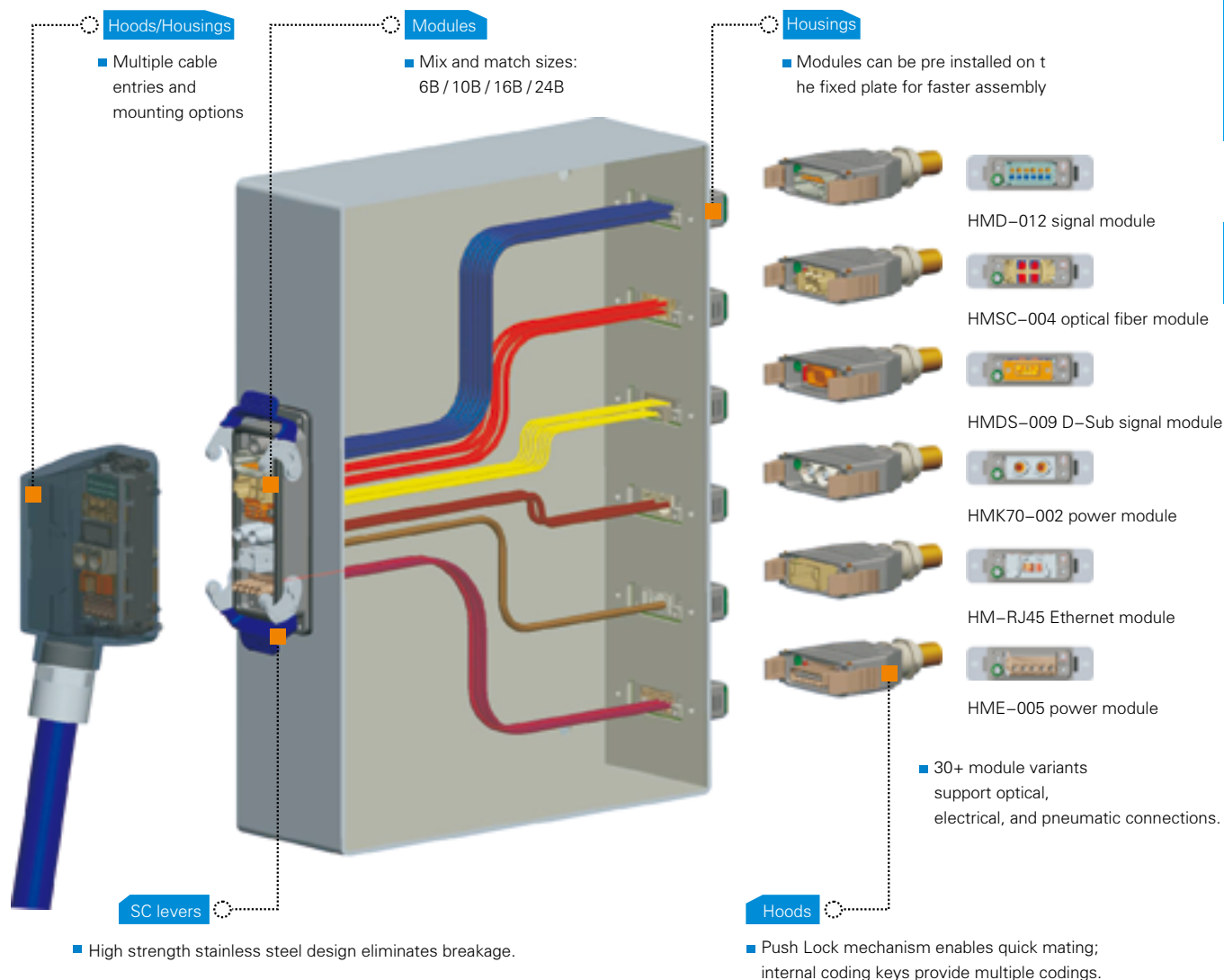


WAIN "WU" Single Module Connector Series

WAIN's 2016 innovation combines a wide range of module types—high current power, signal, optical fiber, pneumatic, Ethernet, and more—into a single EMC shielded unit with an IP65 protection rating.



WAIN solutions for branch integration needs



Key features

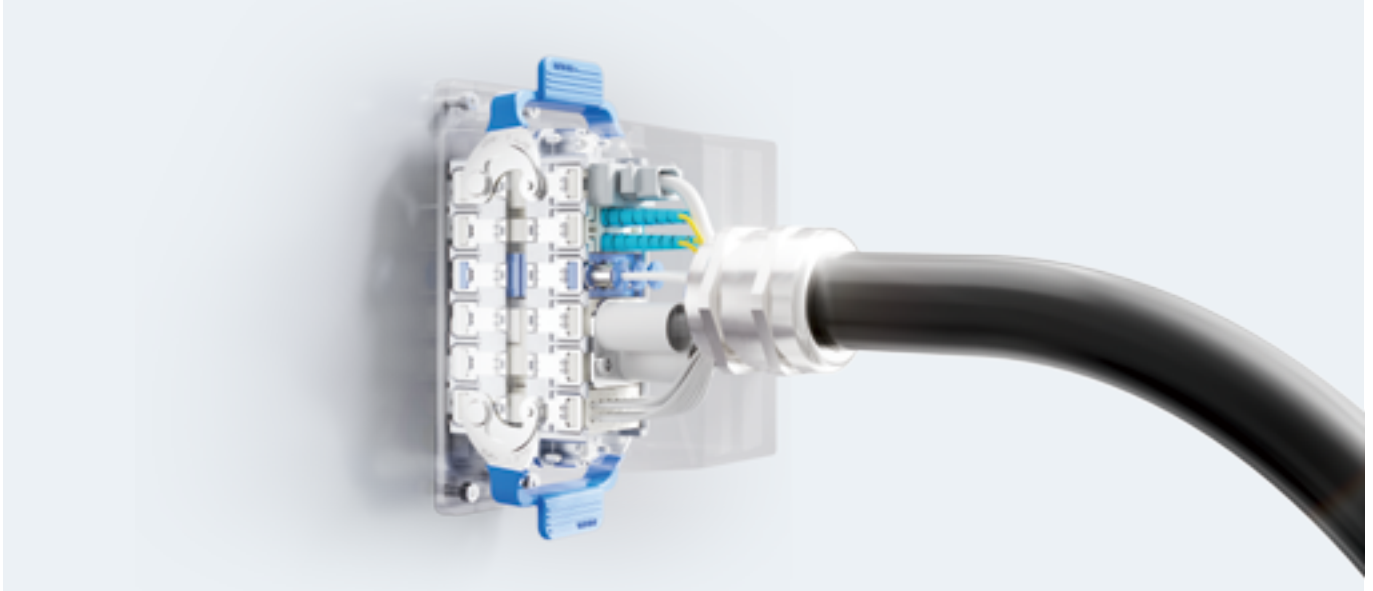
- Slim, space saving profile
- Quick lock mechanism for faster assembly
- Internal coding key offers multiple codings
- Modules can be pre mounted on the fixed plate
- Built in grounding
- Vertical grounding screw clears the faceplate for easier access
- Compatible with multiple single module inserts
- EMC shielding

For full specifications on WU series hoods, housings, and modules, please see the HM series section.



WAIN Snap-Fit Quick Installation Frame

- Single module allows for quick installation and removal.



■ Characteristics



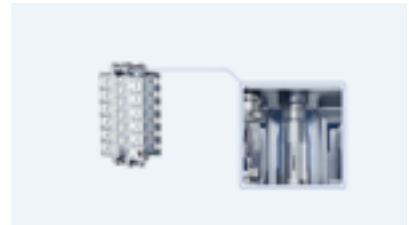
Direct Plug-in Spring Clip Locking

Simpler and faster module installation and removal



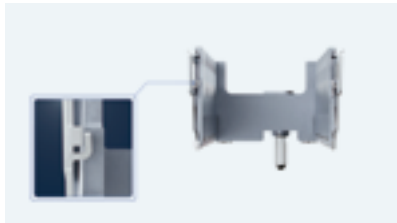
Modules can be installed and removed individually

Without affecting other modules in the frame



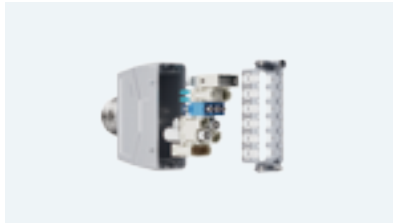
Grounding pin limiting structure

Prevents socket contact deformation and mating failure during abnormal insertion



Frame with limiting structure

Prevents spring clip overextension and failure during module removal



Reduces module installation and removal time.



Spring clip fixation provides excellent vibration resistance

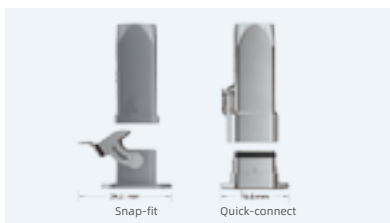


WAIN W3A Quick-Connect Housing

- Quick-connect housing: Enables high-density array and features a push-button latching mechanism for rapid insertion and removal.



