A collection of custom electronic parts including capacitors, inductors, connectors, and a control panel. The background is a dark blue grid pattern.

Custom electronic parts



DELTA Electronica Srl



Cables & connectors

- | Custom Cable Assemblies & Common Cable Assemblies
- | Wire Harnesses
- | Custom Connectors



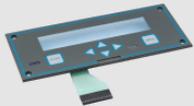
Adapters

- | Wall Mount Power Supply
- | Desktop Power Supply
- | Interchangeable Or Fixed AC Adapters
- | Open Frame Adapter



Transformers & coils

- | High & Low Frequency Transformers
- | Inductors & Filters
- | Air Coils & Toroids



Membrane Switch Keypad

- | PET + Silver Ink Membrane Switch Keypad
- | FPC Membrane Switch Keypad
- | Overlays
- | Technical Labels
- | Pad Printing



Batteries

- | Li-ion & Li-po Rechargeable Batteries
- | Ni-mh & Lead Acid Rechargeable Batteries
- | Primary Batteries (Coin Cell, Standards Alkaline, ...)



Diodes, Fuses & Varistors

- | Active Protection
- | Over Current Protection
- | Over Temperature Protection
- | Over Voltage Protection



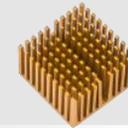
Silicone

- | Silicone Keypad
- | Silicone Sealing Gasket
- | Silicone Technical Part



Displays

- | TFT Displays
- | VA type
- | TN, HTN, STN, FSTN & DFSTN types



Metal

- | Die Casting Parts
- | Stamping Parts & EMC Shielding
- | Aluminum Extrusion Heatsink



Plastic

- | Plastic Injection Parts
- | Plastic Injection Molding



Sub-assemblies/Turnkey products

- | Remote Control Units:
- | Electromechanical Assemblies
- | PCB Assemblies



Printed PTC Heaters

- | PTC (Positive Temperature Coefficient) Printed Heaters

Cables & Connectors



Customized Cable Accessories

- | Wire Harness
- | Sensor Cables
- | Waterproof Cables
- | EV Charging Cables



Customized Connector



Common Cable Assemblies

- | HDMI
- | ETHERNET
- | USB (*Type A, Type B, 3.0, 4.0, Mini, Micro, Type C*)



Custom CAPABILITIES

| Colors

All colors available

| Cover materials

All types: metal, shielding, pvc, abs

| Terminal treatments

Gold, silver, tin plated, etc

| Specificities

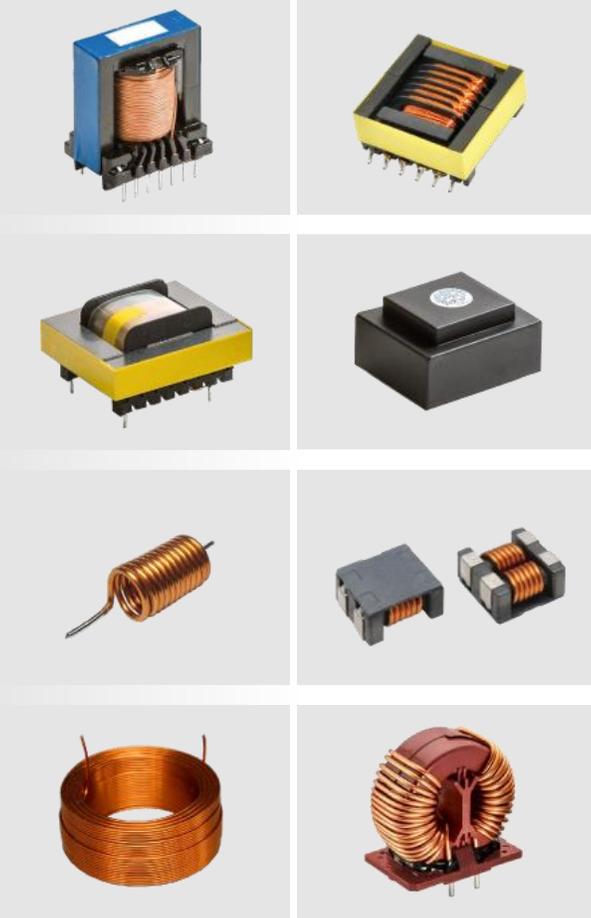
Waterproof, ip properties

| Overmolding

| Other customizations

Engineers at your disposal

Transformers & Coils

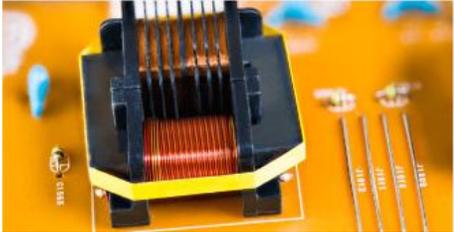


High-Frequency Transformers

Low-Frequency Transformers

Inductors & Filters

Air coils & Toroids



Coils

- | Common mode chokes
- | Power inductors
- | Filters
- | Toroidal cores, drum cores
- | Ring cores
- | Rod cores, etc

