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## WAIN Connector

[ Brochure ]

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**Note:** This brochure is simple catalogue , please check the complete catalogue for model selection. Please call 400-882-5885 for complete catalogue

Download the E-Catalogue from our website:  
[www.wainconnector.com](http://www.wainconnector.com)



## INJECTION WORKSHOP

The injection machines from Arburg Germany and PC material guarantee the stability of the products.

ARBURG  
ALLROUNDER 420 L



## CNC PRECISION MACHINING WORKSHOP

The CNC lathes from TSUGAMI Japan help to achieve high precision of manufacture.

## ABOUT US

WAIN is a professional supplier of industrial heavy-duty connector in the world, focused on industrial research, development, production and marketing of connector.

With injection molding workshop, hardware workshop, die-casting workshop, pin workshop, precision CNC workshop, stamping workshop, surface treatment workshop, assembling workshop, mold workshop, equipment and tooling manufacturing plants and other modern workplaces, and own product development and product performance testing laboratory.(WAIN Lab is UL WTDP Lab)

We not only supply products, but also hope to join with our customer to establish a zero distance and seamless connection between the knowledge in the field of industrial connector and clients' need and provide the best solution for connection. We really go in for doing in this way and are proud of this.

## CORE ADVANTAGE

WAIN has a strong R&D team and is capable of manufacturing basic parts, we have all core technology advantage from tooling, device, assembly to products.

WAIN has a professional processing plant for harness. We could supply a full set of solution according to customers' requirement.

Our sales team consists of professional engineers. We could offer professional consulting and 24-hour face to face service through more than 20 offices which distribute all over the country.

Wain's concept :precision products, elaborate production, accurate delivery, sincere service

## QUALITY CONTROL



WAIN® carries out quality testing not only for the finished products, but also through the whole process of production. Strict production processes guarantee the quality and the stability of the products. As the connectors are the key parts of the electrical connection or signal connection between different components of the device, WAIN® always regards the stability of the product as the key quality index. All our study and production are carried on the basis of the product's stability.

Steady and professional raw material supply chain

High-end device, excellent and reliable tooling

For the critical quality control points, Wain adopt automatic production line with 100% complete inspection

Wain has excellent laboratory equipments and could provide professional (The Wain Test Laboratory is certified in the UL Witness Testing Data Program (UL WTDP)) test from physics ,chemistry to electrical property

Systematic and precise quality management system

## PRODUCTION & LOGISTICS



### PRODUCTION AUTOMATION

Advanced automation equipments which were imported or independently designed have been brought into Wain's workshops. Highly automatic production system could make sure steady rising in productivity, Handling by professionals could make sure the automatic machines' operation in order.

### WAREHOUSE LOGISTICS

Reasonable arrangements for the inventory of standard products and advanced ERP system guarantee efficient deliveries.

Scientific and reasonable warehouse logistics management is an important guarantee for WAIN's quick respond to customer needs.

Even for unconventional products and customized products, WAIN is still able to respond rapidly.



## CERTIFICATION

- WAIN has passed IRIS,ISO9001,ISO 14001 quality system certification
- WAIN products have such as UL,cUL,CE, CQC ,EAC approval

### System certificates



ISO 14001



ISO 9001



IRIS

### Product certificates



VDE



UL



CE



CQC

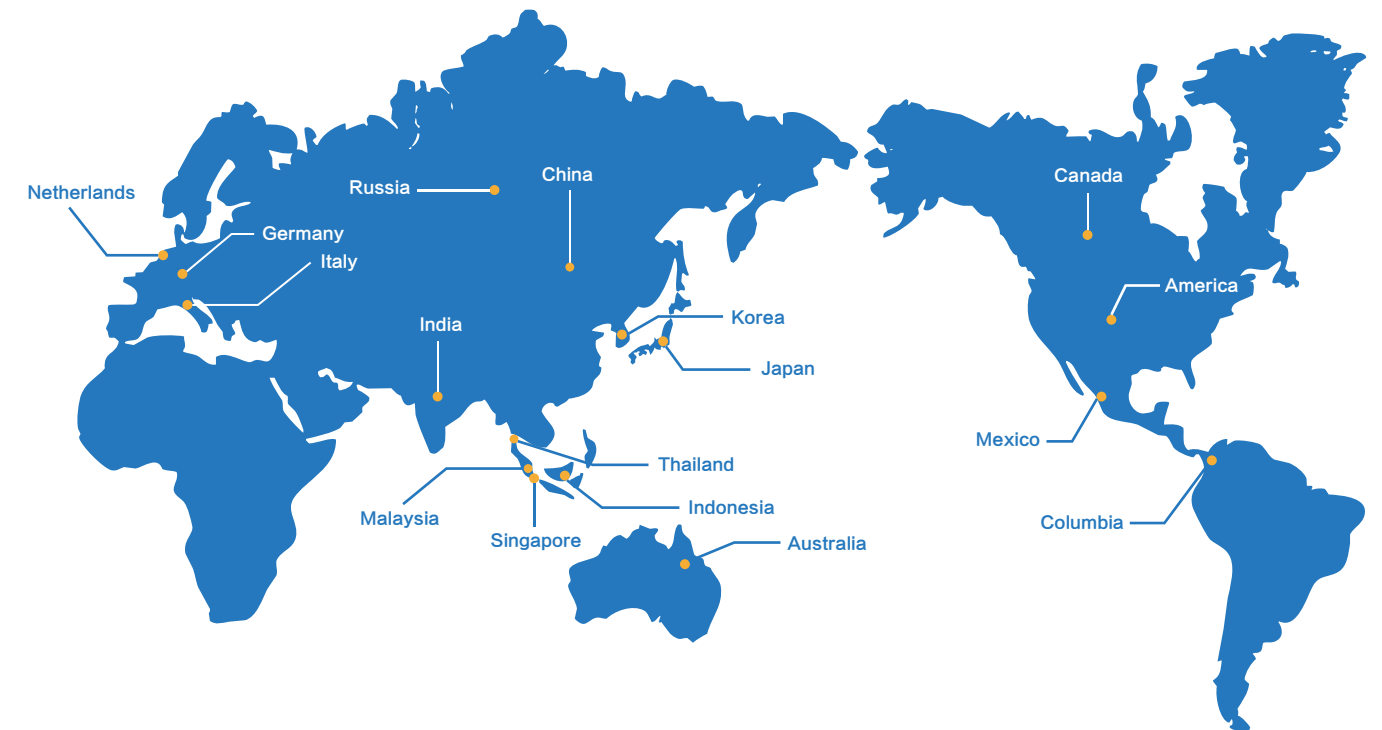


EAC



GOST

## ABOUT THE SERVICE NETWORK



### DOMESTIC OFFICE LOCATIONS:

■ Service hotline: 400-882-5885

■ We have set up branch offices in Beijing, Shanghai, Guangzhou, Shenzhen, Xi'an, Chengdu, Changsha, Hangzhou, Ningbo, Wuhan, Qingdao, Jinan, Suzhou, Yangzhou, Changzhou, Nanjing, Shenyang, Changchun, Dalian and other cities. Agents or distributors can be found in many industrial prefecture-level cities.

■ We have set up wire harness branches both in Kunshan and Wuhan to provide the customers with the better and faster wire harness processing services.