Characteristics



Space-Saving Design

Button-style latch design available in both latch-lock and quick-connect types.



Quick-Connect Made Easier

Button-Style Lock: Enables fast and effortless mating.



Secure Connection

Equipped with a limit-rib design for enhanced stability and reliability.



Upgraded Compatibility

Panel cut-out dimensions match latch-lock type.



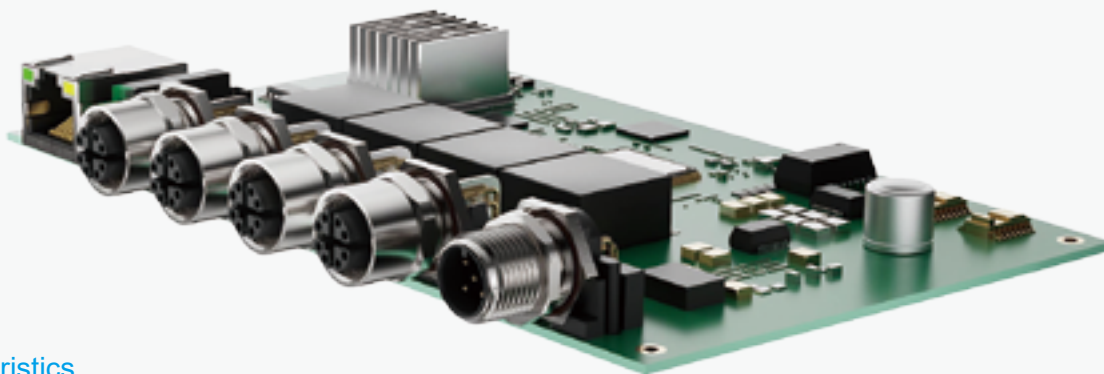
IP67-rated with radial side sealing.



Compact and Efficient

Perfect for dense installations and layouts, optimizing performance in tight spaces.

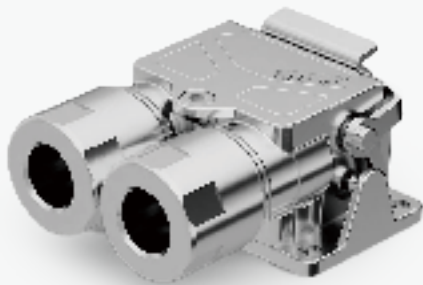
WAIN Circular PCB Connector Series



Characteristics

- M8 / M12 options — stable and reliable connections.
- Compact Form Factor (Ideal for PCB layouts where space is limited) .
- Shielded version effectively suppresses interference (Available in shielded or unshielded versions).
- Flexible routing for easy wiring (Choose right-angle or vertical (straight) terminations to match your PCB layout).
- High-density, reliable contacts (Soldered contacts ensure stable electrical performance with excellent vibration and shock resistance).
- Multiple coding options (Supports A, B, D, and X coding with various pin counts for power, signal, and data applications).
- Broad Application Range (Ideal for industrial automation, robotics, communications equipment, energy management, transportation, and more).

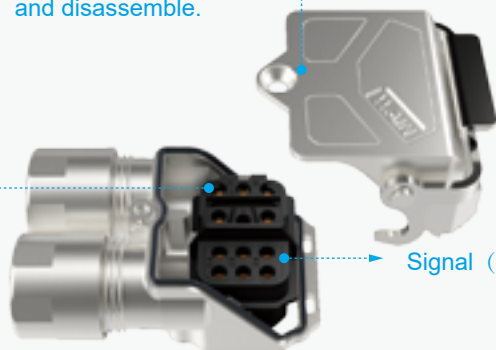
WAIN MI mini connector



With the top+side wall open design. Cable can be easily perforated, convenient to install and disassemble.

Power (3+2+PE)

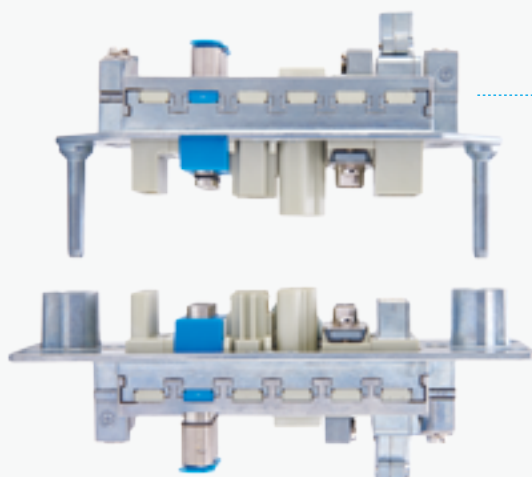
Signal (6)



Characteristics

- Adopt button structure to realize rapid installation and disassembly.
- Crimping structure, with the advantages of efficient crimping, earthquake resistance and convenient maintenance.
- Shell is 360 ° overall shielded, and the power and signal areas are isolated separately.
- Double cable outlet, the max diameter of cable outlet can reach $\Phi 7.5$.
- With the top+side wall open design. Cable can be easily perforated, convenient to install and disassemble, and greatly shorten the assembly time.

WAIN metal docking frame



Direct installation without hood and housing

Characteristics

- Easy assembly and disassembly with hanging type half-threaded screws.
- Putting guiding pins into conical holes to realize guiding.
- Using the floating washers to increase gaps, it helps to increase guiding function.
- Guiding through crown spring improves the safety performance greatly.
- Direct installation and no need to match with hoods/housings.

WAIN metal pneumatic module

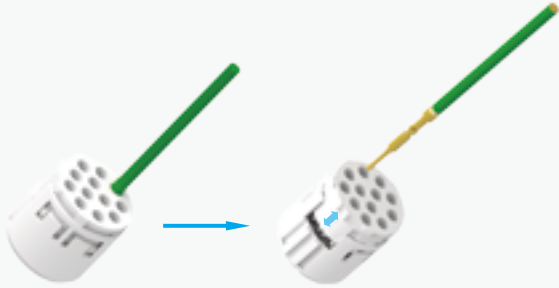


Characteristics

- Easy assembly and disassembly of contacts and modules by using contact removal tools.
- Quick connection and disconnection of the air tube.
- Metal pneumatic contact increases strength and service life of the module.

WAIN MR23 circular connector

- Efficient mounting and removal of contacts through Push-Pull mounting technology



Characteristics

- Crimp connection stabilizes the signal transmission in vibration environment.
- Push-Pull mounting technology realizes efficient mounting and removal without any tool.
- Reverse coding is also available.

WAIN extra large plastic hood



- Largest wire diameter of $\Phi 47\text{mm}$

Characteristics

- The hood is designed as a separate structure, easy assembly and disassembly with screws
- Enlarged space inside the hood makes it convenient to connect and install large cables
- Mating hood and housing with locking levers, the connector will not easily fall apart
- Excellent electrical insulating property (Insulating resistance $> 10^{10} \Omega$)
- High performance material suits the harsh environment
- Light weight, high mechanical properties and economical
- Widely used in various applications, compatible with regular inserts, frames, etc.



WAIN 32 pin anti-open circuit connector



Assembly and welding of two-stage welding pins
The stress relief structure of PCB electrical connection can release the stress, so as to protect PCB from damage.



Characteristics

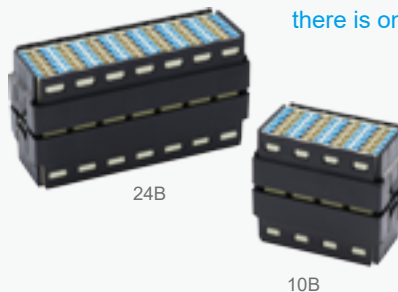
- The stress relief structure of PCB electrical connection can release the stress, so as to protect PCB from damage.
- Assembly and welding of two-stage welding pins: one or more pins and PCB at male end welded with female plug at the same time; better protection of welding points; more effective and reliable operation of the system; easy installation and maintainance.

WAIN modular type plastic hoods/housings



- Snap-in type, easy to operate.

- Compared with metal frame, there is one more module space.



Characteristics

- The hoods and housings are connected by special latch design, which prevents from falling off.
- High performance materials are adapted to harsh environment.
- Light weight, high mechanical strength and low costs.

WAIN 7/8 Circular connector

- Screw terminal, Easy assembly on site.

