Value Added Capabilities, Custom Designs & Complete Solutions

SYSTEMS

21

Value Added Capabilities, Custom Designs & Complete Solutions

Populated Cable Tracks

Lapp Systems specializes in custom populated cable carriers and assemblies for use in automation and control systems. By combining engineered designs and only the highest-performance components, Lapp offers the complete turn-key solution. Higher volume OEM requirements or one-off designs are built to withstand almost any industrial environment. Individual components from cables and strain reliefs, to fully connectorized cable assemblies and hose hookups are included to provide optimum performance and durability.

FEATURES

1. Overall cost savings
2. Longer flex life and reliability
3. Custom designs for each application
4. Performance warranty
5. Assembled by the experts in cable design

Populated Cable Tracks

TRACK SPECIFICATIONS

1. Total Length of existing track (if replacing): _____

2. Total distance traveled in one cycle: _____

3. Direction/ Orientation of travel, please check one:

☐ Horizontal ☐ Vertical ☐ Side Running

4. Is track center mounted? _____

5. If not center mounted, how much off center in inches? _____

6. Type of equipment track is installed on: _____

7. Number of cables and hoses in track: _____

8. Operation speed (feet per second): _____

9. Operation frequency (cycles per minute): _____

10. Maximum available mounting width (inches): _____

11. Maximum available mounting height (inches): _____

12. Standard mounting bracket orientation is outside to outside; if other please specify:

_____

13. Environmental data; please check all that apply: _____

☐ Clean, dry indoor ☐ Chemical, Wet, or Chips ☐ High Temperature (>150°F) ☐ Outdoors

Please describe any unusual environmental factors:

_____

_____

CARRIER CONTENTS

CABLES				HOSES			
#	Weight	O.D.	Min. Bend Radius	#	Weight	O.D.	Min. Bend Radius

Flex & Static Assemblies for Rockwell Automation Servo Drives

1 meter = 3.281 feet
***FOR 90 DEGREE VERSION ON MOTOR END: ADD “-R” TO LAPP PART #
***FOR EXTENSION ASSEMBLY (M-F): ADD “-E” TO LAPP PART #

MP SERIES MOTORS (230V) - POWER

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73529XXX-16	63529XXX-16	2090-UXNPAMP-16SXX
73529XXX-16	63529XXX-16	2090-XXNPMP-16SXX
73529XXX-14	63529XXX-14	2090-UXNPAMP-14SXX
73529XXX-14	63529XXX-14	2090-XXNPMP-14SXX
73529XXX-10	63529XXX-14	2090-UXNPAMP-10SXX

MP SERIES MOTORS (460V) - POWER

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73529XXX-16	63529XXX-16	2090-UXNPBMP-16SXX
73529XXX-16	63529XXX-16	2090-XXNPMP-16SXX
73529XXX-14	63529XXX-14	2090-UXNPBMP-14SXX
73529XXX-14	63529XXX-14	2090-XXNPMP-14SXX
73529XXX-10	63529XXX-14	2090-UXNPBMP-10SXX
73529XXX-8	63529XXX-8	2090-UXNPBMP-8SXXX

MP SERIES MOTORS (230/460V) - FEEDBACK

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73528XXX	63528XXX	2090-UXNFBMP-SXX
73526XXX	63526XXX	2090-UXNFDMP-SXX
75926XXX	65926XXX	2090-XXNFMP-SXX

MP SERIES MOTORS (460V) 1394C-SJTXX-D (D29) - POWER

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73529XXX-16	63529XXX-16	2090-CDNPBMP-16SXX
73529XXX-14	63529XXX-14	2090-CDNPBMP-14SXX
73529XXX-10	63529XXX-14	2090-CDNPBMP-10SXX
73529XXX-8	63529XXX-8	2090-CDNPBMP-8SXXX

Replace the XXX with the desired cable length in feet.

Flex & Static Assemblies for Rockwell Automation Servo Drives

1 meter = 3.281 feet
***FOR 90 DEGREE VERSION ON MOTOR END: ADD “-R” TO LAPP PART #
***FOR EXTENSION ASSEMBLY (M-F): ADD “-E” TO LAPP PART #

MP SERIES MOTORS - 1394 (D29)

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
71100125-XXX	61100125-XXX	2090-CDNFDMP-SXX

MP SERIES MOTORS - ULTRA 3000/5000 1394 BRAKE

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73524XXX	63524XXX	2090-UXNBMP-18SXX

N SERIES MOTORS - POWER

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73507XXX	63507XXX	2090-UXNPAN-16SXX
73507XXX	63507XXX	2090-XXNPN-16SXX

N SERIES MOTORS - FEEDBACK

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73516XXX	63516XXX	2090-UXNFBN-SXX
73527XXX	63527XXX	2090-UXNFDN-SXX
75927XXX	65927XXX	2090-XXNFN-SXX

H SERIES MOTORS - POWER

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73501XXX	63501XXX	2090-UXNPAH-16SXX
73501XXX	63501XXX	2090-XXNPH-16SXX

H/F SERIES MOTORS - POWER

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73502XXX	63502XXX	2090-UXNPAHF-14SXX
73502XXX	63502XXX	2090-XXNPHF-14SXX
73503XXX	63503XXX	2090-UXNPAHF-10SXX
73506XXX	63506XXX	2090-UXNPAHF-8SXX

H/F SERIES MOTORS - FEEDBACK

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73513XXX	63513XXX	2090-UXNFBHF-SXX
73525XXX	63525XXX	2090-UXNFDHF-SXX
75925XXX	65925XXX	2090-XXNFHF-SXX

Replace the XXX with the desired cable length in feet.