### INTERNATIONAL SERVICE NETWORK:

■ We have set up a branch in Germany in 2013.

■ We have set up agents or distributors in Europe, Americas, Southeast Asia, South Korea, Japan and other places.



## HEAVY DUTY CONNECTOR

There are various series of rectangular connectors which provide reliable electrical connection for the development of device's modularization and intelligence.

WAIN<sup>®</sup> has the series of HE,HEE,HK,HM etc, The current range from weak signal current to high heavy current up to 650A. Alternative protection degree is available: IP65, IP67, IP68. There are lots of shells with various kinds of wire output and locking. With the above mentioned advantage, WAIN's connectors could meet the request of all kinds of space and electrical connection.

WAIN<sup>®</sup> could provide customized services

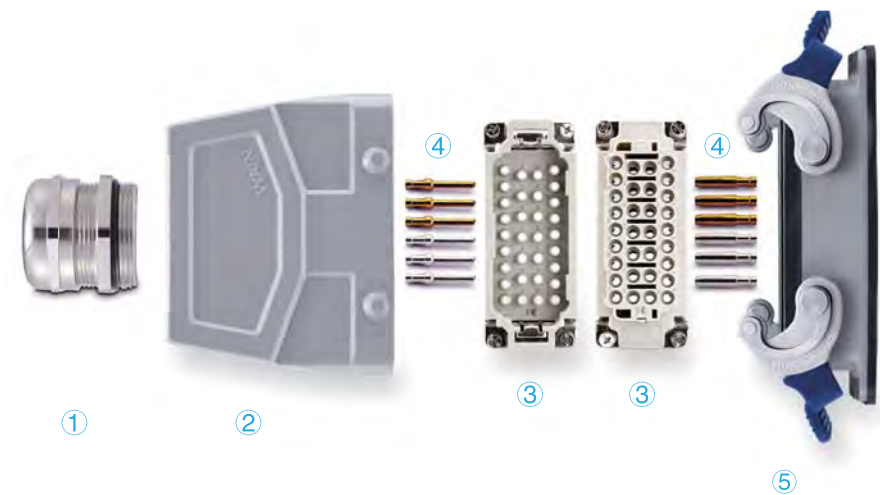
### WAIN<sup>®</sup> HEAVY DUTY CONNECTOR

Advantage of modularization production

Different combinations meets different request(standard product models up to 25000)

High protection degree(IP65-IP68)

Efficient connection, unique patented technology



### Parts of the heavy duty connector

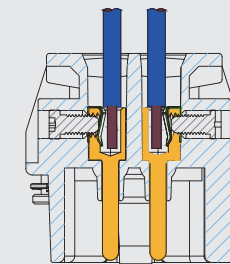
- ① Cable gland
  - Nylon or brass nickel plated
  - Universal cable glands
  - Cable gland with normal or multiple seal
  - Other Cable gland
- ② Hoods
  - Low or high construction
  - Top or side cable ent
  - 2 bolts or 4 bolts or 2 locking levers
- ③ Male insert or Female insert
  - Screw terminal
  - Crimp terminal
  - Cage-clamp terminal
- ④ Crimp contacts ( only for crimp connection insert )
  - Golden plated or silver plated
  - Rated current: 5A, 10A, 16A, 40A, 70A, 100A, 200A, 350A, 650A
- ⑤ Housings
  - Bulkhead mounting or surface mounting or cable to cable
  - Low or high construction
  - 1 or 2 locking levers or 4 bolts
  - With or without thermoplastic/metal covers

Except standard hoods/housings, special hoods/housings with high protection level(IP68 ) and EMC screening are also available for clients.

\* For customized requirement, please contact us.

### Terminations technology Screw terminal

- Advantages
- Wide scope of applicable wire specification;
  - No special tool needed;
  - Protection plate of wire is available;
  - A single hole can be connected to several wires at the same time if necessary;
  - Insert has contact pins itself, easy to reduce inventory.

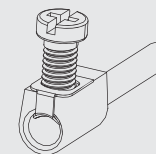


Screw terminals meet VDE 0609 /EN 60 999. Dimensions and tightening torques for testing are shown in the following table. Screw dimensions and tightening torque for screw terminals.

Wire gauge (mm <sup>2</sup> )	1.5	2.5	4	6	10	16
Screw thread	M3	M3	M3.5	M4	M4	M6
Test moment of torque (Nm)	0.5	0.5	0.8	1.2	1.2	1.2*
min. pull - out for stranded wire(N)	40	50	60	80	90	100

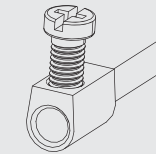
\*for screws without heads

#### Terminals with wire protection



the use of ferrules is not necessary: HESeries, HSB Series, HVE Series, HK - 006/12, HK - 006/6

#### Terminals without wire protection



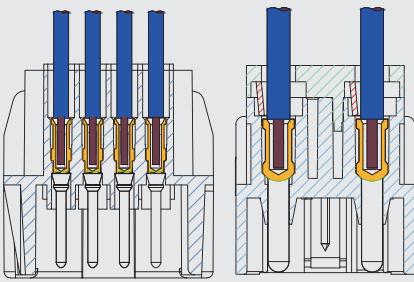
The insulation is first stripped and then a wire ferrule must be used: HK - 004/0, HK - 004/2, HK - 004/8

Inserts	Wire protection		min. wire gauge		max. wire gauge		Stripping length mm
	Yes	No	mm <sup>2</sup>	AWG	mm <sup>2</sup>	AWG	
HA - 003/HA - 004			0.75	18	1.5	16	4.5
HA - 010/HA - 016/HA - 032			0.75	18	2.5	14	7.5
HE Series, HVE Series			0.75	18	2.5	14	7.5
HSB Series			1.5	16	6	10	11.5
HK - 006/6, HK - 006/12(signal contacts)			0.2	24	2.5	14	7.5
HK - 004/2, HK - 004/8(signal contacts)			0.5	20	2.5	14	7.5
HK - 004/0, HK - 004/2, HK - 004/8(power contacts)			1.5	16	16	6	14
HD AV Series, HE AV Series			0.2	24	2.5	14	8...11

## Terminations technology Crimp connection

### Advantages

Applicable to vibration situation;  
Density of the contact pin is high;  
Nearly cold welding guarantees corrosion resistance;  
Able to achieve pre-assembly of wiring harness;  
The same insert can be used for different coated pins according to actual demand.



A perfect crimp connection is gastight, it can achieve the effects of anti-corrosion and cold welding. For this reason, major features in achieving high quality crimp connections are the design of the contact crimping parts and ofcourse the crimping tool itself. Wires to be connected must be carefully matched with the correct size of crimp contacts. If these basic requirements are met, users will be assured of highly reliable onnections with low contact resistance and high resistance to corrosive attack.

Requirements for crimp connectors are laid down in DIN EN 60 352-2 as illustrated in the table. The main criterion by which to judge the quality of a crimp connection is the retention force achieved by the wire conductor in the terminal section of the contact. DIN EN 60 352 - 2 defines the extraction force in relation to the cross - section of the conductor. When fitted using crimping tools and subject to their utilization in an approved manner, our crimp connectors comply with the required extraction force.

