

**micron**nect®



# IP68 Plug & Socket micro-Connector

Product presentation

MADE IN ITALY

High-reliability  
electrical connections  
[www.techno.it](http://www.techno.it)

27 February 2017

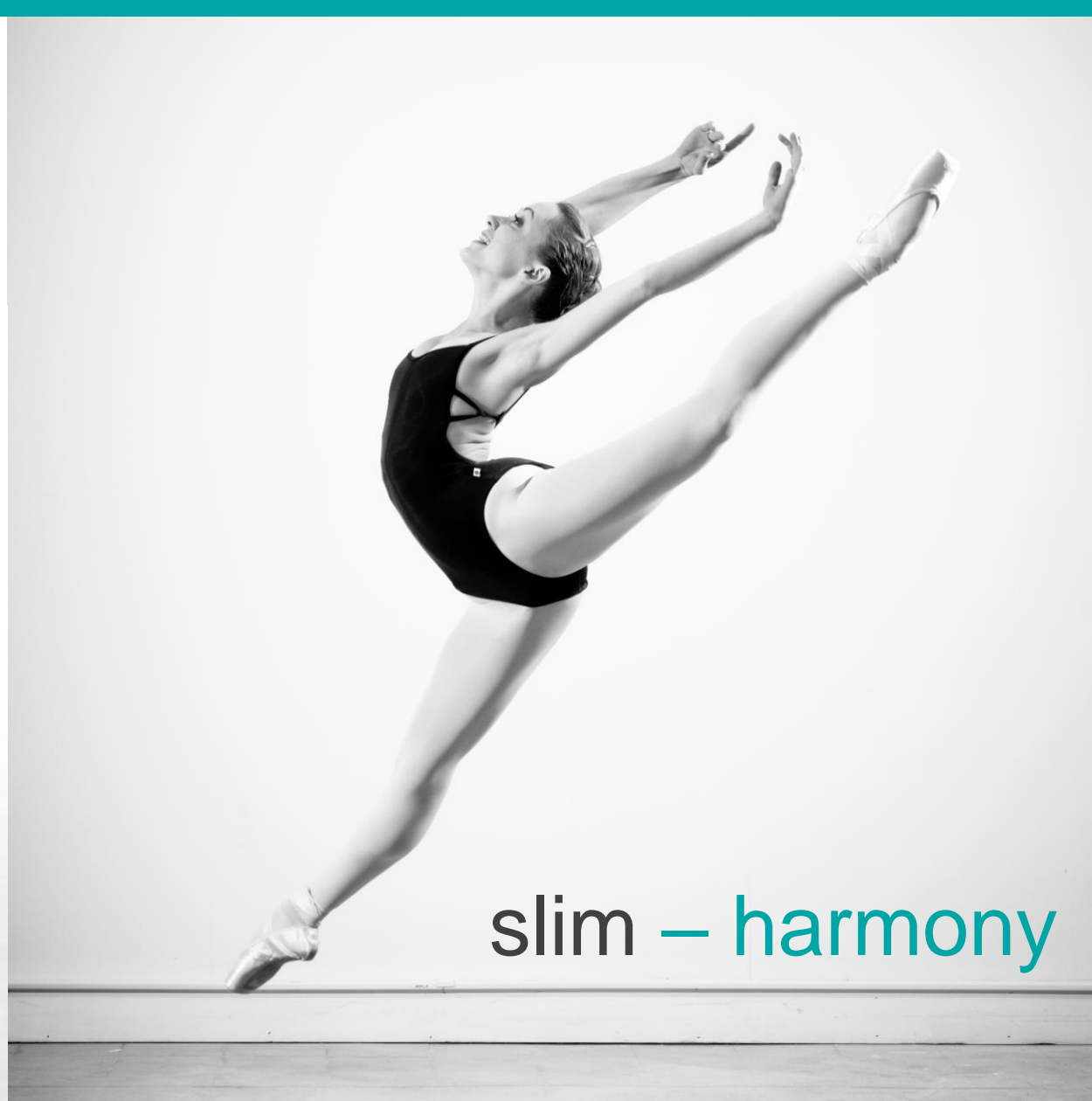
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 **techno**<sup>®</sup>  
TECHNOLOGY & INNOVATION

slim – reliability



slim – simplicity



slim – harmony



**micron**nect®



Ø 14 mm



# micronnect<sup>®</sup>



**Quick**



**Screw  
wire**



**Reliable**  
(IP68/IP69K)

# Quick



click!



