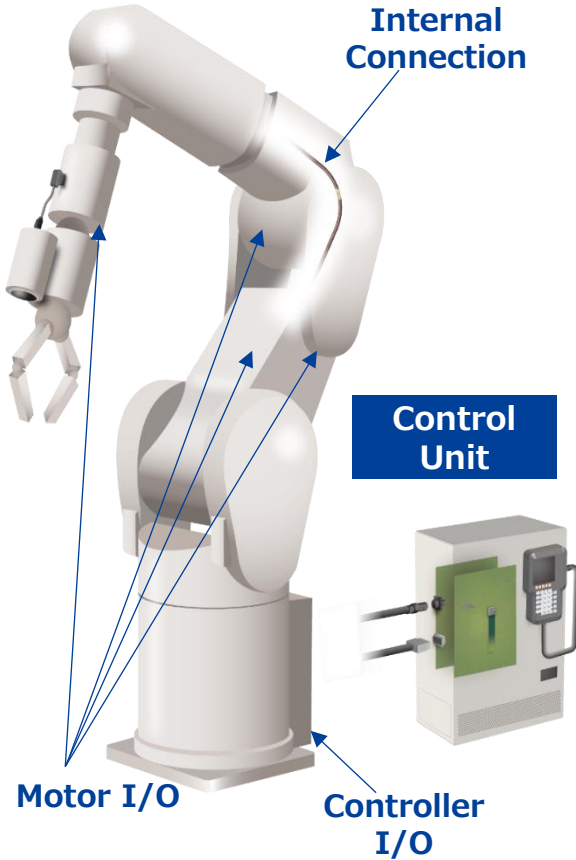


Connectors for Industrial Robots



Internal Connection (Non-Waterproof)



DF60 EnerBee
 Rated Current: 65A* Max.
 Rated Voltage: 1,000V AC/DC
 Pitch: 10.16mm
 No. of Pos.: 1-6
 AWG: 8-12
 *Derating Curve, Ambient Temperature of 25°C



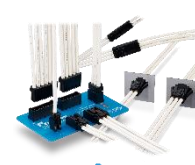
DF22 EnerBee
 Rated Current: 30A Max.
 Rated Voltage: 1,000V AC/DC
 Pitch: 7.92mm
 No. of Pos.: 1-5
 AWG: 10-16



DF50 SignalBee
 Rated Current: 1A Max.
 Rated Voltage: 100V AC/DC
 Pitch: 1.0mm
 No. of Pos.: 20, 30, 40, 50
 AWG: 26-32



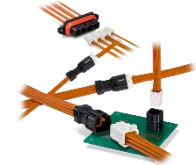
DF62 SignalBee
 Rated Current: 4A Max.
 Rated Voltage: 250V AC/DC
 Pitch: 2.2mm
 No. of Pos.: 2-24
 AWG: 22-30



DF63 EnerBee
 Rated Current: 15A Max.
 Rated Voltage: 630V AC/DC
 Pitch: 3.96mm
 No. of Pos.: 1-6
 AWG: 16-22



DF51 SignalBee
 Rated Current: 3A Max.
 Rated Voltage: 250V AC/DC
 Pitch: 2.0mm
 No. of Pos.: 2-30
 AWG: 22-30



DF62W SignalBee
 IP67 Waterproof (Mated)
 Rated Current: 5A Max.
 Rated Voltage: 250V AC/DC
 Pitch: 2.2mm
 No. of Pos.: 2-9
 AWG: 20-26



DF63W EnerBee
 IP67 Waterproof (Mated)
 Rated Current: 14A Max.
 Rated Voltage: 630V AC/DC
 Pitch: 3.96mm
 No. of Pos.: 2-6
 AWG: 16-22

Motor I/O



HR34B
 IP67/IP68 Waterproof (Mated, 4pos. Receptacle)
 Rated Current: 5A Max.
 No. of Pos.: 4, 10
 AWG: 20-25



LF
 IPX7/IPX8 Waterproof (Mated)
 Rated Current: 10A Max.
 No. of Pos.: 3-20
 AWG: 16-26