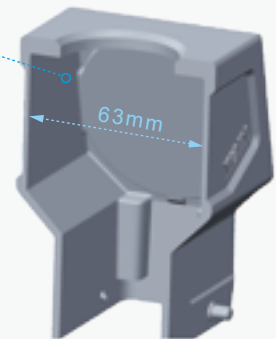


Characteristics

- Original anti-loosing joint to avoid accidental loosening, with superior performance in shock resistance and vibration load.
- 7/8 flange seat with fixed cable wiring design, greatly improving cable life and connection stability.
- Screw terminal, easy to maintain and operate! Easy assembly on site.
- Patented design with sleeve pin to improve mechanical life.
- Superior waterproof, dustproof and explosion-proof performance, with protection grade up to IP67.
- The connector is made of high temperature resistant material, with the maximum temperature of 125 °C, and the fire rating of UL94V0

WAIN enlarge metal hood

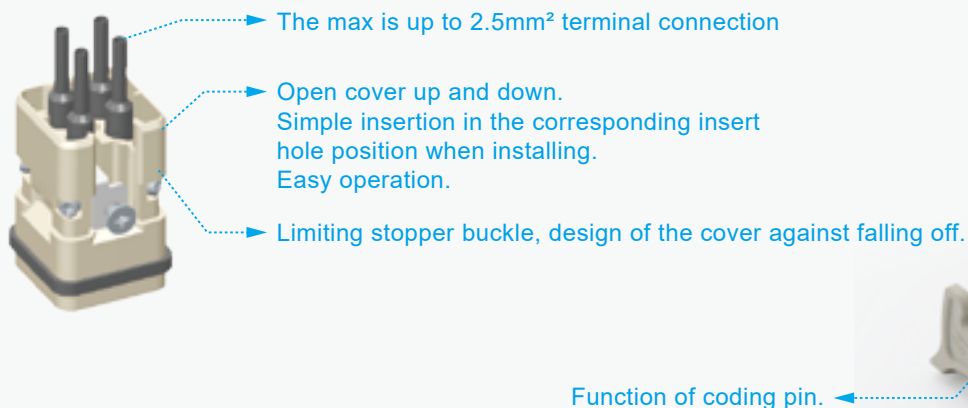
- Internal space up to 63mm wide
Large cable, easier wiring and installation!



Characteristics

- The internal space of the conventional 24B high structure hood is only 34mm, and the internal space of this extra large shell can reach 63mm.
- Increase the internal space to ensure that the cable with large cable outer diameter can also be wired.
- It is made of aluminum alloy metal with high strength and long service life!
- It can be compatible with conventional insert, frame and other usage, and has a wide range of uses.
- Wiring methods: side entry/top entry.

WAIN new and upgraded modules



Characteristics

- There is a cover barrier between the insert and shell, which ensures sufficient creepage distance and reliable electrical performance.
- The top outlet avoids folding the wire to 90° then upwards, as by side outlet. The operation is convenient by wiring.
- The protective cover has a reliable structure. The cover will not fall off when pushed up and down.
- It has the function of coding pin, including 4 encoding modes.

WAIN M12 circular connector, L-coded



Characteristics

- Installable series and moulded cable series
- Thread locking M12X1
- Shielding ring and ring spring shielding connection
- Cable length 1.5m and 5m
- Other cable length upon request, minimum order quantity 200 pieces
- Cable material can be customized according to requirements
- Degree of protection IP67/ IP68
- Transparent case for PCB with LED

WAIN M12 circular connector,X-coded



Characteristics

- High data transmission speed, up to 10Gbps.
- Full metal shell, effectively anti-electromagnetic interference.
- Cold-pressed contacts, effectively anti-vibration and highly data transmission stabilizing.
- Fixtion of contacts into inserts by side press, easy assembly and maintainance without tools.

WAIN 1440 shell

The neutral salt spray test
is up to **1440** hours
(C5H grade)

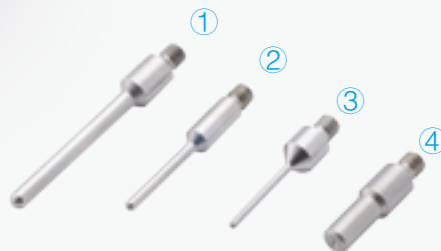
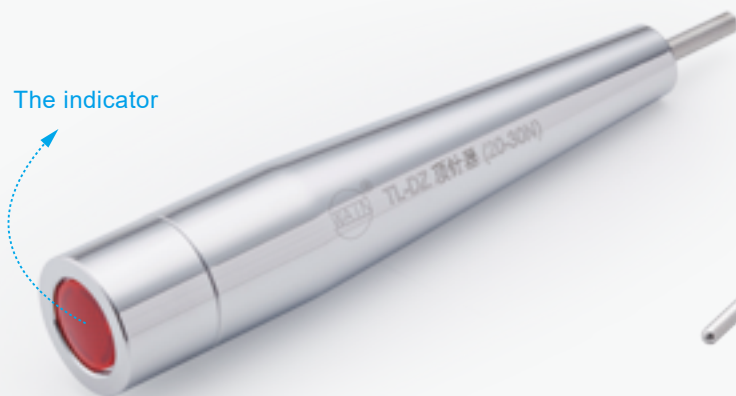


1440 Shell

- Adopting the special treatment process.
- The neutral salt spray test is up to 1440 hours (C5H grade).
- Applicable to all the aluminum alloy shell.
- Applicable in the environment with high anti-corrosion requirements.

WAIN independently developed "TL-DZ Contact retention test tool"

The indicator



WAIN TL-DZ Contact retention test tool is a kind of tool for detecting contact retention, using the LED indicator function to visualise the test results. The tool is compact and simple to operate, chrome-plated and fine in appearance. It has a mechanical life of over 100,000 times, a variety of free replaceable heads and is compatible with various contact detection, whose detection strength is customizable!

*Please refer to P29-16 ~ P29-17 for selection and operation.

① Female head:

used for the detection of 16A female contact (optional)

② Female head:

used for the detection of 10A female contact (standard)

③ Female head:

used for the detection of 5A female contact (standard)

④ male head:

used for the detection of 5A/10A/16A male contact detection (standard)

WAIN M15 circular connector



● Direct Plug Quick-Connect

Characteristics

- Features a quick-connect structure for straightforward and convenient installation.
- Full metal shell, effectively anti-electromagnetic interference.
- Cold-pressed contacts, effectively anti-vibration and highly data transmission stabilizing.
- Fixition of contacts into inserts by side press, easy assembly and maintainance without tools.



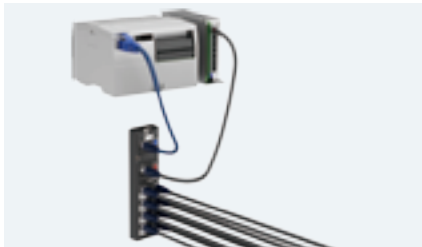


WAIN IO-Link Field Bus I/O

- Supports bidirectional communication between multi-point intelligent sensors or actuators and control terminals



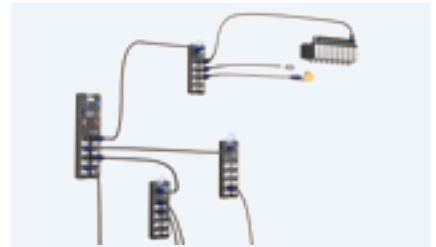
Characteristics



Easy installation and wiring
to reduce costs and increase efficiency



Quick Maintenance
Reduce maintenance time and downtime costs



Add more points via IO-Link hub



Plastic & Metal versions
IP67 protection degree

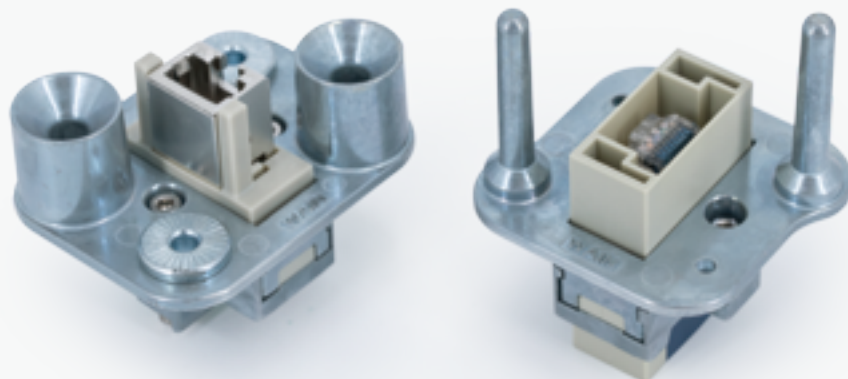


Metal version is suitable for special environments
Anti-welding slag, anti-oil and anti-corrosion



It can be used in industrial automation, robotics, logistics, medical equipment

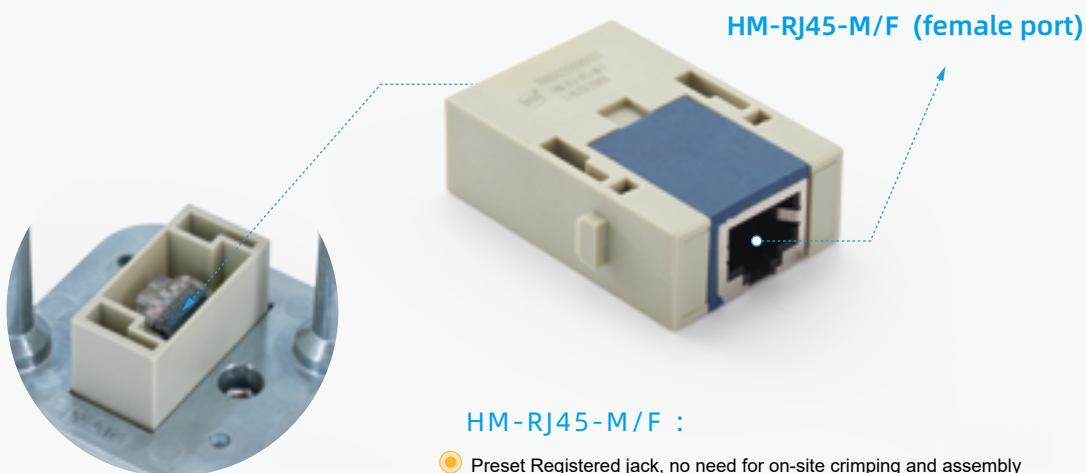
WAIN metal docking frame with Single module



Characteristics

- Easy assembly and disassembly with hanging type half-threaded screws.
- Putting guiding pins into conical holes to realize guiding.
- Using the floating washers to increase gaps, it helps to increase guiding function.
- Guiding through crown spring improves the safety performance greatly.
- Direct installation and no need to match with hoods/housings.