→ ←  
push-pull

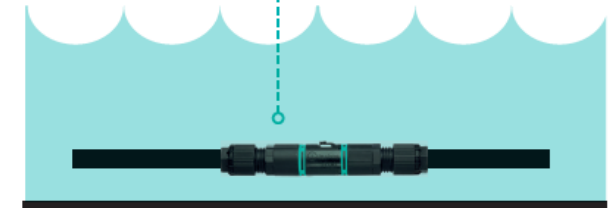
## Highest efficiency

# Screw wire



## Field wiring installations

# Reliable



Total protection against the effects of  
**PERMANENT SUBMERSION  
AND PRESSURE WATER**

## Harsh-environment installations

# TH405



∅ 36.5 mm



2 ..... 6 poles  
max. 4.0 mm<sup>2</sup>  
Cable out. 14.0 mm

# TH387



∅ 23 mm



2 ..... 5 poles  
max. 4.0 mm<sup>2</sup>  
Cable out. 14.0 mm

# TH381 **micronnect**



∅ 14 mm



2 poles  
max. 1.5 mm<sup>2</sup>  
Cable out. 8.0 mm



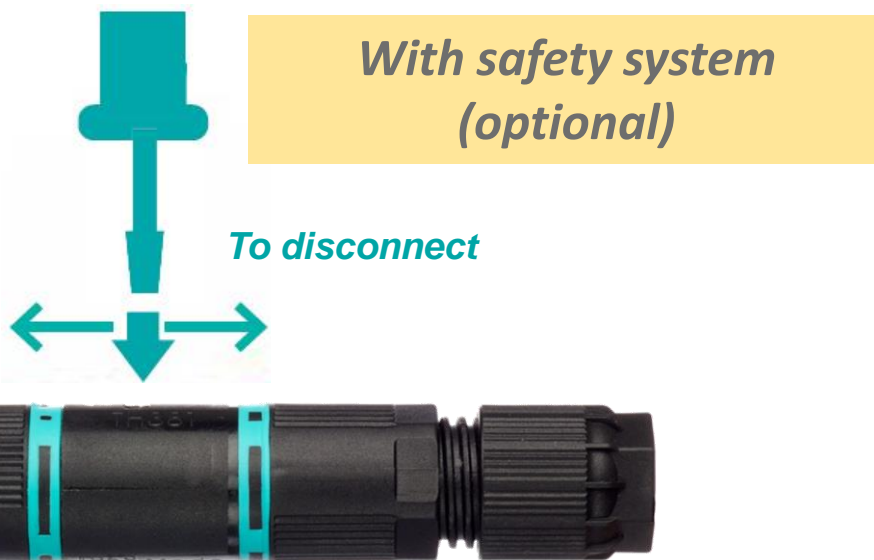
*To disconnect*



# micronnect®

## Quick *push-pull* connection

- Intuitive and functional tool suitable for quick connections
- Reduce installation and maintenance times
- Guarantees flexibility and quickness in the configuration and connection of electrical devices



