

INDUSTRIAL MINI I/O CONNECTOR FIELD INSTALLABLE

EVERY CONNECTION COUNTS

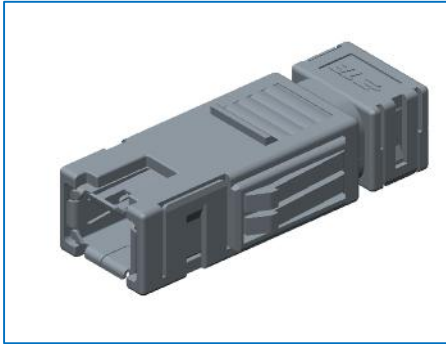


Industrial Mini I/O – Field Installable

TE's Industrial Mini I/O connector provides innovative and time-saving wire-termination alongside serving as a space saving and reliable I/O solution for industrial environments.



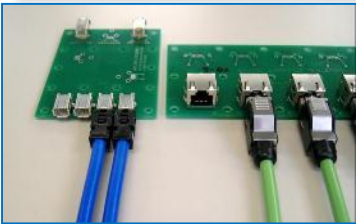
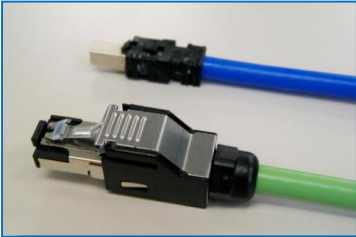
Industrial Mini I/O – Field Installable



- Innovative and time-saving wire-termination
- Reliable connections in industrial and vibration-prone environments
- Space saving solution that allows for increased design flexibility
- Available in different versions for multiple applications
- Intermateable with receptacles in different configurations (TMT, SMT, right and straight angle)

Industrial Mini I/O – Smaller than RJ45

❖ Size advantage



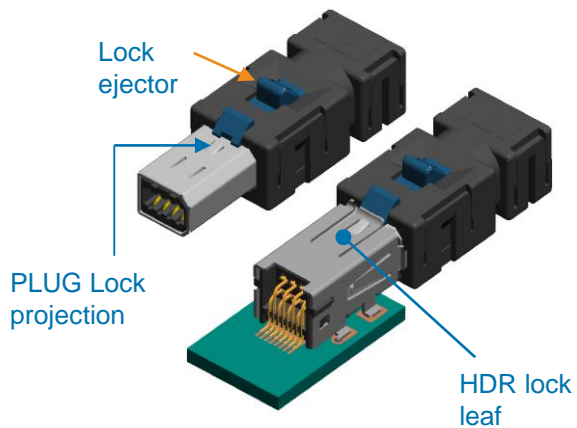
- With only **one quarter the size** of conventional RJ45 plugs, the Industrial Mini I/O connector provides critical space saving.
- The limited space on the PCB can be used more efficiently.
- The Field Installable Mini I/O version offers an innovative piercing termination that additionally decreases the time usually needed to terminate the wires through soldering and with an easy to use hand tool.
- Field Installation of the Industrial Mini I/O is now possible in virtually any environment.

Traditional RJ45 vs
Industrial Mini I/O connector

- 75%space saving

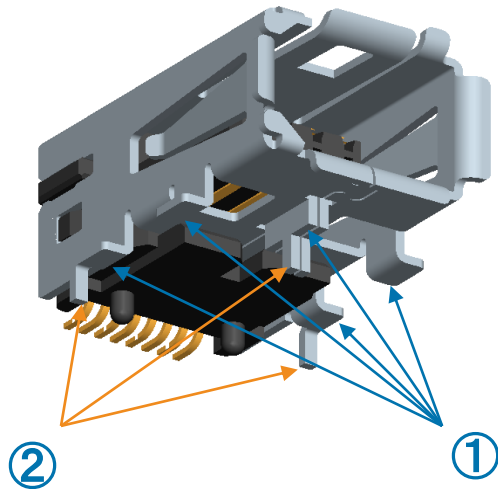


Industrial Mini I/O – More reliable than RJ45



- Accidental unplugging of a network connection due to shock, vibration, pulling on cords, etc. causes expensive downtime in an industrial environment
- Industrial Mini I/O's unique locking system is specified to 100N of pull out force

Industrial Mini I/O – More reliable than RJ45



① Solder pad at 5 points

② Peg has through whole anchor (3/5)

Solder pads are used to fix the SMT connector to a PCB.

