, M8 4-wire and M12 connectors
- Approvals: CE - FCC - IC

ST-04 Sensor tester

- Portable device for testing a DC sensor, 3 or 4 wires
- Targets integrated for inductive, capacitive, photoelectric and magnetic sensors
- Spring terminals for quick wiring
- NPN/PNP touch selector
- Immediate test result
- Powered by two 9V batteries or via USB Type-C

CON PVC Single-ended

- M8 [CON5..] female connector
- M12 [CON1..] female connector
- Straight version [S..]
- Angled version [A..]
- 2 or 5 m cable length
- 3/4/5 wire DC version
- IP67 rating
- Made in Europe
- Approvals: CE - UL

CON PVC Double-ended

- M8 female connector to M12 straight male [CON5...1MS..]
- M12 female connector to M12 straight male [CON1...1MS..]
- 2 or 5 m cable length
- IP67 rating
- Made in Europe
- Approvals: CE - UL

CONE PUR Single-ended

- M8 [CONE5..P] female connector
- M12 [CONE1..P] female connector
- Straight version [-S..]
- Angled version [-A..]
- 2 or 5 m cable length
- 3/4/5 wire DC version
- Optional LED indicators [-.NT..], [-.PT..]
- IP67 rating
- Approvals: CE - UL

CONH6 Single-ended

- M12 female connector
- Straight version [-S.]
- Angled version [-A.]
- 2 or 5 m cable length
- 2 wire AC version
- IP67 rating
- PVC cable

CONE14NF-S/-A Connector only

- M12 connector only
- Straight version [CONE14NF-S]
- Angled version [CONE14NF-A]
- Field-wireable
- 4 wire version
- IP67 rating

DWS-D Wind direction

- Wind vane
- Measures wind direction
- 0° to 360° measurement
- 90° measurement interval
- PNP or NPN output
- -20°C to +60°C
- IP54 rating
- Built-in heater, High ESD protection

DWS-V Wind speed

- Anemometer
- Measures wind speed
- 2 to 30 m/s
- PNP or NPN output
- PVC cable connection
- -20°C to +60°C
- IP54 rating
- Built-in heater, High ESD protection

DWS-V-AGP Wind speed

- Anemometer, 4-20 mA output
- Measures wind speed
- 2 to 50 m/s
- PNP or NPN output
- M16 plug
- -20°C to +60°C
- IP54 rating
- Built-in heater, High ESD protection

Level sensors

The Carlo Gavazzi range of conductive level sensors is well suited to most level control applications. The new CL-series of intelligent conductive level controllers is used for conductive liquid level monitoring and pump controlling. CLH models with a flexible conductive level probe can accommodate up to five rods for four different levels of control. Operating levels in the tank can easily be modified by extending or cutting short the length of the electrodes. The typical applications of conductive sensors are level control and flow detection in agriculture, the chemical sector, food and beverage, water distribution and water treatment industries.

CLD 1

- 5 KΩ to 150 kΩ
- Filling or emptying
- 17.5 mm width slim housing
- ON or OFF delay timer
- 1 X 8 A / 250 VAC output

CLD 2EB

- 250 Ω to 500 kΩ
- Filling or emptying
- 17.5 mm width slim housing
- 24-240 VAC/DC supply
- 1 X 8 A / 250 VAC output

CLP 2EB

- 5 KΩ to 150 kΩ
- Filling or emptying
- 35.5 mm width housing
- Simple amplifier
- 1 X 8 A / 250 VAC output

CLP2 Plug-in

- 250 Ω to 500 kΩ
- Filling or emptying
- 35.5 mm width housing
- 3 conductive ranges (L/S/H)
- 2 X 8 A / 250 VAC output

CLD2 DIN-rail

- 250 Ω to 500 kΩ
- Filling or emptying
- 35.5 mm width housing
- 3 conductive ranges (L/S/H)
- 2 X 8 A / 250 VAC output

CLP2 Master-Slave

- 250 Ω to 500 kΩ
- Filling or emptying
- Cascade up to 7 amplifiers
- Many different levels
- 1 X 8 A / 250 VAC output

CLP4 Plug-in

- 250 Ω to 500 kΩ
- Many different functions
- Up to 4 levels
- Tank well function
- 2 X 8 A / 250 VAC output

CLD4 DIN-rail

- 250 Ω to 500 kΩ
- Many different functions
- Up to 4 levels
- Tank well function
- 2 X 8 A / 250 VAC output

CLH

- 3 or 5 electrodes
- Standard 1 m length
- Length can be extended
- Electrode isolation
- Flexibility

VN/VT

- Up to 4 electrodes
- Standard 1 m length
- Stainless steel electrodes
- Electrode isolation
- Different housing materials

VH

- 1 electrode
- Level hanging probe
- UV resistant PVC or Neoprene cable
- Stainless steel electrodes
- Suitable for swimming pools

A94-10

- 2 electrodes
- Level hanging probe
- 5 m PVC cable
- Polyester housing
- Suitable for swimming pools

Limit switches and Safety switches

Carlo Gavazzi offers a complete range of limit and safety switches, providing machine manufacturers and panel builders with global and exhaustive solutions which allow machinery to operate correctly, minimizing process stops and personnel risk. Switches may be operated by process variables such as pressure, temperature, flow, current, voltage and force, acting as sensors in a process and used to automatically control a system.

PS21L
30 mm series

- Plastic or Metal housing
- 1 NO + 1 NC, 2 NO or 2 NC contacts, snap or slow action
- Selectable actuator type
- Selectable cable gland or pre-wired M12 plug connection
- IP65 or IP66 degree of protection

PS31L
40 mm series

- Plastic or Metal housing
- 1 NO + 1 NC, 1 NO + 2 NC, 2 NO + 1 NC, 2 NO, 2 NC, 3 NO or 3 NC contacts, snap or slow action
- Selectable actuator type
- Selectable cable gland or pre-wired M12 plug connection
- IP65 or IP66 degree of protection

PS42L
50 mm series

- Plastic or Metal housing
- 1 NO + 1 NC, 2 NO or 2 NC contacts, snap or slow action
- Selectable actuator type
- Selectable cable gland connection
- IP65 or IP66 degree of protection

PS43L
60 mm series

- Metal housing
- 1 NO + 1 NC, 1 NO + 2 NC, 2 NO + 1 NC, 2 NO, 2 NC, 3 NO or 3 NC contacts, snap or slow action
- Selectable actuator type
- Selectable cable gland connection
- IP65 or IP66 degree of protection

PS21M/PS31M
prewired series

- Plastic or Metal housing
- 1 NO + 1 NC, snap or slow action
- Selectable actuator type
- Prewired 1m PVC cable
- IP67 degree of protection

PS21K
with manual reset

- Plastic or Metal housing
- 1 NO + 1 NC or 2 NC contacts, snap or slow action
- Selectable actuator type
- Selectable cable gland connection
- IP65 or IP66 degree of protection

PS38H
safety hinge

- Plastic housing
- 2 NO + 2 NC or 1 NO + 3 NC contacts, slow action
- Interlock type 1 as per EN14119
- M12 plug or cable connection
- IP67 degree of protection

ESI
safety interlock

- Plastic housing
- 1 NO + 1NC (coil) + 1 NC (actuator), 1 NO + 1NC (coil) + 1 NO (actuator), 2 NC (coil) + 1 NO+1 NC (actuator)
- Interlock type 2 as per EN14119
- Adjustable head for key actuator
- IP65 degree of protection

PS21S/31S/42S/43S
actuated by key

- Plastic or Metal housing
- 1 NO + 1 NC, 1 NO + 2 NC, 2 NO + 1 NC, 2 NO, 2 NC, 3 NO or 3 NC contacts, snap or slow action
- Selectable actuating key; optional adjustable key
- Selectable cable gland connection
- IP65 or IP66 degree of protection

PS21R/31R/42R/43R
actuated by pull wire

- Metal housing
- 1 NO + 1 NC, 1 NO + 2 NC, 2 NO + 1 NC, 2 NO, 2 NC, 3 NO or 3 NC contacts, snap or slow action
- Manual or automatic reset
- Selectable cable gland connection
- IP66 degree of protection

PS21H-HC
actuated by hinge

- Plastic housing
- 1 NO + 1 NC, 2 NO or 2 NC contacts, snap or slow action
- Operated by hinge
- Selectable cable gland connection
- IP65 degree of protection

PS21H-HZ
actuated by hinge

- Plastic housing
- 1 NO + 1 NC, 2 NO or 2 NC contacts, snap or slow action
- Operated by hinged shaft
- Selectable cable gland connection
- IP65 degree of protection

Solid state relays

Carlo Gavazzi offers a comprehensive range of solid state relays (SSRs) covering AC and DC switching, 1-phase and 3-phase, suited for a wide range of applications. SSRs are used extensively in the plastics, packaging, food processing, semiconductor manufacturing and HVAC industries primarily for temperature control. Thanks to their fast switching capability, SSRs are the most reliable switching components for process accuracy. Over the years, SSRs have become the preferred switching solution compared to mechanical contactors as they can perform a very large number of switching cycles without breaking down. This ensures low machine downtime and hence lower running costs.