**micronnect**

## Quick *push-pull* connection

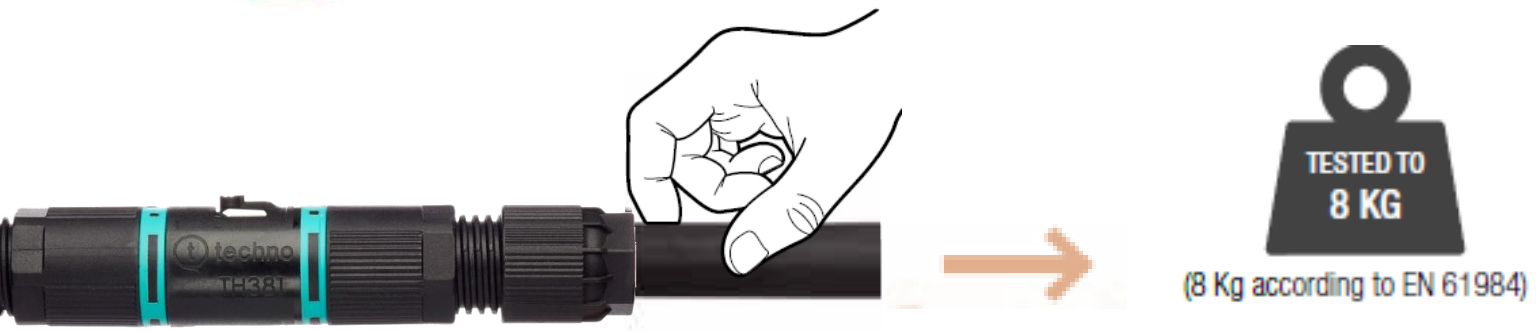
- To disconnect the connector you need to use a tool (e.g. a flat-blade screwdriver)
- Connector is not removed accidentally
- In compliance with the EN61535 regulation



Robust against...

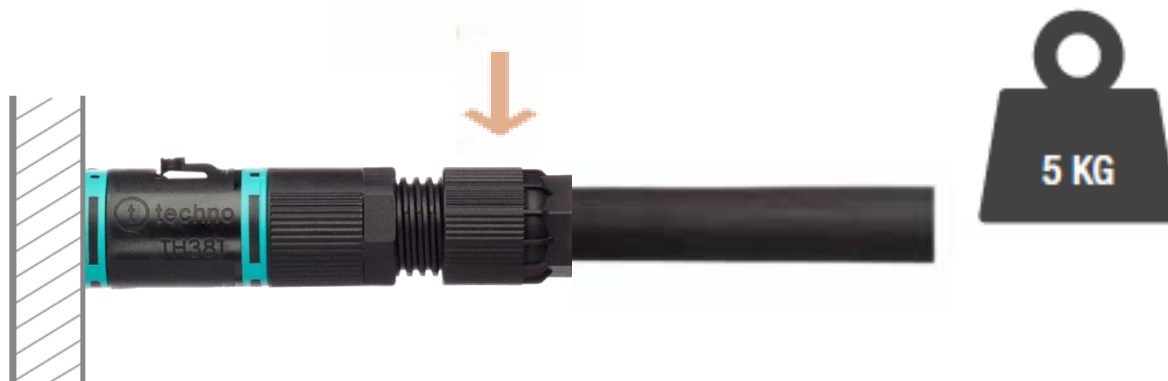
## Disconnection

Special coupling system ensures the correct fastening between the plug and the socket



## Traction of cable

Resistant to vibrations or external mechanical stresses



## Flexure

IP68 resistance is guarantee while subjected to bending

## Screw wiring: highest installation flexibility

- Flexible and solid cables up to **2 poles x 1.5 mm<sup>2</sup>**
- *Note:* Wiring is possible with cables of 1.5 mm<sup>2</sup> though max. cable diameter is 8.0 mm
- Cable section **min. 0.25 mm<sup>2</sup>** (without the ferrules)

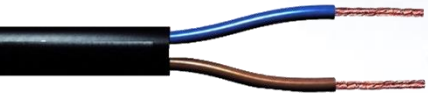


Can install cables (example):

H07RN-F 2G1

H05RN-F 2x1mm<sup>2</sup>

H05RN-F 2x0.75mm<sup>2</sup>





**IP68**  
(30m/3bar/1h)  
**IP69K**



**IP 6..**

Total protection...

**Against dust**

Resistant to dust, dirt, etc.



