



High-performance electrical connections

Protection from dust, water and high-temperature pressurised water



Choose innovation and reliability
Reduce installation and maintenance costs
Extend the possibilities of use





EXTRA SAFE

Designed to guarantee the highest reliability

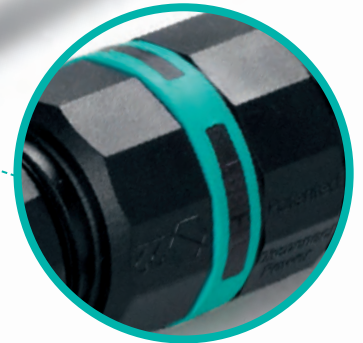


Total protection against the effects of permanent submersion and pressurised water (according to EN60529)



RESIN-GEL FREE

Long Term Reliability
Resin and gel-free



ANTI-LEAKAGE CO-INJECTED GASKETS

IP66

IP68

IP69K

Re-usable and Re-accessible even after long operating periods



QUICK INSTALLATION

Fewer parts to assemble



HIGHER RESISTANCE

to external stresses, chemical-mechanical adherence between plastic and rubber



FEWER INSTALLATION MISTAKES

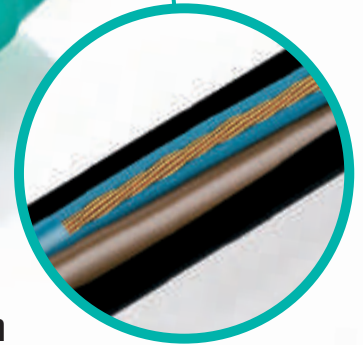
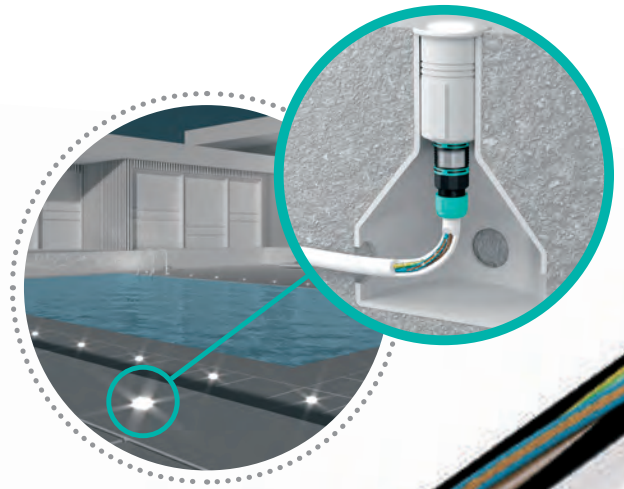
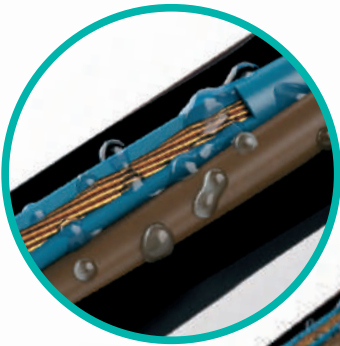
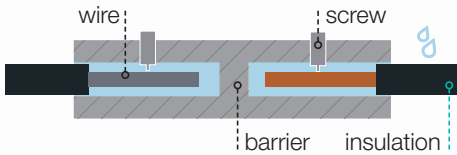
Anti-leakage gaskets

xDRY[®] EXTRA DRY

No more condensation:
Reduced repairs and
maintenance costs

Under particular environmental conditions, the accumulation of moisture inside the cable can cause the malfunctioning of electrical devices. The ventilation of the device is not often possible, especially when there is water, debris or installed in very small spaces. In this case the electrical connection is fundamental to ensure the reliability of the system.

NO DIRECT CONTACT AMONG THE CONDUCTORS



Anti-condensation
barrier



100%
TESTED



The special anti-moisture barrier prevents any moisture or damp inside the cable from entering the connection and proceeding towards the device installed.