Transformers

- | PFC chokes
- | Flyback transformer
- | Ethernet transformer
- | Gate drive transformer

Custom CAPABILITIES

I Dimensions

Detailed Dimensions Especially The Pin Pitch And Pin Row

I Schematic

Winding Schematic Diagram

I Layer

Winding Layer Diagram

I Structure

Winding Structure Diagram (Wire Type And Diameter, Number Of Turns)

I Dimensions

Primary Inductance or Of Each Winding
Hi-pot Testing
Test Condition

Adapters



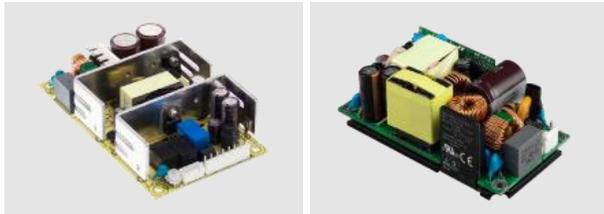
Wall Mount Adapters



Interchangeables Adapters



Desktop Adapters



Open Frame Power

Technical CAPABILITIES

Main capabilities Adapters	Input Power Range	Output Power Range	AC Plug Different countries
Wall mount Adapters	90 – 264 V AC 50/60 Hz	3W-50W	✓
Desktop Adapters	90 – 264 V AC 50/60 Hz	24W-180W	✓
Interchangeable Adapters	90 – 264 V AC 50/60 Hz	10W-50W	✓

Battery Charger	90 – 264 V AC 50/60 Hz	90W-3600W	✓
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Main capabilities Adapters	Cables Length	Plug Size	Efficiency	Color
Wall mount Adapters	DC: 0.5m-1.8m	DC: 5.5 x 2.5 x 10 MM or customized size	Level V & VI	Black or white
Desktop Adapters	AC & DC: 0.5m-1.8m	DC: 5.5 x 2.5 x 10 MM or customized size	Level V & VI	Black or white
Interchangeable Adapters	DC: 0.5m-1.8m	DC: 5.5 x 2.5 x 10 MM or customized size	Level V & VI	Black or white
Battery Charger	DC: 0.5m-1.8m	DC: 5.5 x 2.5 x 10 MM or customized size	Level VI	Black



CERTIFICATIONS



Europe



Germany



North America



United State



Australia



China



Japan



Korea



Membrane Switch Keypads



PET + Silver Ink Membrane Switch



FPC Membrane Switch Keypad



Overlays



Technical Labels



Pad Printing

Custom

CAPABILITIES

I Display Type

Tactile Or Nontactile
Number Of Switches
Circuit Type

I Connector Tail

Minimum Clearance
(From Tail Edges For The Tracks)
Male & Female Connector

I Graphic Type

Flat
Embossed

I Graphic Colors

Number Of Colors
Background & Display Windows

I Size & Length

Number Of Through Holes
Cut-outs
(from 20mm - 2000mm)

I LEDs

Colors & Types

I Resistance Capabilities

UV Resistant
Waterproof

I Production Capabilities

7 000K Pieces/Month
(Average Size Of Keypads)

48

hours maximum
for quoting

200 000

products
delivered per year

1000

sqm facility

7

workday
leadtime

Displays



TFT Type

Thin Film Transistor

Size

- | Small Size TFT display: $\leq 2.8''$
- | Medium Size TFT display: 3.0'' to 10.1''
- | Large Size TFT display: 10.15'' to 28''

Customizable part on the display

- | Frame
- | Backlight
- | FPC and Interface
- | Connection type

Touch Panel

Capacitive Touch (CTP)

- | Cost: High (CTP is 10%~ 50% more expensive than RTP)
- | Visual effect: CTP is better than RTP in the sunlight
- | Touch: Touch sensitive, operate with finger touch.