**IP ..8**  
(30m/1h)

**Against water**

Total protection against the effects of permanent submersion



**IP69K**

**Against water jet**

Resistant to water jets with high pressure: 80-100bar, 14-16 l / min., Temp. 80 °C

**IP68**

## Co-injected gaskets



### Quick installation

Fewer components



### Fewer mistakes

anti-leakage gaskets



### Higher resistance

Perfect chemical-mechanical  
adherence between plastic and  
rubber

**= Higher reliability**

# We go beyond the IP68: protection guaranteed over time



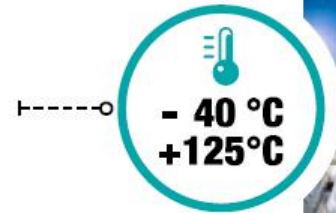
## We take care of your products ensuring a reliable connection:

- Against the aggression of temperature, UV, Salt, Ozone, Chemical, Biologic
- Against the aging of the materials



# We go beyond the IP68: protection guaranteed over time

Raw Materials PA66 GF  
V0/V2 f1/5VA (acc.  
UL746C)



Ageing test in air with  
ozone concentrations  
(ISO 1431-1)

HALOGEN FREE



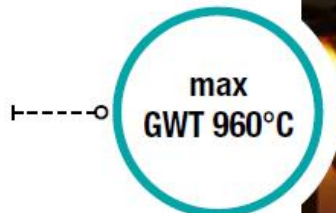
Produced with silicone  
free materials

Resistant to corrosion  
in saline environment.  
(EN60068-2-11:2000)



UV resistance testing  
according to EN60079-0.  
Duration 1000h

Resistant to flame.  
Glow-wire 850°C/960°C



Impact resistance  
(EN 62262:2002)

# Features and functionality guaranteed over time

Substance	Resistant	Chemical formula	Applications
Acetylene	Yes	$C_2H_2$	Lighting devices, Welding and brazing plants
Ammonia	Yes	$NH_3$	Painting plants, plastic material production plants, paper and rubber industries
Methyl alcohol	Partially	$CH_3OH$	Solvents, reagents for industrial chemical processes
Benzene	Yes	$C_6H_6$	Drugs and colorants production, chemical compounds synthesis, industrial solvents
Calcium chloride in water-based solution (salt)	Yes	$CaCl_2$	Refrigerating plants, sewage disposal, oil and gas extraction wells
Chlorine	Partially	Cl	Swimming pools. Water purification plants
Diesel	Yes	-	Diesel engines. Transport. Heating plants
Fertilizers	Yes	-	Agriculture
Lubricating oils	Yes	-	Industrial machinery. Water plants
Petroleum	Yes	-	Fuels, transport, heating and energy production plants
Phosphate	Yes	-	Cleansers, fertilizers, food industry
Sea water	Yes	-	marine environment

Contact our customer service to verify the resistance of micron.nect connector to its use under particular conditions according to customers specifications.

The characteristics of TPE-S rubber: excellent resistance against UV rays, ozone and weather damage.

## Special anti-rotation system

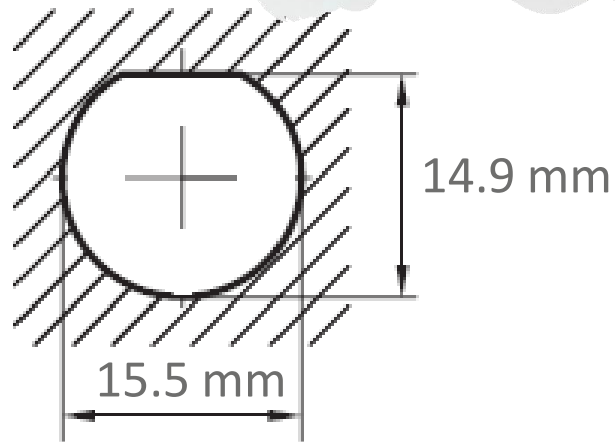
- Improved resistance to vibrations
- Avoid loosening of the cable gland.