MT
 Power/Signal Hybrid
 IP67 Waterproof (Mated)
 Rated Current: 4A, 7A (Power)
 1A (Signal)
 No. of Pos.: 6, 8, 14
 AWG: 18-26

Controller I/O



PQ50
 Rated Current: 19A Max.
 Rated Voltage: 600V AC/DC
 No. of Pos.: 20
 AWG: 14-22



PQ50WA
 IP67 Waterproof (Mated)
 Rated Current: 19A Max.
 Rated Voltage: 600V AC/DC
 No. of Pos.: 25, 44, 46
 AWG: 14-28



PQ50WT
 IP67 Waterproof (Mated)
 Rated Current: 30A Max.
 Rated Voltage: 600V AC/DC
 No. of Pos.: 4, 8, 12, 54
 AWG: 10-28

Peripheral Device Connection (Non-Waterproof)



HR10
 Rated Current: 2A Max.
 No. of Pos.: 4-20
 AWG: 26-30



HR25A
 Compact Push-pull Lock Connector
 Rated Current: 1A Max.
 No. of Pos.: 4-20
 AWG: 30



IX
 IEC Standard
 Small, Robust I/O Connector
 Cat.6A Ethernet
 IP65/IP67 Waterproof (Mated)

Peripheral Device Connection (Waterproof)

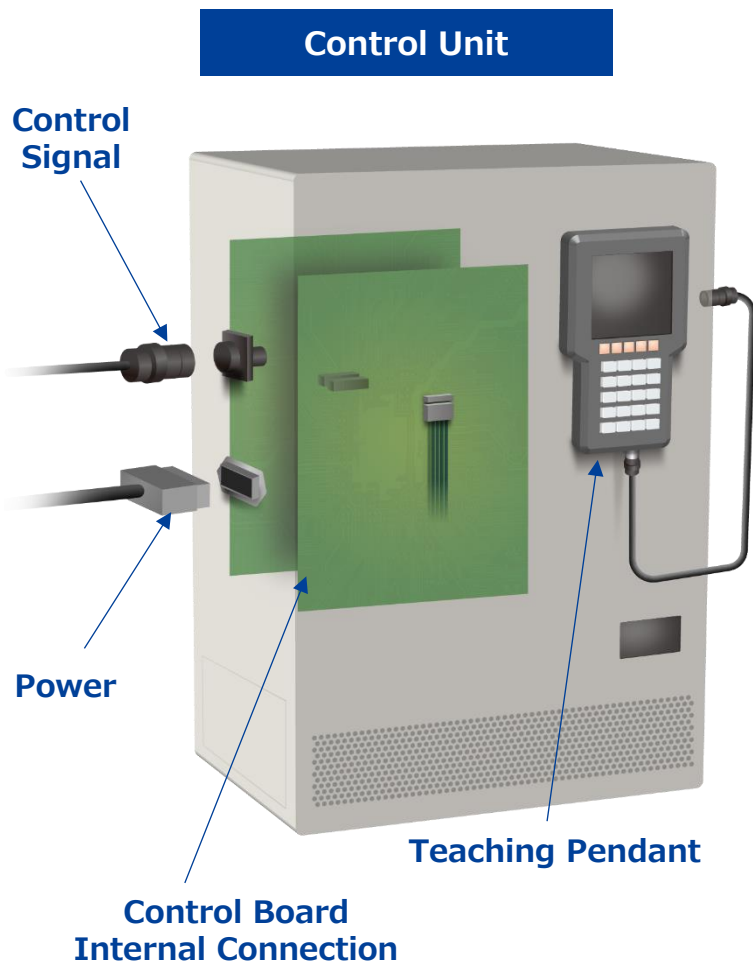


HR30
 IPX7/IPX8 Waterproof (Mated)
 Rated Current: 5A Max.
 (6, 10, 12pos.: 2A Max.)
 No. of Pos.: 3, 6, 10, 12
 AWG: 26-30 (3pos.: 20)



LF
 IPX7/IPX8 Waterproof (Mated)
 Rated Current: 10A Max.
 No. of Pos.: 3-20
 AWG: 16-26