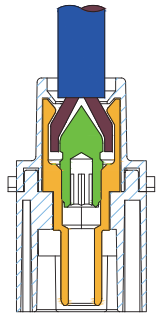
**Crimping tools**  
Crimping tools (hand operated or automatic) are carefully designed to produce with high pressure forming parts a symmetrical connection of the crimping part of the contact and the wire being connected with the minimum increase in size at theconnection point. The positioner automatically locates the crimp and wire at the correct point in the tool.

Inserts	max. wire gauge	Wire gauge	Internal diameter Ø (mm)	Stripping length		
	(mm²)	AWG		HDD HD R15 (10A)	HE HA Hv E (16A)	HC (40A)
HA	0.14...0.37	26...22	0.9	8	-	-
HE	0.5	20	1.15	8	7.5	-
HVES	0.75	18	1.3	8	7.5	-
HEE	1	18	1.45	8	7.5	-
HD&HDD	1.5	16	1.75	8	7.5	9
HK	2.5	14	2.25	6	7.5	9
HM	4	12	2.85	-	7.5	9.6
HQ	6	10	3.5	-	-	9.6
HC	10	8	4.6	-	-	15

## Terminations technology Axial screw terminal

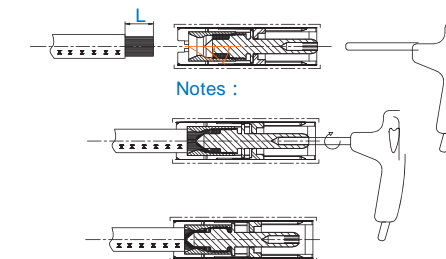
### Advantages

Scope of applicable wire specification is wide;  
Special tool will not be used;  
Little space required;  
Simple operation;



Inserts	max. wire gauge (mm²)	Wire gauge AWG	Stripping length (mm)
HK - 6/12(40A)	2.5...10	13...7	8...9
HK - 4/4(70A)	6.0...16	8...6	11
HK - 6/6(100A)	16.0...35	5...2	13...14
40A module	2.5...10	14...8	5...11
70A module	6.0...22	8...4	11...12.5
100A module	10.0...38	6...2	13
200A module	25.0...70	2...0	16
HC - 003/0, HC - 003/2	2.5...10	14...8	5...11

### Axial screw crimping instruction



- Strip insulation from the wire, the length as per the form and insert the wire into the contact until insulation layer is flush with the wiring access of the contact. Do not twist the strands of the wire.
- Hold the wire in position and tighten the wire from the mating side by a twist driver (SW-2x40), the tightening torque reference the form.
- Complete wiring .

### Remarks on the axial screw technique:

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Background:

According to DIN VDE 0295 for cables and insulated wires the wire gauge will be determined by conductance (Ω/km) and maximum wire diameter. A minimum cable diameter is not specified!(Example:nominal wire gauge 95 mm² → real, geometric wire gauge 89 mm²)

### Recommendation:

The use of cables with an extreme geometric wire gauge deviation should be checked separately with the use of the axial screw termination.

Outer cable diameter (mm)	Maximum fixing distance (mm)	
	horizontal	vertical
D ≤ 9	250	400
9 < D < 15	300	400
15 < D < 20	350	450
20 < D < 40	400	550

### Cables:

The axial screw technology is developed for wires according to DIN EN 60 228 class 5 (see table: Wire assembly according to DIN EN 60 228). Deviating cable assemblies have to be testedseparately.

### Assembly remarks:

Before starting the assembly the user must ensure that the axial cone is screwed fully downward to completely open the contact chamber. After stripping the cable insulation the strands must not be twisted and the maximum cable insulation must not exceed the recommended dimension. Insert the wire completely into the contact chamber until the copper strands reach the bottom. Keep the cable in position while applying the recommended tightening torque.

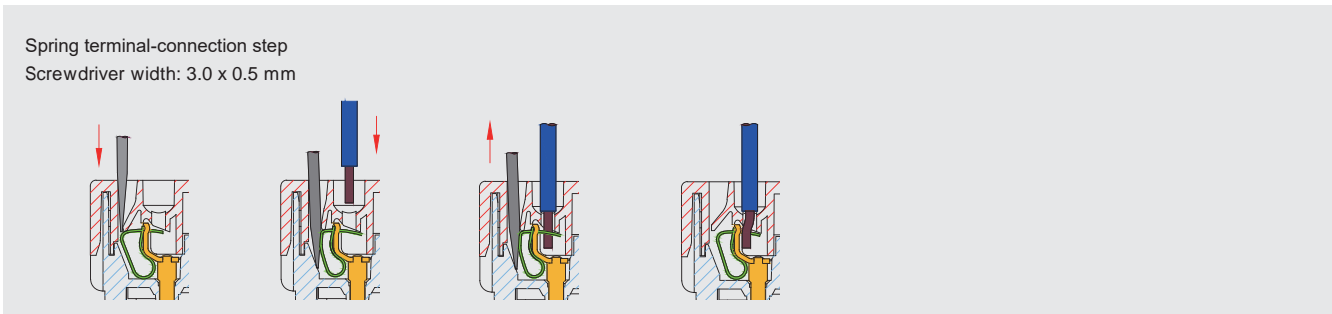
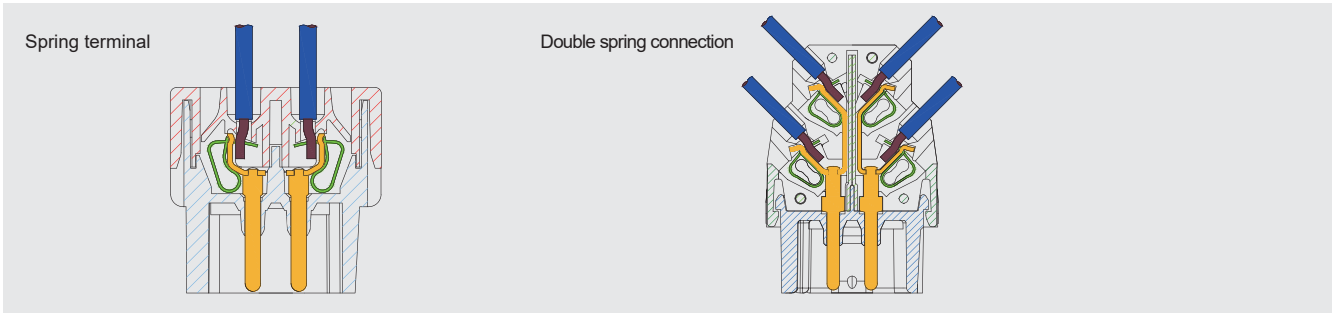
### Maintenance of the axial screw termination:

After initial assembly it is only allowed to reapply the recommended tightening torque once in order to avoid damage to individualcable strands.

### Terminations technology Spring terminal

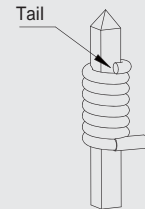
Advantages

No special tool needed;  
Applicable to vibration situation;  
Insert has contact pins itself, easy to reduce inventory.