# Panel-mounted installation

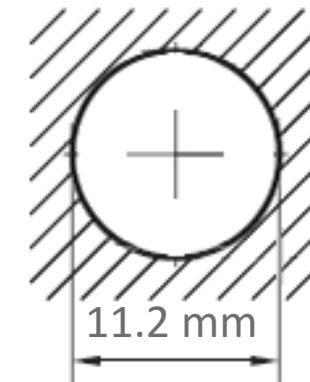


**M16 x 1.5**



**M11 x 1**

Plastic panel or low-voltage,  
class 3/SELV luminaires



# Panel-mounted installation









> Minimum overall dimensions <

# Product overview

- Series TH381 (TEEPLUG®)
- 2-poles (screw-connection)
- 10A – 400V AC/DC (Class 2)
- IP68/IP69K
- Wire-section: 0.25 mm<sup>2</sup> – 1.5 mm<sup>2</sup> (without ferrules)
- Cable diameter: 5.8 mm - 8.0 mm (*Accessories available for smaller cables*)
- According to EN61984/EN61535
- PA66 GF UL94 V0/V2 (max. Glow-Wire 960°C)
- Halogen Free

# Part numbers

Image	Part Number	Type	Cable min – max	Pieces/Box
	THB.381.A2A.L	PLUG	7.0 mm – 8.0 mm	200
	THB.381.A2B.L	PLUG <i>(disconnection with tool)</i>	7.0 mm – 8.0 mm	200
	THB.381.A2A	PLUG	5.8 mm – 6.9 mm	200
	THB.381.A2B	PLUG <i>(disconnection with tool)</i>	5.8 mm – 6.9 mm	200
	THB.381.B2A.L	SOCKET	7.0 mm – 8.0 mm	200
	THB.381.B2A	SOCKET	5.8 mm – 6.9 mm	200









i.e. H07RN-F 2G1





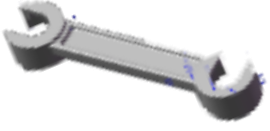


i.e. H05RN-F 2x1  
2x0.75

# Part numbers – Panel-mounted

Image	Part Number	Type	Cable min – max	Pieces/Box
	THB.381.N2A	PLUG M16	-	200
	THB.381.N2B	PLUG M16 <i>(disconnection with tool)</i>	-	200
	THB.381.L2A	PLUG M11	-	200
	THB.381.L2B	PLUG M11 <i>(disconnection with tool)</i>	-	200
	THB.381.P2A	SOCKET M16	-	200
	THB.381.M2A	SOCKET M11	-	200

# Part numbers – Accessories

Image	Part Number	Type	Cable min – max	Pieces/Box
	<b>6000448GT</b>	Sealing Cap for socket IP68	-	200
	<b>6000447GT</b>	Sealing Cap for plug IP68	-	200
	<b>6000473GT *</b>	Grommet for cable reduction	3.0 mm – 5.5 mm	200
	<b>6000461GT</b>	Grommet for 2 single pole cables	1.9 mm – 2.5 mm	200
	<b>6000462KC</b>	<i>FIXING TOOL FOR QUICK-SAFE INSTALLATION</i>		

\* Available in April

# Part numbers – Retail packed products



Image	Part Number	Type	Cable min – max	Products/ Pack	Packs/ box
	THB.381.A2A.R	Kit plug & Socket connector	5.0 mm - 8.0 mm	1	50
	THB.381.N2A.R	Kit plug & Socket connector Panel-mounted	5.0 mm - 8.0 mm	1	50

**Note:** the kit contains accessories for large and small cables, end caps, fixing tool for installation and instruction sheet

micronnect

# Ideal for any application in the field of illuminating engineering

Micron.nect has all the characteristics to be used in various lighting applications where there is damp and water. Just a few examples are given below.



 LIGHTING IN WATER



**PERFECT LED CONNECTION**  
micron.nect, the smallest screw wire connector on the market, is the ideal solution for the connection of LED lighting systems.