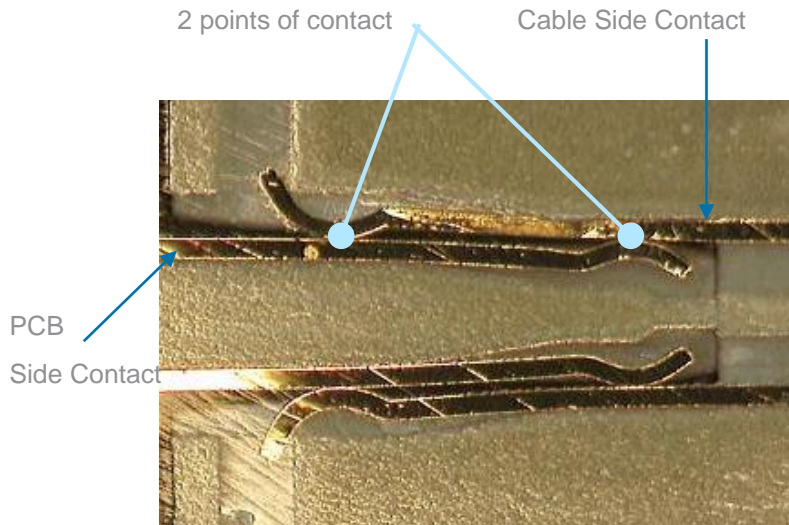
Generally this is done at 2 points.

However, Industrial Mini I/O has 5 points which enhances the strength.

- The second part to secure interface is proper board retention
- This header design has 2 features to enable required retention strength:
 - Solder pads at 5 points
 - 3 pegs with through hole anchor

Industrial Mini I/O – More reliable than RJ45

Contact Cross Section



- **Contact System** known as the “Fighting Snake Principle”
- Multiple points of contact reduce contact failures
- Au plated products improve conductivity and contact lifespan
- Overall design = Improved Reliability for Customer Networks

Industrial Mini I/O – Field Installable

❖ One trusted partner for your satisfaction



- One of the leading companies in connectivity, TE offers short lead times and dedicated service through a broad distribution network.
- With our global footprint and local sales teams in all regions, TE is able to offer the support you expect, making it easy to do business with us.
- Easy-to-use – and easy-to-choose: At TE, you will find what you are looking for; and if you have any questions, our Technical experts are there for you – 24 hours a day.
- As one of the most innovative companies in the world, TE provides industry-leading products and technologies that help you solve your problems – now and in the future.

The Idea Behind It

Feature of New development

- Field assembly at an in-house of customer's factory
- W-W, W-B are available
- Common shape for free hanging and panel mount for W-W with railed panel lock configuration

Existing



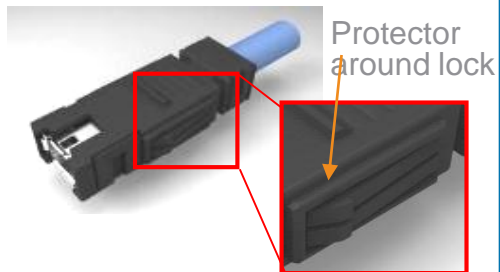
- Cable termination: Soldering, making field assembly difficult
- W-B type Only

Field assembly



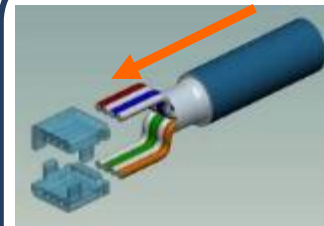
2 piercing point per 1 contact

Free hanging and Panel mount for W-W

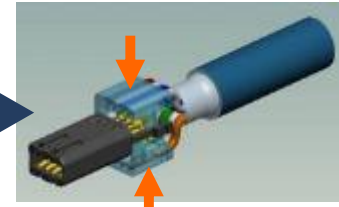


Railed panel lock configuration

New Development



Cable location



Cable termination

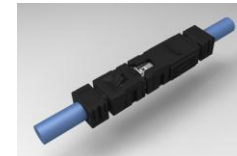
-Cable termination: Piercing
Making field assembly **easier**