Connectors for Robot Control Units



Control Signal



LF
IPX7/IPX8 Waterproof (Mated)
Rated Current: 10A Max.
No. of Pos.: 3-20
AWG: 16-26



TM11R
RJ45
Cat.3, Cat.5
Rated Current: 0.5A



DH
Pitch: 1mm
Rated Current: 0.5A Max.
No. of Pos.: 17, 27, 37, 51



IX
IEC Standard
Small, Robust I/O Connector
Cat.6A Ethernet
IP65/IP67 Waterproof (Mated)



GT17H/HN
1Gbps High Speed Connector
Meeting Automotive Specs.
No. of Pos.: 4 (GT17H)
4, 16 (GT17HN)

Power



PQ50
Rated Current: 19A Max.
Rated Voltage: 600V AC/DC
No. of Pos.: 20
AWG: 14-22



PQ50S
Rated Current: 12.5A Max.
Rated Voltage: 300V AC/DC
No. of Pos.: 36, 48
AWG: 16-28

Teaching Pendant



HR22K
IPX7 Waterproof (Mated)
Rated Current: 2A Max.
Rated Voltage: 100V AC, 140V DC
No. of Pos.: 20
AWG: 24-28



DH
Pitch: 1mm
Rated Current: 0.5A Max.
No. of Pos.: 17, 27, 37, 51



LF
IPX7/IPX8 Waterproof (Mated)
Rated Current: 10A Max.
No. of Pos.: 3-20
AWG: 16-26

Control Board Internal Connection

Wire-to-Board



DF60
Rated Current: 65A* Max.
Rated Voltage: 1,000V AC/DC
Pitch: 10.16mm
No. of Pos.: 1-6
AWG: 8-12
*Derating Curve, Ambient Temperature of 25°C



DF22
Rated Current: 30A Max.
Rated Voltage: 1,000V AC/DC
Pitch: 7.92mm
No. of Pos.: 1-5
AWG: 10-16



DF63
Rated Current: 15A Max.
Rated Voltage: 630V AC/DC
Pitch: 3.96mm
No. of Pos.: 1-6
AWG: 16-22



DF50/DF50A
Rated Current: 2A Max.
Rated Voltage: 100V AC/DC
Pitch: 1.0mm
No. of Pos.: 20, 30, 40, 50 (DF50)
2-16 (DF50A)
AWG: 26-32



KW30
Rated Current: 3A Max.
Rated Voltage: 100V AC/DC
Pitch: 1.0mm
No. of Pos.: 2-15
AWG: 28-32



DF51/DF51K
Rated Current: 3A Max.
Rated Voltage: 250V AC/DC
Pitch: 2.0mm
No. of Pos.: 2-30
AWG: 22-30



HIF3M*W
Rated Current: 1A Max.
Rated Voltage: 200V AC
Pitch: 2.54mm
No. of Pos.: 10-64
AWG: 28

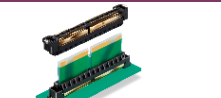
Board-to-Board



FX18
16Gbps High Speed
Stacking Height:
2 Piece: 10-30mm/3 Piece: 25-45mm
Pitch: 0.8mm
No. of Pos.: 40-180*
(*160, 180pos.: Coplanar Connection)



FX23/FX23L
16Gbps High Speed
Floating Design
Stacking Height: 8-30mm
Pitch: 0.5mm
No. of Pos.: Signal: 20-120
Power: 4



FX27
PCIe Gen.1 Transmission
Floating Design
Stacking Height: 22mm Min.
Pitch: 0.8mm
No. of Pos.: 40-120



FX30B
Misalignment Absorption
Stacking Height: 20-30mm
Pitch: 3.81, 7.62mm
No. of Pos.: 2, 3, 4, 5



FH63S
FPC/FFC/Shield FFC Connector
Height: 2.8mm
Pitch: 0.5mm
No. of Pos.: 10-50



FH28K
125°C Heat Resistance
FPC/FFC Connector
Height: 2.55mm
Pitch: 0.5mm
No. of Pos.: 10-80

FPC/FFC