 ARCHITECTURAL LIGHTING



 INDOOR LIGHTING

 STREET LIGHTING

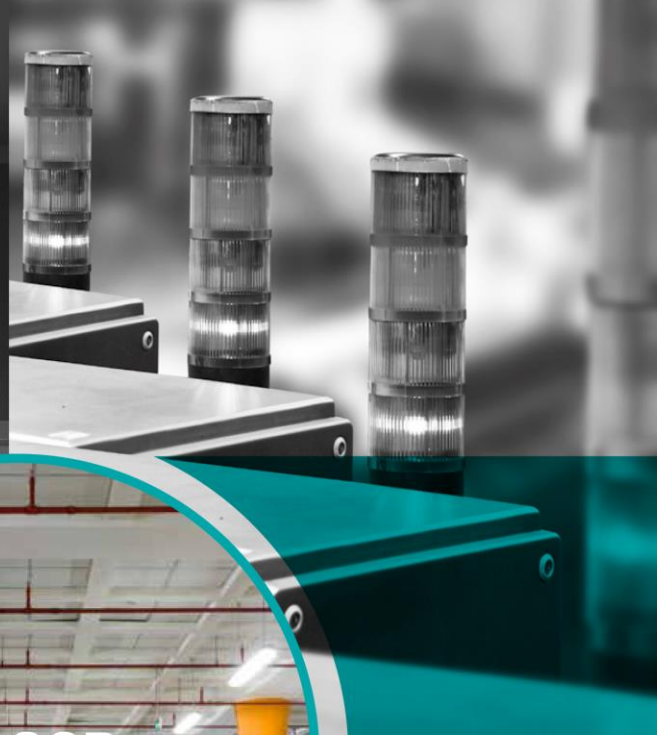


 URBAN LIGHTING



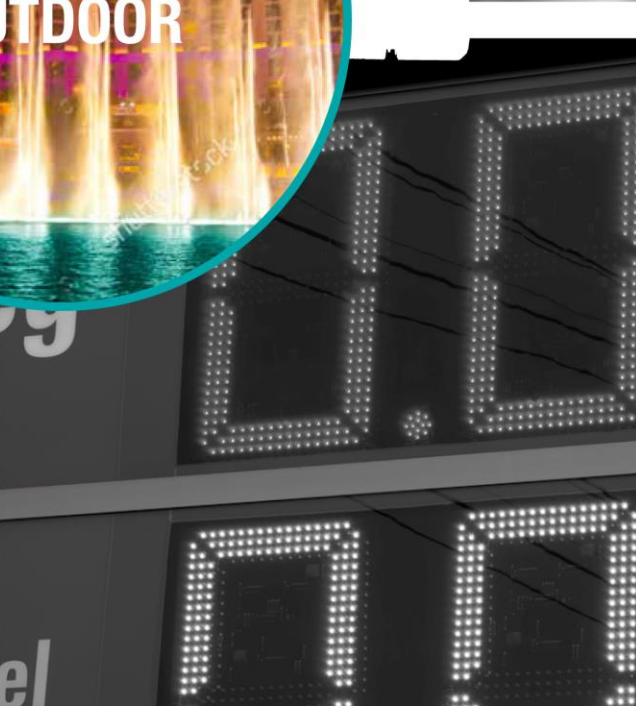
 ADVERTISING BILLBOARDS AND ROAD SIGNS





**micronect**  
Applications  
for Class 2  
devices.

Thanks to its technical  
characteristics, micronect  
is also ideal for the  
connection of class 2  
electrical devices  
(double insulated).



# To whom to sell?



## Manufacturers



- Lighting OEMs
- Manufacturers of electronics
- Manufacturers of device in class 2



## Installers



- Installers of lighting appliances.  
**micron.nect®** ensures the field installation