Flex & Static Assemblies for Rockwell Automation Servo Drives

1 meter = 3.281 feet
***FOR 90 DEGREE VERSION ON MOTOR END: ADD “-R” TO LAPP PART #
***FOR EXTENSION ASSEMBLY (M-F): ADD “-E” TO LAPP PART #

Y SERIES MOTORS - POWER

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73505XXX	63505XXX	2090-UXNPAY-16SXX
73505XXX	63505XXX	2090-XXNPY-16SXX

Y SERIES MOTORS - FEEDBACK

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
73515XXX	63515XXX	2090-UXNFBY-SXX
73514XXX	63514XXX	2090-UXNFDY-SXX
75914XXX	65914XXX	2090-XXNFY-SXX

MPF SERIES MOTORS - POWER

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
400270-16-XXX (W/ BRAKE) 400270-16NB-XXX (NO BRAKE)	300270-16-XXX (W/ BRAKE) 300270-16NB-XXX (NO BRAKE)	2090-XXNPMF-16SXX
400270-14-XXX (W/ BRAKE) 400270-14NB-XXX (NO BRAKE)	300270-14-XXX (W/ BRAKE) 300270-14NB-XXX (NO BRAKE)	2090-XXNPMF-14SXX
400270-10-XXX (W/ BRAKE) 400270-10NB-XXX (NO BRAKE)	300270-10-XXX (W/ BRAKE) 300270-10NB-XXX (NO BRAKE)	2090-XXNPMF-10SXX

MPF SERIES MOTORS - FEEDBACK

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
400271-XXX	300271-XXX	2090-XXNFMF-SXX
400271-15P-XXX (W/ DRIVE CONN)	300271-15P-XXX (W/ DRIVE CONN)	

TL SERIES MOTORS - POWER

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
71529XXX-16	61529XXX-16	2090-XXNPT-16SXX
71529XXX-14	61529XXX-14	2090-XXNPT-14SXX

TL SERIES MOTORS - FEEDBACK

LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
71528XXX	61528XXX	2090-XXNFT-SXX

TL SERIES MOTORS - BRAKE

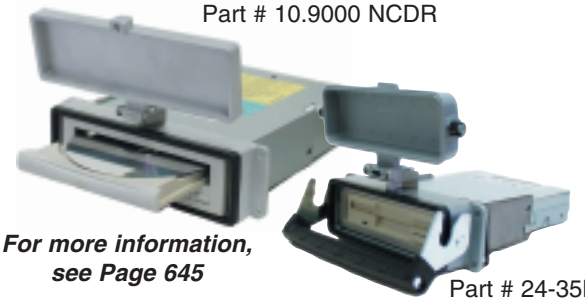
LAPP P/N (FLEXING) (LENGTH IN FEET)	LAPP P/N (STATIC) (LENGTH IN FEET)	ROCKWELL P/N (STATIC) (LENGTH IN METERS)
500058-XXX	300058-XXX	2090-DANBT-SXX

Replace the XXX with the desired cable length in feet.

Accessories for Rockwell Automation Systems

Drive Accessories

Part # 10.9000 NCDR



For more information, see Page 645

Part # 24-35ND

- Attachable, enclosed housing for drive to be mounted on industrial PC
- Provide direct access for uploading and downloading data to the industrial computer
- IP65 protection when not in use as drives can be susceptible to contaminants

Flexing DH485/ Ethernet Assemblies

Standard & Custom Lengths Available

- Continuous-Flex cabling alternative for motion applications
- Pre-wired for convenient connection between devices and PLC's
- Unshielded, Shielded, or CAT5 connector options

See page 633 for more information

Flexing DH+ Assemblies

Part #
500001-XXX

Standard & Custom Lengths Available

- Continuous-Flex cabling alternative for motion applications
- Pre-made assemblies configured with DB9's, 8P Mini DIN's, & 3P Headers
- Allows user to route such PLC interconnections directly to motion system
- Replace the XXX in the Lapp part number with the desired # of feet.

Flexing Control Net Assemblies

Part #
400551-XXX

Standard & Custom Lengths Available

- Continuous-Flex cabling alternative for motion applications
- Control Net is a popular protocol for control modules. Pre-wired assemblies are available with RG6 Connectors on one or both ends of flexing cable
- Users will be able to route direct connections through track in a motion system.
- Replace the XXX in the Lapp part number with the desired # of feet.

Flexing DeviceNet™ Assemblies

Standard & Custom Lengths Available

- Continuous-Flex cabling alternative for motion applications
- The DeviceNet™ 5P connector is available pre-wired with one of the many cables available from Lapp.
- Users will be able to route direct connections through track in a motion system

See page 621 for more information

OLFLEX® SERVO FX8 Assemblies

Servo Cable Assemblies for Highly Flexible Applications according to Siemens Standard 6FX-8002

Highly flexible servo motor and feedback cable assemblies designed for use in power chains, or cable track. Manufactured for optimum performance in industrial environments, these assemblies utilize a PUR-jacketed cable designed for oil and abrasion resistance. Usually found in machine tools and as machine components of transfer and production lines, the OLFLEX® SERVO FX8 assemblies are 100% compatible with Siemens systems. Many types and configurations are available for quick delivery.