Inserts	max. wire gauge		Stripping length l (mm)
	(mm²)	AWG	
HE Spring terminal, HVE Spring terminal	0.14 ... 2.5	26 ... 14	7 ... 9
HE Double spring connection	0.14 ... 2.5	26 ... 14	9 ... 11
HK - 004/4	0.14 ... 2.5	26 ... 14	7 ... 9
HME - 005 - MS/FS	0.14 ... 2.5	26 ... 14	7 ... 9

### Wrap terminal



The characteristic of wrap terminal:

Solderless wrap connection technology, is to use a special tool - winding device, exerts a pulling force to the single unit solid bare wire, make it according to the prescribed number of turns in a tightly ling edges at the terminal, so that the wire and the terminal form firm joints technology, so as to achieve a reliable electrical connection. It is different from screw connection, welding, crimping, piercing connection way.

Advantage:

Wrap connection has more advantage than solder connection, see the following: ;  
Higher reliability, longer working life;  
The junction is durable, anti - fatigue, corrosion resistance;  
Production quality is stable, neat appearance, easier operation, and eliminate the virtual welding problems of the solder connection;  
Achieve high density mounting and product miniaturization.  
Reduce manufacture costs and improve work efficiency.

### Terminations technology Spring terminal

HE push spring insert

Characteristics of the product:

The product can be connected and disassembled in limited space without special tool. Installation and disassembly can't be disturbed by tools, operation is convenient; Furthermore, during connection and disassembly, the hole can be opened through pushing the corresponding lever. To make it more efficient, all the holes can be opened with a slotted screwdriver simultaneously. The tool is not contacted to the conductor while operating, therefore it avoids electric shock.

Assembly instructions

- Strip the insulate layer by 9-11mm;
- Using slotted screwdriver of spec. 0.5\*3 to insert into groove of rectangle pushing lever, and push to the bottom, to let the driving lever tilt out. At this moment the spring stabilizes at opening condition.
- Insert striped wire/cable into the round hole.
- Reset the driving lever until hearing the "bang", which indicates the pushing lever automaticly reset and the spring shut, the wire/cable and contact are connected securely.
- Installation is completed.

### Hoods/Housings

Screw tightening torque

Recommended tightening torque for bulkhead mounted housings

Series	Number of screws	Size of screws	Recommended Tightening torque (Nm)	Remarks
H3A	2	M 3	0.8 ... 1.0	Gasket
H10A / 16A	4	M 3	0.8 ... 1.0	Gasket
H32A	4	M 4	0.8 ... 1.0	Gasket
H6B / H10B / H16B / H24B	4	M 4	0.8 ... 1.0	Gasket
H32B	4	M 5	min. 2.5	Gasket
H48B	4	M 6	min. 3.0	O - ring
HP3A	2	M 4	min. 1.0	O - ring
HP6B / HP10B / HP16B / HP24B	4	M 6	min. 3.0	O - ring
	4	M 6	min. 3.0	O - ring

To offer safe protection the surface condition for mounting panel should be according to DIN 4766:  
Waviness 0.2 mm on 200 mm distance  
Roughness R<sub>a</sub> 16 μm

Tools

HE B Spring open machine1)

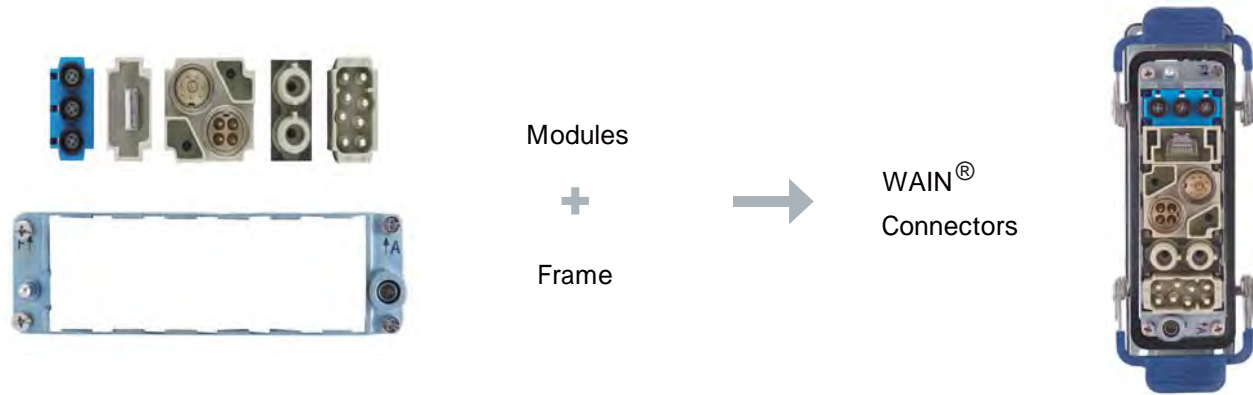


Description for all HE B spring inserts

1) It can open all the shrapnel windows of insert at one time; suitable for using in mass assembly, greatly improving the efficiency of the connection.

### Description of the WAIN® system

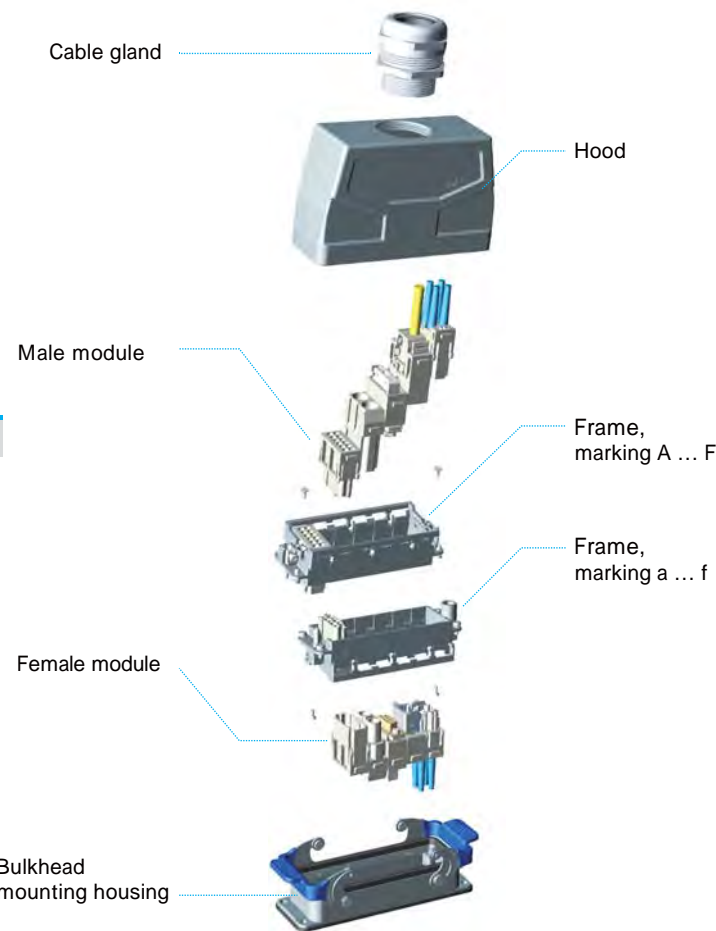
The WAIN® series is designed for combining different transmission media in one connector. The multifaceted system of inserts, contacts, frames, hoods and housings as well as accessories fulfils individual customer requirements. The customer can choose between more than 30 different modules. These are suitable for different transmission media and cover various termination techniques.



