Techno Injection & Tools S.A. de C.V.
Product Overview

WE ARE YOUR ALLY, OUR VICE IS THE SERVICE

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**Industrial Heating:** Heaters, thermocouples, connectors, high temperature accessories, high temperature cable, temperature controllers, high temperature connecting ends.
*Note: Specify heaters data such as: voltage, wattage and dimensions. If possible send a drawing with measures and special features.

CARTRIDGE HEATERS

MOULDABLE HEATERS
FOR MOULD HEATING: 6.5 & 8 MM
6.1 x 6.1 SQUARED FROM 300 MM LONG ONWARDS
COILHEATER: HELICAL HEATERS

CARTRIDGE EXPAN HEATER
SELF-EXPANDABLE

The Self-expandable cartridge

- Longer duration
- Easy extraction
- Compact ends
- Bigger length without arching
- More drill tolerance
- Without cold zones
INDUSTRIAL HEATERS

Manufacturing of every type of heaters to measure a la medida.

*Note: Specify heaters data such as: voltage, wattage and dimensions. If possible send a drawing with measures and special features.

IMMERSION HEATERS: direct heating with fluid contact: water, oil, viscous materials, acid or basic solutions, etc.

AIR & CABLE HEATING

The heating elements for air are employed in conduits, furnaces and welding machines.

CERAMIC BAND HEATER

Used in the injection, extrusion, blown or different heating applications.
BAND HEATER
Applies in the Plastic Industry (Injection machines, blowers, extruders and Pelletizers), Laboratories (test cylinder heating, etc).

FLAT HEATERS
Allow the uniform heating of flat surfaces.

INFRARRED EMITTERS
Used for the paint curing, thermoformed, printing or drying.

SILICON HEATERS
Sturdy, precise and water resistant. They can be easily joined or adhered to other parts of the system.
SILICE CARBIDE HEATING ELEMENTS
High thermical conductivity and weathering resistance. Generates temperatures of 600°C until 1600°C.

TUBULAR HEATERS:
Used for industrial level applications, they are manufactured with incoloy or stainless Steel pipes which offer a higher mechanical and rust resistance.
THERMOCOUPLES

Manufacturing of every type of thermocouples for the proper measure of machines and processes.

THERMOCOUPLES CODES

APPLICATION TEMPERATURE RANGE

<table>
<thead>
<tr>
<th>Designación ANSI</th>
<th>Composición</th>
<th>Margen habitual</th>
<th>mV/margen</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Pt (6%)/Rodio-Pt (30%)/Rodio</td>
<td>38 a 1800°C</td>
<td>13,6</td>
</tr>
<tr>
<td>C</td>
<td>W (5%)/Renio-W (26%)/Renio</td>
<td>0 a 2300°C</td>
<td>37,0</td>
</tr>
<tr>
<td>E</td>
<td>Cromel-Constantan</td>
<td>0 a 982°C</td>
<td>75,0</td>
</tr>
<tr>
<td>J</td>
<td>Hierro-Constantan</td>
<td>0 a 760°C</td>
<td>42,9</td>
</tr>
<tr>
<td>K</td>
<td>Cromel-Alumel</td>
<td>– 184 a 1260°C</td>
<td>56,0</td>
</tr>
<tr>
<td>N</td>
<td>Nicrosil (Ni-Cr-Si) – Nasil (Ni-Si-Mg)</td>
<td>– 270 a 1300°C</td>
<td>51,8</td>
</tr>
<tr>
<td>R</td>
<td>Pt (13%)/Rodio-Pt</td>
<td>0 a 1593°C</td>
<td>18,7</td>
</tr>
<tr>
<td>S</td>
<td>Pt (10%)/Rodio-Pt</td>
<td>0 a 1538°C</td>
<td>16,0</td>
</tr>
<tr>
<td>T</td>
<td>Cobre-Constantan</td>
<td>– 184 a 400°C</td>
<td>26,0</td>
</tr>
</tbody>
</table>
Variety of shapes: Needle, eye end, bulb, thread, with spring and bayonet; either type J, K, RTD, Pt100, Pt1000

Immersion thermocouple, either mini or standard

With connector

Thermocouples Connectors

Standard

Mini

RTD Pt100

RTD
HIGH TEMPERATURE ACCESORIES

**High temperature cables** from different materials, callibers and different isolations.

**TRIPOLAR & CERAMICA**
Ideals for connections that require high temperature resistance.

**HIGH TEMPERATURE ENDS**
Eye Type, butt, “U” type or blade, needle type and alligator.

**ADHESIVE & ISOLATION TAPES**
Ashesive tapes, high heat resistance and also high tenseness resistances to the fiberglass.