PCB mounting RP1A, RP1D

- AC or DC output switching
- Zero Cross [RP1A], Instant On [RP1B] or DC [RP1D]
- Ratings up to 480 VAC, 5.5 AAC [RP1A/B]
- Ratings 350 VDC / 1 ADC, 60 VDC / 8 ADC [RP1D]
- Approvals: CE - cURus - VDE - [RP1A/B] - EAC - UKCA

Plug-in/PCB mounting RSLSA, RSLSD

- AC or DC output switching
- Zero Cross [RSLSA], Instant On [RSLSB] or DC [RSLSD]
- Pre-assembled DIN option
- Ratings up to 280 VAC, 2 AAC [RSLSA/B]
- Ratings 100 mA / 48 VDC, 3.5 A or 6 A / 24 VDC [RSLSD]
- Appovals: CE - cURus - CSA - EAC

1-phase SSR RF1

- Zero Cross [RF1A] or Instant On [RF1B] switching
- Ratings up to 280 VAC, 25 AAC
- Integrated transil for output protection
- Control ON LED
- Approvals: CE - UR - CSA - VDE - EAC - UKCA

1-phase SSR RA

- Zero Cross output switching
- Ratings up to 660 VAC, 110 AAC, 18000 A²s
- High blocking voltage option
- Control ON LED
- Approvals: CE - UR - CSA - EAC - UKCA

1-phase SSR RM1, RAM1

- Zero Cross [RM1A/RAM1A] or Instant On [RM1B/RAM1B] switching
- Ratings up to 759 VAC, 125 AAC, 18000 A²s
- Integrated varistor for output protection
- Control ON LED
- Approvals: CE - UR - CSA - CCC - EAC - UKCA - VDE [RAM1]

2-pole SSR RA2A

- 2-poles in 1 housing, independent control
- Ratings up to 660 VAC, 40 AAC per pole
- Zero Cross switching
- DC control voltage
- Approvals: CE - UR - EAC - UKCA - CSA (excl. RA2A..C)

2-pole SSR RKD2, RK2

- 2-poles in 1 housing, independent control [RKD2] or common control [RK2]
- Ratings up to 660 VAC, 75 AAC per pole, 9800 A²s
- Zero Cross or Instant On switching
- DC control voltage
- Approvals: CE - UR - CSA - VDE - EAC - UKCA

3-phase SSR RZ3A

- 3-phase Zero Cross switching
- Suitable for resistive and inductive loads
- Ratings up to 759 VAC, 75 AAC
- Control ON LED
- Approvals: CE - UR - CSA - EAC - UKCA

DC SSR RM1D

- DC switching
- Ratings up to 100 A /60 VDC, up to 50 A / 200 VDC, up to 10 A / 500 VDC
- DC control voltage
- Control ON LED
- Approvals: CE - UR - CSA - EAC - UKCA

Slim line SSR RGS1

- Compact, 17.5 mm wide
- Zero Cross [RGS1A] or Instant On [RGS1B] switching
- Ratings up to 759 VAC, 90 AAC, 18000 A²s
- AC or DC control
- Approvals: CE - UR - CSA - VDE - EAC - UKCA - DNV (50 AAC only)

Slim line SS contactors RGC1

- Min. product width 17.5 mm (37 AAC) up to 70 mm (85 AAC)
- Ratings up to 660 VAC, 85 AAC, 18000 A²s
- E-type (contactor) or U-type (SSR) terminal layout
- 100 kA UL short circuit current rating
- Approvals: CE - cULus - VDE - EAC- UKCA - DNV (up to 30 AAC)

3-phase SS contactors RGC2A, RGC3A

- 3-pole [RGC3A] or 2-pole switching + 1 direct pole [RGC2A]
- Ratings up to 660 VAC, 75/65 AAC [RGC2/3]
- Motor ratings up to 11 kW/ 15 HP @ 400 VAC
- RGC..M for system malfunction monitoring
- Approvals: CE - cULus - EAC - CCC - UKCA - VDE [RGC..10]

CARLO GAVAZZI

Solid state relays

Carlo Gavazzi now offers additional features to the switching function of the SSR. Integrated monitoring of loads or SSR malfunction ensures a timely failure detection and so scrap and rework costs in production plants are kept to a minimum. SSRs with a communication interface embrace Industry 4.0. Data is accessible from SSRs in real time and can be used to predict machine abnormalities in a timely manner to avoid stoppages.
Carlo Gavazzi also offers a range of accessories that complement the solid state relay solutions, such as heatsinks, terminal adaptors, protection covers and thermal interfaces. Carlo Gavazzi's SSRs conform to international standards.

Proportional controllers RM1E

- Phase angle switching
- Ratings up to 660 VAC, 125 AAC, 18000 A²s
- 4-20 mA or 0-10 VDC analogue input
- Integrated varistor for output protection
- Approvals: CE - UR - CSA - EAC - UKCA

Proportional controllers RGS1P

- Selectable switching mode - Phase angle, full cycle, advanced full cycle switching or soft start
- 4-20 mA or 0-10/0-5/1-5 V input
- Ratings up to 660 VAC, 90 AAC
- Integrated varistor for output protection
- Approvals: CE - UR - CSA - EAC - UKCA

Proportional controllers RGC1P

- Selectable switching mode - Phase angle, full cycle, advanced full cycle switching or soft start
- 4-20 mA or 0-10/0-5/1-5 V input
- Ratings up to 660 VAC, 63 AAC
- Integrated varistor for output protection
- Approvals: CE - cULus - EAC - UKCA

Proportional controllers RGC2P, RGC3P

- Phase angle, full cycle, advanced full cycle switching or soft start
- 0-20/4-20/12-20 mA or 0-10/0-5/1-5 V input
- RGC2P ratings (2-phase): 660 VAC, 75 AAC/pole
- RGC3P ratings (3-phase): 660 VAC, 65 AAC/pole
- Integrated monitoring for load loss or SSR malfunction
- Approvals: CE - cULus - EAC - CCC - UKCA

System monitoring RA..S

- Monitoring for mains loss, load or SSR failure
- Ratings up to 530 VAC, 110 AAC
- DC control voltage, DC external supply
- Normally open or normally closed alarm output
- Approvals CE - UR - CSA - EAC - UKCA

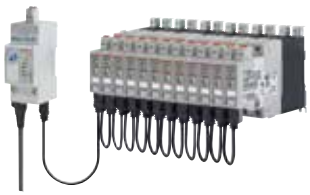
System monitoring RGS..M, RGC..M

- Monitoring for system fault (mains loss, load loss, SSR open and short circuit), SSR internal error and supply out of range
- Ratings up to 660 VAC, 90 AAC
- DC control voltage, DC external supply
- Transistor output for remote alarm signalling
- Approvals CE - UR - CSA - cULus [RGC] - EAC - UKCA

Current sensing RGS1S, RGC1S

- Zero Cross switching with integrated current measurement
- Partial load failure detection (1/6)
- Monitoring for system malfunction with alarm output
- Ratings up to 660 VAC, 90 AAC, 18000 A²s
- Approvals: CE - UR - CSA - cULus [RGC] - EAC - UKCA

Communication interface NRG



- PROFINET, EtherNet/IP™, EtherCAT, Modbus RTU / TCP
- 32 SSRs per bus chain
- ON/OFF, Full cycle, Advanced full cycle, Burst, Phase angle and soft start switching
- Read-outs: current, voltage, frequency, power, energy, running hours and diagnostics
- Ratings up to 660 VAC, 90 AAC
- Approvals: CE - cULus - UR - CSA - EAC - UKCA - CCC

Integrated over temperature protection RGC..P

- Ratings up to 660 VAC, 85 AAC, 18000 A²s
- Output protected against overheating, automatic re-start after cool down
- Transistor alarm output for remote signalling
- Control ON and Fault LED indication
- Approvals: CE - cULus - VDE - EAC - UKCA

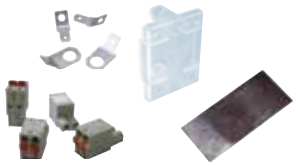
Peak switching RM1C

- Ideal for switching of transformers and highly inductive loads
- Ratings up to 660 VAC, 100 AAC
- DC control voltage
- Control ON LED
- Approvals: CE - cURus - CSA - EAC - UKCA

Heatsinks

- A wide range of heatsinks suitable for DIN, panel or thru wall mounting
- Thermal resistance values from 5.4 to 0.4°C/W
- 24 VDC, 115 VAC or 230 VAC supply voltage for heatsinks with integrated fan
- RoHS compliant

Accessories



- A wide range of other accessories suitable for use with SSRs: thermal pads, touch protection covers, varistors, terminal adaptors, cable accessories
- Optionally pre-assembled from factory
- All accessories are RoHS compliant

Energy transducers and analysers

Our energy measurement range offers versatile, high-performance solutions for industrial and commercial applications.
Single- and three-phase transducers provide accurate active energy metering with dual tariff management and RS485 Modbus communication, covering both direct connection and CT input needs.
A compact power transducer measures key electrical variables with flexible analogue or digital outputs, ideal for monitoring at machine-level.
Energy analysers combine accuracy with clear displays, supporting a wide current range, optional legal metrology, and multiple communication ports.