Free hanging



Panel mount



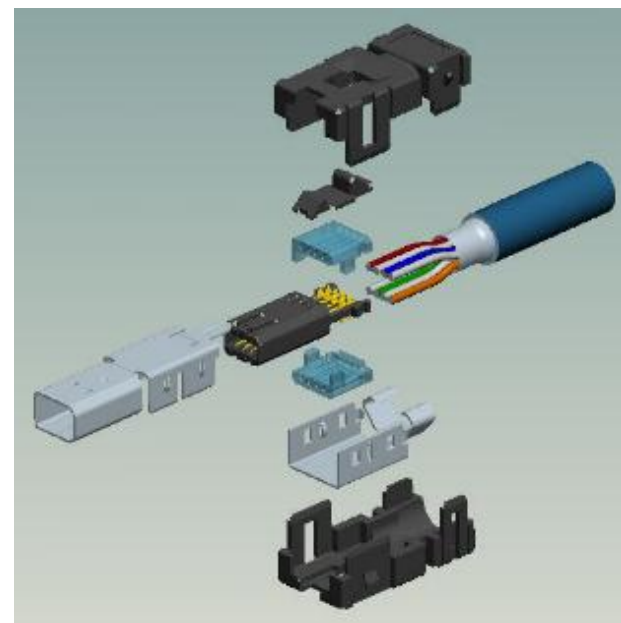
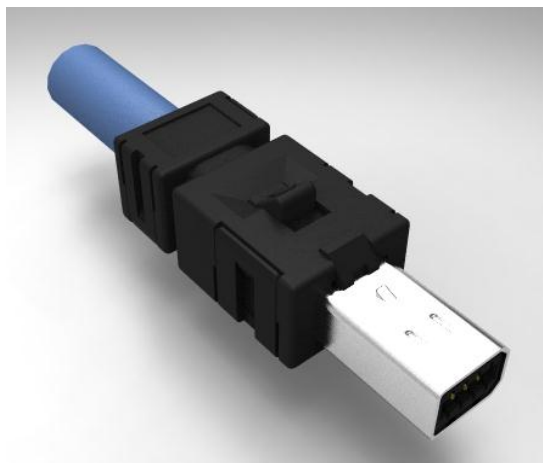
Common shape for Free hanging
and Panel mount for W-W

Product Specifications

- Product Specifications (Design Objectives)
 - Voltage Rating 30V
 - Current Rating 0.5A
 - Temperature Rating -40°C~70°C
 - Durability 750cycles
 - Meet transmission performance of Cat5e
 - Applicable Cable
 - AWG 24~26
 - (Insulation Outside Diameter: Dia. 0.93~1.05&1.05~1.15mm)
 - Outer Cable Diameter 7.1mm Max