## Wholesalers



- Lighting specialists
- Electrical and Automation wholesalers



## Discover

## Experience

## Order

## Installation

## After

**e-Newsletter**  
sent on Feb. 28

**Demo Box**  
see next

**Brochure**  
20 pages

**Assembly  
instructions**

**Customer  
Service**

**Product  
Presentation**  
Power Point/PDF

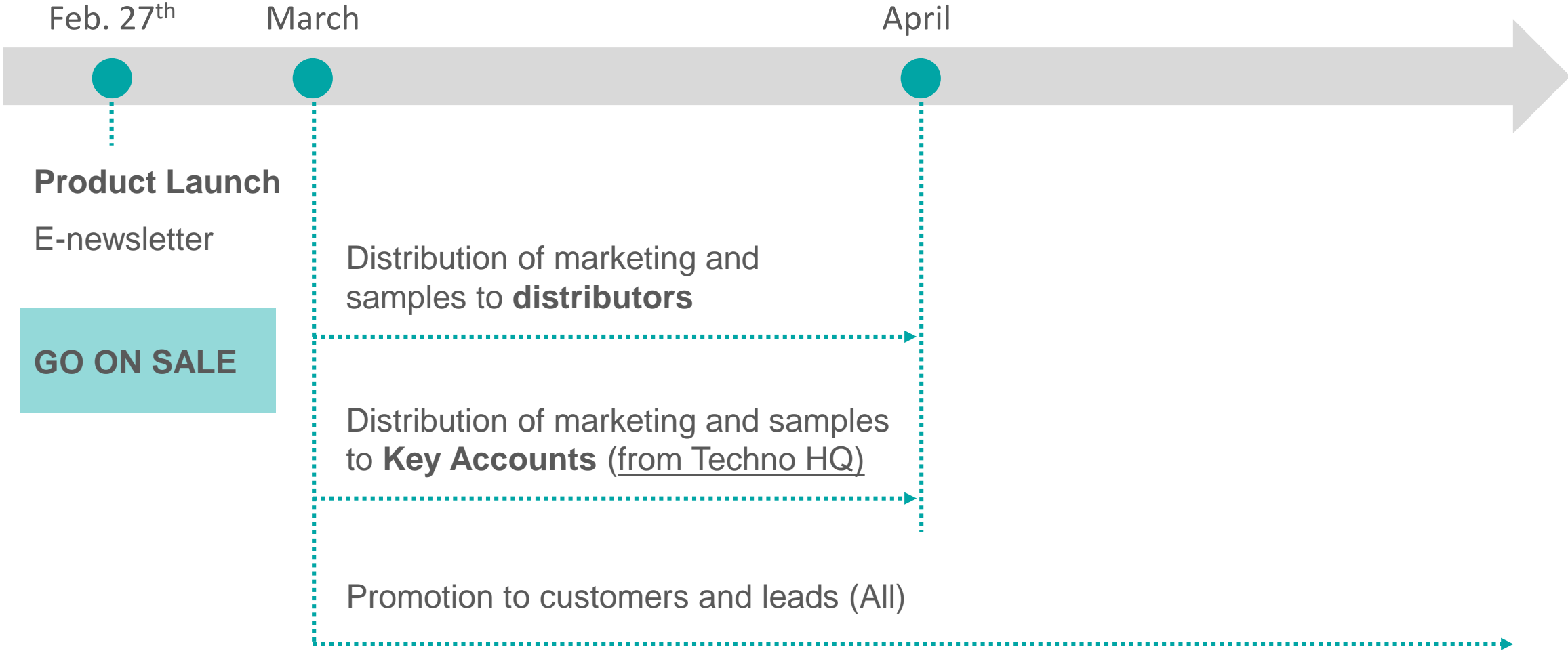
**Kit Samples**  
see next

**www.techno.it**  
by March

**Advertising**  
see next

**Press and  
Editorials**

# Product launch timeline



**micronnect**

A BIG  
PERSONALITY  
IN A MICRO  
BODY!

Design and function in harmony.  
The smallest IP68 plug&socket  
connector with screw terminals.



Maximum flexibility for field  
wiring installations  
Flexible and rigid cables up to 1,0 mm<sup>2</sup>



Water and dust resistant  
Permanent water submersion (IP68)



Reduction in the cost  
of the product installed  
Quick Push-pull connection  
and disconnection

MADE IN ITALY



Ø 14 mm

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www.techno.it

**micronnect**

## Advertising and editorials

- ADV distribution to customers and prospects
- Articles and Editorials for magazines and news
- Available for translation

For more information contact  
@ [luca.galli@techno.it](mailto:luca.galli@techno.it)

**t techno**  
TECHNOLOGY & INNOVATION



**micronnect**<sup>®</sup>

## Demo Box

- Content: Cable-to-cable connector and panel-mounted connector
- To distribute to major customers
- Available for translation

For more information contact  
@ [luca.galli@techno.it](mailto:luca.galli@techno.it)