Energy transducer ET112

- DIN-rail mounting
- 1-phase, 120 or 240 VAC, 100 AAC
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, optical port
- Approvals: CE - UKCA

Energy transducer ET330

- DIN-rail mounting
- 400 to 480 V_{LL} AC, 5 AAC
- Class 0.5S (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, optical port
- Approvals: CE - cULus

Energy transducer ET340

- DIN-rail mounting
- 208 to 400 V_{LL} AC, 65 AAC
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, optical port
- Approvals: CE

Power transducer CPT

- DIN-rail mounting
- 208 or 600 VAC, 1 or 5 AAC
- Class 1 (kWh), 0.5% F.S. (V, A)
- RS485 port, relay, open collector, or analogue output
- Approvals: CE - cURus - CSA

Energy analyzer EM110

- DIN-rail mounting
- 1-phase, 120 or 230 VAC, 32 A direct connection
- Class 1 (kWh)
- Pulse output
- Approvals: CE - cULus

Energy analyzer EM111

- DIN-rail mounting
- 1-phase, 120 or 230 VAC, 32 A direct connection, 5 A or 333 mV CT input
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, M-Bus port, or pulse output
- Approvals: CE - MID - cULus

Energy analyzer EM112

- DIN-rail mounting
- 1-phase, 120 or 240 VAC, 100 A direct connection
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, M-Bus port, or pulse output
- Approvals: CE - MID - cULus

Energy analyzer EM330

- DIN-rail mounting
- 400 to 480 V_{LL} AC, 5 A CT input
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, M-Bus port, or pulse utput
- Approvals: CE - MID - cULus

Energy analyzer EM340

- DIN-rail mounting
- 208 to 400 V_{LL} AC, 65 A direct connection
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, M-Bus port, or pulse output
- Approvals: CE - MID

OPTOPROG

- Optical communication interface with Bluetooth®
- For WM and ET families
- Micro-USB and Bluetooth connection to UCS and UCS mobile
- Approvals: CE, RED, FCC

Energy analysers

Our energy analysers combine accurate measurement with advanced connectivity to meet the needs of modern energy management. They cover single-phase and three-phase applications, offering flexible installation with direct connection or external sensors, and are designed for both new and retrofit projects.
With a choice of wired, Ethernet, or wireless communication, they simplify integration into building and industrial automation systems while supporting cost allocation, efficiency monitoring, and legal sub-billing.
This energy analysers provide reliable data and scalable performance for everything from individual machines to complex energy networks.

Energy analyzer EM511

- DIN-rail mounting
- 1-phase, 120 to 240 VAC, 45 A direct connection
- Class 1 (kWh), 0.5% (V, A)
- RS485 Modbus port, M-Bus port, or digital output (pulse or alarm)
- Approvals: CE - MID - cULus

Energy analyzer EM540

- DIN-rail mounting
- 208 to 415 V_{LL} AC, 65 A direct connection
- Class 1 (kWh), 0.5% (V, A)
- RS485 Modbus port, M-Bus port, or digital output (pulse or alarm)
- Approvals: CE - MID - cULus

Energy analyzer EM580

- DIN-rail mounting
- 208 to 400 V_{LL} AC, 65 A direct connection
- Class B according to EN 50470-3, 0.5% (V, A)
- RS485 Modbus port
- Approvals: CE - MID- Eichrecht
- Tariff visualization (according to A.F.I.R.)
- EV charging session management

Energy analyzer EM530 AV

- DIN-rail mounting
- 208 to 415 Vll AC, 5A CT input
- Class 0.5S (kWh), 0.3% (A), 0.2% (V)
- RS485 Modbus port, M-Bus port, or digital output (pulse or alarm)
- Approvals: CE - MID - cULus

Energy analyzer EM530 MV

- DIN-rail mounting
- 208 to 415 Vll AC, 333mV CT input
- Class 0.5S (kWh), 0.3% (A), 0.2% (V)
- RS485 Modbus port
- Approvals: CE - cULus

Energy analyzer EM530 RG

- DIN-rail mounting
- 208 to 415 Vll AC, Rogowski input
- Class 0.5S (kWh), 0.3% (A), 0.2% (V)
- RS485 Modbus port, M-Bus port, or digital output (pulse or alarm)
- Approvals: CE - cULus

Energy analyzer EM24

- DIN-rail mounting
- 208 to 480 Vll AC, 5A CT or 65 A direct connection
- Class 1 (kWh), 0.5% RDG (V, A)
- M-Bus, RS485 Modbus
- Approvals: CE - MID - cULus

Energy analyzer EM24 E1

- DIN-rail mounting
- 208 to 480 V_{LL} AC, 5A CT or 65 A direct connection
- Class 1 (kWh), 0.5% RDG (V, A)
- Modbus TCP Ethernet port
- Approvals: CE - MID - cULus

Energy analyzer EM24 W1

- DIN-rail mounting
- 208 to 480 V_{LL} AC, 5A CT or 65 A direct connection
- Class 1 (kWh), 0.5% RDG (V, A)
- Wireless M-Bus (internal or external antenna)
- Approvals: CE - MID - cULus

AC power analysers and DC energy meters

Our power and energy monitoring solutions combine accuracy, scalability, and advanced connectivity for both AC and DC applications. The modular family supports everything from basic measurement to detailed power quality analysis, adapting easily to building management, industrial automation, and data-center environments.
Multichannel systems simplify supervision of numerous loads, while dedicated DC devices provide reliable metering for EV charging stations and other high-current installations.
Versatile Hall-effect transducers extend monitoring to photovoltaic and mixed AC/DC applications, delivering accurate data, seamless integration, and the flexibility required for complex energy networks.

Modular power analyzer WM20

- Panel mounting
- 230 or 690 VAC, 5 AAC
- Class 0.5S (kWh), 0.2% RDG (V, A)
- Up to 2 outputs, optical port, Modbus RS485 and Ethernet, BACnet MSTP and IP, Profibus
- Approvals: CE - cULus - UKCA

Modular power quality analyzer WM30

- Panel mounting
- 230 or 690 VAC, 5 AAC
- Class 0.5S (kWh), 0.2% RDG (V, A)
- Up to 4 outputs, optical port, Modbus RS485 and Ethernet, BACnet MSTP and IP, Profibus
- Approvals: CE - cULus

Modular power quality analyzer WM40

- Panel mounting
- 230 or 690 VAC, 5 AAC
- Class 0.5S (kWh), 0.2% RDG (V, A)
- Up to 6 inputs, up to 8 outputs, optical port, Modbus RS485 and Ethernet, BACnet MSTP and IP, Profibus
- Approvals: CE - cULus

Modular branch circuit analyzer WM50

- Panel mounting
- 208 to 480 VAC, 5 AAC + TCD
- Main unit: Class 0.5S (kWh), 0.2% RDG (V, A). TCD: 0.5% (V,A)
- Up to 96 sub-metering 65 A ch. Up to 6 digital inputs, up to 6 outputs, optical port, Modbus RS485 and Ethernet
- Approvals: CE - cULus

Power analyzer WM15

- Panel mounting
- 208 to 600 V_{LL} AC, 5(6) A
- Class 1 or Class 0.5S (kWh), 0.5% RDG (V, A)
- Pulse/alarm output, optional Modbus RS485 or M-Bus port
- Approvals: CE - MID - cULus - UKCA

Current transformer CTD X

- DIN-rail, cable or bus-bar mounting
- Solid core current transformers
- Primary: from 40 to 1600 AAC
- Secondary: 5 A or 1 A
- Approvals: EN 61869-2 - cURus - CSA

Current transformer CTD V/H

- Bus-bar mounting
- Solid core current transformers
- Primary: from 100 to 3200 AAC
- Secondary: 5 A or 1 A
- Approvals: EN 61869-2 - cURus - CSA

Current transformer CTD S

- Bus-bar mounting
- Split core current transformers
- Primary: from 100 to 3200 AAC
- Secondary: 5 A or 1 A
- Approvals: EN 61869-2 - cURus - CSA

DC Energy transducer DCT1

- 150 to 1000 VDC, 300 or 600 A max
- Modbus RS485 RTU with 256-bit/384-bit signature, SML port
- Class 1 according to IEC62053-41, 0.5% (V, A)
- Approvals: CE - cURus
- Compliant: CTEP - Welmec 7.2

DC Energy meter DCM1

- 150 to 1000 VDC, 300 or 600 A max
- Modbus RS485 RTU + Ethernet Modbus TCP/IP, with 256-bit/384-bit signature
- Class 1 according to IEC62053-41, 0.5% (V, A)
- Class B according to EN50470-4 (kWh), 0.5% (V, A)
- Approvals: CE - cURus
- Compliant: Bidirectional MID up to 70°C - REA 6A+PTB 50.7 Eichrecht - CTEP - Welmec 7.2 - A.F.I.R. - LNE
- EV charging session management

Power transducer CPA

- Contactless power analysers
- 1-phase AC (from 1 to 400 Hz) or DC systems
- RS485 communication port (Modbus)
- Current range:
  [CPA050] 50 AAC / 50 ADC
  [CPA300] 300 AAC / 400 ADC
- Voltage range: 800 VAC / 1000 VDC
- Approvals: CE - cURus

Energy meters and analysers

Up-to-date designs, quality, attention to details, such as installation features and installation time, all mean that Carlo Gavazzi products are very competitive in the market. A full retrofit range of meters offering metering and monitoring solutions to meet every need can be found in our product portfolio. Easy retrofit combined with high accuracy is grant by the Rogowski coil series, when combined with the dedicated energy analysers.

