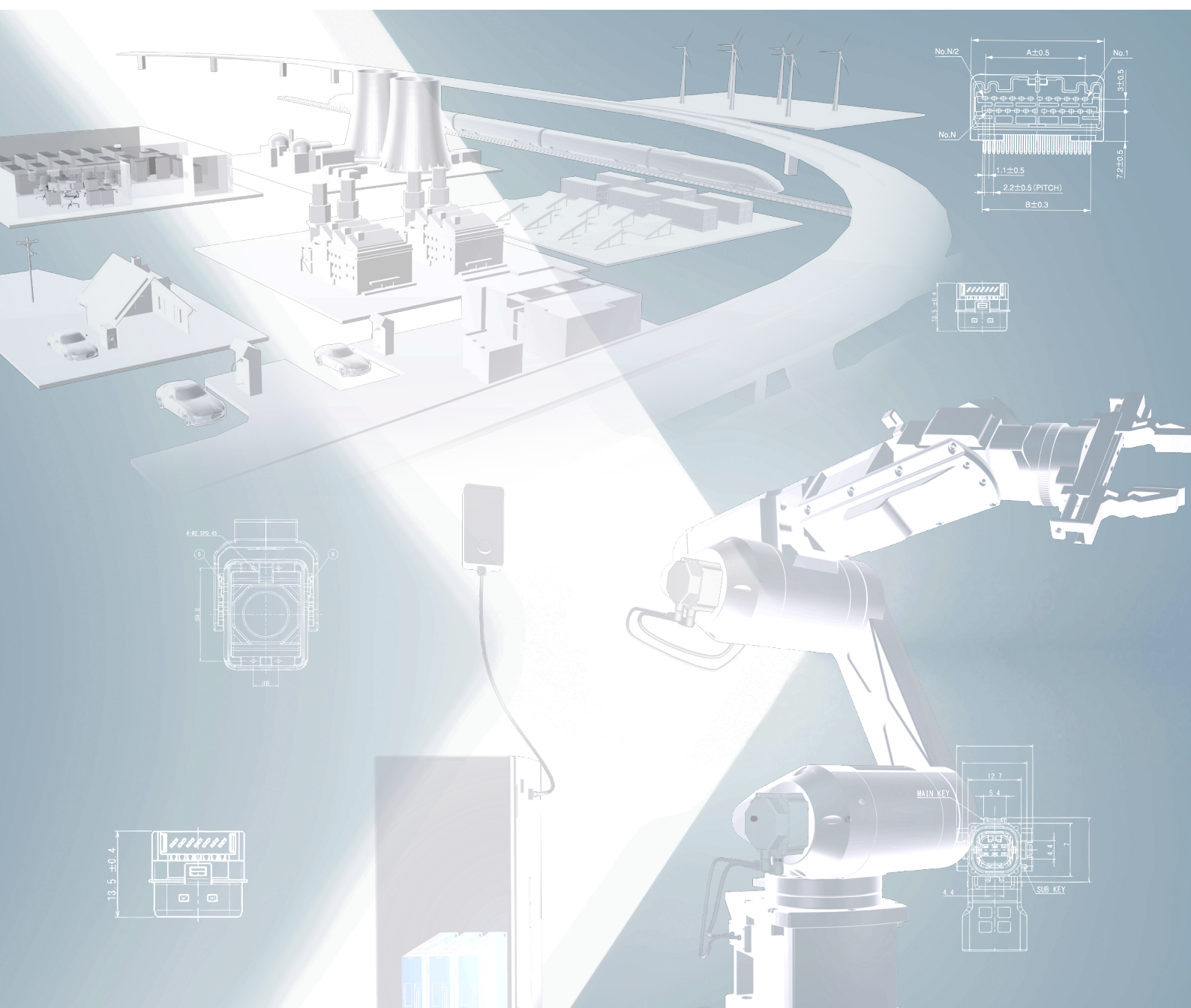


Industrial Robot and Smart Grid

Products and Applications lineup



World Wide Connector

for a multitude of Industrial Robot and Smart Grid

Since our establishment in 1953, we at JAE, under the corporate philosophy of "Explore, Create and Practice", have successfully developed and globally expanded our three core business areas of connectors, user interface related devices, and aviation electronics supported by our outstanding development capability in innovative and creative technologies.

With our global corporate slogan "Technology to Inspire Innovation",

JAE focuses on technological development and product creation that inspire customer's innovation.