-90% WATER PENETRATION

Important reduction
of defects caused
by water penetration

HIGH RELIABILITY

to guarantee
electrical continuity
over time

READY

for immediate
in-field use

ELECTRICALLY ISOLATED

Absence of
electrical leakage

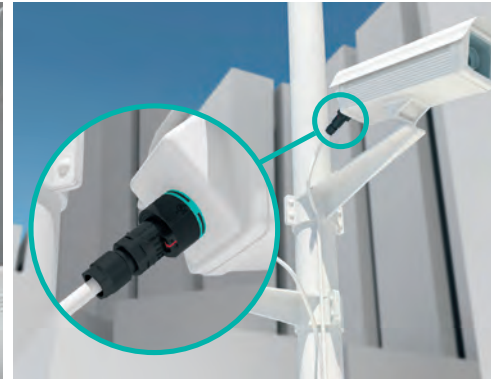
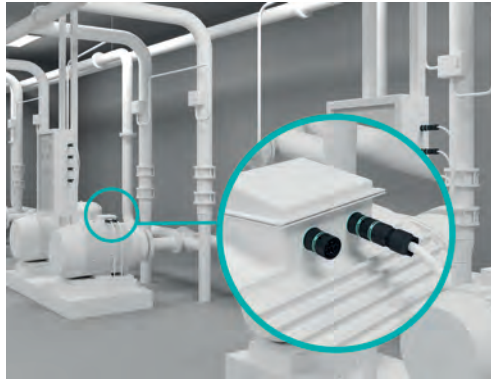
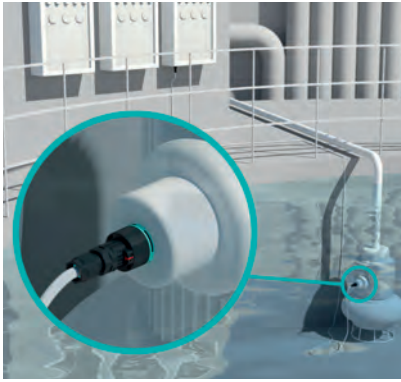


EXTRA PLUGGABLE

Plug and Socket solutions:
Reduced cost of product
installation



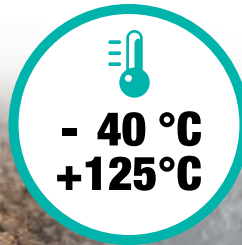
PLUG & PLAY RAPID CONNECTIONS



MODULAR INTERCONNECTION SYSTEM
to guarantee high flexibility

EASILY & QUICKLY CONFIGURABLE
to support ever more advanced plants

POWER DISTRIBUTION BOXES
to support electrical networks and devices





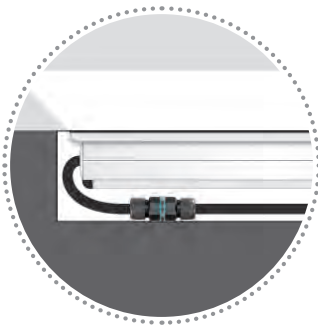
EXTRA COMPACT

We know the needs
of our customers



WHEN DIMENSIONS MAKE THE DIFFERENCE

Connectors of circular section allow a greater number of poles in less space compared to traditional solutions of linear terminal blocks.