Retro-fit energy analyzer EM210AV

- DIN-rail and panel mounting
- 230 or 415 VAC, 5 A CT input
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, static output
- Approvals: CE - cULus

Retro-fit energy analyzer EM210MV

- DIN-rail and panel mounting
- 230 or 415 VAC, or 60 to 800 AAC measured by CTV current sensors
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, static output
- Approvals: CE - cULus

Quick-fit energy meter EM270 and TCD X

- DIN-rail and panel mounting
- 230 or 415 VAC, 160 to 630 AAC measured by up to 2 TCD X triple current transformers
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, static output
- Approvals: CE - cULus

Quick-fit energy meter EM271 and TCD M

- DIN-rail and panel mounting
- 230 or 415 VAC, 60 to 400 AAC measured by up to 2 TCD M split-core triple current sensors
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, static output
- Approvals: CE - cULus

Quick-fit energy transducer ET272 and TCD M

- DIN-rail mounting
- 277 to 415 VAC, 60 to 400 AAC measured by up to 2 TCD M split-core triple current sensors
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port with self-addressing capability
- Approvals: CE - cULus

Quick-fit energy meter EM280 and TCD06BX

- DIN-rail and panel mounting
- 230 or 415 VAC, 32 AAC measured by 6-channel TCD06B current transformer block (solid core)
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, static output
- Approvals: CE - cULus

Quick-fit energy meter EM280 and TCD06BS

- DIN-rail and panel mounting
- 230 or 415 VAC, 32 AAC measured by 6-channel TCD06B current transformer block (split core)
- Class 1 (kWh), 0.5% RDG (V, A)
- RS485 Modbus port, static output
- Approvals: CE - cULus

EM200-96 Adapter

- 96x96 panel mounting adapter for EM210, EM270, EM271 and EM280

Rogowski current sensors ROG4X

- Cable mounting
- Rogowski split core current sensors for EM530 RG
- Primary: up to 2880 AAC
- Secondary: direct connection to EM530 RG without any external converter
- Approvals: CE - cURus

Rogowski current sensors ROG4U

- Cable mounting
- Rogowski split core current sensors for EM530 RG and EM50 RG5
- Primary: up to 2000 AAC
- Secondary: direct connection to EM530 RG or EM50 RG5 without any external converter
- Approvals: CE - cULus (UL2808)

Current sensor CTV

- Cable mounting
- Miniature split core current sensors
- Primary: from 60 to 800 AAC
- Secondary: 333 mV
- Approvals: CE - cURus

Split-core current transformers CTA

- Cable mounting split-core current transformers
- Miniature split core current transformers
- Primary: from 100 to 600 AAC
- Secondary: 5 A
- Approvals: CE - cURus

IIoT data management, communication and control

The mounting of a power analyzer or an energy meter on a power distribution unit is not enough to effectively manage the whole electrical installation, because the data available on the display would seldom be read and controlled. To be effective, remote reading and reporting of historical data is required. A control room can gather the readings so the data can be analysed and used as a basis for decision-making, all thanks to a fully automated system. Carlo Gavazzi can provide solutions for small, medium size and large plants for energy and building efficiency monitoring and management.

MAIA Cloud

maiacloud

- Cloud solution for remote management of IoT devices
- Compatible with UWP4.0, UWP4.0 SE and XAP.
- Secure VPN Management
- User authentication and organization management
- Remote connection to gateways, connected endpoints and connected meters

IIoT Edge devices UWP 4.0

- Datalogger/Gateway/Controller with Web-Server, for energy efficiency management applications
- MAIA Cloud secure remote access
- Multi-user access
- Dashboards and reports

IIoT Edge devices UWP 4.0 SE

- Datalogger/Gateway/Controller with Web-Server, for energy efficiency management applications
- Cybersecurity Capabilities Verified by UL to level SILVER of UL IoT Rating
- MAIA Cloud secure remote access
- Multi-user access
- Dashboards and reports

Load Balancing Controller UWP 4.0 DLB

- Dynamic Load Balancing Controller for EV Charging applications
- Embedded Web-Server for setup and operation
- Standard OCPP 1.6J
- Up to 250 controlled EV charging plugs
- OCPP Proxy connection to remote CSMS
- MAIA Cloud secure remote access
- BMS integration via APIs and Modbus gateway

Long range wireless gateway UWP M

- LoRa master concentrator that permits UWP to gather data from multiple UWPA adapters.
- Long-range wireless (EU868 and US915 Bands, Europe and North America)
- Comprehensive solution for integrating CG meters and analysers into CG private LoRa network
- Universal power supply

Long range wireless solution UWP A

- Endpoint adapter that provides LoRa® or LoRaWAN® communication to an RS485 Carlo Gavazzi meter
- Long range wireless (EU868 and US915 Bands, Europe and North America)
- Up to 10 km range in open air, 1 km in typical applications.
- Universal power supply

Pulse concentrator VMU-MC - VMU-OC

- Modular pulse concentrator, from 2 to 11 S0 inputs
- Remote input status reading / tariff management / pulse counting
- Totalizers calculation and Modbus/RTU communication
- One main module [VMU-MC] and up to 3 slave modules [VMU-MC] in a compact array solution

M-Bus to Modbus/TCP Gateway SIU-MBM01

- M-Bus to Modbus/TCP gateway
- Up to 20 M-Bus devices (SIU-MBM-01)
- Up to 160 M-Bus devices (SIU-MBM-01-160)
- Set-up by free UCS software
- Approvals: CE
- Rapid and automatic integration with the UWP 4.0

HMI displays BTM series

- 7", 10"and 15.6" colour HMI displays
- Fully programmable by the dedicated BTM-PC- IDE software
- IIoT data distribution via MQTT and OPC UA
- BACnet, Modbus and KNX protocols with gateway/routing capabilities
- Ethernet, serial and USB ports

Dupline® bus generators SH2MCG24

- Connection to UWP 4.0 via internal bus or terminals via the high-speed bus
- Up to 7 SH2MCG24 can be connected on the same network
- Dimensions: 2-DIN modules
- Advanced management of input and output signals for monitoring and control functions

DALI-2 bus generators DLI-MCG024

- DALI-2 Master module
- DALI driver for DT6 and DT8 LEDs
- Up to 64 control gears
- Up to 64 control devices
- Tunable white management
- Dimensions: 2-DIN modules

DALI-2 / Dupline PIR detect. SH/SHQ/DLI series

- Passive infrared detector (PIR) with built-in luxmeter, and temperature sensor
- Detects movement and presence
- DALI-2 or Dupline version
- Programmable and operated by UWP 4.0 + SH2MCG24 or DLI-MCG024
- Detection range up to 24 square meters
- Walk test: LED indication
- Programmable sensitivity

CARLO GAVAZZI

IIoT field devices

Carlo Gavazzi's modular concept for home and building automation is based on a patented digital bus, the two-wire Dupline® controlling and monitoring applications for example lighting, roller blinds, heating, air-conditioning and alarms. This innovative system allows considerable savings in energy consumption, increasing comfort and safety. Operations, services and maintenance are simplified, with complete status overview anytime and anywhere. It can also be interfaced to any building automation system via BACnet/IP, MODBUS/TCP, Rest-API, MQTT.

Phase angle dimmer modules SH2D500WE230

- Universal dimmer switch for R, L, C up to 500 W and LED loads
- Automatic load detection for L, R, C loads
- Integrated heat sink for temperature dissipation
- Connection to other cabinet modules via local bus
- Dimensions: 2-DIN modules

0-10V Dimmer modules SH2D10V424

- 1-10V dimmer to control up to 4 1-10 V Ballasts
- 24 VDC power supply
- Max. load capacity: 50 mA on each output
- Connection to other cabinet modules via local bus
- Dimensions: 2-DIN modules

Relay modules SH2RE16A4

- Smart-Dupline output module, 4 Relays, up to 16 A
- LED indications for supply, bus, and output status
- Push button for local on/off switching
- Supplied by the Dupline® bus on the local bus
- Dimensions: 2-DIN modules

Relay modules SH2SSTRI424

- Smart-Dupline output module, 4 solid state relays
- LED-indications for supply, bus and output status
- Push button for local on/off switching
- 24 VDC power supply
- Dimensions: 2-DIN modules

Digital input modules SH2INDI424

- 4 digital inputs NPN, PNP, voltage free
- The 4 inputs can be configured as contact or counter
- LED indication for power supply, Dupline® bus, input activated
- Connection to other cabinet modules via local bus
- Dimensions: 2-DIN modules

Rollerblind modules SH2ROAC224

- Up/down control of 2 AC/DC rollerblind motors
- LED indication for power supply, Dupline® bus, motor up, motor down
- Push button for local on/off switching
- Connection to other cabinet modules via local bus
- Dimensions: 2-DIN modules

Fire damper modules SBB

- I/O module to control two fire dampers
- Box ready for wall mounting near dampers
- Four contact inputs, two relay outputs 230 VAC / 5 A
- Power supply: 24 to 230 VAC
- Degree of protection: IP55

Light switches and Temp. displays SH series

- 4 individually programmable push buttons
- Temperature Controller: display
- Bus powered, no external supply required
- SHAxxx: developed to fit into wall sockets and frames from Fuga, NIKO and Bticino
- SHExxx: developed to fit into wall sockets and frames from Elko, Gira and Jung

Environmental sensors SHS series

- CO_2, temperature and humidity sensors
- CO_2 measuring range: 0 to 2000 ppm
- Temperature measuring range: -20°C to 50 °C
- Humidity measuring range: 0 to 100 %R
- LCD Display and touch function to activate backlight and change signal type

Decentralised analogue input/output modules SHPIN/SHPOUT

- Output modules with two 0-10 V outputs
- Input modules for thermistor, resistor and voltage measuring: pt1000, ni1000, 10K3 thermistor input, 1-11K resistor input, 0-10 V input, 4-20 mA
- Small dimensions for decentralized installations
- 24 VDC power supply

Decentralised Input module / Pulse counters BDB/SHPINCT

- Input module with 4 configurable inputs: S0 class B pulse counter or voltage free input
- Count values are stored in non-volatile memory
- Counts up to 99999999 with rollover
- 24 VDC power supply

Decentralised relay modules BDA-RE13A-U

- Small sized single relay output
- Load: 13 A / 250 VAC
- Withstands 130 A inrush current
- Supplied by Dupline® bus

Soft starters

Carlo Gavazzi offers a comprehensive range of soft starting and motor reversing solutions for single and three phase squirrel cage a.c. induction motors. Carlo Gavazzi offers solutions specifically designed for scroll compressors (RSBS, RSBD, RSBT, HDMS). For other applications such as centrifugal pumps, ventilators, dryers, mixers, fans, hydraulic pumps and piston compressors, general purpose solutions such as the RSGD and RSGT are available. Carlo Gavazzi soft starters are designed with self-learning algorithms for ease of use and better load matching. The RGTS is a fully solid-state soft starter for single phase applications that require high frequency switching. In addition, customized solutions to satisfy specific customer requests can be provided.