Smart Grid 2

High-current Equipment

▪ DW4 ▪ DW05 ▪ DW07



Smart Grid 5

Motion Sensing & Control Solutions

▪ JA-70SA
▪ Digital Directional Modules
- SMART DM



Smart Grid 3

Manufacturing Equipment

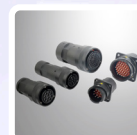
▪ MX34 ▪ MX23A ▪ MX19



Smart Grid 1

Battery System

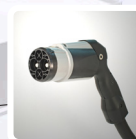
▪ DW1 ▪ DW2 ▪ DW3



Smart Grid 6

Railway

▪ JK06



Smart Grid 4

Electric Vehicles

▪ KW1 ▪ KW02

Robots



Robot 5

User Interface
Solutions

- Operation Panel



Robot 2

Small size Servomotor

- JN14 ▪ JN6 ▪ HB03



Robot 1

Controller

- DF02 ▪ DZ02 ▪ JB10



Robot 3

Middle / Large size
Servomotor

- JL10 ▪ JL04V ▪ JN1/JN2



Robot 4

Interface

- KN01 ▪ KN02 ▪ HB01



Corporate Data

Outline of Company

Company Name :

Japan Aviation Electronics
Industry, Limited

Establishment of Business :

August 20, 1953

Head Office :

21-1, Dogenzaka 1-chome, Shibuya-ku,
Tokyo 150-0043, Japan

Capital :

¥ 10.69 billion

Stock Exchange Listing :

Tokyo Stock Exchange, 1st Section

Activities :

Manufacturing and marketing of
connectors, user interface solutions,
and aerospace and related electronics

List of ISO Quality Certifications

Connector :

ISO 9001 : 2008 JQA-QMA11894

User Interface Solutions :

ISO 9001 : 2015 JQA-0413

Aerospace :

ISO 9001 : 2008 JQA-0335

JIS Q 9100 : 2009 JQA-AS0005

ISO/TS 16949 : 2009 JQA-AU0261

Corporate Website :



QR code



DataMatrix

Company Brochure[PDF] :



QR code



DataMatrix

Robot 1



Controller



DF02

Light weight realized with resin-made hood
half-pitch (1.27mm) interface connector

- Dual use specifications with one-touch lock and screw-lock
- Shorter harness working time with an original design

of Contacts : 14, 20, 26, 36, 50 pos.

Rated Current : 0.5A

Rated Voltage : 250VAC



DZ02

0.635mm pitch mini I/O connector for industrial
apparatus

- Push-on lock structure with superior operability

of Contacts : 8 pos.

Rated Current : 0.5A

Rated Voltage : 30VAC



JB10

All-plastic, waterproof one-touch lock circular
connector

- Easy and sure mating with push-and-twist type one-touch lock mechanism
- Waterproof conforming to IP67

of Contacts : 26 pos.

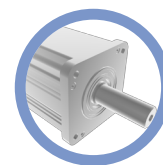
Rated Current : 1A

Rated Voltage : 100VAC

Mating Cycles : 500 times



Robot 2



Small size Servomotor



JN14

Low profile small waterproof connector for
small servomotor

- Enabled to be installed to metal body of motor
- Earth contact and metal body are grounded by screw
- Waterproof conforming to IP67

of Contacts : 2, 4, 9 pos.

Rated Current and Voltage

Power : 7A, 250VAC

Brake : 1A, 100VAC

Encoder : 1A, 100VAC



JN6

Low profile small waterproof connector for
mold-in to small servomotor

- All plastic -- lightweight, low cost
- Waterproof conforming to IP67

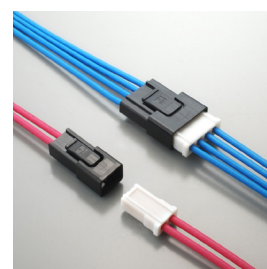
of Contacts : 2, 4, 7 pos.

Rated Current and Voltage

Power : 7A, 200VAC

Brake : 1A, 100VAC

Encoder : 1A, 100VAC



HB03

Cable-to-cable ultra small connector
for industrial machinery

- Enables to put through the narrow space such as inside robot arm

of Contacts: 2, 4 pos.