COMPACT SIZE

Ideal for
connections
in small spaces

CAN BE EMBEDDED

within machinery,
equipment and
installation systems



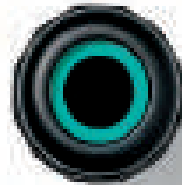
SCALE 1:1



micronnect

the smallest IP68
joint **without gel
and resin**

the smallest plug
and socket connector
**2-poles with
screw wiring**



Ø 23 mm



Ø 14 mm

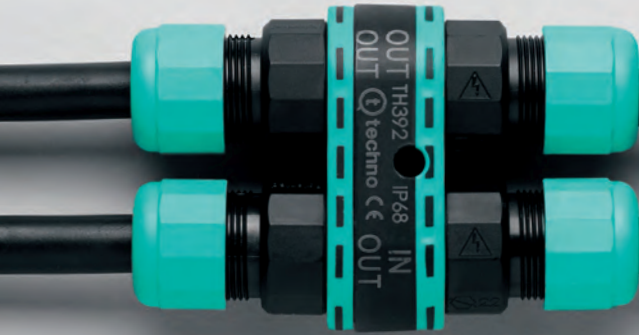




EXTRA RAPID

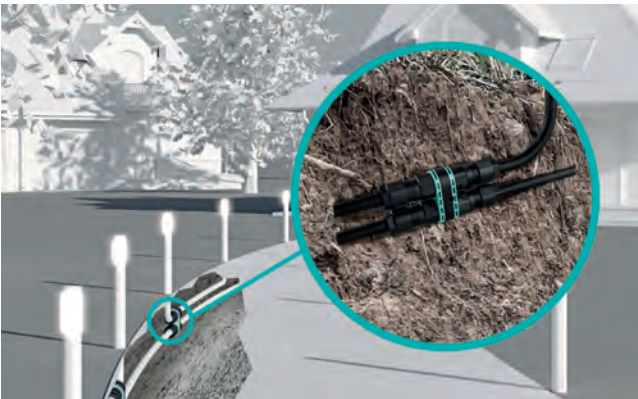
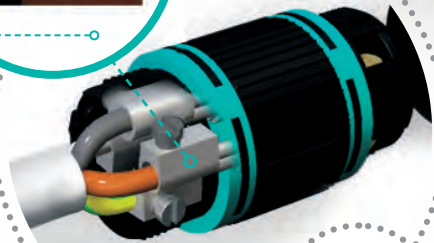
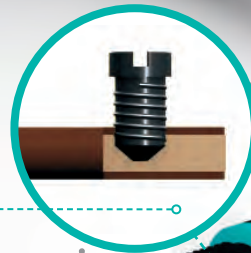
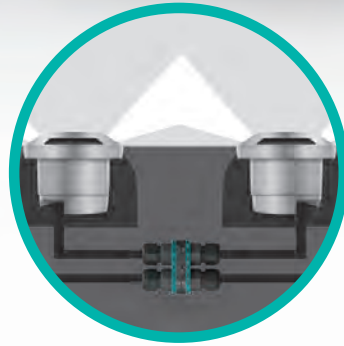
Improving your efficiency at work

Pre-wired junction connectors for rapid installation



AVOID UNSHEATHING THE CABLE!

Piercing screw terminal blocks for stranded wires up to 1.5 mm² (on request).



EASY TO USE

Few components to assemble

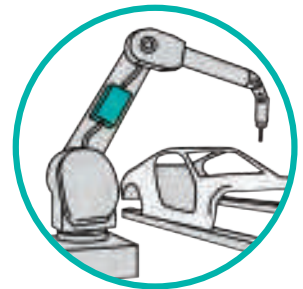
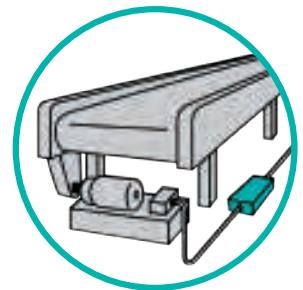
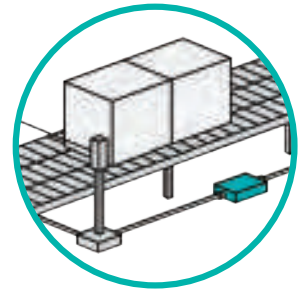
QUICK TO INSTALL

Intuitive assembly and wiring in just a few steps



EXTRA FLEXIBLE

Useful solutions for many applications



MAXIMUM PROTECTION

Of circuits and electronic devices

PRACTICAL

Re-usable and Re-accessible (IP68)

CUSTOMIZED

Customer-specific solutions



EXTRA ROBUST

We invest in new solutions for products that will last over time

Quality installations of equipment or systems in critical conditions of use (rain, floods, tides, snow, ice, sand, industrial washes, chemicals, dirty environments with oils/grease and hydrocarbons).



Thermoplastic rubbers with excellent resistance against UV rays, ozone and weather damage. Ideal rubbers with appropriate hardness and elasticity for securing and sealing the insulation sheath of electric cables.



PA66 GF materials make the product **crushproof also under extreme conditions.**



IP68 OZONE

Resistance to external agents (EN60529). In addition: ageing test in air with ozone concentrations (ISO 1431-1).