WAIN HM-RJ45-M/F module



HM-RJ45-M/F (male port)

HM-RJ45-M/F :

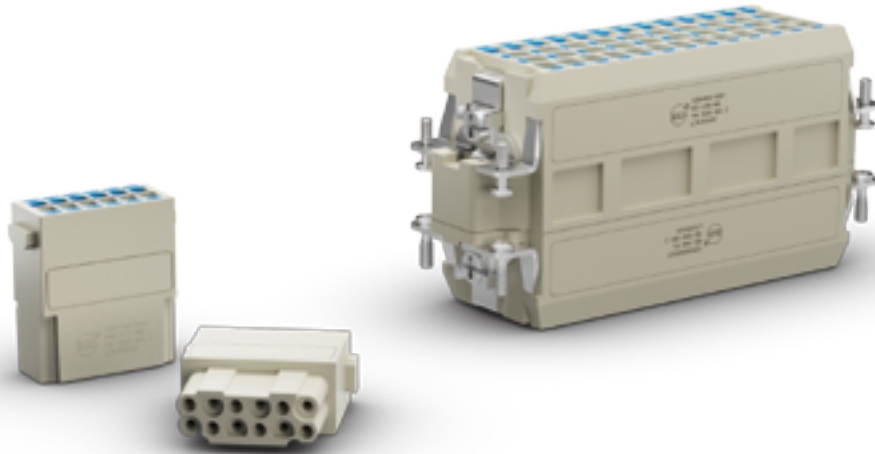
- Preset Registered jack, no need for on-site crimping and assembly
- The male module does not require additional adapter assembly
- Suitable for WAIN standard framework or single module framework
- Transmission features: Category 6 /Class E up to 500 MHz

Note: For single module metal frame, please refer to P10-06.1, and for HM-RJ45-M/F module, please refer to P10-49.1

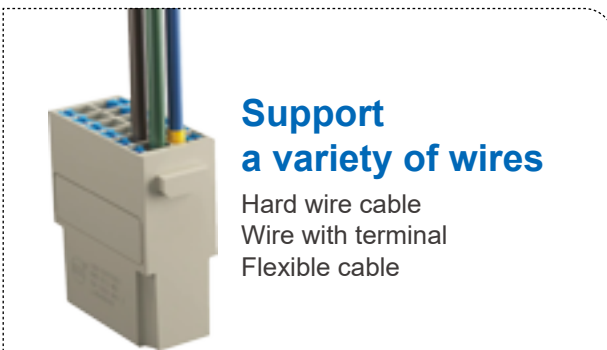
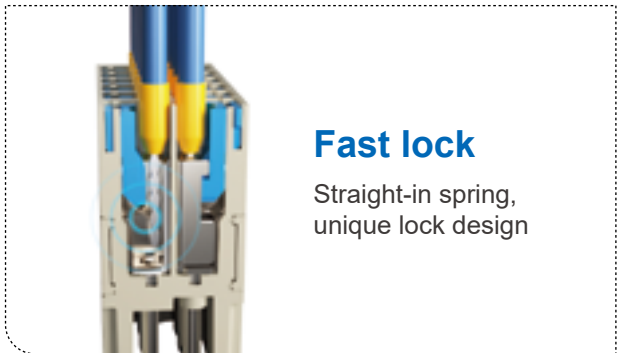
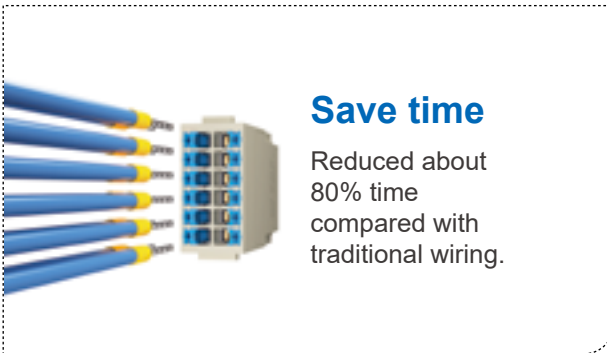
WAIN quick-in wiring technology series

80%

- Reduced about 80% time compared with traditional wiring.



Characteristics



WAIN New Spring Version Quick-in Insert



- Integrated jumping ports
- Integrated jumping ports
- Mating cycle of terminal jumper ≥ 500 times

■ Characteristics



● Insert directly for quick-in wiring

Wire with the ferrule hard wire tin-soaked wire



● Varieties of jumpers

Free combination



● Vibration-proof

Interference point design



● Application in hot runner injection Molding machine and other industries



● With test port

The test port diameter is 1.95mm, while the test lead has a diameter of 2.00mm.

The slightly smaller test port reduces shaking of the test lead and increase the test stability.

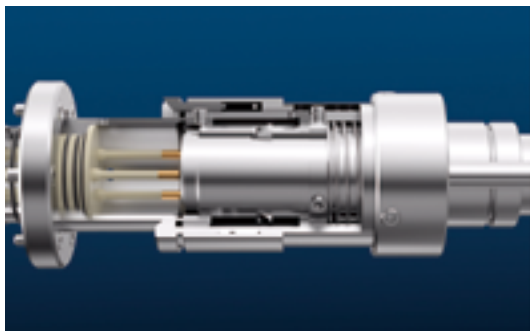
WAIN underwater connector technology

**7000
m**

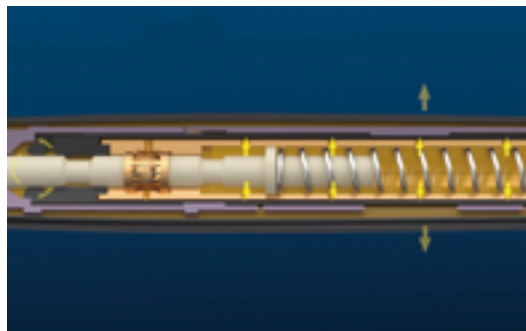
● High reliability
wet mating
underwater at **7000m**.



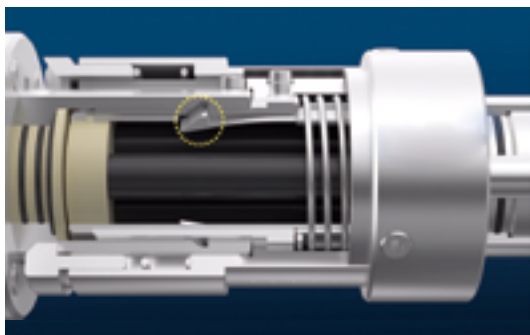
■ Characteristics



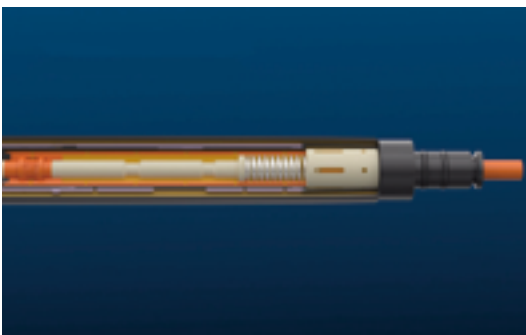
High compression resistance and corrosion resistance.
Adoption of high-strength titanium alloy.



Double layer oil sealing.
Automatic flushing and purification when mating.
Pressure balance under deep sea.



Male and female mating self-locking function.
Self-locking completed when unplugged.