Resistive Touch (RTP)

- | Cost Low
- | Visual effect: Indoor visual effect is the same as CTP.
- | Touch: Finger or electronic pen press operation



VA Type

Vertical Aligned



HTN Type

High Twisted nematic



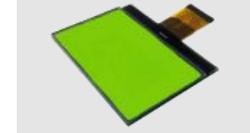
DFSTN Type

Double Film STN



TN Type

Twisted Nematic



STN Type

Super Twisted nematic



FSTN Type

Formulated STN

LCD Modules



COF

Chip On Film



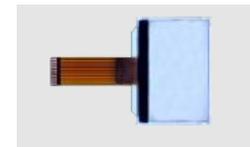
COB

Chip On Board



COG

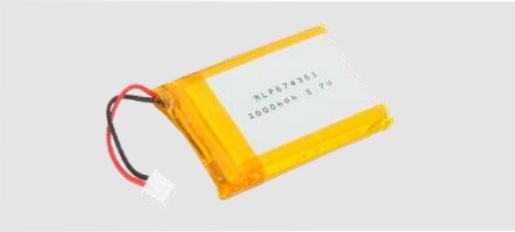
Chip On Glass



TAB

Tape-Automated Bonding

Batteries



Li-Po

Li-Ion

Principle of Lithium Battery

Battery Cell

A Battery Cell is the smallest unit that can generate electricity.

Battery Pack

Multiple Cells connect in series or in parallel to get necessary voltage and current.

Batteries customized with

- PCM (Protection Circuit Module)
- BMS (Battery Management System), complex PCM with more functions to manage dynamic power bank.



Ni-MH



NiFeFo



Primary

Primary batteries
(Coin cell, standards
Alkaline,...)



CERTIFICATIONS

TRANSPORT



UN 38.3



IATA
Certified



IEC 62133



CE



RoHS 3



UL 1642



UL 2054

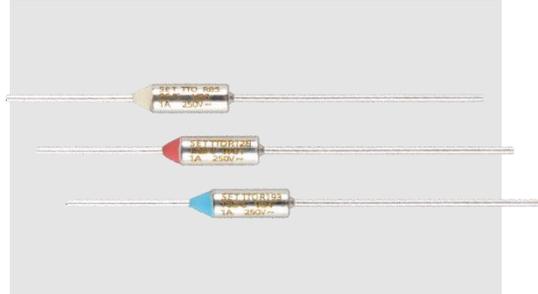
PRODUCT

Diodes, Fuses & Varistors

Over Temperature Protection



OTCO
Organic-Type Thermal Link

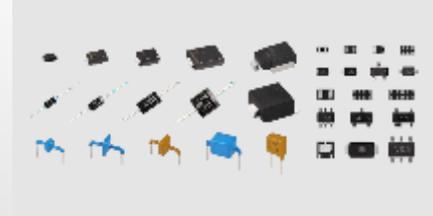


TTO
Organic-Type Thermal Turn on

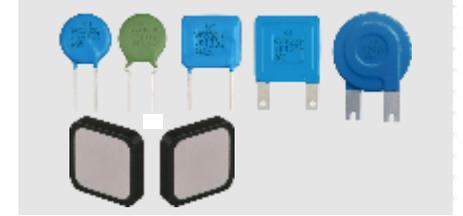


ATCO & DC-ATCO
Alloy-Type Thermal Link

Over Voltage Protection



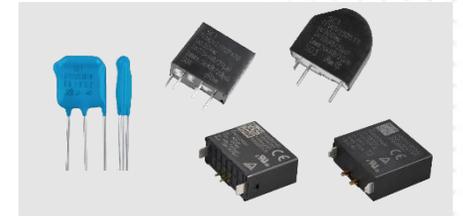
TVS Diodes
Transient Voltage Suppression Diodes