The patented WAIN® frame enables the configuration of all modules in the well-accepted hoods and housings. Further additional solutions are available, e.g. suitable docking frames for drawer units. Individual customer requirements can be realised by means of the WAIN® series. Combining various transmission media in one single connector results in lower expenditures in installation time and production downtime. Space savings and cost savings are further benefits. The easy extension possibilities secure the ideal solution for an actual as well as future safe design.

### Highlights System description

1. Combination of different connectors to one unit
2. Shorter installation times
3. Important space saving
4. Save money for components as well as for the whole industrial site
5. Future safe design due to easy extensions



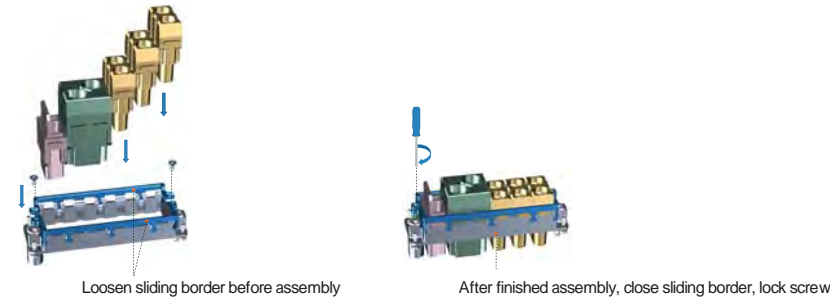
### Technical characteristics

Specifications / approvals	
PE system (hinged frame)	2 leading PE contacts
- Power side	4 ... 10 mm <sup>2</sup>
- Signal side	0.5 ... 2.5 mm <sup>2</sup>
Limiting temperatures*	- 40 °C ... + 125 °C
Flammability acc. to UL 94	V0
Working life	> 500 mating cycles
- Standard version	
Material	
- Hinged frames	zinc die cast
- Modules	polycarbonate
- Contacts	copper alloy

Some modules have a lower limiting temperature (i.e. pneumatic, optical as well as data transmission modules)

### Frame construction version 3 Modules dismounting instructions

Assembly instructions      Disassembly process is on the contrary



### frame construction version 3

Number of modules	2	3	4	6
Marking	A - B, a - b	A - C, a - c	A - D, a - d	A - F, a - f
Frame	6B, size 6B hoods/housings	10B, size 10B hoods/housings	16B, size 16B hoods/housings	24B, size 24B hoods/housings
Material	zinc die - cast	zinc die - cast	zinc die - cast	zinc die - cast
Limiting temperatures	-40 ...+125	-40 ...+125	-40 ...+125	-40 ...+125
Mechanical working life	500	500	500	500
Male inserts	HF6B - NUA3	HF10B - NUA3	HF16B - NUA3	HF24B - NUA3
Female inserts	HF6B - NLA3	HF10B - NLA3	HF16B - NLA3	HF24B - NLA3

### Modular Accessories

Accessories	Module clamp	Module clamp without strain relief	Module clamp with strain relief	Module clamp with strain relief
Description				
Designation	HM - 000	HM-CP1	HM-CP2	HM-CP2/2

### Modular Accessories

Accessories	Module clamp for rail	Module clamp for rail	Hinged frame, size 10A hoods/housings for 1 module
Description			
Designation	HM-CP3	HM-CP3/2	HF10A

# HOODS&HOUSINGS



Size	Type
3A	Hoods/Housings(Plastic,Standard,EMC,Corrosion Resistance)
10A	Metal Hoods/Housings
16A	Metal Hoods/Housings
32A	Metal Hoods/Housings
6B	Hoods/Housings(Plastic,Metal,Corrosion Resistance )
10B	Hoods/Housings(Plastic,Metal,suitable for harsh environment,Corrosion Resistance,Pressure Tight )
16B	Hoods/Housings(Plastic,Metal,suitable for harsh environment,EMC,Corrosion Resistance,Pressure Tight )
24B	Hoods/Housings(Plastic,Metal,suitable for harsh environment,Corrosion Resistance,Pressure Tight )
32B	Hoods/Housings(Metal,Pressure Tight )
48B	Hoods/Housings(Metal,Pressure Tight )
HC	Metal Hoods/Housings

\*\*There are different kinds of WAIN hood/housing for different applications, such as IP65, IP68/IP69K(pressure tight),EMC(electromagnetic shielding),M(corrosion - resistant),plastic type, metal type etc.

## Technical characteristics

Size 3A Plastic Hoods & Housings IP65	
Material	polycarbonate
Colour	light grey ( RAL 7032 )
Locking element	
- Lever type	plastic elastic pressing
- Material	polyamide
Hoods/Housings seal	NBR
Limiting temperatures	-40...+125
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN 60 529 for coupled connector	IP65

Size 3A Metal Hoods & Housings IP65	
Material	zinc die - cast
Colour	grey
Locking element	
- Lever type	metal elastic pressing
- Material	metal galvanized/ nickel plating
Hoods/Housings seal	NBR
Limiting temperatures	-40...+125
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN 60 529 for coupled connector	IP65

3A Pressure tight Hoods & Housings IP68/IP69k	
Surface	Epoxy power paint
Material	zinc die - cast
Colour	black or grey
Locking element	
- Lever type	screw locking
- Material	stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	-40...+125
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN 60 529 for coupled connector	IP68/IP69K

EMC Electromagnetic Compatibility Hoods & Housings IP65	
Material	zinc die - cast(3A) aluminium die - cast(Type B)
Surface	electrical conductive
Locking element	
- Lever type	metal elastic pressing/screw locking
- Material	see15 - 02
Hoods/Housings seal	NBR
Limiting temperatures	-40...+125
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN 60 529 for coupled connector	H version IP65 / W version IP67

HC Metal Hoods & Housings IP65	
Surface	Epoxy power paint/nickeling
Material	zinc die - cast
Colour	black/brushed nickel
Locking element	
- Lever type	metal elastic pressing
- Material	stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	-40...+125
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN 60 529 for coupled connector	IP65

Plastic Hoods & Housings IP65	
Material	polyamide
Colour	RAL 9005 (black)
Locking element	
- Lever type	plastic elastic pressing
- Material	polyamide
Hoods/Housings seal	NBR
Limiting temperatures	-40...+125
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN 60 529 for coupled connector	IP65

Metal Hoods & Housings IP65	
Material	aluminium die - cast
Colour	grey
Locking element	
- Lever type	metal elastic pressing
- Material	see P15 - 02
Hoods/Housings seal	NBR
Limiting temperatures	-40...+125
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN 60 529 for coupled connector	H version IP65 / W version IP67

Hoods/Housings for higher environmental requirements IP65	
Material	zinc die - cast(3A), aluminium die - cast,
Colour	RAL 9005 (black)
Surface - Top coat	epoxy powder paint
Locking element	
- Lever type	metal elastic pressing
- Material	stainless steel
Hoods/Housings seal	FPM
Limiting temperatures	-40...+125
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN 60 529 for coupled connector	H version IP65 / W version IP67

Pressure tight Hoods & Housings IP68/IP69k	
Material	aluminium die - cast, corrosion resistant
Colour	black or grey
Locking element	
- Lever type	screw locking
- Material	stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	-40...+125
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN 60 529 for coupled connector	IP68/IP69K

HC Plastic Hoods & Housings IP65	
Material	polycarbonate
Colour	RAL 9005 (black)
Locking element	
- Lever type	plastic elastic pressing
- Material	polyamide
Hoods/Housings seal	NBR
Limiting temperatures	-40...+125
Flammability acc. to UL 94	V0
Degree of protection acc.to DIN EN 60 529 for coupled connector	IP65

Hoods & housings Metal/Plastic

Size	Hoods		Housings				
	Side entry	Top entry	Bulkhead	Surface	Cable to cable	Bulkhead side	Cover
H3A IP65							
H3A IP65							
HP3A IP68	-				-		

Hoods & housings Metal, IP65 / IP67

Size	Hoods		Housings				
	Side entry / High construction	Top entry / High construction	Bulkhead	Surface	Cable to cable	Cover	
10A 16A						-	
6B 10B 16B 24B							
32A			-			-	
32B	-		-				
48B	-		-			-	

\*\*There are different kinds of WAIN hood/housing for different applications, such as IP65, IP68/IP69K(pressure tight),EMC(electromagnetic shielding),M(corrosion - resistant),plastic type, metal type etc.