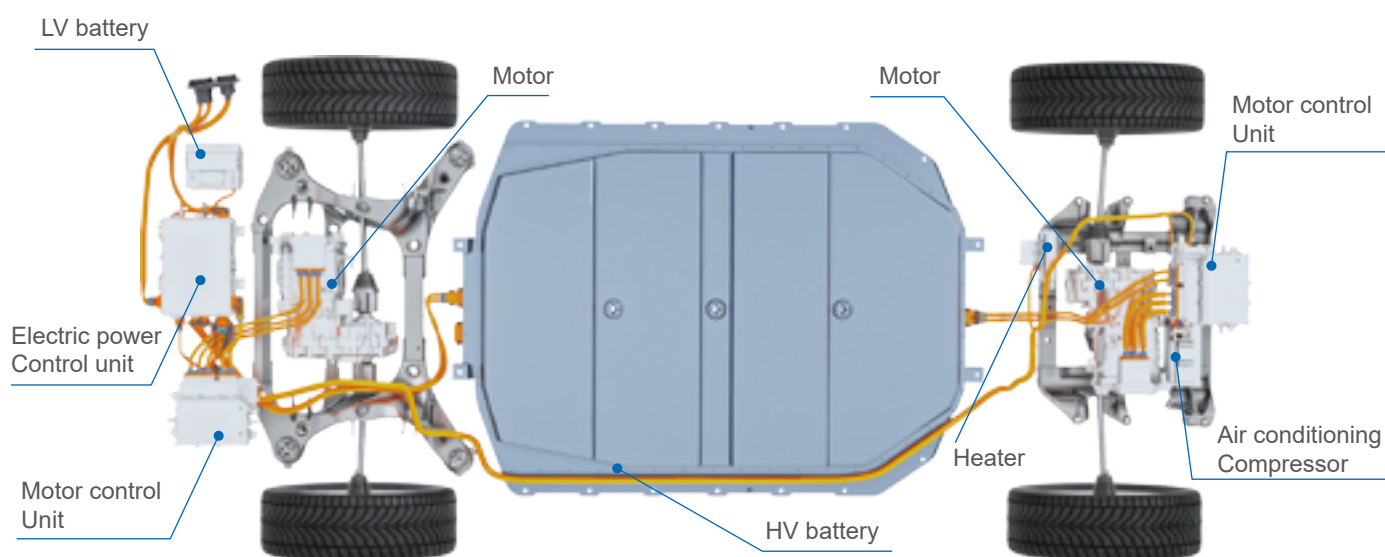


Safe and reliable connection.

WAIN high voltage connection system of new energy vehicle



High voltage interconnection diagram of EV



WAIN high current connector

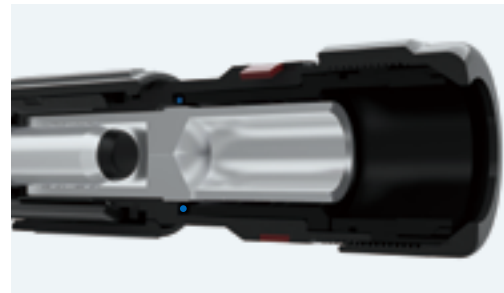
- Quick mating Safe and reliable Patented design

Quick nut reversing device

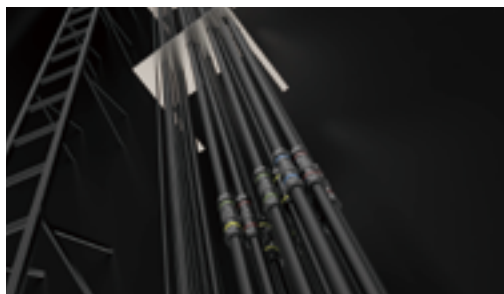
Color coded for 3-phase identification



Contraction gap
Prevent connector damage



Double crown spring to
Increase contact surface



Super load-bearing tensile strength



Electric shock proof

WAIN m12 junction box

- Compact structure, elegant appearance, convenient wiring, strong scalability.



**Prefabricated cables, on-site wiring.
Meeting the needs of different customers.**



**Led power and signal
indicators give real-time
feedback of product status.**



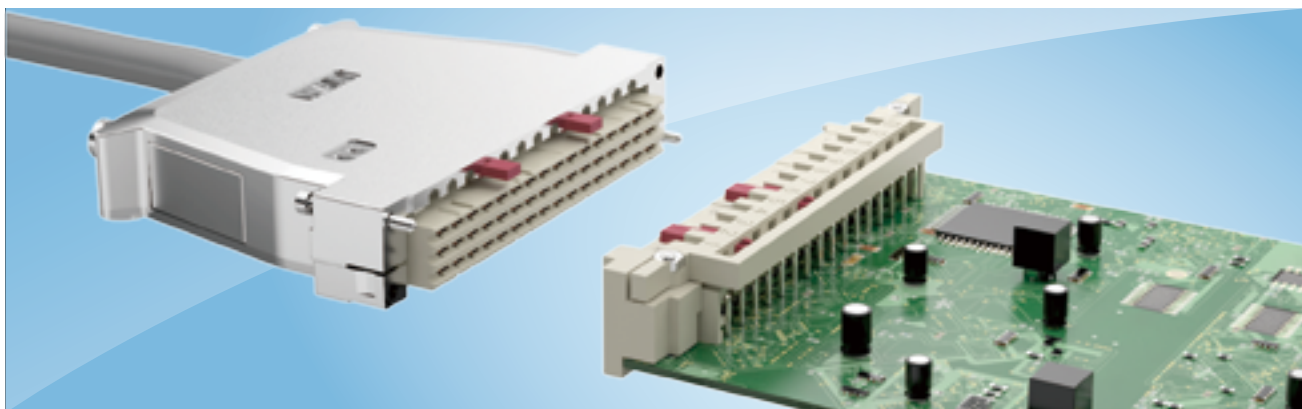
**Forming 90° angle to each other.
Adapted to straight,
bent and other connectors.**



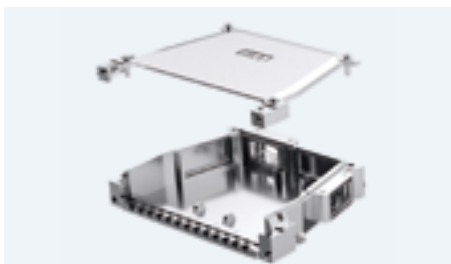
**Compatible with a variety
of small distributors.**

WAIN PCB connector

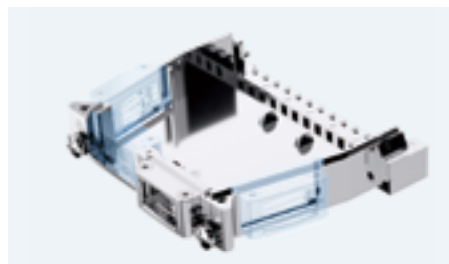
- Connecting PCB for signal transmission



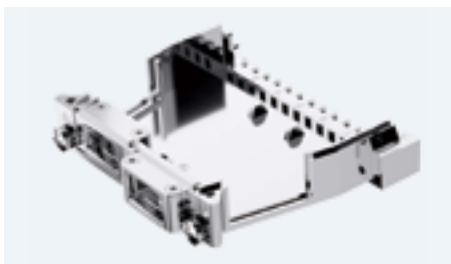
■ Characteristics



Full metal shell, rugged and durable



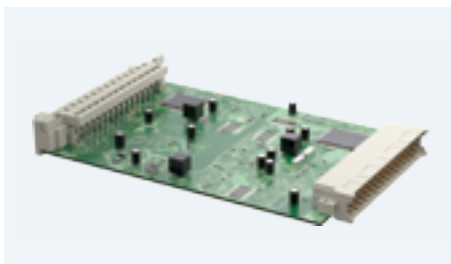
4 optional cable outlet methods



Reversible cable clamp, flexible and convenient



Supports coding fool-proof mechanism



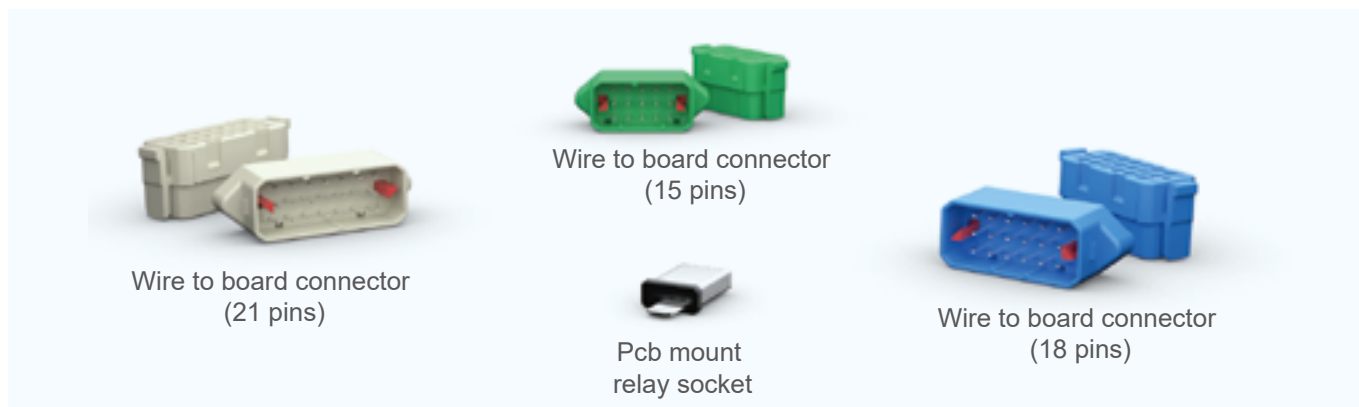
PCB welded used for signal transmission



Perfect for rail transit applications

WAIN PCB connector

- Perfect for electric control cabinet of construction. Machinery applications and so on.