Free samples are provided

# Kit sample



Free samples are provided

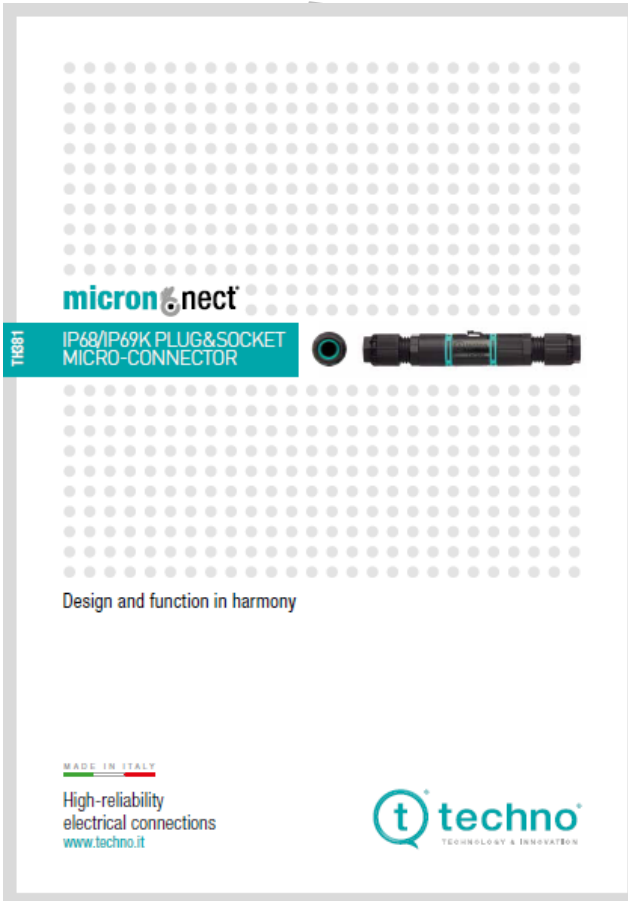
	Code	Description
	THB.381.A2A + B2A	micro-connector plug and socket
	-	Bigger cable gland for larger cables
	THB.381.A2B	micro-connector plug and socket (safe-lock)
	THB.381.N2A	micro-connector plug a pannelo M16
	-	Rear nut to create the M11 panel-mounted
	6000448GT 6000447GT	Closure caps for plug and socket
	6000473GT 6000461GT	Cable reductions for cable < 5,8 mm and 2-single wires
	6000462KC	Special spanner for quick installation

## Brochures

- Marketing contents and data sheets
- To distribute to major customers
- Available for translation

For more information contact  
@ [luca.galli@techno.it](mailto:luca.galli@techno.it)

Free samples are provided




micronnect®

T1681 IP68/IP69K PLUG & SOCKET MICRO-CONNECTOR

Design and function in harmony

MADE IN ITALY

High-reliability electrical connections  
[www.techno.it](http://www.techno.it)



7-INJECTION MOLDING OF GASKETS

co-injection molding of the rubber and the technopolymer are perfect installation unlike ordinary connectors, where the placement or the wrong position of the gaskets can compromise reliability.

rubber is also chemically and mechanically resistant to the plastic body and offers efficient protection against water, dirt and dust (IP68).

TECHNICAL DATA SHEET

micronnect®

CE, RoHS, REACH, etc.

Characteristics and advantages

Installation - a diameter of only 14 mm (2 poles) with compressed cable approved to metal dust and water (IP68 30 m / 1 h) and high pressure water (IP69K)

of our electrical cables

400 V AC/DC  
10 A  
<math>+10</math> mm  
100 m (10mm)  
2 - 2  
0.25 mm<sup>2</sup> - 1.6 mm<sup>2</sup>  
0.8 - 0.8 mm  
use the rubber accessories

PLUGS OF 16.54 mm (Ø) - GWT 850°C/1h  
PLUGS OF 16.54 mm (Ø) - GWT 850°C/1h  
TPE-S  
self-plated brass (also-plated screws)  
30°C (EN60529-2-11) End Kit  
Nylon66 frame - 300mm long  
PTI 1.75

100 cycles  
EN 61303

performance of 1X resistance, installation resistance specified in IEC 7462 regulation.

FEWER INSTALLATION MISTAKES

Anti-leakage gaskets

05

15

# Launch Pack: what you will receive in the coming days