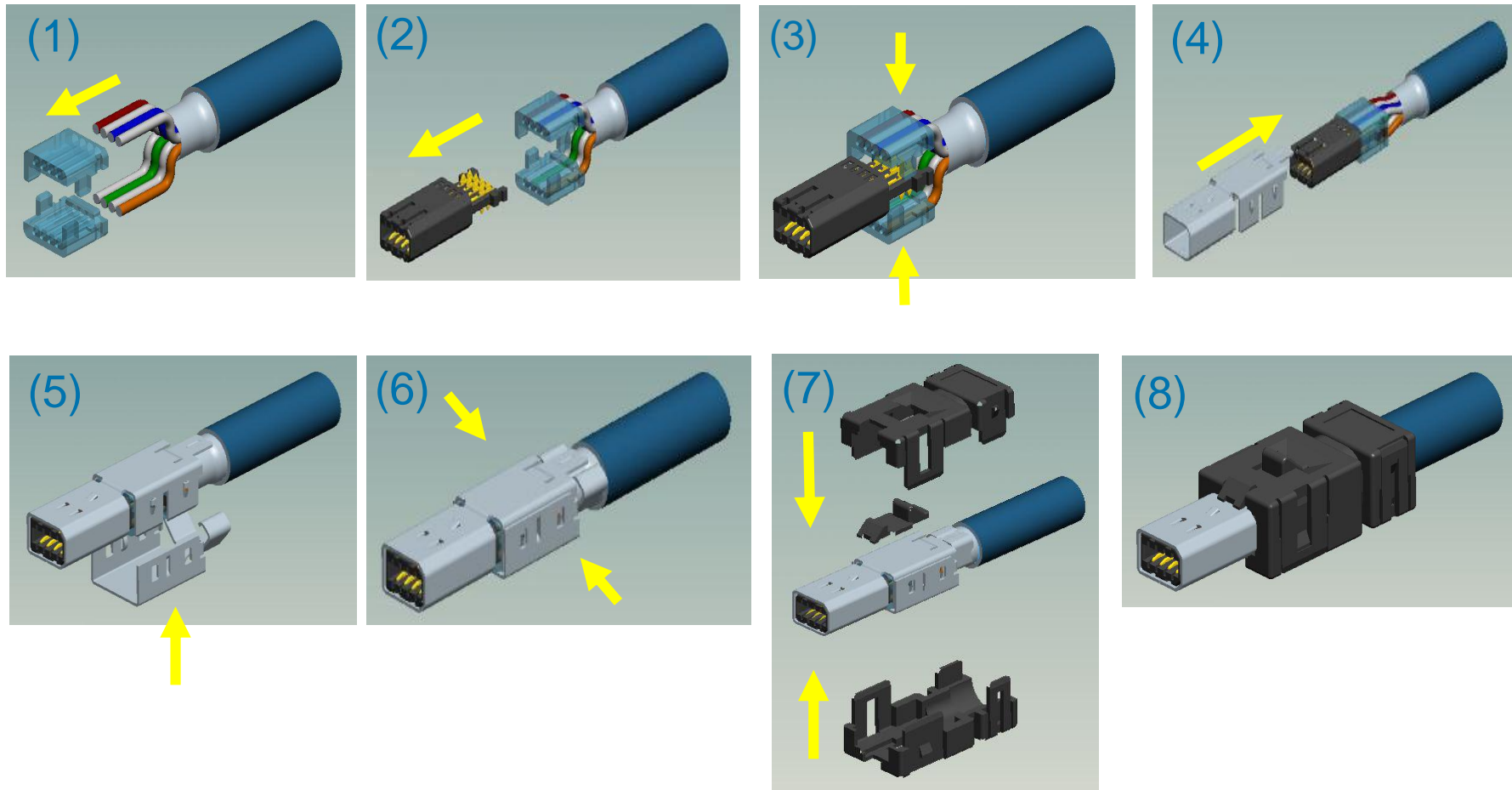
Concept Plug Kit

Plug Kit

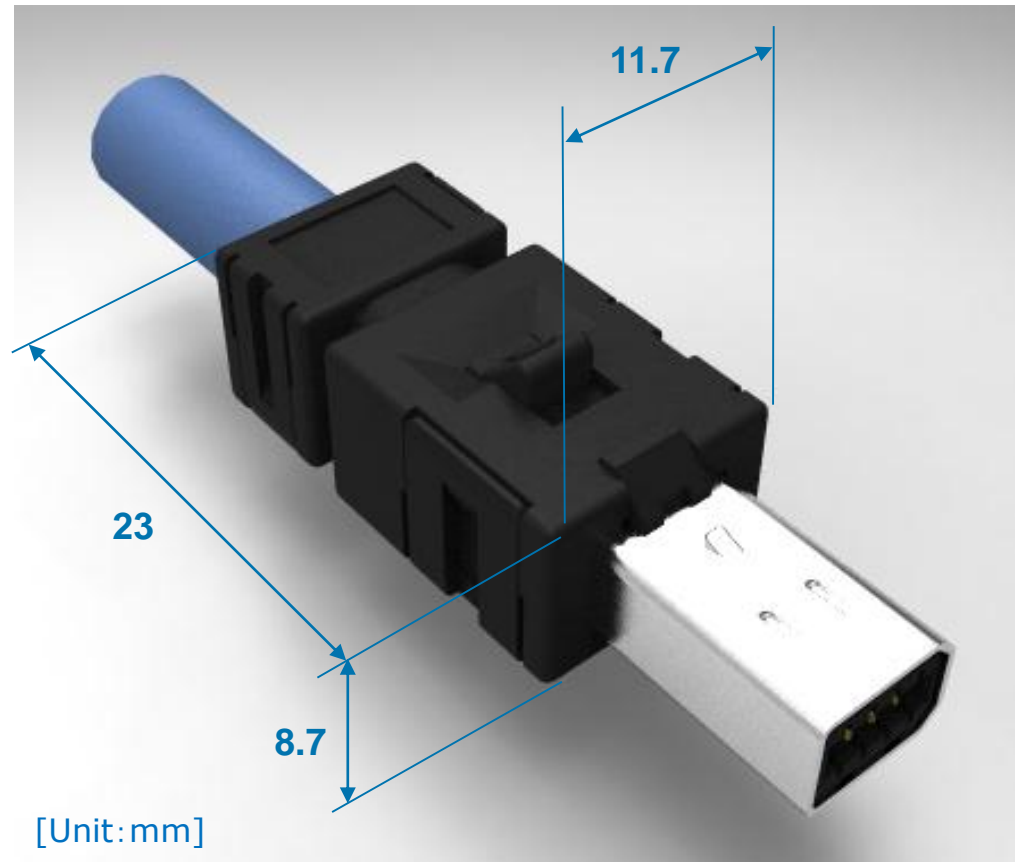


Part Number	Name	Applicable wire
2201855-1	Plug KIT Type I L size	AWG 24~26 Stranded Wire insulation OD: 1.05-1.15 Cable OD : 7.1Max
2201855-2	Plug KIT Type I M size	AWG 24~26 Stranded Wire Insulation OD: 0.93-1.05 Cable OD : 7.1Max