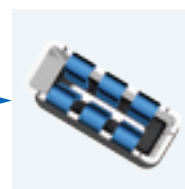
Wire to board connector

For signal transmission



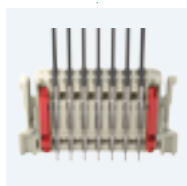
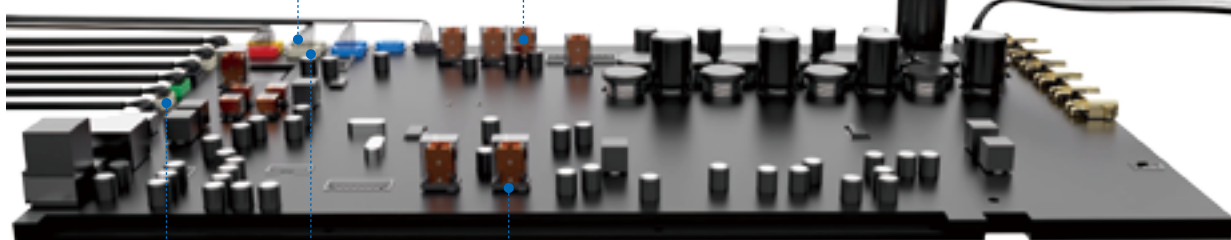
Pcb mount relay socket

For relay pcb mounting

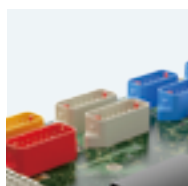


Intuitive double row spring contact

Double contact surface



Pin coded fool-proof



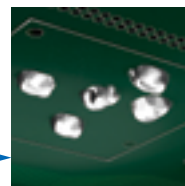
Color coded fool-proof

Engineered for rapid connectivity between circuits



Integrated rubber shock absorber

Preventing pcb board from crushing

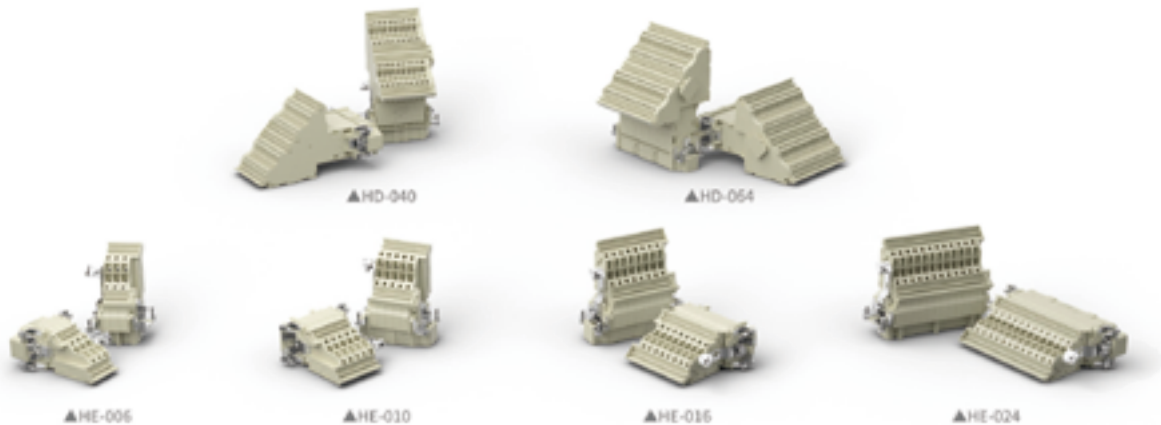


Easy to install

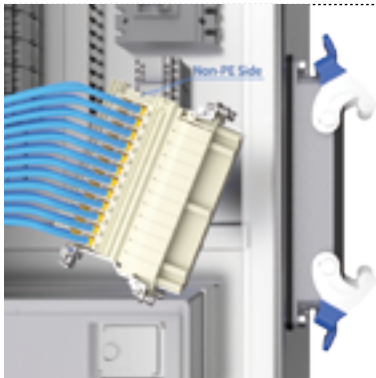
Reliable soldered installation

WAIN terminal block type connector

WAIN terminal block type that extends into the cabinet can be applied to not only wiring installation in the control cabinet in the industrial industry, but also to guide rail connection. The connector is convenient for on-site operation, repair and maintenance. The wiring process is simplified by prefabricated cables, which is fast and effective.



■ Characteristics



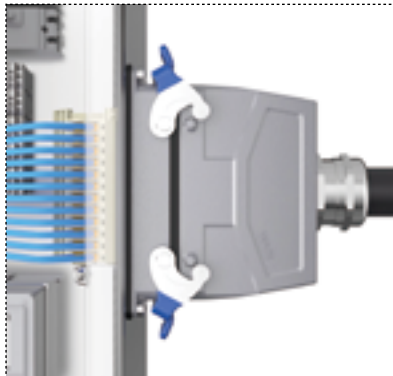
Installation outside the cabinet

Wiring in the cabinet is convenient for on-site operation, repair and maintenance.

Non-PE side terminal first into the bulkhead mounted housing.

Installation inside the cabinet

Prefabricated cables, fast and effective wiring



Easy connection outside the cabinet

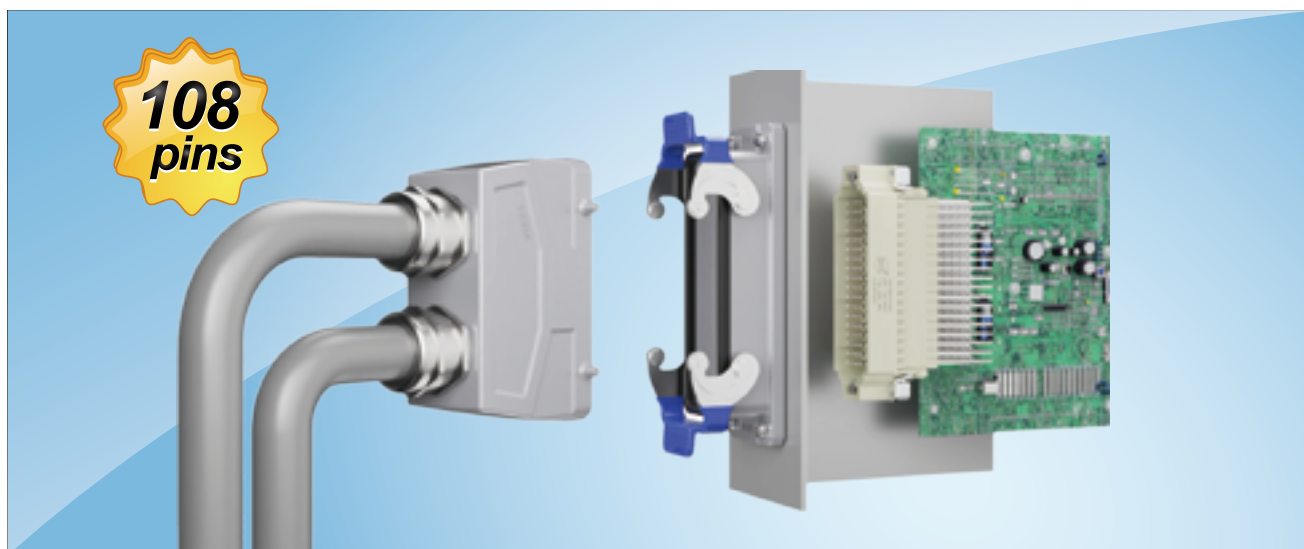


Extensive application

Matched with locking elements, the connector can be directly applied to the guide rail.