Scroll compressor soft starters RSBD 45 mm

- Operational current: 12 to 45 A
- Self-learning algorithm with current balancing
- Top of ramp and alarm relay indication
- Max. starts per hour: 12
- Approvals: CE - cULus - EAC

Scroll compressor soft starters RSBD 75 mm

- Operational current: 55 to 95 A
- Self-learning algorithm for current reduction
- No user adjustments required
- Max starts per hour: 12
- Approvals: CE - cULus - EAC

Scroll compressor soft starters RSBT 45 mm

- Operational current: 16 to 32 A
- Self-learning algorithm with high pressure function
- No user adjustments required
- Optional: serial communication (Modbus) [VC1HP]
- Max. starts per hour: 12
- Approvals: CE - cULus - VDE - CCC

Scroll compressor soft starters RSBT 120 mm

- Operational current: 55 to 95 A
- Self-learning algorithm for improved current reduction
- Optional: serial communication (Modbus) [VC]
- Max. starts per hour: 12
- Approvals: CE - cULus - CCC - EAC

General purpose soft starters RSGT 45 mm

- Operational current: 12 to 25 A
- Operational voltage: 220 - 600 VAC
- Self-learning algorithm with current ramp and current limit
- 3-phase control with internal bypass
- Optional: serial communcation (Modbus) [V10C]
- Approvals: CE - cULus - EAC

General purpose soft starters RSGT 75 mm/120 mm

- Operational current: 32 to 90 A
- Operational voltage: 220 - 600 VAC
- Self-learning algorithm with current ramp and current limit
- 3-phase control with internal bypass
- Serial communication (Modbus) on all models
- Approvals: CE - cULus - EAC

General purpose soft starters RSGD 45 mm

- Operational current: 12 to 45 A
- Operational voltage: 220 - 600 VAC
- Self-learning algorithm with current ramp and current limit and current balancing
- 2-phase control with internal bypass
- Optional: motor overload protection (Class 10) [V210]
  Serial communication (Modbus) [210C]
- Approvals: CE - cULus - CCC - EAC

General purpose soft starters RSGD 75 mm

- Operational current: 55 to 100 A
- Operational voltage: 220 - 600 VAC
- Self-learning algorithm with current ramp and current limit and current balancing
- PTC input and remote reset of alarms
- Serial communication (Modbus) on all models
- Approvals: CE - cULus - CCC - EAC

Motor reversing relay RR2A

- Operational current: up to 11 A
- Motor reversing relay
- Built-in interlock function
- Integrated voltage transient protection
- Approvals: CE - UL - cUL

1-phase solid state soft starter RGTS

- Operational current: 12/16/25 A
- Operational voltage: 100 - 240 VAC
- 100 kA short circuit current rating
- Max. starts per hour: 10
- Approvals: CE - cULus

1-phase compressor soft starter RSBS

- Operational current: 32 A
- Current limit starting with a high pressure function
- Max. starts per hour: 10
- Approvals: CE - cULus - EAC

1-phase dynamic motor starter HDMS

- Operational current: 12 to 37 A
- Eliminates the need for a start capacitor typically used to start single phase motors
- >70% start current reduction on scroll compressors and submersible pumps
- Tool-free terminals
- Approvals: CE - cULus

Frequency drives

Carlo Gavazzi offers a range of variable frequency drives (VFDs) for general purpose applications (RVLF). Carlo Gavazzi also offers PC software that facilitates parameter configuration and also makes it is easy to download the configuration onto multiple VFDs.

General purpose VFD RVLF 1-phase 100 V

- V/F Control + Sensorless Vector control
- Input voltage 1-phase 100-120 VAC
- 0.4 kW and 0.75 kW
- Built-in RJ45 for MODBUS and BACNet communication
- Panel mount or DIN-rail (with accessory)

General purpose VFD RVLF 1-phase 200 V

- V/F Control + Sensorless Vector control
- Input voltage 1-phase 200-240 VAC
- 0.4 kW to 2.2 kW
- Built-in RJ45 for MODBUS and BACNet communication
- Built-in Class 2 EMI filter
- Panel mount or DIN-rail (with accessory)

General purpose VFD RVLF 3-phase 200 V

- V/F Control + Sensorless Vector control
- Input voltage 3-phase 200-240 VAC
- 0.4 kW to 2.2 kW
- Built-in RJ45 for MODBUS and BACNet communication
- Panel mount or DIN-rail (with accessory)

General purpose VFD RVLF 3-phase 480 V

- V/F Control + Sensorless Vector control
- Input voltage 3-phase 380-480 VAC
- 0.75 kW to 11 kW
- In built RJ45 for MODBUS and BACNet communication
- Built-in Class 2 EMI filter
- Panel mount or DIN-rail (with accessory)

General purpose VFD RVBS 1-phase 230 V

- V/F control
- Input voltage 1-phase 200-240 VAC
- 0.55kW and 0.75kW
- Built-in Modbus communiction
- Panel mounting

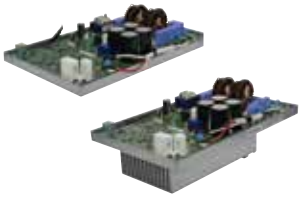
Doors and entrances VFD RVDS 1-phase 230 V

- Sensorless vector control
- Input voltage 1-phase 200-240 VAC
- 0.55kW and 0.75kW
- Built-in RJ45 for Modbus communiction
- Panel mounting

Compressor VFD RVPM 1-phase 230 V

- V/F control + Sensorless vector control
- Input voltage 1-phase 200-240 VAC
- Up to 4.5kW
- Built-in RJ45 for Modbus communiction
- Panel mounting

Compressor VFD RVPM 3-phase 400 V



- V/F control + Sensorless vector control
- Input voltage 3-phase 380-480 VAC
- Up to 8 kW
- Built-in RJ45 for Modbus communiction
- Panel mounting

Keypad RVDS

- Remote keypad LED display + Cable
- Low-voltage industrial components
- Frequency converter ≤ 1 kV

PFC reactor and DC choke RVPM

- PFC reactor for 1ph RVPM [RVDC0500]
- DC choke for 3ph RVPM [RVDC0800]
- Low-voltage industrial components
- Frequency converter ≤ 1 kV

DIN-clip RVLF size A and B

- Plastic DIN-clip and mounting screws for RVLF Size A and B models

USB connection cable RVLF

- Isolated USB to RJ45 cable for RVLF configuration

Monitoring relays

Carlo Gavazzi offers a comprehensive range of relays for monitoring of: current, voltage, power and power factor, frequency, motor temperature, current transformers and transducers. Specifically, our products include the monitoring of: phase loss, neutral loss, incorrect phase sequence, phase unbalance, over/under current, over/under voltage, over/under frequency and overtemperature. These products can be used in a wide range of applications for protecting motors against improper supply and overload (elevators, compressors, pumps, air conditioning systems, mixing tanks), and also protect properties against the risk of fire caused by loss of insulation or current leaks.

3-phase voltage relays DPA51/DPA52

- Phase sequence and phase loss/ regenerated voltage
- No adjustment required
- 3P systems, 208 to 480 VAC, measure own supply
- 17.5 mm mini-DIN-rail housing
- SPDT relay output
- Approvals: CE - UL - CSA - CCC - RCM

3-phase voltage relays DPA55/DPA53/DPA03

- Phase sequence and phase loss
- Adjustable voltage window [DPA55] and undervoltage [DPAx3]
- 3P systems, 208 to 480 VAC, measure own supply
- 17.5 mm [DPA5x] mini-DIN-rail housing or 22.5 mm [DPA03] DIN-rail housing
- SPDT relay output
- Approvals: CE - UL - CSA - CCC - RCM

3-phase voltage relays DPA01/DPA71

- Phase sequence and phase loss
- No adjustment required
- 3P systems, 208 to 690 VAC [DPA01], 208 to 480 VAC [DPA71], measure own supply
- 22.5 mm [DPA01] DIN-rail housing or 35.0 mm [DPA71] mini-DIN-rail housing
- SPDT [DPA01] or 2 x SPDT [DPA71] relay output
- Approvals: CE - UL - CSA - CCC - RCM

3-phase voltage relays DPB51/DPB52

- Phase sequence and phase loss
- Adjustable over and undervoltage, alarm ON delay
- 3P or 3P+N systems, 208 to 480 VAC nominal range, measure own supply
- 17.5 mm mini-DIN-rail housing
- SPDT relay output
- Approvals: CE - UL - CCC

3-phase voltage relays DPB01/DPB02

- Phase sequence and phase loss
- Adjustable over or undervoltage [DPB01], voltage asymmetry [DPB02], alarm ON delay
- 3P or 3P+N systems, 208 to 480 VAC, measure own supply
- 22.5 mm DIN-rail housing
- SPDT relay output
- Approvals: CE - UL - CCC - RCM

3-phase relays DPC01

- Phase sequence and phase loss
- Adjustable over and undervoltage, asymmetry and tolerance, alarm ON delay
- 3P or 3P+N systems, 100 to 1000 VAC, measure own supply
- 45 mm DIN-rail housing
- 2 x SPDT relay outputs
- Approvals: CE - UL - CCC - RCM