Plug cable connector assembly

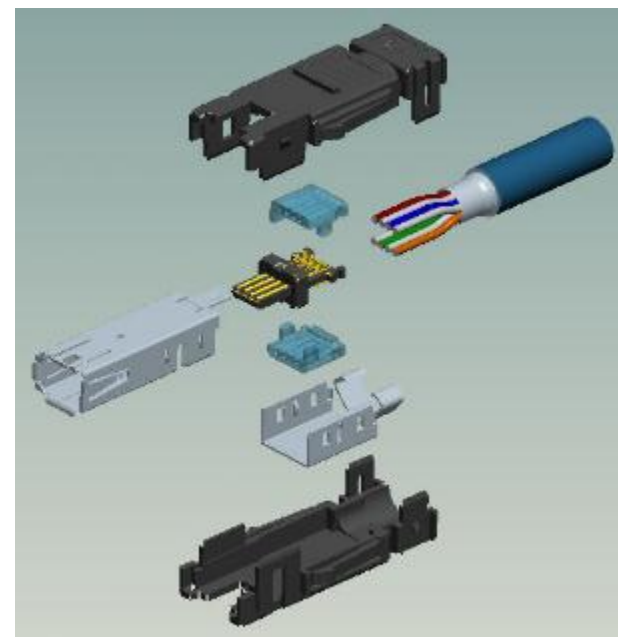
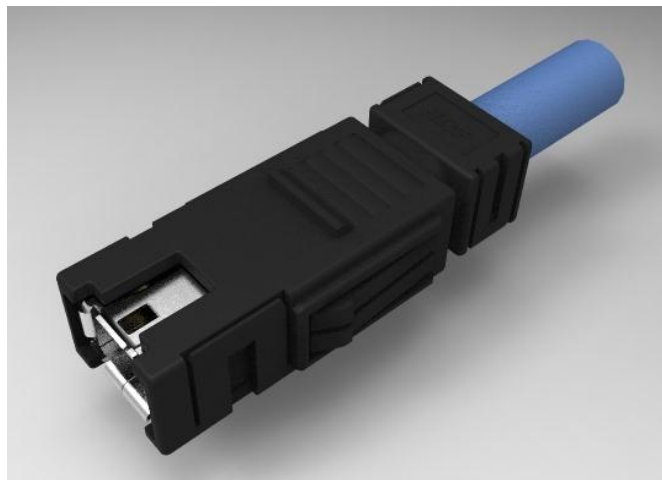