**CONNECTORS KIT**
- Connectors kit of 5 pins with 1 cam & superior output
- Connectors kit of 6 pins with 1 cam & superior or side output
- Connectors kit of 10 pins with 1 or 2 cams & superior or side output
- Connectors kit of 16 pins with 1 or 2 cams & superior or side output
- Connectors kit of 24 pins with 1 or 2 cams & superior or side output
The range of temperature regulators Series 8 has been developed for applications with a small number of areas to control, especially in the sectors of the Automobile and Technical Parts. Extremely compact, modular dual zone regulators are available in chests from 2 to 24 zones. As a result of the new assembly and assembly technologies, with optimal use of SMC electronic components, the 8 Series is a new benchmark for robustness, precision and price regulation.
Carlo Gavazzi manufactures, markets, and sells a broad range of products for industrial automation, energy and renewable energy, and building automation.

**SENSORS**

**Quick Disconnect Cables**

Our cables are available with 3, 4, or 5 wires and with either a straight or angled connector. The cables feature a PVC sheath and are available in 2, 5, or 10 meter lengths.

**Level Sensors**

We offer level sensors and level control relays for both on/off control and continuous monitoring of levels. We offer conductive probes and amplifiers, capacitive level sensors, ultrasonic sensors, magnetic level probes, and optical sensors.
Environmental Sensors

Carlo Gavazzi offers a broad range of environmental sensors for monitoring of CO2, relative humidity (RH), temperature and air velocity. They offer a choice of 4-20 mA, 0-10 V or digital output. Most units offer a choice between wall and duct mounting.

Capacitive Sensors

Our sensors are available in 12 mm, 18 mm, and 30 mm diameter with both AC and DC outputs. We offer both plastic and metal housings with either a built-in cable or a connector. As well we also offer sensors with an IP69K rating and ECOLAB approval.

Carlo Gavazzi's patented Tripleshield™ Capacitive Sensors have become the standard all other manufacturers are measured against. All Tripleshield™ sensors are tested to withstand electrostatic discharges up to 40 KV, line transients up to 4 KV, and airborne noise (ie. cellular phones) up to 15 V/m. Furthermore, some models have built-in dust and humidity compensation.

Our capacitive sensors have adjustable sensitivity making them ideal for your level sensing applications. Furthermore, many models feature our Touch Mode programming for setting sensitivity levels and output status.
Photoelectric Sensors

Our sensors are available in diffuse reflective, background suppression, retro-reflective, polarized, through beam, clear object detection, and color recognition. Carlo Gavazzi is a leader in photoelectric sensors for automatic doors and have one of the broadest range of UL325 sensors on the market. We also offer a range of fiber-optic type sensors for applications where a conventional sensor cannot be used (space restrictions, temperature, atmosphere).

Inductive Sensors

Our inductive sensors and proximity switches are available in a wide variety of styles and feature both AC and DC outputs. We also provide a wide selection of ancillary products such as timers, zero speed relays, counters, and digital speed indicators and tachometers. Our extensive offering includes inductive sensors with cylindrical housings (from 4mm to 30 mm) with both standard, extended, and triple sensing distance.

Magnetic Sensors

There are a wide variety of styles available including rectangular, cylindrical, and slotted. As well, special coded magnets and sensors are available for use in safety applications.
UA Series ultrasonic sensors are designed for both distance measurement and object detection in tough environments. The range consists of both M18 and M30 housings. Discrete output types are available for presence and absence detection, and are ideally suited for detecting objects, such as transparent objects, that cannot be reliably detected by other sensors.

Analog outputs are available on our ultrasonic sensors for applications requiring a measurement of the target object, such as detecting the level of fluid in a tank. The analogue models have your choice of 0-10 VDC or 4-20 mA outputs. Most of our ultrasonic sensors incorporate push button programming, which allow the set-points and output scaling to be configured with the push of a button.