Part Number	Length in meters	Siemens Part Number for Harnessing	Lapp Cable Part Number	Siemens Cable Part Number	Cable Type & Color
70300767	5	6FX8002-2EQ10-1AF0	0027714	6FX8008-1BD51	Feedback-Green
70301567	10	6FX8002-2EQ10-1BA0	0027714	6FX8008-1BD51	Feedback-Green
70302367	15	6FX8002-2EQ10-1BF0	0027714	6FX8008-1BD51	Feedback-Green
70303167	20	6FX8002-2EQ10-1CA0	0027714	6FX8008-1BD51	Feedback-Green
70303967	25	6FX8002-2EQ10-1CF0	0027714	6FX8008-1BD51	Feedback-Green
70300778	5	6FX8002-5CA01-1AF0	0027724	6FX8008-1BB11	Motor-Orange
70301578	10	6FX8002-5CA01-1BA0	0027724	6FX8008-1BB11	Motor-Orange
70302378	15	6FX8002-5CA01-1BF0	0027724	6FX8008-1BB11	Motor-Orange
70303178	20	6FX8002-5CA01-1CA0	0027724	6FX8008-1BB11	Motor-Orange
70303978	25	6FX8002-5CA01-1CF0	0027724	6FX8008-1BB11	Motor-Orange
70300788	5	6FX8002-5DA01-1AF0	0027718	6FX8008-1BA11	Servo-Orange
70301588	10	6FX8002-5DA01-1BA0	0027718	6FX8008-1BA11	Servo-Orange
70302388	15	6FX8002-5DA01-1BF0	0027718	6FX8008-1BA11	Servo-Orange
70303188	20	6FX8002-5DA01-1CA0	0027718	6FX8008-1BA11	Servo-Orange
70303988	25	6FX8002-5DA01-1CF0	0027718	6FX8008-1BA11	Servo-Orange
70300753	5	6FX8002-2CA31-1AF0	0027714	6FX8008-1BD11	Feedback-Green
70301553	10	6FX8002-2CA31-1BA0	0027714	6FX8008-1BD11	Feedback-Green
70302353	15	6FX8002-2CA31-1BF0	0027714	6FX8008-1BD11	Feedback-Green
70303153	20	6FX8002-2CA31-1CA0	0027714	6FX8008-1BD11	Feedback-Green
70303953	25	6FX8002-2CA31-1CF0	0027714	6FX8008-1BD11	Feedback-Green
70300769	5	6FX8002-2CF02-1AF0	0027713	6FX8008-1BD41	Feedback-Green
70301569	10	6FX8002-2CF02-1BA0	0027713	6FX8008-1BD41	Feedback-Green
70302369	15	6FX8002-2CF02-1BF0	0027713	6FX8008-1BD41	Feedback-Green
70303169	20	6FX8002-2CF02-1CA0	0027713	6FX8008-1BD41	Feedback-Green
70303969	25	6FX8002-2CF02-1CF0	0027713	6FX8008-1BD41	Feedback-Green
70300759	5	6FX8002-2CB31-1AF0	0027717	6FX8008-1BD81	Feedback-Green
70301559	10	6FX8002-2CB31-1BA0	0027717	6FX8008-1BD81	Feedback-Green
70302359	15	6FX8002-2CB31-1BF0	0027717	6FX8008-1BD81	Feedback-Green
70303159	20	6FX8002-2CB31-1CA0	0027717	6FX8008-1BD81	Feedback-Green
70303959	25	6FX8002-2CB31-1CF0	0027717	6FX8008-1BD81	Feedback-Green
70391512	5	6FX8002-2EQ14-1AF0	0027724	6FX8008-1BD51	Feedback-Orange
70391522	10	6FX8002-2EQ14-1BA0	0027724	6FX8008-1BD51	Feedback-Orange
70391532	15	6FX8002-2EQ14-1BF0	0027724	6FX8008-1BD51	Feedback-Orange
70391542	20	6FX8002-2EQ14-1CA0	0027724	6FX8008-1BD51	Feedback-Orange
70391552	25	6FX8002-2EQ14-1CF0	0027724	6FX8008-1BD51	Feedback-Orange

OLFLEX® SERVO LK-INX Assemblies

Continuous Flex Servo Assemblies according to Indramat Standard IKG & IKS

Assemblies according to INDRAMAT Standard IKG:

Motor Connection cables for power transmission systems

Assemblies according to INDRAMAT Standard IKS:

Feedback cables for signal transmission systems

Technical Data:

Minimum Bending Radius:

IKG Standard- static:	6 x cable diameter
IKS Standard- static:	5 x cable diameter
Both Standards- flexing:	10 x cable diameter

Temperature Range:

IKG Standard	
for flexing:	-30°C to +60°C
for static:	-50°C to +80°C
IKS Standard	
for flexing:	-30°C to +80°C
for static:	-30°C to +90°C

Nominal Voltage:

IKG Standard	
Supply Conductors	600/1000V
IKS Standard	300V

Test Voltage:

IKG Standard	
Power Cores	4000V
Control Cores	500V
IKS Standard	500V

Approvals:

IKG Standard	UL/CSA AWM 20234
IKS Standard	UL/CSA AWM 20236

INDRAMAT Standard IKG

Part Number	Length in meters	INDRAMAT Type	Lapp Cable Part Number	Connector Side 1	Connector Side 2
70345476	10	IKG4009-010	7072403	INS0681/C03	INS0459/K02
70345479	10	IKG4006-010	7072403	INS0681/C03	INS0682/C03
70345502	10	IKG4090-010	7072406	INS0481/C04	INS0459/K04
70345503	10	IKG4087-010	7072406	INS0481/C04	INS0623/K04
70345528	10	IKG4186-010	7072409	INS0381/C16	INS0623/K16
70345541	10	IKG4020-010	7072403	INS0542/K01	INS0459/K02

INDRAMAT Standard IKS

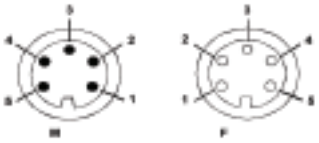
Part Number	Length in meters	INDRAMAT Type	Lapp Cable Part Number	Connector Side 1	Connector Side 2
70335583	10	IKS4374-010	7072401	INS0713/C01	INS0439/C01
70335584	10	IKS4376-010	7072401	INS0713/C01	INS0716/C01
70335595	10	IKS4103-010	7072401	INS0672/C01	INS0439/C01
70335636	10	IKS4001-010	7072414	INS0379/C01	INS0519/L01

Additional assemblies offered to complete the line. Call the factory for more information.

DeviceNet
BUS Cordsets, Receptacles, Tees

Flexing: These molded cordsets offer Trunk(Thick) and Drop(Thin) connectivity in a DeviceNet™ application. The DeviceNet™ network is an open low-level network that provides connections between simple industrial devices (such as sensors and actuators) and higher-level devices (such as PLC controllers and computers). Our flexing solutions offer the ability to connect in a motion system such as X,Y, Z motion equipment. The **Static** versions offer the same functionality as the flexing in terms of connectivity but in a stationary environment. A conveyor system is a good example of use for this product.

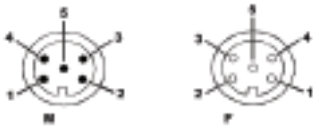
7/8-16 UN Connector (5-pin) (Thick Trunk)



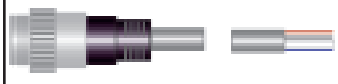
Pinouts

1. Bare (Shield Drain Wire)
2. Red (+ Voltage)
3. Black (- Voltage)
4. White (CAN_H)
5. Blue (CAN_L)

M12 Connector (5-pin) Thin-Drop

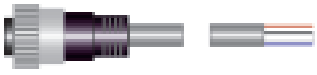


DeviceNet: Single Ended Cordsets with 7/8" Connectors



DN4110001F-XXX
Flex Male Straight to Flying Leads
DN4110001S-XXX
Static Male Straight to Flying Leads

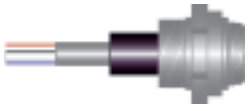
DN4110002F-XXX
Flex Male Right Angle Flying Leads
DN4110002S-XXX
Static Male Right Angle Flying Leads



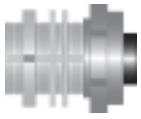
DN4110003F-XXX
Flex Female Straight to Flying Leads
DN4110003S-XXX
Static Female Straight to Flying Leads

DN411004F-XXX
Flex Female Right Angle to Flying Leads
DN411004S-XXX
Static Female Right Angle to Flying Leads

DeviceNet: Extension Ended Cordsets with Thick Panel Mount Receptacles

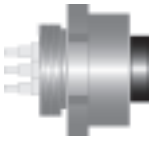


DN4110005F-XXX
Flex Male 5-Pin 1/2" NPT Receptacle
DN4110005S-XXX
Static Male 5-Pin 1/2" NPT Receptacle



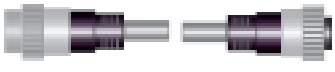
DN4110051F-XXX
Flex Male to Female Feed-Through Receptacle
DN4110051S-XXX
Static Male to Female Feed-Through Receptacle

DN4110006F-XXX
Flex Female 5-Pin 1/2" NPT Receptacle
DN4110006S-XXX
Static Female 5-Pin 1/2" NPT Receptacle



DN4110007F-XXX
Flex Female 5-Pin 1/2" NPT Housing Receptacle with PCB Leads
DN4110007S-XXX
Static Female 5-Pin 1/2" NPT Housing Receptacle with PCB Leads

DeviceNet: Thick Trunk Extension Ended Cordsets



DN4110008F-XXX
Flex Male Straight to Female Straight
DN4110008S-XXX
Static Male Straight to Female Straight

DN4110010F-XXX
Flex Male Right-Angle to Female Straight
DN4110010S-XXX
Static Male Right-Angle to Female Straight

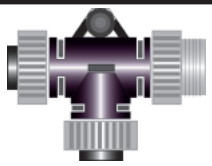
DN4110009F-XXX
Flex Male Straight to Female Right-Angle
DN4110009S-XXX
Static Male Straight to Female Right-Angle

DN4110011F-XXX
Flex Male Right-Angle to Female Right-Angle
DN4110011S-XXX
Static Male Right-Angle to Female Right-Angle

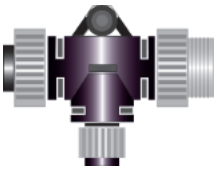
DeviceNet™ Cordsets are for Trunk applications. Replace the XXX with the desired cable length in feet.