Plug dimensions



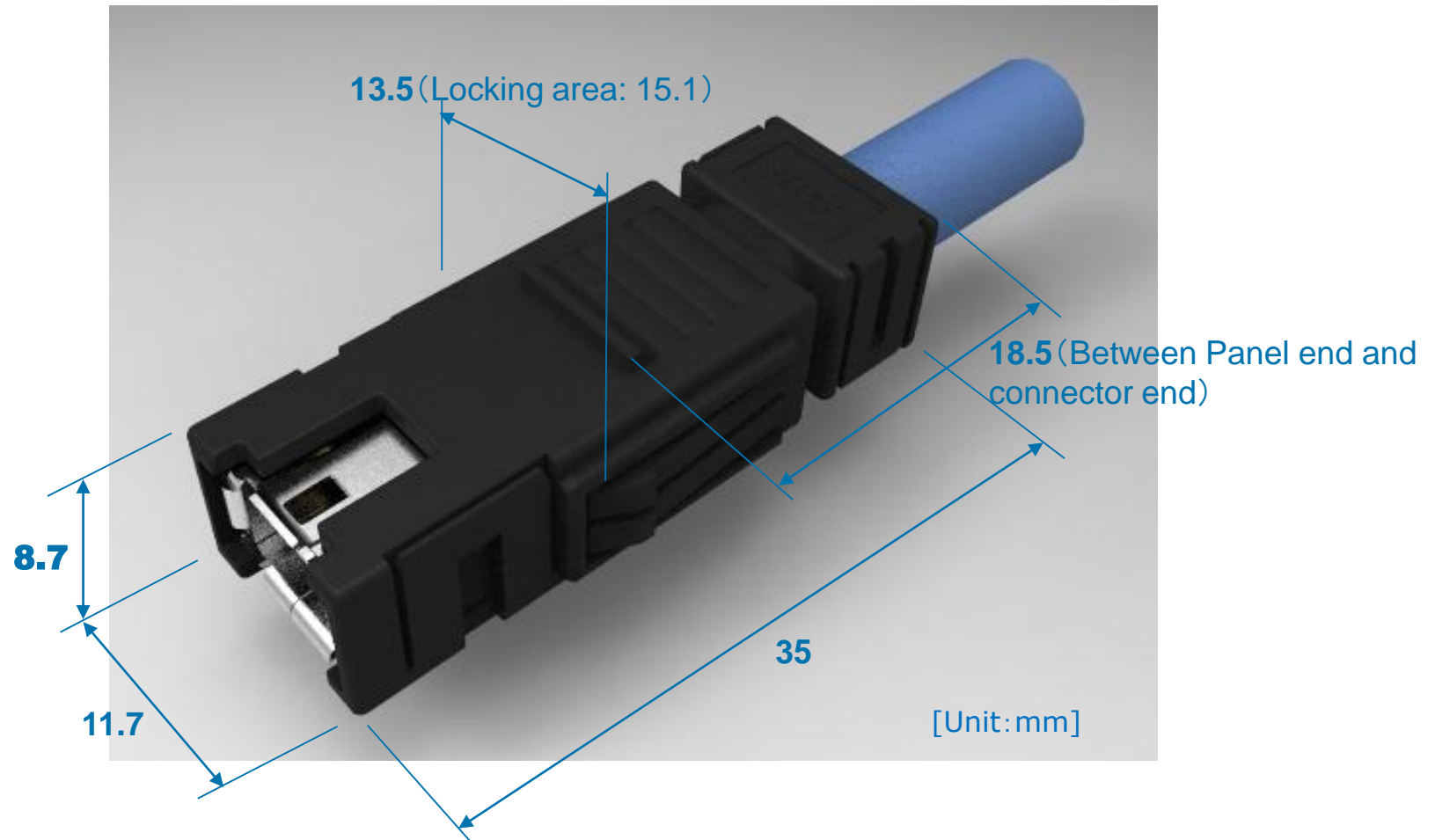
Concept Receptacle Kit

Receptacle Kit

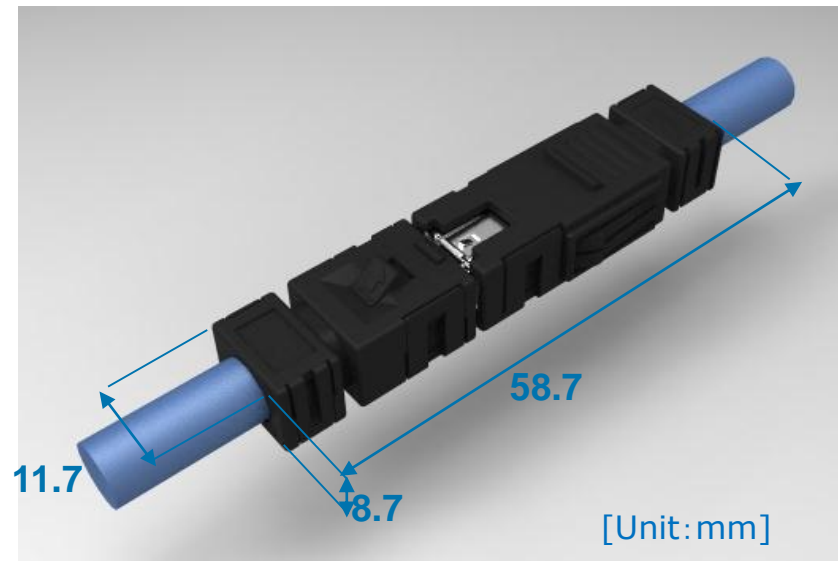


Part Number	Name	Applicable wire
2201864-1	REC KIT Type I L size	AWG 24~26 Stranded Wire insulation OD: 1.05-1.15 Cable OD : 7.1Max
2201864-2	REC KIT Type I M size	AWG 24~26 Stranded Wire Insulation OD: 0.93-1.05 Cable OD : 7.1Max