Rated Current and Voltage

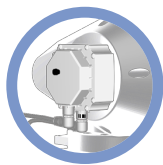
1A (AWG30-28), 250VAC

2A (AWG26-24), 250VAC



S Products and Applications lineup

Robot 3



Middle / Large size Servomotor

JL10



Both screw mating and one-touch locking feasible waterproof circular connectors based on MIL-DTL-5015

- Compatible with both one-touch lock mating and MIL specification screw mating
 - One-touch lock mating with easy operability and good vibration resistance
 - Waterproof conforming to IP67
- # of Contacts : 4, 9, 17, 19, 22, 37 pos.
Rated Current and Voltage
#16 : 13A, 100VAC
#12 : 23A, 500VAC(2/II), 250VAC(3/III)
#8 : 46A/57A, 500VAC(2/II), 250VAC(3/III)
#4 : 80A, 500VAC(2/II), 250VAC(3/III)

JL04V



Screw mating waterproof circular connectors based on MIL-DTL-5015

- Compatible MIL specification screw mating
 - Plug is available in straight, angle and individual type
 - Waterproof conforming to IP67
- # of Contacts : 3, 4, 6, 7, 8, 9, 18, 20, 22 pos.
Rated Current and Voltage
#8 : 46A / 57A, 500VAC(2/II), 250VAC(3/III)
#12 : 23A, 500VAC(2/II), 250VAC(3/III)
#16 : 13A, 100VAC

JN1/JN2



Waterproof one-touch lock small circular connector

- Easy and sure mating with push-and-twist type one-touch lock mechanism
 - Waterproof conforming to IP67
- # of Contacts : 4, 10 pos.
Rated Current and Voltage
#20 : 5A, 200VAC
#22 : 3A, 200VAC

Robot 4



Interface

KN01



Waterproof rectangular connector for industrial equipment

- Light and easy operation of the lever locking
 - Combined signal and power transmission by the insert shield
- # of Contacts
M Size : #16 X 16 pos. / Block A
L Size : #12 X 12 pos. / Block C
Rated Current and Voltage
#12 : 23A, 250VAC / #16 : 16A, 250VAC
#20 : 3A, 24VDC / #22 : 1A, 24VDC

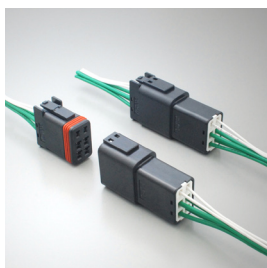
KN02



All-plastic, one-touch lock rectangular connector

- EMI shielded by metal shield and metalized plastic
 - Easy one-touch lock structure
- # of Contacts, Rated Current and Voltage
Power : 24 pos., 13A, 250VAC
Brake : 6 pos., 2A, 24VAC
Signal : 16 pos., 2A, 24VAC

HB01



Cable-to-cable waterproof connector for industrial machinery

- Easy harnessing by loose wire relay connector
 - Power and signal hybrid type with enhanced insulation
 - IP67 waterproof when mated
- # of Contacts : 6 pos. (4 Power, 2 Signal)
Rated Current and Voltage Power : 13A (AWG14), 250VAC
Signal : 4A (AWG20), 250VAC
Applicable cable Power : AWG18-14
Signal : AWG24-28

Robot 5



User Interface Solutions

Operation Panel



Custom design for industrial application

- Material of chassis: metal or plastic is applicable and dependent on specification
 - Material of surface sheet: applicable on specification
 - Switch style
 - Flat sheet type
 - Embossed sheet type
 - Plastic type
 - Illumination arrangement around key top of switch
- Operability of panel design improvement

*accepts requirement above based on customer's specification from 1,000pcs. per month of minimum order quantity

3D Data Request!

Check Movie!



Industrial Robot Solutions
Mobile Website



QR code



DataMatrix

www.jae.com/special/Industry-en/

Smart Grid 1



Battery System

DW1



Rack and panel connector with 2 contacts for high-current (500A)

- Power supply compatible with cable connection
- Floating Amount : $\pm 2.75\text{mm}$
- # of Contacts, Rated Current and Voltage
- Power : 2 pos., 500A, 600VDC
- Signal : 20 pos., 2A, 100VAC

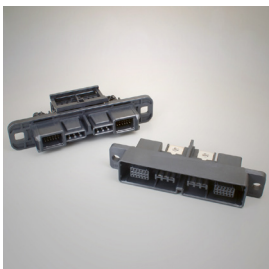
DW2



Rack and panel connector with 2 contacts for high-current (200A)