Halogen free
Realized with the use of materials which are in compliance with the most stringent regulations **Reach/RoHS.**



Electrical contacts and screws treated with special coatings to guarantee **high resistance to oxidation.** Versions with silver contacts for **maximum electrical conductivity in very low voltage applications.**

Sulphur free. Sulphur has a negative effect on the LED lifespan.



Resistant to corrosion in saline environment
Corrosion test (EN60068-2-11:2000). Duration 168 hours. (Salt Spray)



UV resistance testing according to EN60079-0. Method of exposure to laboratory light sources to verify UV weathering resistance. Duration 1000 hours.

Resistance to flame
Use of PA66 GF thermoplastic materials, glass fiber reinforced UL94 V2/V0/5VA (f1 - UL746C)
Glow-wire 850°C/960°C.



Impact resistance (EN62262:2002). IK08/IK09 and IP68 Tests show positive results even after conditioning in hydrochloric acid (HCl) for 168 hours at 70°C. (pH 4,5 and pH 3,5). IK10 products possible upon customer request.

QUICK-REFERENCE GUIDE

High performance electrical connections (IP66/IP68/IP69K)

Joints and pluggable connectors: Quality, Rapid and Reliable products for plant and machinery.

TYPE OF CONNECTION

NUMBER OF CABLES

POLES
Note: 4-pole connector can install 2-pole or 3-pole cables, etc.

Degree of protection IP

Wire cross-section¹

Diametro cavo

Diametro cavo

JOINT CONNECTORS
In-line and junction connectors for fixed installation

PLUG AND SOCKET CONNECTORS
Plug and socket connectors for quick installation

PANEL-MOUNTED
Alternatives to the cable gland: prevents the need to open the appliance

	4 poles				5 poles		
	IP68 (30m/2h) 0.5 ... 4.0 mm ² THB.391.A4A.R 5.0 - 12.0 mm	IP68/IP69K (30m/2h) 0.5 ... 4.0 mm ² THB.391.A4A.L.R 6.0 - 13.5 mm	IP68/IP69K (30m/2h) 0.5 ... 4.0 mm ² THB.391.R4A.L.R 6.0 - 13.5 mm	IP68/IP69K (50m/1h) 0.5 ... 4.0 mm ² THR.400.A4D 6.0 - 17.0 mm	IP68/IP69K (50m/1h) 2.5 ... 6.0 mm ² THR.400.S4E 11.0 - 20.0 mm	IP68/IP69K (30m/2h) 0.25 ... 1.5 mm ² THB.391.A5A.L.R 6.0 - 13.5 mm	IP68/IP69K (50m/1h) 0.5 ... 4.0 mm ² THR.400.S5D 6.0 - 17.0 mm
	THB.391.A4A 7.0 - 12.0 mm	THB.391.A4A.L 7.0 - 13.5 mm	THB.391.R4A.L 7.0 - 13.5 mm	THB.400.D1B 8.0 - 17.0 mm	THB.400.D4E 16.0 - 20.0 mm	THB.391.A5A.L 7.0 - 13.5 mm	THB.400.D1A 8.0 - 17.0 mm

	3 poles			4 poles		5 poles	
	IP67 0.5 ... 1.5 mm ² THR.200.S3M ⁽³⁾ 4.0 - 9.5 mm	IP68 (20m/1h) 0.5 ... 1.5 mm ² THR.390.S3T ⁽³⁾ 6.0 - 13.5 mm	IP68 (20m/1h) 0.5 ... 4.0 mm ² THR.402.C2E.R ⁽³⁾ 6.0 - 13.5 mm	IP68 (20m/1h) 0.5 ... 4.0 mm ² THR.399.S9L ⁽³⁾ 6.0 - 17.0 mm	IP65 0.5 ... 4.0 mm ² THR.211.S4D ⁽³⁾ 8.0 - 17.0 mm	IP68 (20m/1h) 1.5 ... 4.0 mm ² THR.399.A4F.R ⁽³⁾ 6.0 - 17.0 mm	IP68 (20m/1h) 0.5 ... 1.5 mm ² THR.399.S5L ⁽³⁾ 6.0 - 17.0 mm
	THB.200.E3F 7.5 - 9.5 mm	THB.390.C1A 7.0 - 13.5 mm	THB.402.C2E 7.0 - 13.5 mm	THB.399.D9B 8.0 - 17.0 mm	THB.211.A4A 8.0 - 17.0 mm	THB.399.D4E 8.0 - 17.0 mm	THB.399.D5A 8.0 - 17.0 mm