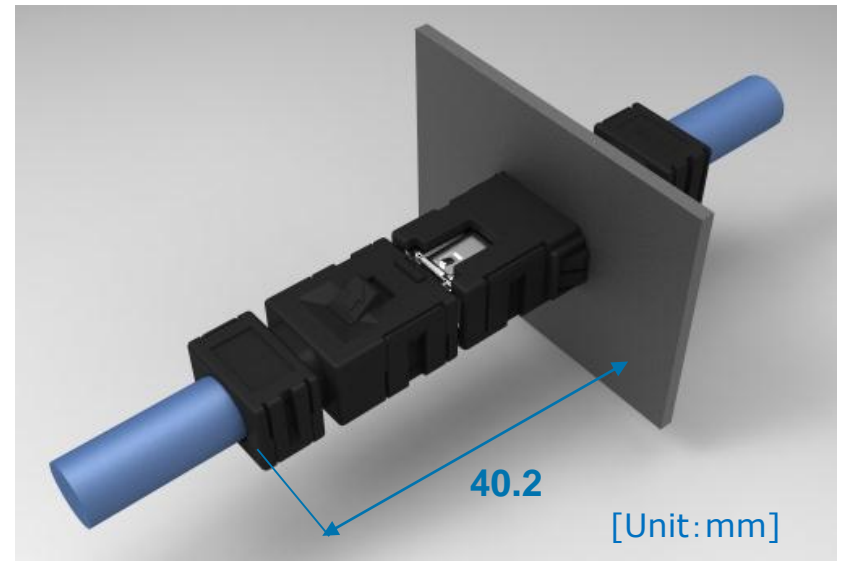
Receptacle dimensions



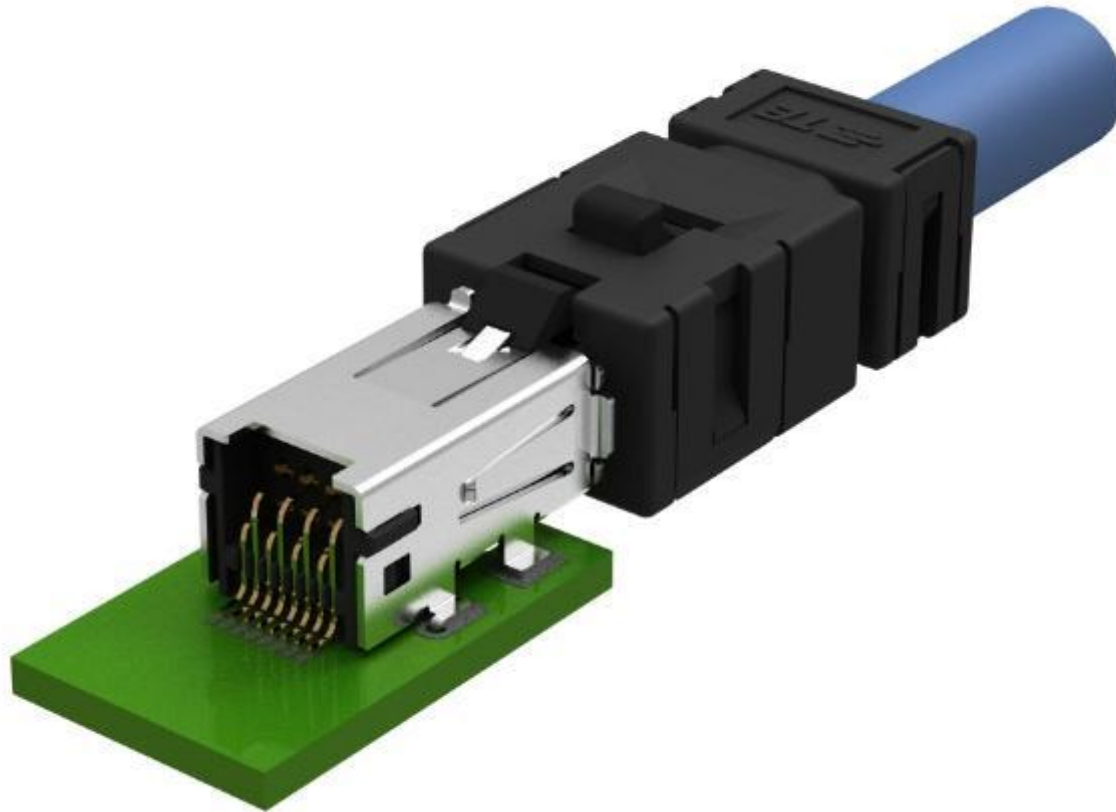
Mating overview



With Panel

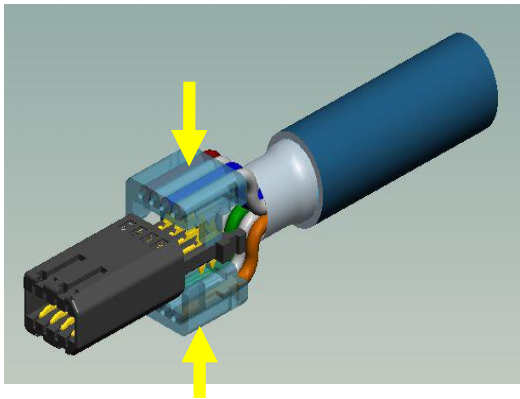


Compatible with other Mini I/O headers

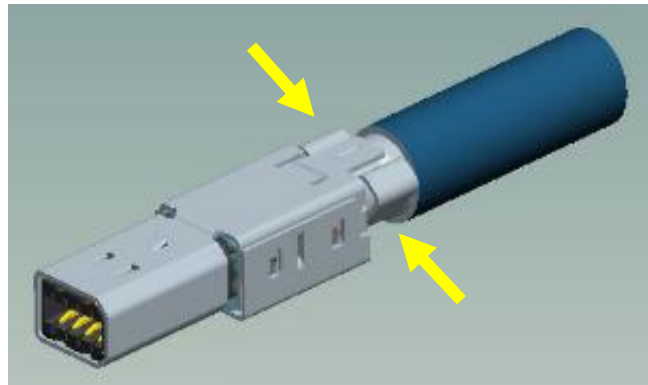


Hand Tool for Field Installation

Wire termination and cable crimp is available with one hand tool



Wire termination