SWITCHES

Motor Soft Starters & Drivers

offers a range of motor controllers for soft starting/stopping and reversing of three phase “squirrel cage” motors. Our soft start controllers feature internal bypass relays which eliminate the need for large external heatsinks. In addition some of our soft starters employ an adaptive learning algorithm allowing them to optimize themselves to the particular motor being used. We also offer soft starters with built-in over temperature monitoring, thermal monitoring of motor via PTC sensor, and built-in overload protection (class 10 or class 20).
Contactors, Overloads, and Breakers

Carlo Gavazzi offers a complete range of Contactors and Overloads for switching currents up to 900 Amps (600 HP @ 480 VAC). All contactors are available with a wide selection of coil voltages and come standard with built-in auxiliary outputs. Interlock and wiring kits are available to turn 2 standard contactors into reversing contactors.

In addition, our range also includes Definite Purpose Contactors up to 90 Amps in 1 pole, 1 pole + auxiliary, 1 pole + shunt, 2 pole, and 3 pole configurations. To complete our range, we also offer Miniature Circuit Breakers up to 63 A. Our GMB series is a UL489 approved branch circuit protector while the GSB is a UL1077 approved supplementary protector.

Limit & Safety Switches

Carlo Gavazzi offers a comprehensive range of high quality limit switches perfectly suited for a wide variety of sensing applications. We offer a wide variety of actuating heads and numerous housing sizes in either plastic or metal. Connections are made via a 1/2 inch conduit entry. On request we also offer it with PG13.5, PG11, M20x1.5, or M16x1.5 conduit entry. Various output configurations are available in slow and snap action. Many models also feature force break contacts. Limit switches are frequently used in position detection on doors and machinery and parts detection on conveyors and assembly lines.
Push Buttons & Switches

A complete range of push buttons, selector switches, and indicator lights. Our switches are available with flush, extended, and mushroom heads and in a wide variety of colors - both standard and illuminated. Our push buttons are available with either a plastic or metal ring and in versions for 22 mm mounting.

Our selector switches are available with long or short handles. Our short handle types are also available in illuminated versions. Our selector switches are available with either a plastic or metal ring and are available in versions for 22 mm mounting.

Solid State Relays

Carlo Gavazzi's solid state relays range includes single phase relays up to 125 amps and 3 phase relays up to 75 amps. They are available with both digital and analog inputs (4-20 mA or 0-10 V) Furthermore, we also offer a complete range of SSR's with a built-in heatsink.
Electro-mechanical Relays

We offer relays for switching loads up to 30 Amps with a wide selection of coil voltages. They are available in plug-in and PCB mounting. Many of our relays come standard with a push-to-test button as well as an LED indicator. They 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.

CONTROL
Timers & Counters

Carlo Gavazzi offers a comprehensive range of timers for mounting in the back of or for mounting on the front of panels. We offer a number of different housing types with either a SPDT or DPDT relay output. Covering most timing functions (On Delay, Interval, Off Delay, One Shot, Zero Speed, Star-Delta, and Recycler), our timers are suited for practically every application.

Our range of counters includes both 6 and 8 digit types with counting inputs up to 10 KHz. Input signals can be contact/NPN, PNP, or AC voltage. Furthermore, our 1/16 DIN counter has a programmable relay output. In addition to our digital counters, we also offer 8 digit digital hour meters.
Temperature Controls

Our range includes 1/16 and 1/32 DIN models with a user selectable input type and with up to 3 outputs. In addition, we offer 1/8 DIN horizontal mount indicators and on/off controllers.

Energy Management

Offers a broad range of energy meters and power quality meters and transducers for monitoring energy consumption as well as problems with power quality. In addition, meters such as our EM24, EM26 and WM40 also offer optional digital inputs for interfacing to water and gas meters thereby allowing access to electrical, gas and water usage with just one device.
Current Transformers

One of the broadest ranges of current transformers (CTs) in the industry. We offer both standard and split core transformers for currents up to 2000 Amps for both cable and bus bar systems. We offer CTs in a large variety of sizes and they are available with various outputs including 0-5 A, 0-1 A, 0-333 mV, 0-4 Vpk, 4-20 mA and 0-10 V. Most of our CTs are DIN rail mountable.

Current, Voltage & Phase Monitors

Carlo Gavazzi offers a comprehensive range of monitoring controls for monitoring of phase loss, incorrect phase sequence, phase unbalance, over/under current, over/under load, over/under frequency, and over/under voltage. Our products include current monitors, voltage monitors, power monitors, phase loss relays, thermistor relays, and current transformers.