- Connection of receptacle side power supply can be made at once using the bus bar
- Floating Amount : $\pm 2.75\text{mm}$
- # of Contacts, Rated Current and Voltage
- Power : 2 pos., 200A, 600VDC
- Signal : 20 pos., 2A, 100VAC

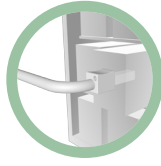
DW3



Rack and panel connector with 2 contacts for high-current (150A)

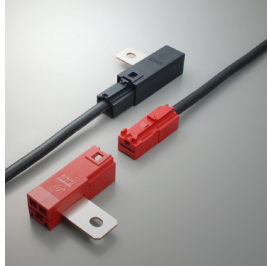
- Low-profile, compact, possible to be equipped on a 19 inch 1U rack
- Floating Amount : $\pm 2.0\text{mm}$
- # of Contacts, Rated Current and Voltage
- Power : 2 pos., 150A, 600VDC
- Signal : 24 pos., 2A, 100VAC

Smart Grid 2



High-current Equipment

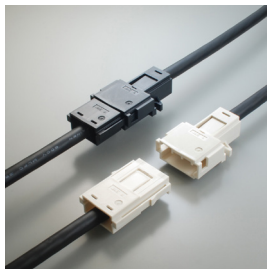
DW4



1 pin connector compatible with 100A connection with cable

- Mechanical lock
- # of Contacts : 1 pos.
- Rated Current : 100A
- Rated Voltage : 600VDC
- Mating Cycles : 50 times

DW05



1 pin connector compatible with 150A connection with cable

- Termination: Crimp termination considering on-site assembly
- Conductor cross-section of standard cable is 38 mm^2 (Cable of 14 to 42 mm^2 in the same shape is possible to be used)
- # of Contacts : 1 pos.
- Rated Current : 150A
- Rated Voltage : 600VDC
- Mating Cycles : 100 times

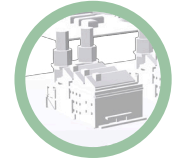
DW07



Easily connect power busbars in high-current equipment

- Floating connection and Flexible current amount
- Connector attaches easily with one hand, clipping onto mating holes in the busbar
- Applicable busbar : JIS H 3140 Silver plating
- Rated Current : Please look at the catalog
- Mating Cycles : 100 times

Smart Grid 3



Manufacturing Equipment

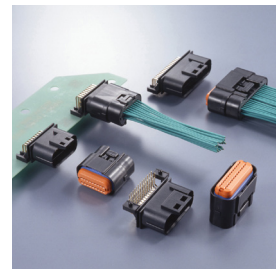
MX34



Compact/ high-density non-waterproof automotive connectors

- Board-to-cable type, in-line type
- Mechanical lock system ensures reliable mating
- # of Contacts
- 1 row : 3, 5, 7 pos.
- 2 rows : 8, 12, 16, 20, 24, 28, 32, 36, 40 pos.

MX23A



Compact type, waterproof, board-to-cable application connectors

- Full water proof grommet is used for socket contact crimping area in order to reduce size
- # of Contacts : 12, 18, 26, 34, 36 pos.
- Rated Current : 3A
- Dielectric withstanding voltage : 1000VAC

MX19



Cable-to-cable compact, waterproof connectors

- Mechanical lock system enabling complete mating with a click
- Mechanical lock system to withstand vibration and tension
- # of Contacts : 2, 4 pos.
- Rated Current : 5A
- Dielectric Withstanding Voltage : 1000VAC



Electric Vehicles



KW1



CHAdeMO EV fast charging connector

- Product lineup : UL Certified Model and CE Certified Model
- # of Contacts, Rated Current and Voltage
Power : 2 pos., 125A, 500VDC
Signal : 7 pos., 2A, 16VDC



KW02

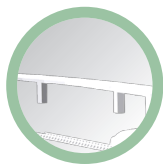


CHAdeMO EV charging connector for V2H

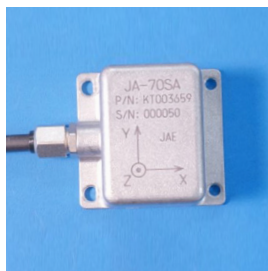
- Convenient single action insertion and removal procedure for ease of operation
- Achieves both high-durability and light-weight at the same time
- # of Contacts, Rated Current and Voltage
Power (power supply) : 2 pos., 25A, 450VDC
Power (12VDC) : 2 pos., 6.4A, 16VDC
Signal : 6 pos., 2A, 16VDC