Cable crimp

Find more at...

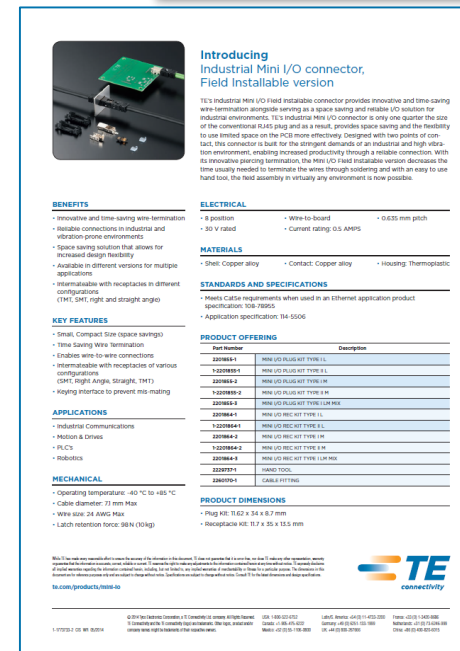
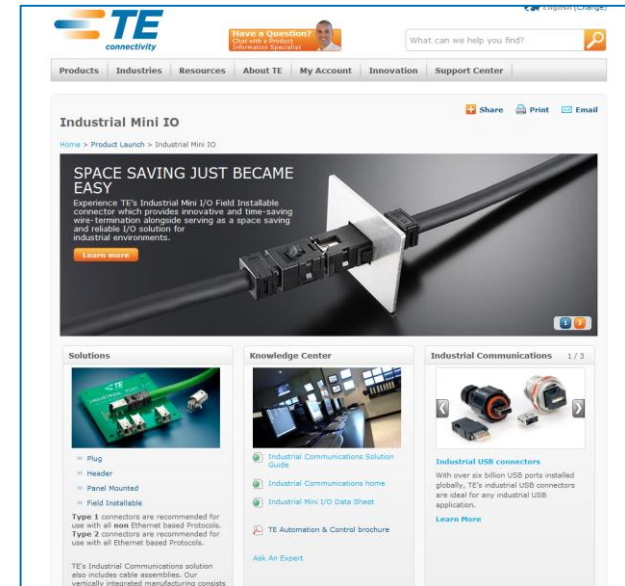
Mini I/O homepage

te.com/products/mini-io

- Product information
- Further documents
- Order samples

Mini I/O flyer

- Complete overview of product portfolio
- Part numbers and drawings



**Making Every
Connection Count.
Especially The One We
Make With You.**