Hoods & housings Plastic, IP65

Size	Hoods		Housings				
	Side entry	Top entry	Bulkhead	Surface	Cable to cable	Bulkhead side	Cover
HC							
6B 10B 16B 24B					-	-	

Hoods & housings Metal, IP65, EMC

Size	Hoods		Housings		Cover
	Side entry / High construction	Top entry / High construction	Bulkhead	Surface	
HC					

Hoods & housings Metal, IP65, for harsh environment

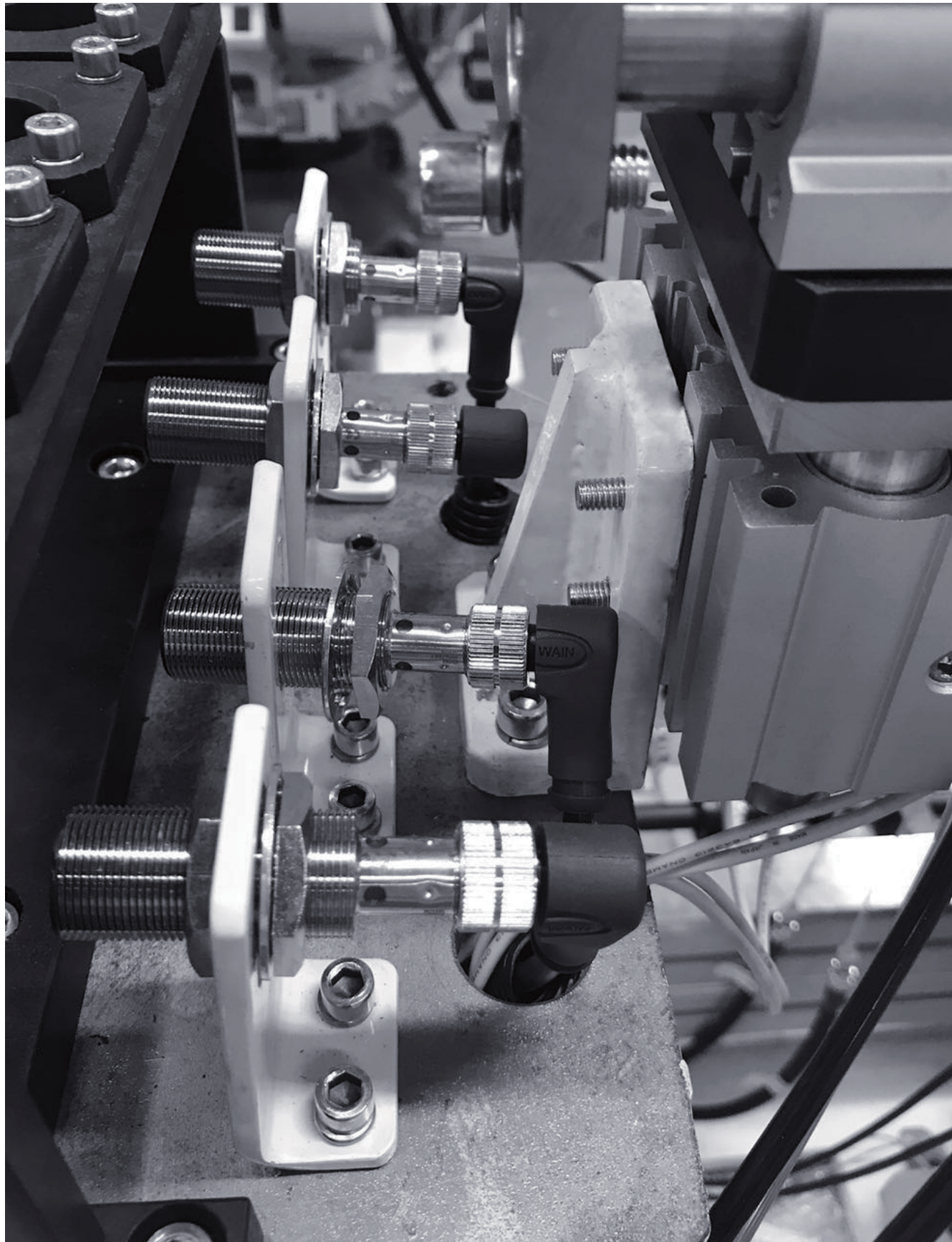
Size	Hoods		Housings				
	Side entry / High construction	Top entry / High construction	Bulkhead	Surface	Cable to cable	Cover	
H6B H10B H16B H24B							

Hoods & housings Metal, IP68/IP69K

Size	Hoods		Housings		
	Side entry	Top entry	Bulkhead	Surface	Cover
HP6B HP10B HP16B HP24B					

## CONTACTS

current	Type	gold contact	silver contact	Wire gauge (MM <sup>2</sup> )	AWG	Matchable Inserts
5A	Standard			0.09-0.82	28-18	For HM,EMC-008,D-SUB,HR23 inserts.
10A	Standard			0.14-2.5	26-14	For HD、HDD、HM、HK、HQ inserts.
	Enhanced I					
	Enhanced II					
	Enhanced III			0.5-2.5	20-14	For HD-040-MC/P、HD-040-FC/P、HD-064-MC/P、HD-064-FC/P
16A	Standard			0.14-4	26-12	For HAC、HEC、HEE、HM、HK inserts.
	Enhanced					For HE-006-MC/N、HE006-FC/N、HEE-046-MC/N、HEE-046-FC/N
	Enhanced III					
40A	Standard			1.5-10	16-8	For HM、HK inserts.
	Enhanced					For HK inserts.
70A				6-25		For HM inserts.
100A				10-35		For HM、HK inserts.
200A				25-70		For HM inserts.
250A				35-70		For HC250 inserts.
350A				16-120		For HC350 inserts.
650A				120-240		For HC650 inserts.