DeviceNet
BUS Cordsets, Receptacles, Tees

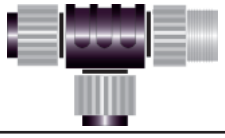
DeviceNet: Bus Drop Tees



DN4110012F
Flex 7/8" Bus In/Out, 7/8" Drop
(1 Male, 2 Female)
DN4110012S
Static 7/8" Bus In/Out, 7/8" Drop
(1 Male, 2 Female)



DN4110014F
Flex 7/8" Bus In/Out, M12 Drop
(1 Male, 2 Female)
DN4110014S
Static 7/8" Bus In/Out, M12 Drop
(1 Male, 2 Female)

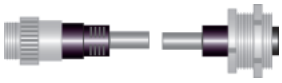


DN4110013F
Flex M12 Bus In/Out, M12 Drop
(1 Male, 2 Female)

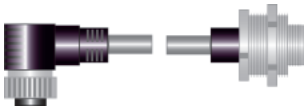
DN4110013S
Static M12 Bus In/Out, M12 Drop
(1 Male, 2 Female)

DeviceNet: Thick Back Panel Mount Trunk Extension Cordsets

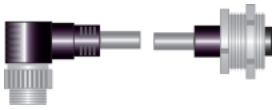
DN4110015F-XXX
Flex Female Straight to Male
Back Panel Mount Receptacle
DN4110015S-XXX
Static Female Straight to Male
Back Panel Mount Receptacle



DN4110017F-XXX
Flex Male Straight to Female Back
Panel Mount Receptacle
DN4110017S-XXX
Static Male Straight to Female
Back Panel Mount Receptacle



DN4110016F-XXX
Flex Female Right-Angle to Male
Back Panel Mount Receptacle
DN4110016S-XXX
Static Female Right-Angle to Male
Back Panel Mount Receptacle

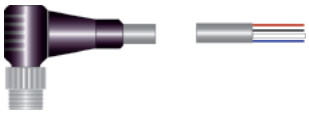


DN4110018F-XXX
Flex Male Right-Angle to Female
Back Panel Mount Receptacle
DN4110018S-XXX
Static Male Right-Angle to Female
Back Panel Mount Receptacle

DeviceNet: Thin Drop Single Ended Cordsets

DN4110019F-XXX
Flex M12 Male Straight to Flying
Leads
DN4110019S-XXX
Static M12 Male Straight to Flying
Leads

DN4110021F-XXX
Flex M12 Female Straight to Flying
Leads
DN4110021S-XXX
Static M12 Female Straight to
Flying Leads



DN4110020F-XXX
Flex M12 Male Right-Angle to
Flying Leads
DN4110020S-XXX
Static M12 Male Right-Angle to
Flying Leads

DN4110022F-XXX
Flex M12 Female Right-Angle to
Flying Leads
DN410022S-XXX
Static M12 Female Right-Angle to
Flying Leads

DeviceNet: Thin Drop Single Extension Cordsets

DN4110027F-XXX
Flex 7/8" Male Straight to M12
Female Straight
DN4110027S-XXX
Static 7/8" Male Straight to M12
Female Straight

DN4110033F-XXX
Flex 7/8" Female Right-Angle
to M12 Male Straight
DN4110033S-XXX
Static 7/8" Female Right-Angle
to M12 Male Straight

DN4110028F-XXX
Flex 7/8" Male Straight to M12
Female Right-Angle
DN4110028S-XXX
Static 7/8" Male Straight to M12
Female Right-Angle

DN4110034F-XXX
Flex 7/8" Female Right-Angle to
M12 Male Right-Angle
DN410034S-XXX
Static 7/8" Female Right-Angle to
M12 Male Right-Angle

DeviceNet™ Cordsets are for Trunk applications. Replace the XXX with the desired cable length in feet.

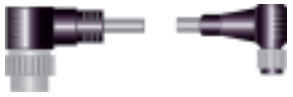
DeviceNet
BUS Cordsets, Receptacles, Tees

DeviceNet: Thin Drop Single Extension Cordsets

DN4110023F-XXX
Flex M12 Male Straight to M12 Female Straight
DN4110023S-XXX
Static M12 Male Straight to M12 Female Straight

DN4110029F-XXX
Flex 7/8" Male Right-Angle to M12 Female Straight
DN4110029S-XXX
Static 7/8" Male Right-Angle to M12 Female Straight

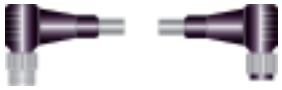
DN4110024F-XXX
M12 Male Straight to M12 Female Right-Angle
DN4110024S-XXX
Static M12 Male Straight to M12 Female Right-Angle



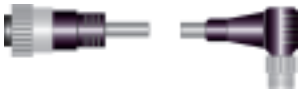
DN4110030F-XXX
Flex 7/8" Male Right-Angle to M12 Female Right-Angle
DN4110030S-XXX
Static 7/8" Male Right-Angle to M12 Female Right-Angle

DN4110025F-XXX
Flex M12 Male Right-Angle to M12 Female Straight
DN4110025S-XXX
Static M12 Male Right-Angle to M12 Female Straight

DN4110031F-XXX
Flex 7/8" Female Straight to M12 Male Straight
DN4110031S-XXX
Static 7/8" Female Straight to M12 Male Straight



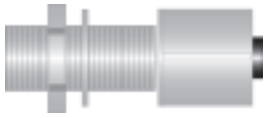
DN4110026F-XXX
Flex M12 Male Right-Angle to M12 Female Right-Angle
DN4110026S-XXX
Static M12 Male Right-Angle to M12 Female Right-Angle