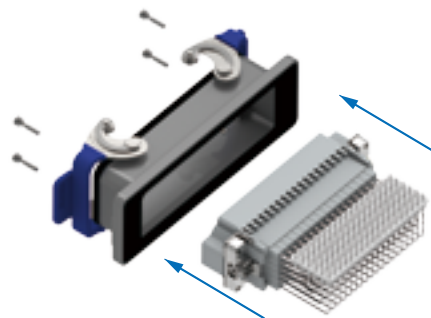
WAIN PCB connector

- High density insert 108 pins



90° angle wire-to-board connector

Used with different PCB layout, either 90° or 180°



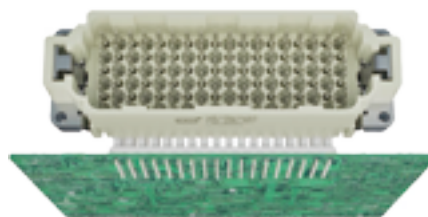
Advance method

Reverse insert assembly
Assembly and disassembly outside the cabinet
Convenient installation and maintenance



Pcb overall soldering wiring;

High assembly efficiency

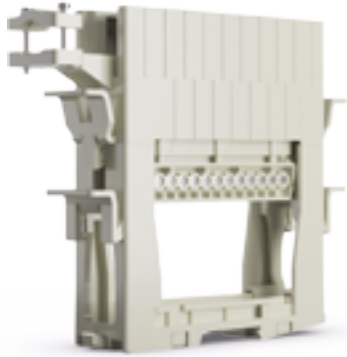


108 pins with fixing plate

Quick and easy insertion

WAIN CCAB rail bracket

- Convenient assembly and flexible position change



Technical information

Applicable rail specification (DIN BN60715: 35*7.5 or 35*15)

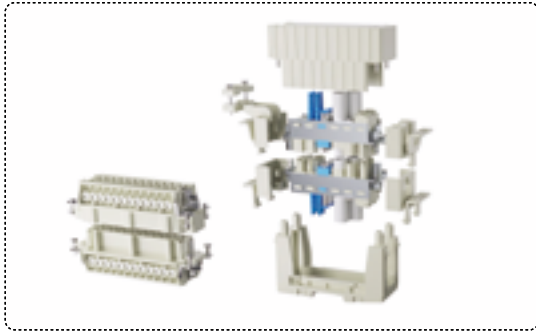
Minimum supporting force on supporting rail $\geq 450\text{N}$

Material: PC

Flame retardant rating: V0 (according to UL94)

Operating temperature range: $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$

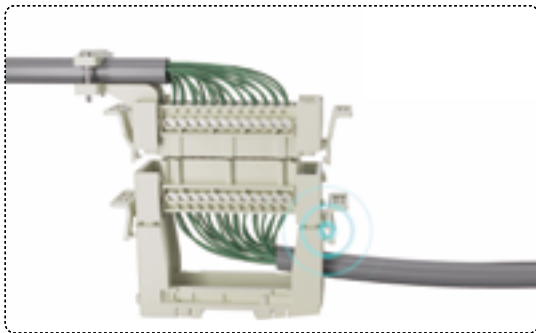
Application: Inserts and modular frames of all compatible with B size shells.



Suitable for modular frames and inserts with different specifications



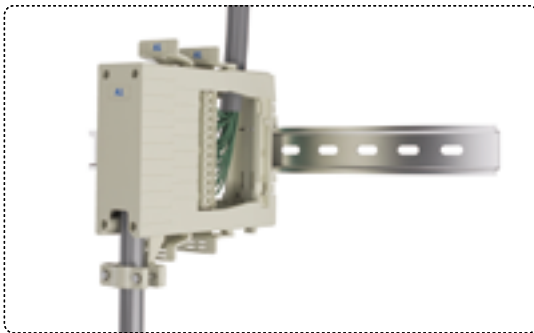
Adjustable construction
Compatible with 6B 10B 16B 24B.



Secure and reliable insert locking mechanism, easy disassembly.

Cables can be locked with cable clamps.

Snap-in docking mechanism, easy handling.



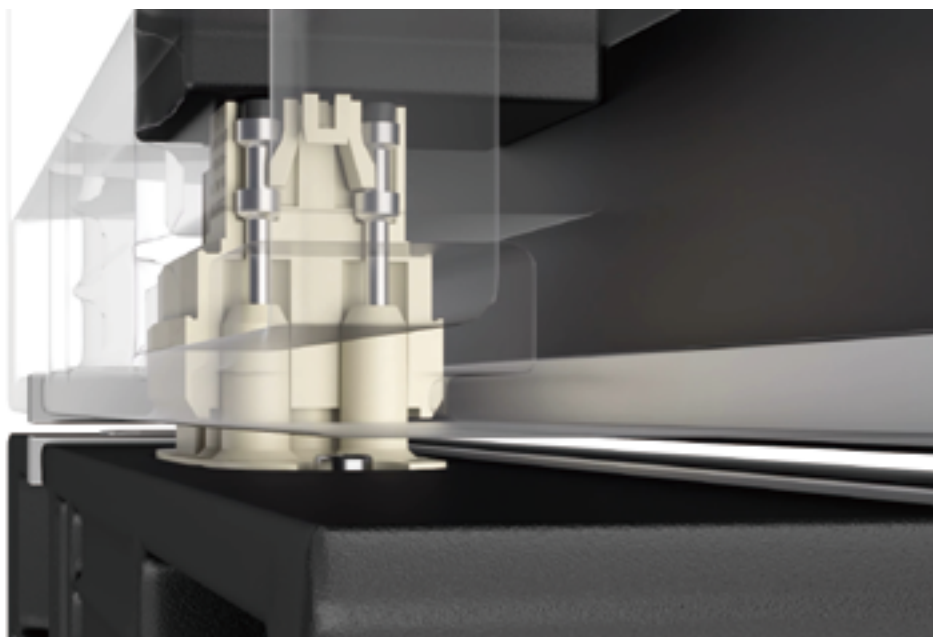
Compatible with horizontal and vertical rails, ideal for flexible field installation.

The protection cover protects the cables against dust deposits and unnecessary contact.

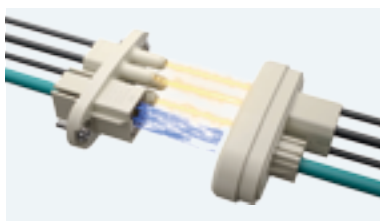
Easy Identification Tag.

WAIN LED display connector

- Providing signal and power connection



■ Characteristics



With signal and power transmission

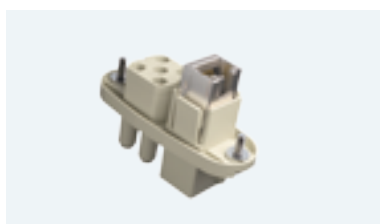


The screws are pre-hung and do not fall off



High mating and good reliability

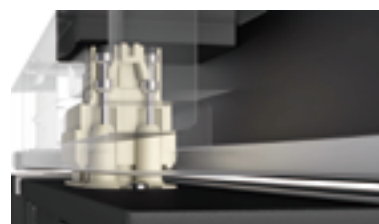
Suitable for standard metal shielded RJ45 crystal head



Easy assembly and disassembly, good stability
Metal shielding module



Mating fast and safe
Fool-proofing mating chamfering guide



Floating docking

WAIN 24 contacts shielding module

- Small space, big satisfaction.



Technical information

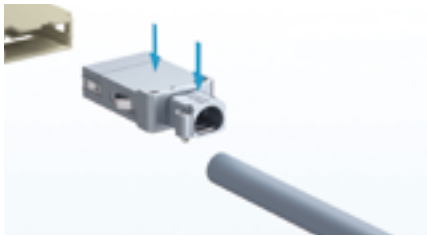
HMSB-024-MC/FC(Signal Module)