## CIRCULAR CONNECTORS

- There are 4/4 pins, 3 pins, 4 pins, 5 pins, 6 pins, 8 pins, 9 pins, 12 pins, 17 pins, 19 pins, 23 pins, 26 pins, 40 pins among the series of M8, M12, M23, M40.
- Rated voltage: 250V, 125V, 60V, 250V, 630V, vated current: 4A/2A, 9A/30A, 20A/60A
- Limiting temperatures:  $-40^{\circ}\text{C}\sim+85^{\circ}\text{C}$ ,  $-20^{\circ}\text{C}\sim+130^{\circ}\text{C}$ ,  $-4^{\circ}\text{C}\sim+105^{\circ}\text{C}$

### WAIN® CIRCULAR CONNECTORS

- Contact is made from copper alloy
- The protection degree of shell is up to IP67
- Quick wiring
- Convenient mating, strong structure
- Meet the request of different specification and degree




## CUSTOMIZED WIRING HARNESS

WAIN's wiring harness: process and assemble our inserts, contacts, cable glands, wire rods and the related parts to make the wiring harness products according to customers' requirements. It creates a "made-to-measure" scheme.

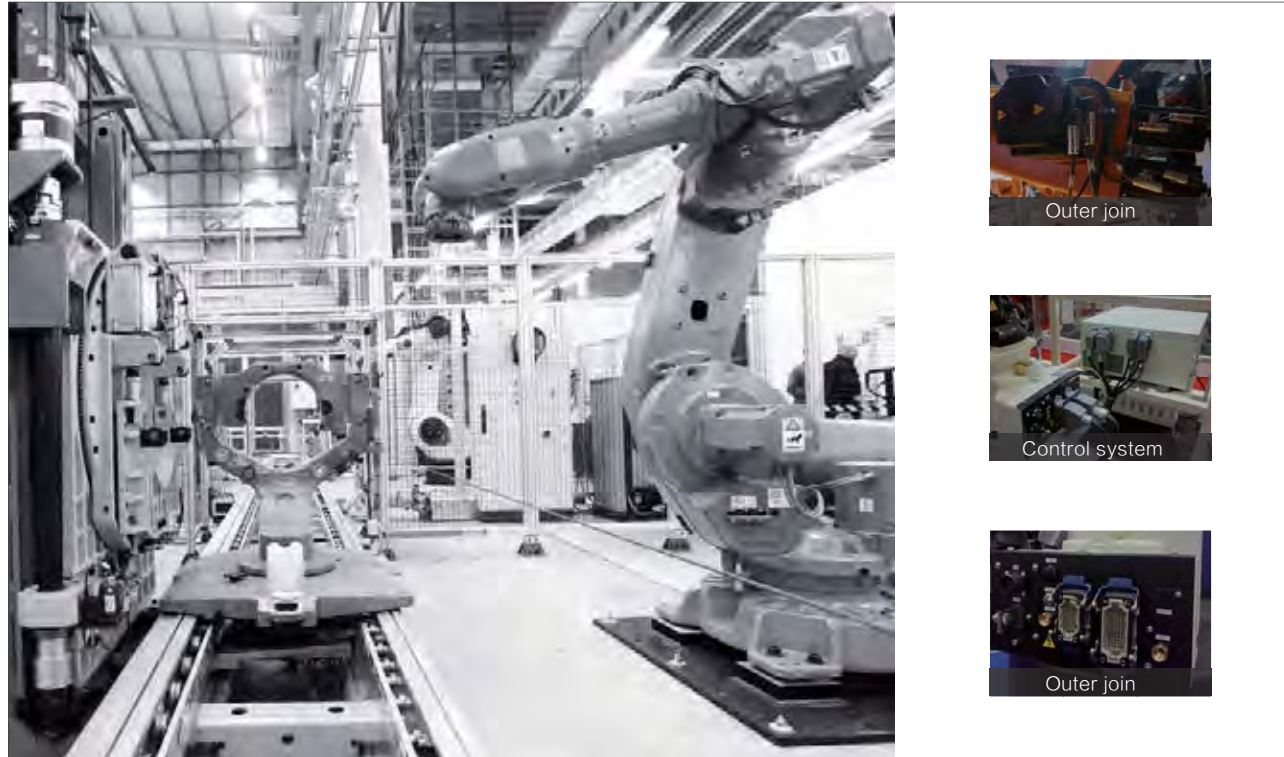
WAIN's wiring harness department has rich project experience in the fields of industrial robot, rail transit and wind power industry. Welcome your letter or call consultation!

### WAIN<sup>®</sup> CUSTOMIZED WIRING HARNESS

 The Value-Added Services of WAIN: Customized wiring harness for customers

 WAIN<sup>®</sup> offers the value-added service of wiring harness (including the assembly of optical fibers connectors). It is intended to offer the customers "turnkey" solution and products by the most professional and efficient manner.

Our wire harness department uses the imported modularization wire harness line production and equipments to custom make all kinds of cable assemblies according to customers' requirement.



### WAIN provides solutions for automation.

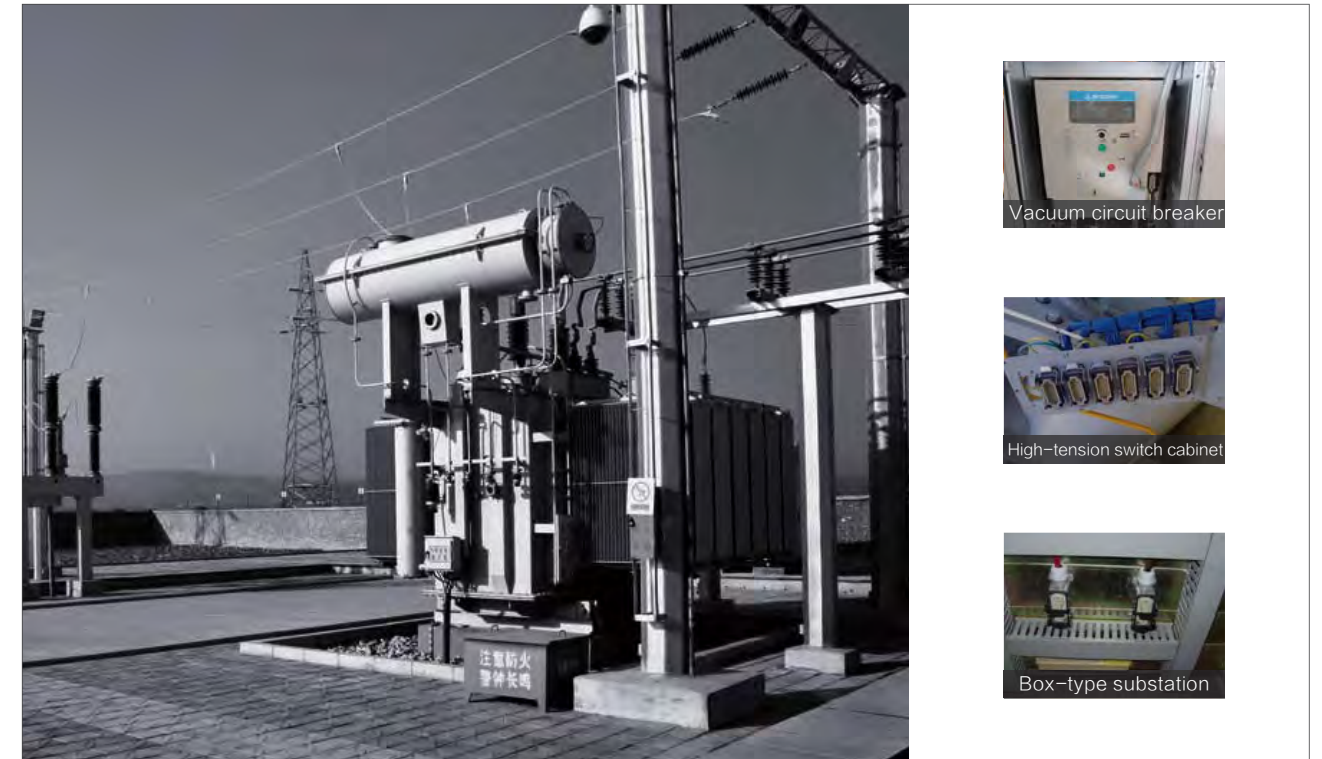


In the development of modern automation technology, flexibility is a very important indicator, including flexibility and convenience of installation, use, production and commissioning. HE, HEE, HK, HM and other product series of WAIN connector and optional shells with IP65/IP67/IP68 protection grade and various kinds of outlet and lock catch can satisfy the requirements in all kinds of space and all sorts of electrical connection.