DN4110032F-XXX
Flex 7/8" Female Straight to M12 Male Right-Angle
DN4110032S-XXX
Static 7/8" Female Straight to M12 Male Right-Angle

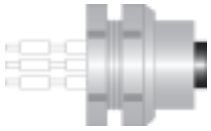
DeviceNet: M12 Thin Receptacles

DN4110039F-XXX
Flex M12 Female Back Mount Receptacle
DN4110039S-XXX
Static M12 Female Back Mount Receptacle



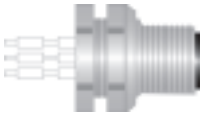
DN4110043F-XXX
Flex M12 Female to Male Feed-Through Receptacle
DN4110043S-XXX
Static M12 Female to Male Feed-Through Receptacle

DN4110040F-XXX
Flex M12 Male Back Mount Receptacle
DN4110040S-XXX
Static M12 Male Back Mount Receptacle



DN4110044F-XXX
Flex M12 Female Back Mount Receptacle with PCB Leads
DN4110044S-XXX
Static M12 Female Back Mount Receptacle with PCB Leads

DN4110041F-XXX
Flex M12 Female 1/2" NPT Receptacle
DN4110041S-XXX
Static M12 Female 1/2" NPT Receptacle



DN4110045F-XXX
Flex M12 Male Back Mount Receptacle with PCB Leads
DN4110045S-XXX
Static M12 Male Back Mount Receptacle with PCB Leads

DN4110042F-XXX
Flex M12 Male 1/2" NPT Receptacle

DN4110042S-XXX
Static M12 Male 1/2" NPT Receptacle

DeviceNet™ Cordsets are for Trunk applications. Replace the XXX with the desired cable length in feet.

DeviceNet
BUS Cordsets, Receptacles, Tees

DeviceNet: M12 Thin Back Panel Mount Extension Cordsets

DN4110035F-XXX
Flex Female Straight to Male Back Panel Mount Receptacle
DN4110035S-XXX
Static Female Straight to Male Back Panel Mount Receptacle

DN4110037F-XXX
Flex Male Straight to Female Back Panel Mount Receptacle
DN4110037S-XXX
Static Male Straight to Female Back Panel Mount Receptacle

DN4110036F-XXX
Flex Female Right-Angle to Male Back Panel Mount Receptacle
DN4110036S-XXX
Static Female Right-Angle to Male Back Panel Mount Receptacle

DN4110038F-XXX
Flex Male Right-Angle to Female Back Panel Mount Receptacle
DN4110038S-XXX
Static Male Right-Angle to Female Back Panel Mount Receptacle

DeviceNet: Thin Open Style Termination Cordsets

DN4110046F-XXX
Flex 7/8” Male Straight to 5-Pin Terminal Connector
DN4110046S-XXX
Static 7/8” Male Straight to 5-Pin Terminal Connector

DN4110047F-XXX
Flex 5-Pin Terminal Connector to Flying Leads
DN4110047S-XXX
Static 5-Pin Terminal Connector to Flying Leads

DN4110048F-XXX
Flex M12 Male Straight to 5-Pin Terminal Connector
DN4110048S-XXX
Static M12 Male Straight to 5-Pin Terminal Connector

DN4110049F-XXX
Flex M12 Male Back Mount Receptacle to 5-Pin Terminal Connector

DN4110049S-XXX
Static M12 Male Back Mount Receptacle to 5-Pin Terminal Connector

DN4110050F-XXX
Flex 7/8” Male Back Panel Mount Receptacle to 5-Pin Terminal Connector

DN410050S-XXX
Static 7/8” Male Back Panel Mount Receptacle to 5-Pin Terminal Connector

DeviceNet™ Cordsets are for Trunk applications. Replace the XXX with the desired cable length in feet.

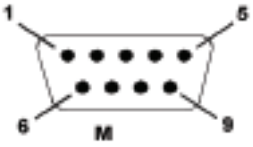
ProfiBus

Flexing & Static Cordsets

Flexing: These pre-tested, molded cordsets utilize high quality continuous flex cable and integral molded strain relief. They are designed to provide interconnection between simple devices, such as sensors and actuators and high level devices, such as PLCs and computers, in high motion applications.

Static: When continuous flexing is not required, these cordsets offer long-lasting, reliable performance at a reduced cost.

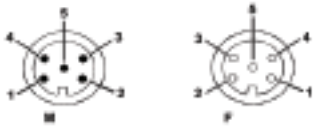
DB9 D-Sub Connector



Pinouts

1&2. not used
3. Red (Bus - B)
4,5,6,&7. not used
8. Green (Bus - A)
9. not used

M12 Connector (5-pin)

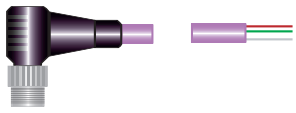


Pinouts

1. 5 Vdc
2. Green (Bus - A)
3. Ground
4. Red (Bus - B)
5. Shield

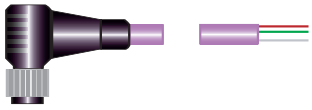
ProfiBus: Single Ended Cordsets- M12 Euro to Flying Leads

PB4110100F-XXX
Flex Straight Male M12
PB4110100S-XXX
Static Straight Male M12



PB4110101F-XXX
Flex Right Angle Male M12
PB4110101S-XXX
Static Right Angle Male M12