Number of contacts: 24+Shielding

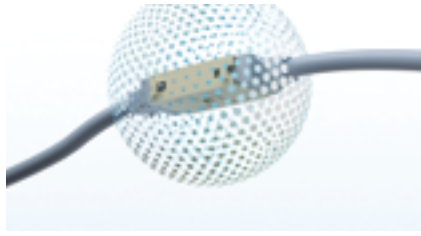
Rated current: 4A

Rated voltage: 32V

■ Characteristics



**Single module
Metal EMC shielding**



**EMC electromagnetic
shielding**



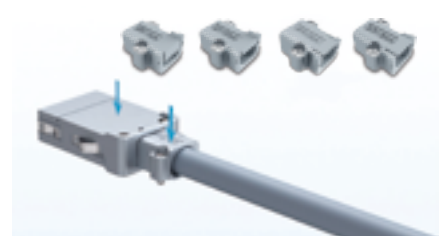
**Single module
24 signal contacts**



**Flexible match with other
modules**



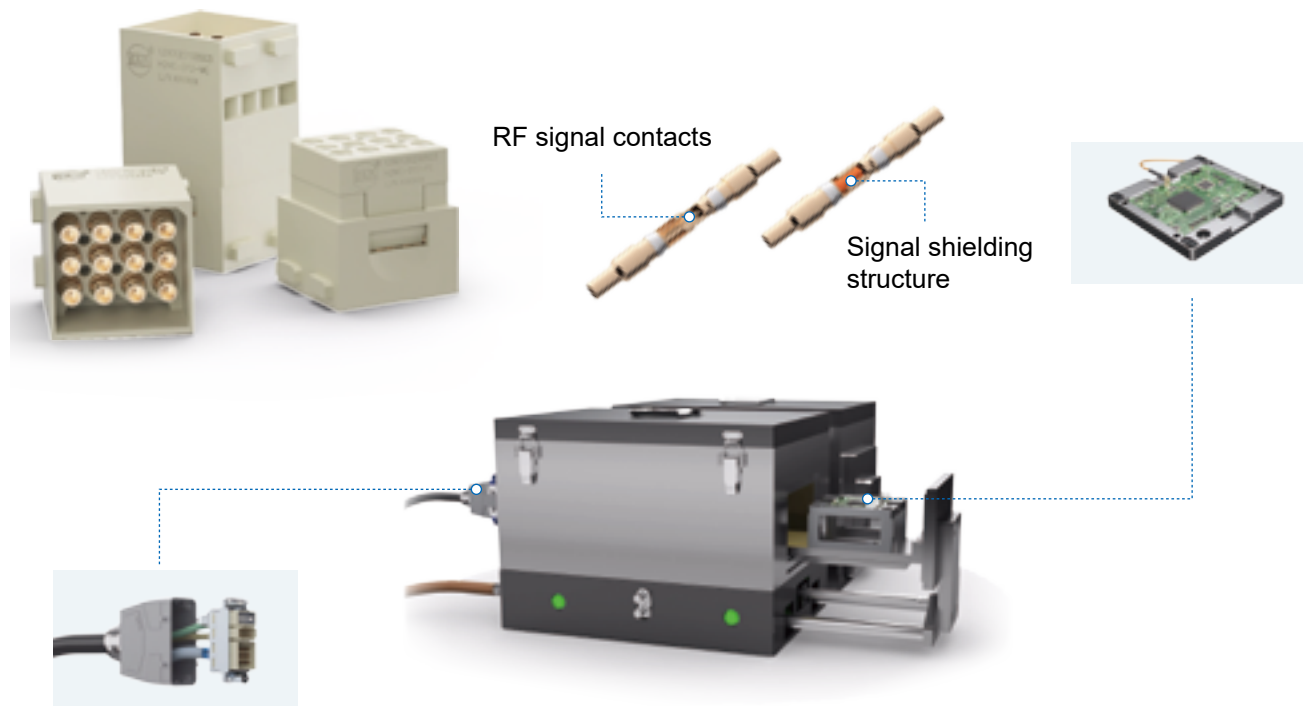
Innovative foolproof design



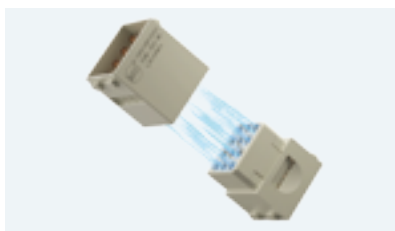
**A wide range of cable
clamping capacity,
a variety of wire gauge
available.**

WAIN coaxial module

- Designed for RF communication equipment



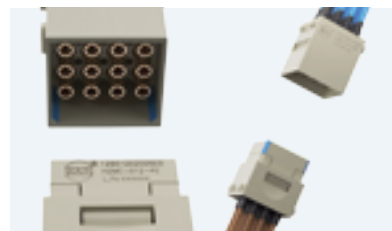
Characteristics



For RF signal transmission



Easy assembly by pushing contacts direct from insert bottom



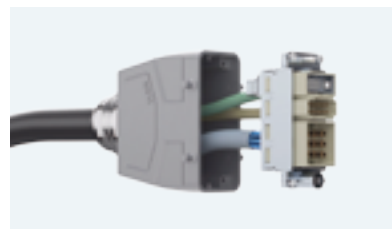
Foolproof design



One module supports up to 12 channels



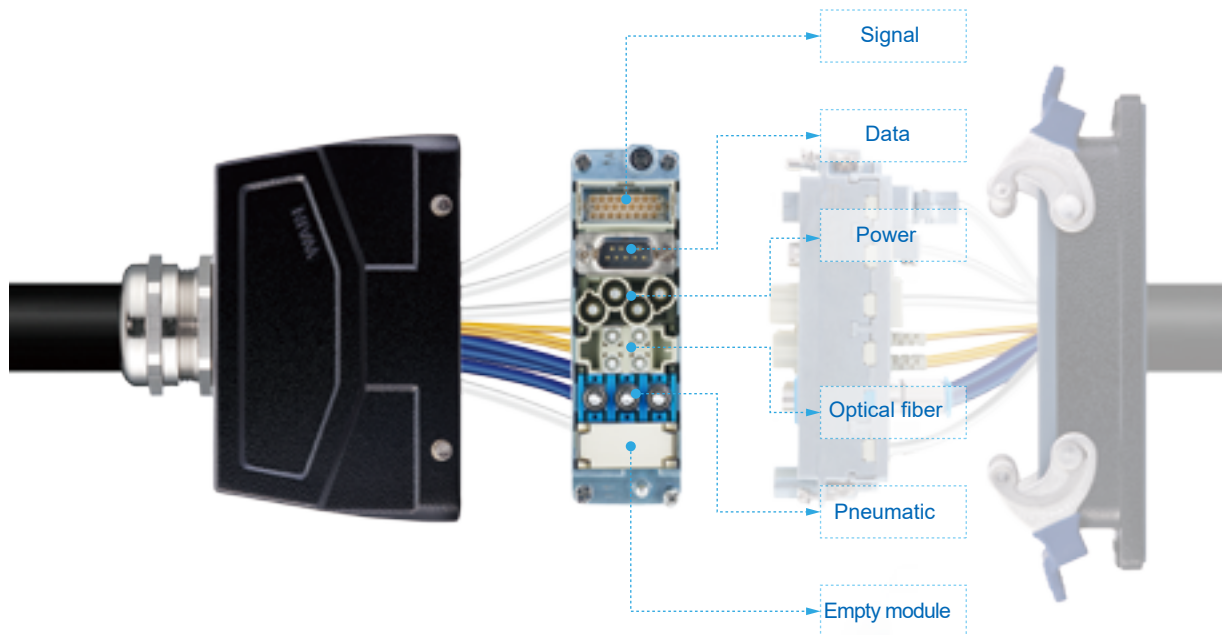
Quick and easy disassembly with contact removal tools



Flexible combination with other modules

WAIN modular connector

- Connecting unlimited possibilities.

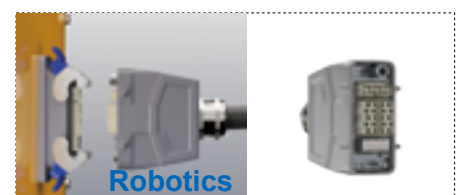
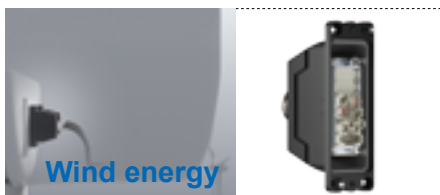


Five advantages of wain module system

- Perfect integration of power, signal, optical fiber, and fluid connection.
- The pre-assembled cable harness is rapid, professional, reliable and timesaving.
- The standard size fulfills multi-transmission and saves space.
- Various module combination within one connector saves costs.
- Reserving dummy modules, to change in constant.



Flexibly / High versatility

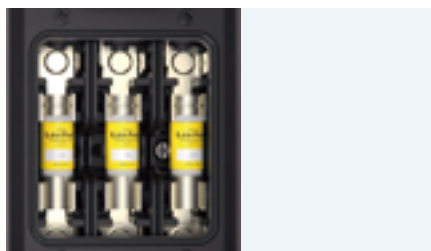


WAIN hot mating connector with emergency disconnection function

- Protection for the data center with fuse function



■ Characteristics



Pre-installed fuse



Protection of circuits and equipment

Instantaneous disconnection of the circuit in the situation of current overload



Transparent shell design

Easy observation and replacement of components



Fuse function

Withstanding emergency disconnection



IP protection design

Protection for circuits and equipments



Data center

Additional security protection

WAIN data & communication modular connector

- A diverse product portfolio of communication modular connectors



Various interfaces



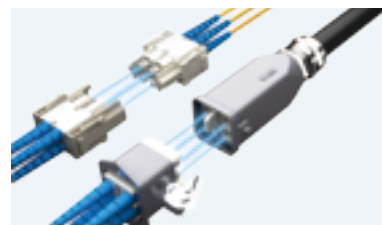
X-Code

Safe and reliable **10Gbps** high-speed data transmission



D-Sub

Transmission of analog, digital and series data



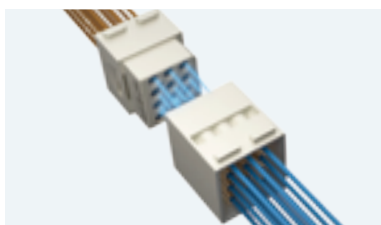
Fiber optic module

For high-speed optical fiber transmission



CAT6A

Bandwidth up to 500MHz, less crosstalk.



Coaxial module

RF signal transmission



Communication modules

Flexible combination into modular connectors

WAIN circular connector

- Extensive range of circular connector products



Wide selection of product series, abundant variations of product structure.



Our connector portfolio includes: A Code, B Code.....



A Code



B Code



D Code



X Code

Various pins configurations available



WAIN Multi-pin Connectors For Vehicle

- Support power and signal at the same time



Characteristics:



High-precision stamped contact for efficient crimping



Easy contact assembling without removing the housing



Support power and signal at the same time



With membrane wire seals that meet the requirements for IP67



Widely used in various fields such as vehicles, construction machinery and automation equipment



Solid and reliable fast-locking technology

Note: For details, please refer to Q38 series P25Q-01~ P25Q-06