3-phase voltage relays DPC02

- Phase sequence and phase loss
- Adjustable over and undervoltage, over and underfrequency, alarm ON delay
- 3P or 3P+N systems, 208 to 690 VAC, measure own supply
- 45 mm DIN-rail housing
- 2 x SPDT relay outputs
- Approvals: CE - UL - RCM

3-phase voltage relays DPD02

- Phase sequence and loss, neutral loss, over and undervoltage, voltage asymmetry, over and underfrequency
- Device configuration via NFC
- 3P or 3P+N systems, 208 to 480 VAC, measure own supply
- 22.5 mm DIN-rail housing
- 2 x SPDT relay outputs
- Approvals: CE - UL - CCC - RCM

Current relays DIA01/DIA02

- Adjustable overcurrent
- 0.5 to 5 AAC/DC [DIA01], 2 mA to 5 AAC/DC [DIA02]
- 22.5 mm DIN-rail housing
- SPDT relay output
- Approvals: CE - UL - CSA - RCM

Current relays DIA53/EIS H

- Adjustable overcurrent [DIA53], ON/ OFF monitoring [EIS H]
- 2 A to 100 AAC [DIA53] 200 mA to 60 AAC [EIS H]
- 17.5 mm [DIA53] mini-DIN-rail or mini-E [EISH] housing
- NPN/PNP transistor [DIA53] or AC/DC solid state [EIS H] output
- Approvals: CE - UL - CSA - CCC - RCM

Current relays DIB01/DIB02/DIB71

- Adjustable over or undercurrent, alarm ON delay, latch/inhibit
- 0.1 mA to 5 AAC/DC [DIBx1], 2 to 100 AAC [DIB01 100A], input for shunt, MI or MP [DIB02]
- 22.5 mm [DIB0x] DIN-rail housing or 35.0 mm [DIB71] mini-DIN-rail housing
- SPDT relay output
- Approvals: CE - UL - CCC - RCM

Current transducer A82

- Measured AC current to DC signal conversion
- 5 types of input up to 500 AAC
- Wall mounting
- 3 types of output: 4 - 20 mADC, 0 - 20 mADC, 0 - 10 VDC
- LED indication for power supply
- Approvals: CE - UL

Monitoring relays

The possibilities for monitoring relays are countless: verification of machinery operation, detection of broken heater elements, lighting monitoring in critical areas (airport runways, buildings aircraft warning lights, tunnels), monitoring of ventilation fans and in building automation systems. Protection can be provided against people, fire, earth current leakage, or protecting from incorrect mains or cables connections. Also cabling and mounting is eased using different types of housing, double cage terminals, or pass-through connections for current measurement. Setup is always easy and accurate with the front dials and DIP switches.

Current transducer E83

- Measured AC current to DC signal conversion
- 7 selectable input ranges up to 50 AAC
- 22.5 mm mini-E housing, DIN-rail or wall mounting
- Output 4 - 20 mADC
- LED indication for power supply
- Approvals: CE - UL - CSA

1-phase voltage relays DUA01/DUB01

- Adjustable over [DUA01, DUB01] or undervoltage, alarm ON delay, hysteresis, latch/inhibit [DUB01]
- 2 to 500 VAC/DC [DUA01], 0.1 to 500 VAC/DC [DUB01]
- 22.5 mm DIN-rail housing
- SPDT relay output
- Approvals: CE - UL - CSA - CCC - RCM

1-phase voltage relays DUA52

- Adjustable battery undervoltage and hysteresis
- 12 to 24, 48 VDC, measure own supply
- 17.5 mm mini-DIN-rail housing
- SPDT relay output
- Approvals: CE - UL - CSA - RCM

1-phase voltage relays DUA55

- Adjustable voltage window
- 208 to 480 VAC, measure own supply
- 17.5 mm mini-DIN-rail housing
- SPDT relay output
- Approvals: CE - UL - CSA - CCC - RCM

1-phase voltage relays DUB02/DUB03

- Adj. over and undervoltage [DUB02], over or undervoltage [DUB03]
- 24, 115, 230 VAC [DUB02], 24 to 240 VAC/DC [DUB03], measure own supply
- 22.5 mm DIN-rail housing
- SPDT output
- Adjustable alarm ON or OFF delay, hysteresis [DUB03], latch/inhibit
- Approvals: CE - UL - RCM

Current/Voltage relays DIC01/DUC01

- Adjustable over and under voltage/ current [DIC01]
- Adjustable over and undervoltage [DUC01]
- 45 mm DIN-rail housing
- 2 x SPDT relay outputs
- Adjustable alarm ON delay and hysteresis, configurable latch / inhibit
- Approvals: CE - UL - CSA

Thermistor relays DTA01/02, DTA04

- Overtemperature, open circuit and short circuit monitoring through connection to motor PTC
- 22.5 mm DIN-rail housing
- SPST [DTA0x] or 2 x SPST [DTA04] relay output
- Reset button or remote reset
- Test button
- Approvals: CE - UL

Thermistor relays DTA71/72

- Overtemperature, open circuit and short circuit monitoring through connection to motor PTC
- 35 mm mini-DIN rail housing
- SPDT [DTA71] or 2 x SPDT [DTA72] relay output
- Reset button or remote reset
- Test button
- Approvals: CE - UL

Earth Leakage relays DEA71/DEB71

- Fixed 30 or 300 mA IΔn [DEA71], adjustable 30 mA to 5A or 300 mA to 30 A IΔn and alarm ON delay [DEB71]
- Warning output @ 60% IΔn, alarm output @ 80% IΔn
- 35 mm mini-DIN-rail housing
- 2 x SPDT relay outputs
- Work with CTG core balance transformers
- Approvals: CE - UL

Frequency relays DFB/DFC

- Adjustable over or underfrequency [DFB], over and underfrequency [DFC], alarm ON delay, latch/inhibit
- 50 or 60 Hz nominal frequency
- 22.5 mm [DFB] DIN-rail housing or 45.0 mm [DFC] DIN-rail housing
- SPDT [DFB] or 2 x SPDT [DFC] relay output
- Approvals: CE - UL - CSA

Power relays DWA/DWB

- Adjustable cosφ [DWA], power factor [DWB01], active power [DWB02, DWB03], alarm ON delay [DWB]
- 208 to 690 VAC (measure own supply), 0.5 to 10 A
- 22.5 mm [DWA] DIN-rail housing or 45.0 mm [DWB] DIN-rail housing
- SPDT relay output
- Approvals: CE - UL - CSA

Pump alternating relays DLA71/DLA73

- Alternating pumps and simultaneous activation of multiple pumps
- 2 or 3 pumps control
- 35 mm mini-DIN-rail housing
- 2 x SPST [DLA71 2P], or 3 x SPST [DLA71 3P, DLA73], relay outputs
- Approvals: CE - UL - CSA - RCM

Timers

Timers are frequently used in a wide range of applications in automation, such as motor control centres, packaging machinery, HVAC equipment, control panels and process control systems. The Carlo Gavazzi timer portfolio is complete and offers solutions for different mountings (DIN-rail, panel or plug-in), functions (ON and OFF delay, interval, one-shot, recycler, star-delta) and output (SPDT, DPDT, 4PDT relay, or static output).

Delay on operate DAA/PAA

- Time range 0.1 s to 100 h
- Mini-DIN-rail, DIN-rail or plug-in housing
- 24 to 240 VAC/DC power supply
- 1 or 2 SPDT or DPDT relay output
- Approvals: CE - UL - CSA - CCC- RCM

Delay on release DBA

- Time range 0.1 s to 100 h
- Mini-DIN-rail housing
- 24 VDC and 24 to 240 VAC power supply
- SPDT relay output
- Approvals: CE - UL - CSA - RCM

True delay on release DBB/PBB

- Time range 0.1 s to 10 h
- Mini-DIN-rail, DIN-rail or plug-in housing
- 24 to 240 VAC/DC power supply
- SPDT or DPDT relay output
- Approvals: CE - UL - CSA - RCM

Star-delta DAC/PAC

- Time range (Star) 0.1 s to 600 s, time range (Star to Delta) 50 to 130 ms
- Mini-DIN-rail, DIN-rail or plug-in housing
- 24 to 240 VAC/DC power supply
- SPDT relay output
- Approvals: CE - UL - RCM

Multifunction DMB/PMB

- 7 functions: delay on operate, interval, interval on trigger open, double interval, delay on release, symmetrical recycler ON first or OFF first
- Time range 0.1 s to 100 h
- Mini-DIN-rail, DIN-rail or plug-in housing
- 24 to 240 VAC/DC power supply
- 1 or 2 SPDT or DPDT relay output
- Approvals: CE - UL - CSA - CCC - RCM

Multifunction DMC/PMC

- 7 functions: delay on operate, interval, interval with no time reset (all the previous with manual or automatic and manual start), delay on release
- Time range 0.1 s to 100 h
- DIN-rail or plug-in housing
- NPN/PNP or Namur sensors input
- 1 or 2 SPDT or DPDT relay output
- Approvals: CE - UL - CSA - RCM

Multifunction FAA

- 4 functions: delay on operate, symmetrical recycler ON first, interval, one shot
- Time range 0.05 s to 300 h
- 48 x 48 mm plug-in housing
- 12 to 240 VAC/DC power supply
- DPDT relay output
- Approvals: CE - UL - CSA - RCM

Multifunction FMB

- 7 functions: delay on operate, symmetrical recycler OFF first or ON first, double interval, delay on release, interval, interval on trigger open
- Time range 0.05 s to 300 h
- 48 x 48 mm plug-in housing
- 12 to 240 VAC/DC power supply
- DPDT relay output
- Approvals: CE - UL - CSA - RCM