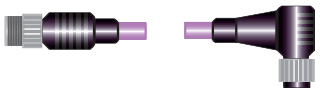
PB4110102F-XXX
Flex Straight Female M12
PB4110102S-XXX
Static Straight Female M12



PB4110103F-XXX
Flex Right Angle Female M12
PB4110103S-XXX
Static Right Angle Female M12

ProfiBus: Extension: M12 Euro Male to Female Cordsets

PB4110104F-XXX
Flex Straight Male M12-Straight Female M12
PB4110104S-XXX
Static Straight Male M12-Straight Female M12

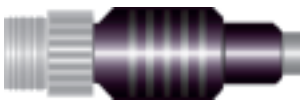


PB4110105F-XXX
Flex Straight Male M12- Right Angle Female M12
PB4110105S-XXX
Static Straight Male M12- Right Angle Female M12

PB4110106F-XXX
Flex Right Angle Male M12 - Straight Female M12
PB4110106S-XXX
Static Right Angle Male M12 - Straight Female M12

PB4110107F-XXX
Flex Right Angle Male M12- Right Angle Female M12
PB4110107S-XXX
Static Right Angle Male M12- Right Angle Female M12

ProfiBus: Panel Mount Receptacle with Jacketed Cable



PB4110119F-XXX
Flex Panel Mount Male Receptacle to Flying Leads
PB4110119S-XXX
Static Panel Mount Male Receptacle to Flying Leads

PB4110120F-XXX
Flex Female Panel Mount Receptacle to Flying Leads
PB4110120S-XXX
Static Female Panel Mount Receptacle to Flying Leads

Replace the XXX with the desired cable length in feet.

ProfiBus
Flexing & Static Cordsets

ProfiBus: Sub D Y-Cordsets: D'Sub to Two M12 Euro Connectors

PB4110108F-XXX
Flex 2X Straight Male M12-DB9 Node Connector
PB4110108S-XXX
Static 2X Straight Male M12-DB9 Node Connector

PB4110109F-XXX
Flex 2x Right Angle Male M12-DB9 Node Connector
PB4110109S-XXX
Static 2x Right Angle Male M12-DB9 Node Connector

PB4110110F-XXX
Flex R2X Straight Female M12-DB9 Node Connector
PB4110110S-XXX
Static R2X Straight Female M12-DB9 Node Connector

PB4110111F-XXX
Flex 2X Right Angle Female M12-DB9 Node Connector
PB4110111S-XXX
Static 2X Right Angle Female M12-DB9 Node Connector

PB4110112F-XXX
Flex Straight Male M12/ Straight Female M12- DB9 Node Conn
PB4110112S-XXX
Static Straight Male M12/ Straight Female M12- DB9 Connector

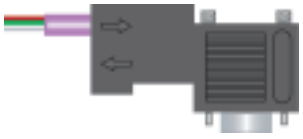
ProfiBus: D'Sub to One M12 Euro Connector or Flying Leads

PB4110113F-XXX
Flex Straight Male M12- DB9 Master Connector
PB4110113S-XXX
Static Straight Male M12- DB9 Master Connector

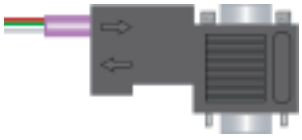
PB4110114F-XXX
Flex Right Angle Male M12- DB9 Master Connector
PB4110114S-XXX
Static Right Angle Male M12- DB9 Master Connector

PB4110115F-XXX
Flex Straight Female M12- DB9 Master Connector
PB4110115S-XXX
Static Straight Female M12- DB9 Master Connector

PB4110116F-XXX
Flex Right Angle Female M12- DB9 Master Connector
PB4110116S-XXX
Static Right Angle Female M12-DB9 Master Connector

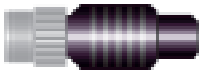


PB4110117F-XXX
Flex DB 9 Node Connector- Flying Leads
PB4110117S-XXX
Static DB 9 Node Connector-Flying Leads



PB4110118F-XXX
Flex DB9 Master Connector- Flying Leads
PB4110118S-XXX
Static DB9 Master Connector-Flying Leads

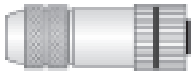
ProfiBus: Accessories



PB41100121
Male Terminating Resistor

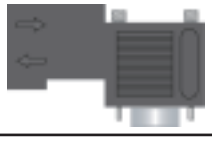
PB4110122
Female Terminating Resistor

PB41100123
Bus "Tee"



PB4110124
Female Field Wireable (M12)

PB4110125
Male Field Wireable (M12)



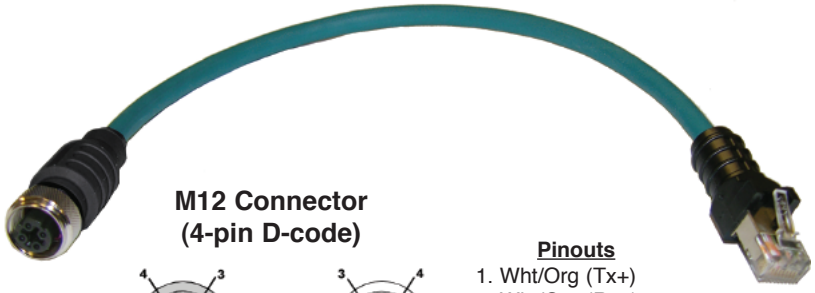
PB4110126
DB9 Node Female Field Wireable

PB4110127
DB9 Master Female Field Wireable

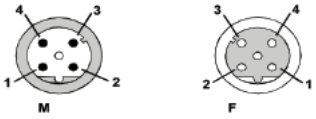
Replace the XXX with the desired cable length in feet.