Our range of products also includes surge arresters for photo voltaic systems, standard current transformers (CTs), split-core current transformers, and CTs with analog output.
Carlo Gavazzi's range of switch mode power supplies are available in sizes up to 960 Watts and include many models suitable for use in Class 1 / Div 2 areas. Our power supplies will accept a 120/220 V input voltage and provide a DC voltage output. We offer outputs in 5 VDC, 12 VDC, 15 VDC, 24 VDC, and 48 VDC. A built-in filter is available on some units. For higher currents, our 120 W, 240 W, 480 W, and 960 W versions can be used in parallel mode. Also, some models are available with detachable wiring terminals.

Carlo Gavazzi also offers 3-phase power supplies available in these output sizes: 120 W, 240 W, 480 W and 960 W. They can be powered by either three phases, or two-phases at a slight derating, and are available with an adjustable 24VDC output (some models are also offered in 12 or 48VDC). Other standard features include diagnostic LEDs, power factor correction and power ready outputs, with parallel function on all models except the 120W version.

For applications where you require a lower profile (depth), then our SPM series is the perfect choice. They are available up to 100 W and represent our highest power class 2 supply (91 W).

When space is at a premium, yet performance must not be sacrificed, the SPP Enclosed chassis-mounted power supply, an extremely compact series, is your choice. They are available up to 800 W.
Safety Modules

We also offer extension modules which are used in conjunction with our safety modules and allow you to increase the number of safety outputs. Our safety modules feature cUL and TUV approvals.

Our modules are available with various supply voltages (24 VAC / DC, 110 VAC, 230 VAC) and feature LED status indicators.

Dupline

Dupline® - the versatile bus for Industrial Applications and Building Automation.

Our Dupline Safe is a TUV approved SIL 3 system for monitoring of E-Stops and pull cord switches - especially on long mining conveyor systems. It can be used to identify which switch has been pulled as well as to shut down the conveyor.
Digital Panel Meters & HMIs

The UDM series is a hi-tech modular panel meter family developed to meet your most advanced application needs. The series is available with either a 3 1/2 digit (UDM35), 4 digit (UDM40), or 6 digit (UDM60) display. It can also be ordered without a display and be used as transducer or signal conditioner (USC).

Tactil HMI Panel in 4.3, 7, 10 and 15 inches.
Huge chemical product spectrum for industrial and institutional areas.

Our products have multiple applications and are 100% eco friendly.

Presentations: aerosol, 4 liters, 20 liters, 50 liters, 200 liters and 1000 liters

**MOULD RELEASESERS:** for wax, ceramic, rubber and plastic, for bakery, the can be either silicon or water base, paintables or both releaser and protector.

**PERSONAL HYGIENE:** hand shampoo, cleaning creams.
INSTITUTIONAL CLEANING: environmental conditioners, clinical áreas and sanitizers, bathrooms, furnitures and carpets, walls, windows and mirrors, floors and kitchens, sarricide and germicide, dish soap, window cleanaer, disinfectant, pipe cleaner, chopper.

TEXTILE CLEANING: Concentrated liquid detergent, textile stain remover, dust stain remover and bleach.
**DEGREASERS & CLEANSERS:** Mechanic motors, for stainless Steel, machinery and equipment, metallic spare parts, floors, hard work, bottles and carboy, dielectric solvents and general purpose. They can be alcaline degreasers, water base, solvent base, emulsifiable. Not toxic.

**PHOSPHATE LINE:** All-in-one degreaser and phosphatizing. Multimetal degrease and phosphate solution, used for the treatment of metals before exposing to the painting, sealing process and prevents the rust; for metallic cleaning process.
**AUTOMOTIVE LINE:** Accumulators, carpets and tapestry, bodywork, rim cosmetic, vinyl and fur, motors and windows. Antifreeze and anti-bulge, concentrated shampoo for bodywork, injectors cleanliness and combustion chamber, shine and bright for vinyl surfaces, moisture shifter and motor cosmetic.

**LUBRICANTS & COOLANTS:** Special, synthetic, semi-synthetic, evaporative, synthetic fluids and semi-synthetic for cutting, lubricant grease (white, high viscosity and anti-seize).
MISCELLANEOUS & SPECIALITIES: Alguicides, non-stick for welding process, coupling gel, fault and leak inspection, mould cleaning, glues, protective coverage, humidity protector, special remover, industrial sanitizer, toilette system, anti-dust treatment.