Railway



Motion Sensing & Control Solutions



JA-70SA



Ultra-low noise. Low frequency operation. 3 axis high sensitivity MEMS accelerometer

Measurement range	$\pm 2G(X,Y)$, $-1G$ to $+3G(Z)$
Bias	$\pm 100mG$ max. (Nominal@25°C)
Noise	1×10^{-6} Grms / \sqrt{Hz} max.
Temperature	$-20^\circ C$ to $+70^\circ C$
Weight	100 grams max.
Sensor size	41 (W)x39 (D)x25 (H)



Digital Directional Modules - SMART DM



High reliability MCM electronics. Operating temperature to $175^\circ C$

High accuracy quartz accelerometers
Survey grade fluxgate magnetometer
Inter-tool communication protocols : Digital Serial I/O, CAN,
Up link (Pulser)



JK06



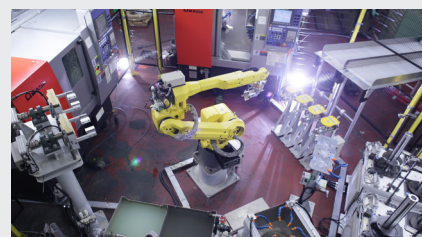
MIL-DTL-5015 Type Bayonet Connector

- Electro-mechanical & Environment design compliant to meet VG95234 standard
- Interchangeable with MIL-DTL-5015 standard
- IP67 rated at mated condition
- # of Contacts : 10, 37, 48 pos.
- Maximum Rated Current
Whole connector : 63.1 A (10pos.), 96.2 A (37pos.), 124.8 A (48pos.)
Individual contact : 13 A
- Dielectric withstanding voltage : AC 2550 Vr.m.s.

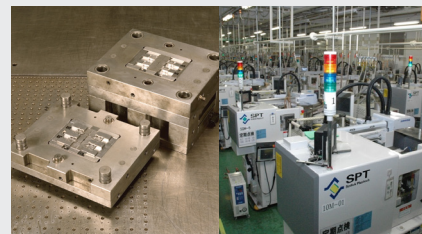
Manufacturing Technology Innovation

Innovation of production capacity
by in-house production, automation
and labor saving efforts

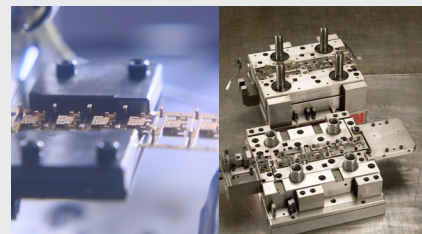
JAE has established a robust production system
that focuses on local in-house production
manufacturing 24 hours a day, 7 days a week. With
automated operations and JAE designed
labor-saving equipment mainly located in JAE
Hirosaki, JAE Yamagata and other domestic plants,
our production is unaffected by rapid foreign
exchange fluctuations.