MOVs
Metal Oxide Varistors



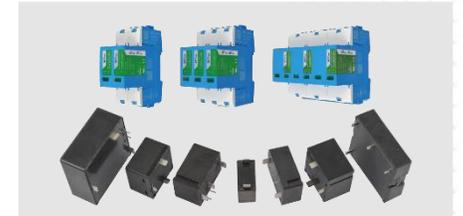
ESD TVS
ESD TVS Diodes Arrays



TF & TFMOV
Thermal Fuse & MOV



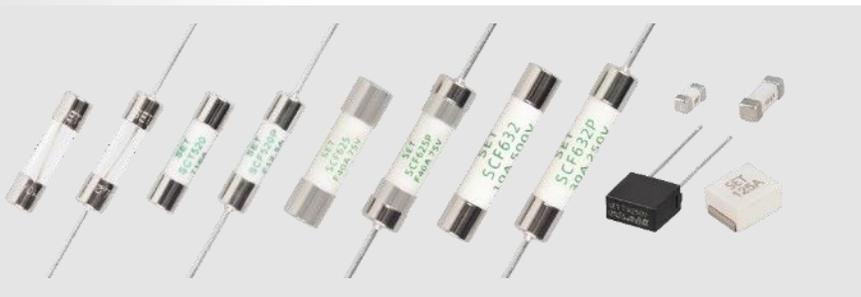
GDT
Gas Discharge Tube



SPDs
Surge Protective Device

Diodes, Fuses & Varistors

Over Current Protection



Mini Fuses



LV Fuses

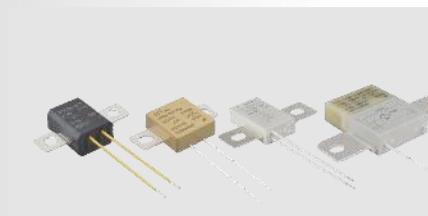
Low Voltage Fuses

Active Protection



HCO

Heat Cut-Off



iTCO

Idea Thermal Link



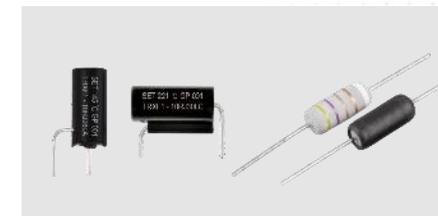
MCO

Mechanical Cut-Off



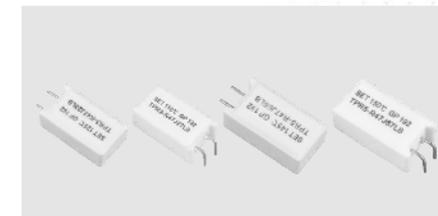
PCO

Pyro Cut-Off



TRXF

Thermal Link & Fusing Resistors



TPR

Thermally Protected Resistors

Die casting



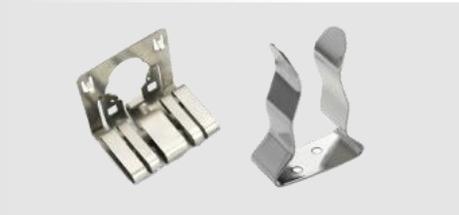
Technical CAPABILITIES

Part size Weight	Materials Capabilities	Surface Finishes - Ra	Tolerance Capabilities	Part size Weight
Thin-walled & Solid COMPLEX CYLINDRICAL CUBIC	Aluminum, ZAMAK (Zinc, Alu, Magnesium, Copper alloy)	16-125 µin 0.41µm-3.175µm	According to ISO8062-3:2007 – DCGT5	0.05in to 0.5in (1.27mm to 12.7mm)

Stamping Parts and EMC Shielding



Casing Parts

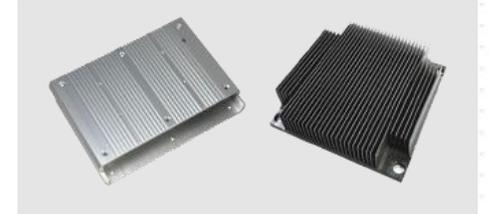


Metal Clip & Terminals



Small & Medium & Large Parts

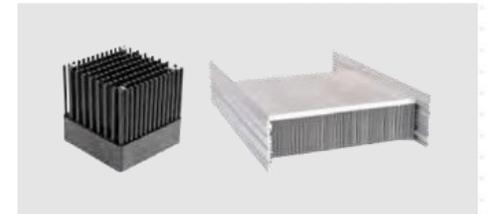
Aluminum extrusion heatsink



Extrusion & CNC



Cold forging



Stacked Fin

Silicone



Silicone Keypads



Silicone Sealing Gasket

*for waterproof functions



Silicone Technical Parts



Material
GRADE

Product
CAPACITIES

I General
Grade

I Silicone Keypad
2.5M pieces/month

I Food
Grade

I Silicone Mechanical Parts
3M pieces/month

I Flame retardant
Grade

I Medical
Grade

Sub Assemblies / Turnkey products

Electromechanical Assembly and Turnkey Products



One Stop Solution



Design to Completion



Cost Reduction



Integrated Technologies

Remote control unit



Bluetooth Type



Radio Frequency Type



Infrared type

Printed PTC Heaters

Electrical Specification



Set Temperature

| 55°C-60°C (at 25°C ambient temperature)

Power Density

| Up to 3000W/m²

Input Voltage

| 5V to 250V (AC or DC)



Electrical Interference

- | Wire leads
- | 2.54mm pitch connector (with or without latch)
- | ZIF termination
- | Other configurations available upon request

Mechanical Specification



Thickness

| 0.3 mm typical

Weight

| 0.45kg/m² (at thickness = 0.3mm)

Flexibility

(min. bend radius)

| 1 cm

Size

| Up to 420*280 mm



Environmental and Certifications

Operating Temperature

-40°C to 85°C

Humidity

85% RH @ 85°C

Storage Temperature

-55°C to 125°C

Circuit Design Rule

AFNOR Spec 2212 norm