AEROSOL PRODUCT: Multipurpose, foam cleaner, metal and plastic foam cleaner, remover-cleanser, spare part cleaner, electric and electronic components cleaner, moisture shifter, penetrant, faultcheck, mould cleaner, non-stick protector for welding nozzles and difussers, aerosol sanitizer, paintable mold releaser, corrosión inhibitor.
FLOOR TREATMENT: Materials for conditioning, polishing and shining, urethane coatings, coating with epoxic materials, removal, repair and fillers, pigmentation.

METAL PROTECTION & TREATMENT: Stainless Steel, deoxidants and descaling, unlocking of pieces, corrosión inhibitor, aluminium cleaner and capacitors, cleansers for ice producing machines.
HANYOUNG TEMPERATURE CONTROLLER

Temperature Controller: temperature controller, humidity controller, PID temperature controller, general temperature controller, exclusive temperature controller, temperature indicator.

TH300
TH500
NP SERIES
TD500
PX SERIES
NX SERIES
UX100 SERIES
HX SERIES
AX SERIES
DX SERIES
HISTORICAL VIEWERS: either multiple or one cannel historical viewer.

GR200

RT9

SAFETY CURTAINS

PAN Series

PAS Series

PEDALERS & BUTTONS
LIGHT TOWERS & SIGNALS

CONTACT BLOCKS
**KNIPEX TOOLS**

**KNIPEX, THE PLIERS SPECIALISTS:** The world's leading brand in pliers today.

**Quality in every detail:** The performance, service life and ergonomics of our tools are guided by the need to meet the high expectations of professional users. That is why we use particularly high-quality materials and modern production technology.

**Manufacture with Precision and Verification:** For the implementation of quality and precision standards, the most modern verification technologies are used. The special performance capacity of the pliers requires compliance with the strictest tolerances. In many cases it refers to hundredths of millimeters.

**Finishing - The Final Touch:** Towards the end of production the "last control" is carried out, and the placement of the ergonomic handles or plastic coatings. Each of the Knipex insulated pliers must pass, among others, a voltage test of 10000 volts.

**Guaranteed Reliability:** The brand fulfills its promise: 100% reliability. Each of the diagonal cutters is tested by making a cut to a small copper wire before leaving the factory. Ensuring that the requirements and expectations of users throughout the world are met with guarantee.

**Short paths - rapid improvements:** Manufacturing is the same plant which allows close connectivity of all processes and good coordination between them. Ensuring 100% quality in all products.
PRODUCT RANGE

Universal Pliers

Cable & Hose strippers Pliers

Pressure Pliers

GRIP

Washer Pliers

Pincers for Shipowners

Carpenter’s pincers

Cutting Pliers

Wrenches for pipes and pincers for water pumps

Special pliers and tool lamp
PRODUCT RANGE

- Precision Pliers
- Cable Cutters
- Pliers for notching terminals
- Fittings assortments
- Isolated Tools
- Keys for control cabinets
Weiler offers a wide family of excellent products that will not only help you do a good job, but will make a difference in your business.

Solid abrasives, coated abrasives and non-woven abrasives

SOLID ABRASIVES
This line comprehends products such as Tiger® Disc – abrasive fin discs, BobCat™ discs for special applications, Big Cat®, cut out laminate disc, frosted or stainless steel or Vortec™ Pro. Furthermore the fiber discs, the AL-tra Cut™ discs, filing discs, Trim-Kut® discs, fin wheels, sanding bands and sanding rolls for the workshop.

COATED ABRASIVES
The types of products contemplate roughind discs and cutting discs.

NON-WOVEN ABRASIVES
The range of products contemplates polishing discs, width polishing discs, discs for surface conditioning, manual fibers and flap wheels.
In this type we have circular, disc, cup, stem and pipe brushes. Nylox brushes are specially designed for automated processes and for CNC machines for deburring in production.

The product types include circular brushes with corrugated or braided wire, cup, for tubes, miniature, Roughneck® welding brushes, Mighty-Mite® narrow-angle emery brushes, with shank, encapsulated and wide-area brushes.
PARTS AND COMPONENTS FOR MOULDS

EJECTOR PINS
CORE PINS, SLEEVES

MOLD BASE COMPONENTS

ALIGNMENT LOCKS

DATERS, AIR VALVES
SECTION D