Multifunction HAA

- 4 functions: delay on operate, symmetrical recycler ON first or OFF first, interval
- Time range 0.1 s to 100 h
- 21.5 x 28 mm plug-in housing
- 12 to 240 VAC/DC power supply
- DPDT or 4PDT relay output
- Approvals: CE - UL - CSA

Asymmetrical recycler DCB/PCB

- Time range 0.1 s to 100 h
- Mini-DIN-rail, DIN-rail or plug-in housing
- 24 to 240 VAC/DC power supply
- 1 or 2 SPDT relay output
- Approvals: CE - UL - RCM

Mini-E EAS/EBS/ECS

- Functions: delay on operate [EAS], interval [EBS], symmetrical recycler [ECS]
- Time range 0.5 s to 10 m
- DIN-rail or panel housing
- 24 to 230 VAC power supply
- Static output
- Approvals: CE - UL - CSA

Fieldbus - Dupline and DuplineSafe

Dupline® is a field and installation bus that offers unique solutions for a wide range of industrial applications. The system is capable of transmitting multiple digital and analogue signals over several kms, via an ordinary 2-wire cable. Its modular design and simple operating principle enables it to be implemented easily in new or existing applications. Solutions can be engineered by combining products from the wide range of Dupline® modules, including digital and analogue I/O modules, PLC and PC interfaces, HMIs and Modems. All modules in an installation connect to the same 2-wire cable, which is used to exchange data between modules and between a central controller and modules.

Channel generator

- Generates Dupline® carrier signal
- Up to 128 Dupline® channels
- 2 and 3-wire operation with DC-power on the 3rd wire
- All Dupline® protocols are supported
- 24 VDC power supply
- Dimensions: 2-DIN housing

Fieldbus gateways

- Gateways for Profibus-DP, Devicenet, Modbus-RTU, Modbus/TCP
- Built-in channel generator
- Split I/O option
- AC and DC power supply
- DIN-rail mounting

Digital input modules - DIN

- Contact and voltage input modules
- Relay and solid state output modules
- Bus-powered types
- AC and DC power supply
- DIN and decentral mounting

Analogue input modules - decentral

- 4 universal analogue inputs or outputs
- Types: 0-20 mA, 4-20 mA or 0-10 V
- Galvanically isolated inputs
- AC and DC power supply
- Dimensions: 4-DIN housing

Repeaters

- Repeater for extending the Dupline® transmission distance
- Optical repeaters allow part of the Dupline® system to run on multimode fibre
- Dimensions: 4/8-DIN housing

Programming and test units

- Programming tool for assigning addresses to Dupline® modules
- Test unit for monitoring and control of Dupline® channels
- Handheld
- Battery / bus powered

DuplineSafe output module

- Configurable safety relay
- Monitors up to 63 safety switches connected via Dupline®
- Force guided contacts
- TUV approved for SIL3
- Dimensions: 8-DIN housing

DuplineSafe input module

- Input module for E-stops and safety pull cords
- Transmits dynamically on two Dupline® channels
- TUV approved for SIL3
- Powered from the bus
- Dimensions: 57 x 36 x 16 mm

DuplineSafe gateways

- Profinet, Profibus-DP and Modbus-RTU gateways for DuplineSafe monitoring
- Can also monitor and control standard Dupline® signals in the same system
- Dimensions: 8-DIN housing

DuplineSafe repeater

- Repeater for extending the DuplineSafe transmission distance
- Isolation between primary and secondary Dupline®
- Can be cascaded
- Dimensions: 8-DIN housing

DuplineSafe optical converter

- Optical repeaters allow part of the DuplineSafe system to run on multimode fibre
- Electrical-to-optical and optical-to-electrical units
- Dimensions: 4-DIN housing

DuplineSafe programmer

- Handheld configuration tool for the DuplineSafe input and output modules
- Allows real-time monitoring of safety signals
- LCD display
- Battery powered

Safety

Carlo Gavazzi's range of safety modules includes modules for light curtains, safety mats, two hand control (anti-tie down devices), magnetic and safety switches and emergency stops. They are suitable for use in applications up to Performance Level "e" and Safety Integrity Level SIL 3. We also offer extension units which can be used to increase the number of safety outputs. Our safety modules are cUL and TUV approved.
Our modules are powered by 24 VAC/DC and feature LED status indicators.

SMS20/SMS31 Emergency stop

- Emergency stop and safety gate modules up to Performance Level "e" for category 0 emergency stops
- 2 NO safety outputs (SMS20) or 3 NO safety outputs plus 1 NC auxiliary (SMS31) with automatic, manual and monitored manual start
- Detachable screw terminals

SMSA31 Safety gates

- Safety gate modules, with antivalent function, up to Performance Level "e" for safety magnetic switches
- 3 NO safety outputs plus 1 NC auxiliary with automatic, manual and monitored manual start
- Detachable screw terminals

SM2H21 Two hand control

- Safety module, up to Performance Level "e", for Two-hand controls Type IIIC (EN 574)
- For high risk applications such as presses and punches
- Detachable screw terminals

SMS20 Lift levelling

- Designed to be used in lift plants for floor levelling of the cabin.
- Compliant with standards EN 81-20, EN 81-50
- 2 NO safety outputs
- Detachable screw terminals

SME41 Expansion modules

- The expansion module is used to increase the number of safety outputs, up to Performance Level "e"
- 4 NO instantaneous relay outputs plus 1 NC auxiliary output for feedback
- Detachable screw terminals

Multifunction module delayed outputs

- The device can be connected with different types of input: E-stop, E-gate, limit switch, non-contact switch, safety light curtains (ESPE Type 4, Type 2), safety light beam (single beam), safety mat
- 2 x OSSD direct +2 x OSSD delayed
- Selectable delay time. Can be easily set-up through the hex-switch, from 0 to 30 sec.

Multifunction modules instantaneous outputs

- The device can be connected with different types of input: E-stop, E-gate, limit switch, non-contact switch, safety light curtains (ESPE Type 4, Type 2), safety light beam (single beam), safety mat
- 3 x OSSD (NO) + 1 OSSD Auxiliary (1 NC) (CM30D1A) or 4 x OSSD (NO) (CM40D0A)
- 4 LEDs on the front panel indicate the status and any errors during operation

NLG Light curtains

- Control Electro Sensitive Protective Equipment (ESPE) with static PNP or relay outputs reaching Performance Level "e"
- 2 NO safety outputs or 3 NO safety outputs plus 1 NC auxiliary (NLG13) with automatic/manual or monitored manual reset version
- Fixed or detachable screw terminals

Configurable master module

- Configurable Master safety controller
- Simultaneous monitoring of several safety devices and commands
- 8 digital safety inputs
- 2 OSSD digital safety output pairs
- 4 Test outputs and 2 programmable status outputs and separate EDM and Start/Restart

Speed monitoring modules

- The modules allow the configuration of up to 4 speed thresholds for each logic output (axis)
- Each module integrates two logic outputs configurable via the MSD and is therefore capable of controlling up to two independent axes
- RJ45 for encoder connections and terminal blocks for connection of proximity (up to 2 proximity per module)

I/O Expansion modules

- I/O module: 8I + 2O + 4 test outputs and 2 programmable status outputs
- I + Test O module: 12I + 8TO and separate EDM and Start/Restart
- Input only modules: 8/16 safety inputs + 4 test O
- Output only modules: 2/4 OSSD and separate EDM and Start/Restart
- Relay Output modules: different versions with NO and NC configurations

Power supplies and UPS

Carlo Gavazzi presents a complete range of power supplies and battery chargers for both the automation industry and building automation. These are available in 3 different package types: cabinet DIN-rail mounting, low profile DIN-rail mounting for electrical distribution panels and the enclosed type. Power supplies are also available with DC, 1-phase, 2-phase and 3-phase inputs. Output voltages span from 5 to 48 VDC, with output powers from 5 W to 960 W. Battery chargers are 120 W, and availabe in 2 voltages: 12 V and 24 V.

SPDL - DIN-rail 15 W ~ 75 W

- Output power: from 15 to 75 W
- Input voltage: 90 VAC / 264 VAC
- Output voltage: 12 or 24 VDC
- DC OK LED
- Overvoltage, Overload, Short circuit and Overtemp. protection
- Compact dimension
- CE - cURus [15-30-60 W] - cULus [75 W]

SPDL - DIN-rail 120 W ~ 240 W

- Output power: 120 W and 240 W
- Input voltage: 85/90 VAC / 264 VAC
- Output voltage: 12 or 24 VDC
- DC OK LED and [240 W] relay contact
- Overvoltage, Overload, Short circuit and Overtemp. protection
- Available with PFC [240 W]
- CE - cULus

SPDC - DIN-rail 120 W ~ 480 W

- Output power: 120 W to 480 W
- Input voltage: 85/90 VAC / 264 VAC
- Output voltage: 12, 24 or 48 VDC
- DC OK LED and relay contact
- Overvoltage, Overload, Short circuit and Overtemp. protection
- Parallel connection output and PFC
- CE - cULus - cURus

SPDM - DIN-rail 120 W ~ 240 W

- Output power: 120 W to 240 W
- Input voltage: 90 VAC / 264 VAC
- Output voltage: 12, 24 or 48 VDC
- DC OK LED
- Overvoltage, Overload, Short circuit and Overtemp. protection
- Medium compact dimension
- 120 W: CE - cULus - cURus [240 W]