	4 poles				5 poles		8 poles		empty box to be used with resin
	IP68 (30m/2h) 0.5 ... 4.0 mm ² THB.392.A4A.R ⁽³⁾ 5.0 - 12.0 mm	IP68 (30m/2h) 0.5 ... 4.0 mm ² THB.392.A4A.L.R ⁽³⁾ 6.0 - 13.5 mm	IP68 (30m/2h) 0.5 ... 4.0 mm ² THB.392.R4A.L.R ⁽³⁾ 6.0 - 13.5 mm	IP68 (5m/3h) 0.5 ... 4.0 mm ² THR.209.A4A ⁽³⁾ 6.0 - 13.5 mm	IP68 (5m/3h) 0.5 ... 1.5 mm ² THR.209.S5L ⁽³⁾ 6.0 - 13.5 mm	IP68 (5m/3h) 0.5 ... 1.5 mm ² THR.209.S8L ⁽³⁾ 6.0 - 13.5 mm	IP68 (5m/3h) 0.5 ... 1.5 mm ² THA.219.A0A ⁽³⁾ 6.0 - 13.5 mm	IP68 (5m/3h) 0.5 ... 1.5 mm ² THA.219.A1A 7.0 - 13.5 mm	
	THB.392.A4A 7.0 - 12.0 mm	THB.392.A4A.L 7.0 - 13.5 mm	THB.392.R4A.L 7.0 - 13.5 mm	THB.209.A4A 7.0 - 13.5 mm	THB.209.A5A 7.0 - 13.5 mm	THB.209.A8A 7.0 - 13.5 mm	THA.219.A1A 7.0 - 13.5 mm		

	2 poles		3 poles		4 poles		5 poles	
	IP68 0.25 ... 1.0 mm ² THH.625.A2A.L.R ⁽²⁾⁽³⁾ 4.0 - 8.0 mm	IP68 0.25 ... 1.0 mm ² THH.625.A2A ⁽⁴⁾ 4.0 - 8.0 mm	IP66/IP68 (5m/3h) 0.5 ... 4.0 mm ² THH.623.S3A ⁽²⁾⁽³⁾ 5.0 - 12.0 mm	IP68 0.5 ... 4.0 mm ² THH.623.L3A ⁽²⁾ 7.0 - 12.0 mm	IP68 0.5 ... 4.0 mm ² THH.624.A4A.L.R ⁽²⁾⁽³⁾ 6.0 - 13.5 mm	IP68 0.5 ... 4.0 mm ² THH.624.A4A ⁽⁴⁾ 6.0 - 13.5 mm	IP68 0.25 ... 1.5 mm ² THH.624.A5A.L.R ⁽²⁾⁽³⁾ 6.0 - 13.5 mm	IP68 0.25 ... 1.5 mm ² THH.624.A5A ⁽⁴⁾ 6.0 - 13.5 mm
	THH.625.A2A ⁽⁴⁾ See TH381 2 poles		THH.623.S3A ⁽²⁾ 7.0 - 12.0 mm		THH.624.A4A ⁽⁴⁾ See TH387 4 poles		THH.624.A5A ⁽⁴⁾ See TH387 5 poles	