Cutting



Molding



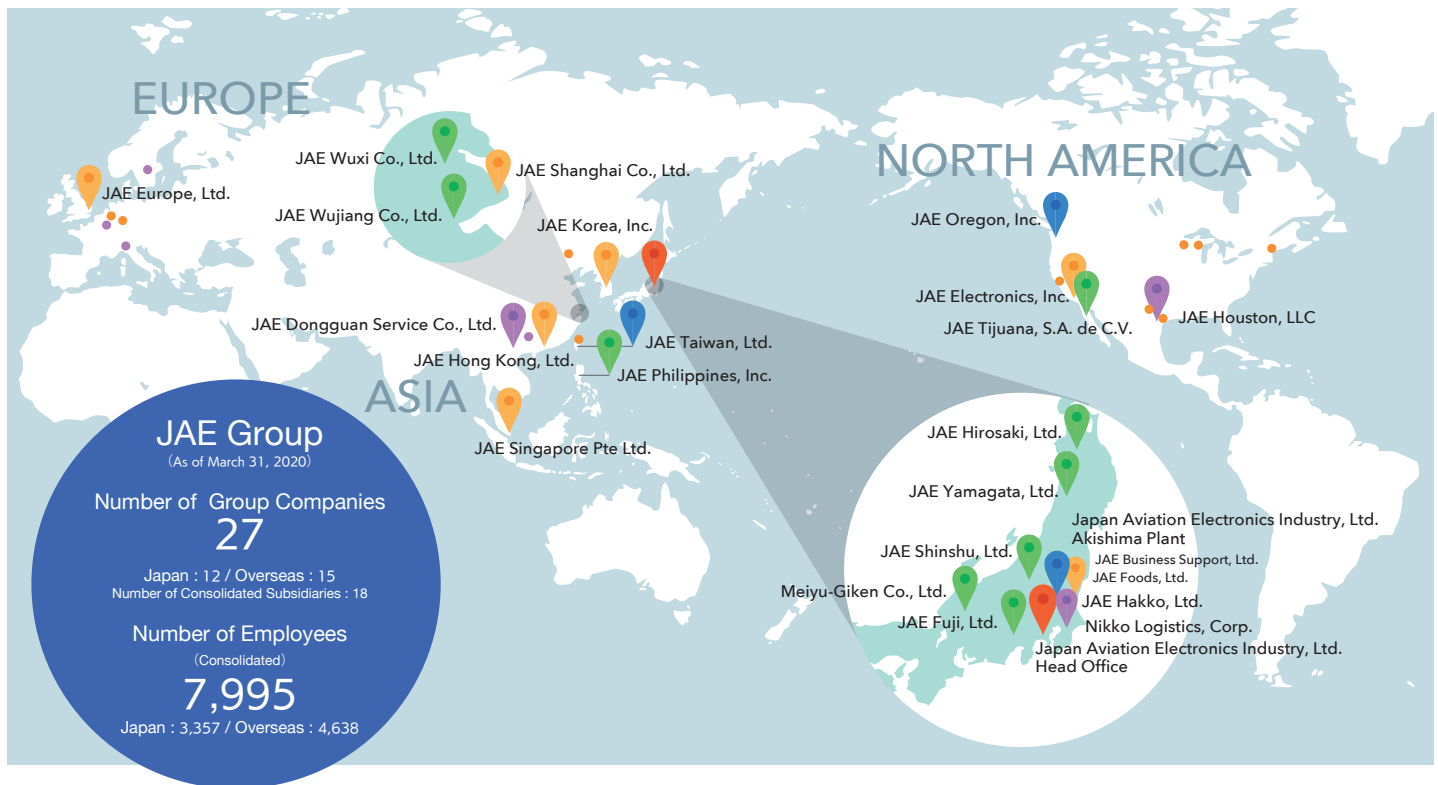
Stamping



Assembly

Global Network

The JAE Group promotes "manufacturing technology innovation" to be recognized as the number one partner for our customers.



Europe

JAE Europe, Ltd.

Sales

Royal Pavilion, Tower 3, First Floor, Wellesley Road,
Aldershot, Hampshire, GU11 1PZ, UK
Tel : +44 1252 55 11 00 Fax : +44 1252 55 11 10

North America

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Tel : +1-503-692-1333 Fax : +1-503-692-4193

JAE Electronics, Inc.

Sales

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CA 92618-2430, U.S.A.
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JAE Tijuana, S.A. de C.V.

Manufacturing

Calle Cerro Colorado 16650 Int. 1 y 2.
Colonia Niños Heroes Este. Tijuana, Baja California,
C.P. 22120, Mexico
Tel : +52-664-689-7484 Fax : +52-664-689-7486

JAE Houston, LLC

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TX 77478-2578, U.S.A.
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JAE Shanghai Co., Ltd.

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No.8, 555 Gubei Road, Chang Ning District,
Shanghai, 200051 P.R.China
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JAE Philippines, Inc.

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Gateway Business Park, Javalera,
General Trias, 4107 Cavite, Philippines
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JAE Wuxi Co., Ltd.

Manufacturing

33 Xiqin Road, Xinwu District, Wuxi City, Jiangsu, 214028
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JAE Singapore Pte Ltd.

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Tel : +65-6748-1332 Fax : +65-6748-2920

JAE Wujiang Co., Ltd.

Manufacturing

859 Pangjin Road, Wujiang Economic and Technological
Development Zone Suzhou, Jiangsu, 215200 P.R.China
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JAE Dongguan Service Co., Ltd.

Services / Other

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Dezhengzhong Road, Changan Town, Dongguan,
Guangdong, 523850 P.R.China
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Sales

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Seocho-gu, Seoul 06627, Korea
Tel : +82-2-6230-1100 Fax : +82-2-6230-1190

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