SPD 1 - DIN-rail 1-phase power supplies

- Output power: from 5 to 480 W
- Input voltage: 110 or 240 VAC (1Ph)
- Output voltage: 5, 12, 24 or 48 VDC
- DC OK LED and relay contact
- Overvoltage, Overload and Short circuit protection
- Parallel connection output
- CE - UKCA - cULus - cURus - UL1310 Class 2 (up to 90W) - ISA 12.12.1 Class I Div2

SPD 2 - DIN-rail 100 W 2-phase power supply

- Output power: 100 W
- Input voltage: 340 to 575 VAC (2Ph)
- Output voltage: 12, 24 or 48 VDC
- DC OK LED and relay contact
- Overvoltage, Overload and Short circuit protection
- Parallel connection output and PFC
- CE - UKCA - cULus - cURus - ISA 12.12.1 Class I Div2

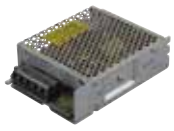
SPD 3 - DIN-rail 3-phase power supplies

- Output power: from 120 to 960 W
- Input voltage: 340 - 575 VAC (2/3Ph)
- Output voltage: 12, 24 or 48 VDC
- DC OK LED and relay contact
- Overvoltage, Overload and Short circuit protection
- Parallel connection output and PFC
- CE - UKCA - cULus - cURus - ISA 12.12.1 Class I Div2

SPMA - Low profile DIN-rail power supplies

- Output power: from 12 to 100 W
- Input voltage: 85 or 264 VAC
- Output voltage: 5, 12, 15, 24 VDC
- DC OK LED
- Overvoltage, Overload and Short circuit protection
- 4 kV insulation, UL Class 2 output
- CE - UKCA - cULus - cURus - UL 1310 Class 2 UL ISA 12.12.01 Class I Div2

SPPC Enclosed type 25 W ~ 75 W



- Output power: from 25 to 75 W
- Input voltage: 90 to 264 VAC
- Output voltage: 5, 12, 24 or 48 VDC
- DC OK LED
- Overvoltage, Overload, Short circuit and Overtemp. protection
- Cooling fan w/ speed control
- CE - cURus

SPPC FC Enclosed type 150 W ~ 800 W

- Output power: from 150 to 800 W
- Input voltage: 90 to 264 VAC
- Output voltage: 5, 12, 24, 36 or 48 VDC
- DC OK LED and PFC
- Overvoltage, Overload, Short circuit and Overtemp. protection
- Cooling fan w/ speed control
- CE - cURus

SPUBC - 120 W 24 VDC UPS & power supply

- Output power: 120 W
- Input voltage: 115 V to 277 VAC
- Output voltage: 12 or 24 VDC
- Power supply, Battery Charger and UPS
- For batteries up to 50 Ah
- DIN-rail mounting
- CE - UKCA - cURus

SPUBAT24 DIN-rail battery bank 1.2 to 12 Ah

- Battery Cap.: 1.2, 3.2, 7.2 or 12Ah
- 24 V VRLA Battery bank
- Stainless steel battery rack for UPS and battery chargers
- Front panel terminals for easy connection
- DIN-rail or wall mounting
- Built-in easily replaceable fuse
- CE

Digital panel meters

Carlo Gavazzi offers a comprehensive range of digital panel meters, digital displays (for current meters, ammeters, voltmeters, frequency meters, temperature meters and temperature controllers, tachometers, and rate meters) and signal conditioners for OEM, panel builder, instrumentation and MRO customers.
Covering most input types, our digital panel meters are well suited to any display requirements. With the modular types it is possible to realize any sort of configuration and the analogue signal can also be retransmitted to show the readings. The displayed colour can be set to change at specific thresholds, allowing any type of anomaly to be easily seen.

HMI displays BTM series

- 7", 10"and 15.6" colour HMI displays
- Fully programmable by the dedicated BTM-PC- IDE software
- IIoT data distribution via MQTT and OPC UA
- BACnet, Modbus and KNX protocols with gateway/routing capabilities
- Ethernet, serial and USB ports

Modular indicator/ controller UDM35

- 3½ DGT LED
- AC/DC V-I, Temperature and Resistance, Speed, Frequency and Period measurement
- Up to 4 independent alarm set-points, 20 mA/10 VDC analogue output
- RS485 or RS232, MODBUS RTU
- Panel mounting
- Degree of protection: IP67, NEMA12, NEMA4x

Modular indicator/ controller UDM40

- 4 DGT LED
- AC/DC V-I, Temperature and Resistance, Speed, Frequency and Period measurement
- Up to 4 independent alarm set-points, 20 mA/10 VDC analogue output
- RS485 or RS232, MODBUS RTU
- Panel mounting
- Degree of protection: IP67, NEMA12, NEMA4x

Modular controller USC

- Modular signal's conditioner
- AC/DC V-I, Temperature and Resistance, Speed, Frequency and Period measurement
- Up to 4 independent alarm set-points, 20 mA/10 VDC analogue output
- RS485 or RS232, MODBUS RTU
- DIN-rail mounting
- Degree of protection: IP20

Indicator/controller LDI35

- 3½ DGT LED or 3 DGT LED + "0" dummy µP-based
- AC/DC V-I, Temperature and Resistance
- 1 independent alarm set-point
- 48 x 96 mm
- Panel mounting
- Degree of protection: IP50 (IP65 on request)

Indicator/controller LDM35H

- 3½ DGT LED
- AC/DC V-I
- Up to 2 independent alarm set-points
- 48 x 96 mm
- Panel mounting
- Degree of protection: IP65

Indicator LDM30

- 3 DGT LED + "0" dummy µ-based
- AC V-I
- Dip-switch-selectable ranges
- 48 x 96 mm
- Panel mounting
- Degree of protection: IP50 (IP65 on request)

Indicator DI3-DIN

- 3 DGT µP-based
- AC/DC V-I, Frequency
- 20 Selectable CT/VT primary range
- 3-DIN modules
- DIN-rail mounting
- Degree of protection: IP40

Indicator DI3-72

- 3 DGT µP-based
- AC/DC V-I, Frequency
- 18 Selectable CT/VT primary range
- 72 x 72 mm
- Panel mounting
- Degree of protection: IP50 (IP65 on request)

Industrial relays and sockets

Carlo Gavazzi offers a comprehensive range of electromechanical relays for industrial automation.
These are available in plug-in and PCB mounting. Many of the relays come as standard with a push-to-test button as well as a LED indicator. Carlo Gavazzi relays are frequently used in control panels, in HVAC control systems, pump and compressor control and electronic and consumer products. They are typically used to switch loads such as heaters, lights and motors. Carlo Gavazzi also offers a complete range of sockets (DIN-rail mounting) for industrial and PCB relays.

Industrial RCP

- 8 or 11-pin socket mounting
- 2 or 3 change-over contacts
- Matching sockets available
- AC coils 6 to 230 VAC/DC coils 6 to 110 VDC
- Standard with LED, Push arm and Flag

Midi industrial RPY

- High switching power
- 10 or 16 A switching capacity
- 1 or 2 or 3 or 4 pole configuration
- DC coils from 6 to 110 V/AC coils from 6 to 230 V
- Flanged pins 5 mm (0.20")

Midi industrial RMI

- High switching power
- Contact rating 10 A [RMI2] 5 A [RMI4]
- 2 pole [RMI2] 4 pole [RMI4] configuration
- AC coils 6 V to 230 V/DC coils 6 to 110 V
- Standard with LED, Push arm and Flag

Power NF/NB

- Switching capacity 30 A
- DC coils 6 to 110 VDC / AC coils 12 to 240 VAC
- 1 or 2 normally open contact
- Faston terminals [NF]
  Bolt terminals [NB]

Power CF/CS

- High switching power
- Switching capacity 30 A
- 2 normally open contacts, 2 change over contacts
- DC coils from 5 to 110 V / AC coils from 24 to 277 V
- Faston terminals [CF]
  PCB terminals [CS]

Slim RSLM

- 5 mm width
- Switching capacity 6 A
- 1 normally open contacts or 1 change over contact
- DC coils from 12 to 60 V
- PCB terminals

Slim industrial RPYS

- Slim Relay solution
- 8 or 12 A switching capacity
- 1- or 2- pole configuration
- DC coils 12 - 24 V,
- AC coils 24 - 115 - 230 V
- UL 508 cURus

Slim sockets ZPYS

- Sockets for RPYS relays
- Rated voltage 300 VAC
- Rated current 16 A
- Screw and Push-in terminals
- Pre-mounted solutions with Relay + Socket + Clamp

Sockets ZPD

- Sockets for RCP relays
- Rated voltage 300 VAC
- Rated current 10 A
- Terminal type screw cage
- Contact material nickel plated - CuZn33

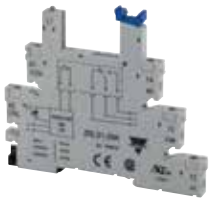
Sockets ZMI

- Sockets for RMI relays
- Rated voltage 300 VAC
- Rated current 10 A
- Terminal type screw cage
- Contact material Cu Ni

Sockets ZPY

- Sockets for RPY relays
- Rated voltage 300 VAC
- Rated current 16 A
- Terminal type screw cage
- Contact material nickel plated - CuZn33

Sockets ZRLS



- Sockets for RSLM relays
- Rated voltage up to 250 VAC
- Rated current 6 A
- Screw terminals or spring terminals
- Options: various AC/DC voltage inputs

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OUR COMPETENCE CENTRES AND PRODUCTION SITES

DENMARK
Carlo Gavazzi Industri A/S
Hadsten

MALTA
Carlo Gavazzi Ltd
Zejtun

ITALY
Carlo Gavazzi Controls SpA
Belluno

LITHUANIA
Uab Carlo Gavazzi Industri Kaunas
Kaunas

CHINA
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