### WAIN provides solutions for rail transit



Due to further specialization of labor and requirements for convenient maintenance, the modular design of components in the railway traffic technology is being attached with more and more attention. WAIN connector provides a complete solution for different electrical connections among all kinds of components, ensuring the safe and reliable coordinated operation of each component in various environments.



### WAIN connector in wind power generation



Wind power generation is the most mature way of power generation, which is qualified for largescale development and has commercial development prospect. It has made great progress over the last few years. Reliability of operation and fast replacement of system are crucial for wind power station.

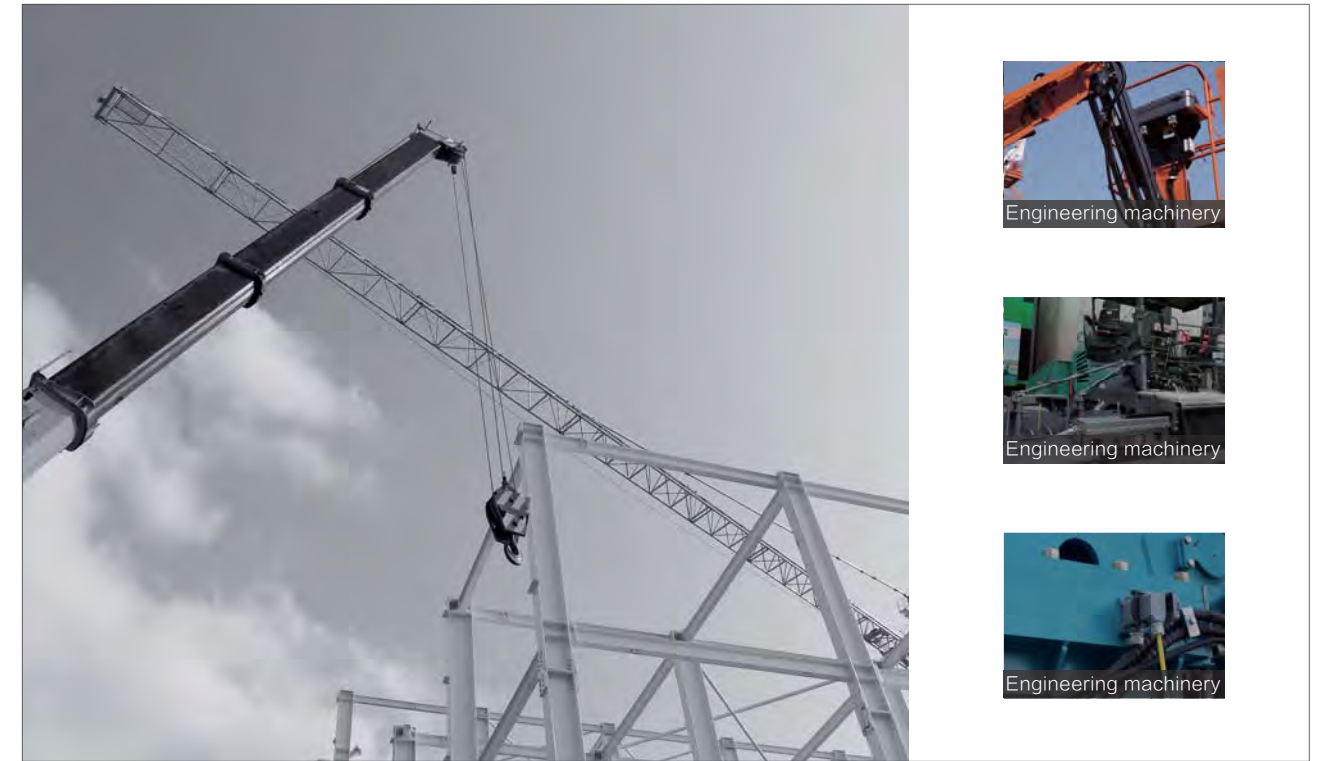
WAIN connector provides reliable electrical connection solutions for wind power generation. The connectors of HC,HE,RJ45,HR23,HK and other product series can satisfy various connections of strong current and weak current in different applications of wind power.

### WAIN connector provide solutions for electric power



Industry, reliability, safety, economic efficiency, energy efficiency and environment-friendliness are important indicators of power grid operation. Therefore, new type intelligent power grid taking physical power grid as foundation and integrating advanced sensor measurement technology, communication technology, information technology, computer technology and control technology is an important way to reach these indicators.

The various model of WAIN connector also facilitates the safety, reliable operation and intelligent transformation of power grid.



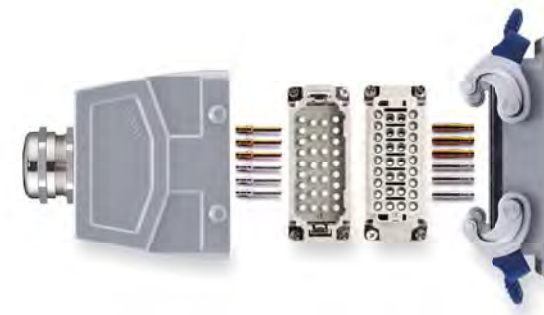
### WAIN Connector in machinery manufacturing



WAIN provides solutions for machinery manufacturing. In machinery manufacturing field, due to the diversified equipment and space requirements, light, gas and other media are also needed to be transmitted in some cases, besides weak current and strong current.

WAIN connector provides integral solutions for this; it not only has many electrical connectors, but also has connectors for other media (such as gas connector). It can satisfy different applications of various kinds of equipment, and simultaneously connect electrical circuit and gas circuit in a connector if necessary.

### WAIN Connectors in engineering machinery



The future demands for diversification, high rise, beautiful appearance, energy conservation and environmental protection in construction industry will absolutely promote the development of engineering machinery.

WAIN Connector, boasting of dozens of series, thousand of models, strong current connection up to 650A and shells with IP65/IP68 protection grade, provides reliable electrical connection for the high-end and intelligent development of construction machinery.

\*The hoods/housings developed by WAIN for harsh environment reach a salt-spray protection of 500 hours. Compared with similar product around the world, it has more excellent protection capability.

\*Airtightness of fluororubber has formed standard adapter of WAIN product. Therefore, it can satisfy protection requirement under chemistry and chemical engineering environment.