	2 poles		3 poles		4 poles	
	IP68 (30m/2h) 0.5 ... 4.0 mm ² THB.391.H4A.R ⁽³⁾ 5.0 - 12.0 mm	IP68 (30m/2h) 0.5 ... 4.0 mm ² THB.391.H4A 7.0 - 12.0 mm	IP68 (30m/2h) 0.5 ... 4.0 mm ² THB.391.N4A.R ⁽³⁾ 5.0 - 12.0 mm	IP68 (30m/2h) 0.5 ... 4.0 mm ² THB.391.N4A 7.0 - 12.0 mm	IP68/IP69K (30m/1h) 0.5 ... 4.0 mm ² THB.381.N2A.R ⁽²⁾⁽³⁾ 4.0 - 8.0 mm	IP66/IP68 (30m/3h) 0.5 ... 4.0 mm ² THB.387.N4A.L.R ⁽²⁾⁽³⁾ 6.0 - 13.5 mm
	THB.391.H4A 7.0 - 12.0 mm		THB.391.N4A 7.0 - 12.0 mm		THB.381.N2A THB.381.B2A 5.8 - 6.9 mm	THB.387.N4A.XD THB.387.B4A.L 7.0 - 13.5 mm

	2 poles		3 poles		4 poles	
	0.25 ... 1.0 mm ² IP68/IP69K (30m/1h) THB.381.N2A.R ⁽²⁾⁽³⁾ 4.0 - 8.0 mm	0.25 ... 1.0 mm ² IP68/IP69K (30m/1h) THB.381.N2A 5.8 - 6.9 mm	0.5 ... 4.0 mm ² IP66/IP68 (50m/24h) THB.385.A3D.R ⁽²⁾⁽³⁾ 5.0 - 12.0 mm	0.5 ... 4.0 mm ² IP66/IP68 (50m/24h) THB.385.A3D 7.0 - 12.0 mm	0.5 ... 4.0 mm ² IP66/IP68 (30m/3h) THB.387.N4A.L.R ⁽²⁾⁽³⁾ 6.0 - 13.5 mm	0.5 ... 4.0 mm ² IP66/IP68 (30m/3h) THB.387.N4A 7.0 - 13.5 mm
			THB.385.A3D 7.0 - 12.0 mm		THB.387.N4A THB.387.B4A.L 7.0 - 13.5 mm	

	4 poles		5 poles	
	IP66/IP68 (30m/3h) 0.5 ... 4.0 mm ² THB.387.N4A.L.XD ⁽²⁾⁽³⁾ 6.0 - 13.5 mm	IP66/IP68 (30m/3h) 0.5 ... 4.0 mm ² THB.387.N4A 7.0 - 13.5 mm	IP66/IP68 (30m/3h) 0.25 ... 1.5 mm ² THB.387.N5A.L.R ⁽²⁾⁽³⁾ 6.0 - 13.5 mm	IP68 (10m/1h) 0.5 ... 4.0 mm ² THR.406.S5A ⁽²⁾⁽³⁾ 6.0 - 13.5 mm
	THB.387.N4A.XD THB.387.B4A.L 7.0 - 13.5 mm		THB.387.N5A THB.387.B5A.L 7.0 - 13.5 mm	THB.406.A1A THB.405.B2A 7.0 - 13.5 mm

INFO
Look at the general catalogue or visit www.techno.it for more technical information, complete range of codes, dimensions of the products and packaging information.

LEGEND

(1) Versions with screw wiring. For crimp, piercing or spring terminals products, consult the general catalogue or visit www.techno.it

(2) Plug and socket connectors are included in the package (kit).

(3) Closing cap is included in the package (kit).

(4) Plug and socket connectors are not included in the package. To be ordered separately (see TH381 for TH625, TH387 for TH624).

Code A **THB.391.A4A.R**
KIT PACK
KIT includes a product unit, wiring and fixing accessories and an instruction sheet.

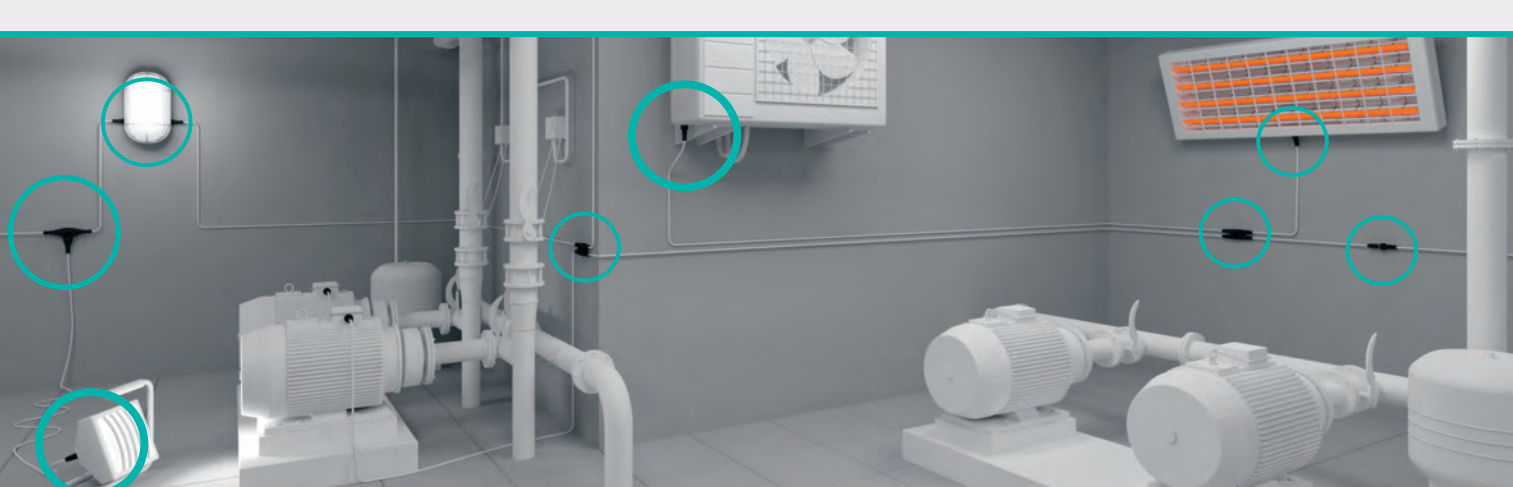
Code B **THB.391.A4A**
BULK PACK
Minimum order quantity: i.e. 50 ... 200 pieces depending on the codes.

INSTALLATION KEY
Special installation tool for fast and safe assembly (included in the packaging).

ACCESSORIES
Cable reducers, closure caps, fixing systems etc. (included only in the KIT PACK).

SPECIAL PRODUCTS
For special products and requests of pre-wired solutions with cables contact our Customer Service.

CONNECTORS DESIGNED TO GUARANTEE RELIABILITY IN HARSH OR HOSTILE ENVIRONMENTS
Lighting, Installation, Automation, Industrial machines, Robots, Control systems, Industrial washing, Motors, Infrastructures, Transportation, Marine, Energy production plants, Handling machines, Gate and door automation, CCTV.



Design, Manufacturing and Control in Italy.

All that you can expect from Techno

SERVICE AND REACTIVITY

We offer kindness and expertise, and we are always here to help and listen our customers. We provide advanced logistics that guarantees delivery times also within 24 hours.



FLEXIBILITY

R&D and manufacturing of tools and products are totally carried out in-house. We are able to meet deadlines and guarantee the quality and flexibility needed during the development and production phases.



100% QUALITY

We perform stress tests on our products according to parameters which are higher than the ones requested by the norms. Our services include electrical, thermal and mechanical tests, dimensional testing, test on plastic materials and rubber, IP6x testing, UV and weathering tests carried out in a climatic room.



COMPETENCE

We design our products upon our customers request, putting our deep knowledge of development and production technologies as well as of electrical and mechanical regulations at their disposal, and meeting the expectations of the requested solutions in terms of quality, reliability and cost effectiveness.



© Techno s.r.l.

Code: FLTHGENENG072018



Management System
ISO 9001:2015
CNC/SAE 18001:2007
www.techno.it
ID: 910001001



Underwriters Laboratories



Techno s.r.l.

Via Bancora e Rimoldi, 27
22070 Guanzate (CO), Italy

MADE IN ITALY

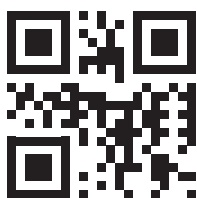
www.techno.it



GET CONNECTED

Using an App for QR code reader and your smartphone camera.

FIND OUT HOW AND WHERE TO BUY.



CONTACT US +39 031 97 64 45



CONTACT US customercare@techno.it