Ethernet
Cordsets

CAT5 Network environments can be found throughout the factory floor. The use of both the RJ45 and M12 connector protocols are common. Our continuous flex CAT5 cable offers a unique solution toward satisfying the stringent needs of motion systems, where a network connection has been integrated for program interface from remote locations. Offering is designed for continuous flex applications but static can also be supported.

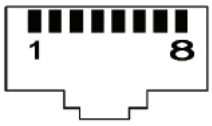


M12 Connector (4-pin D-code)



Pinouts
1. Wht/Org (Tx+)
2. Wht/Grn (Rx+)
3. Org (Tx-)
4. Grn (Rx-)

RJ 45 Connector



Pinouts- 2 Pair
1. Wht/Org (Tx+)
2. Org (Tx-)
3. Wht/Grn (Rx+)
4&5. not used
6. Grn (Rx-)
7&8. not used

Pinouts- 4 Pair
1. Wht/Org (TRD0+)
2. Org (TRD0-)
3. Wht/Grn (Rx+)
4. Blue (TRD2+)
5. Wht/Blue (TRD2-)
6. Grn (TRD1-)
7. Wht/Brn (TRD3+)
8. Brn (TRD3-)

Ethernet: CAT 5

	**C5E0001-XXX** RJ45 to RJ45 (two ended) • 4 pair	 Female Female	**C5E0006-XXX** Two ended M12 • 4 Pair
	**C5E0002-XXX** RJ 45 (one ended) • 4 Pair	 Male Female	**C5E0007-XXX** Two ended M12 • 4 Pair
 Male	**C5E0003-XXX** One ended M12 (Male) • 4 Pair	 Male	**C5E0008-XXX** M12 to RJ45 • 2 Pair
 Male	**C5E0004-XXX** One ended M12 (Male) • 4 Pair	 Female	**C5E0009-XXX** M12 to RJ45 • 2 Pair
 Male Male	**C5E0005-XXX** Two ended M12 • 4 Pair		

Ethernet: CAT 6e

	**C6-0001-XXX** RJ45 to RJ45 (two ended) PVC Cable		**C6-0004-XXX** RJ 45 (one ended) PVC Cable
C6-0002-XXX RJ45 to RJ45 (two ended) PUR Cable	**C6-0003-XXX** RJ45 to RJ45 (two ended) Zero Halgen Cable	**C6-0005-XXX** RJ 45 (one ended) PUR Cable	**C6-0006-XXX** RJ 45 (one ended) Zero Halogen Cable

Ethernet: CAT 7

	**C7-0001-XXX** RJ45 to RJ45 (two ended) PVC Cable		**C7-0004-XXX** RJ 45 (one ended) PVC Cable
C7-0002-XXX RJ45 to RJ45 (two ended) PUR Cable	**C7-0003-XXX** RJ45 to RJ45 (two ended) Zero Halogen Cable	**C7-0005-XXX** RJ 45 (one ended) PUR Cable	**C7-0006-XXX** RJ 45 (one ended) Zero Halogen Cable

Replace the XXX with the desired cable length in feet.

Remote Access Ports

Overview

Lapp Systems provides the key to continued productivity with a complete line of Remote Access Ports. These ports allow for easy access to a PLC or industrial computer device without compromising safety. Many configurations are available for "standard" protocols while custom designs can be manufactured to suit any application. Pre-wired cable assemblies are also offered to insure proper component termination.

Before... "The Hard Way"

- Dangerous- Open Exposed Wire
- Safety Hazard
- Production Interruption

After.... "The Easy Way"

- Closed Panel
- Safe
- Production Continuity

UL E211786

PROTOCOL CROSS REFERENCE			
DB9=	DH+, DH485, Serial, RS232, Serial Mouse, PLC 5, M984	6 Pos. Mini Din=	Keyboard, Mouse, PS/2
DB15=	PLC2	8 Pos. Mini Din=	Data Highway=, Enhanced PLC5, SLC 5/04
DB15H=	Video, VGA	5 Pos. Din=	AT Style Keyboard
DB 25=	RS232, Parallel, Printer, PLC3	8 Pos. Din=	SLC100
RJ45=	DH485, SLC 500, Ethernet, Control Net, 10 Base T	3 Pos. Header=	Data Highway+

Remote Access Ports

Standard Configurations

Ethernet

Part # 48-2S-3A-45C5S

HBE 48 Enclosure: Duplex AC Outlet, CAT 5 RJ 45 Coupler, & 3 Amp Circuit Breaker

RS232

Part # 16-1-9XP

HBE 16 Enclosure: Single AC Outlet & DB 9 Gender to Gender Coupler

Data Highway

Part # 24-1-3A-9XP-MD8P

HBE 24 Enclosure: Single AC Outlet, 3 Amp Circuit Breaker, DB 9 Gender to Gender Coupler, & 8 Position Mini Din Coupler

SLC 500
DH485

Part # 16-1-45CS

HBE 16 Enclosure: Single AC Outlet & Shielded RJ45 Coupler

DH+

Part # 16-1-MD8P

HBE 16 Enclosure: Single AC Outlet & 8 Position Mini Din Coupler

RS232

Part # 48-2S-3A-9XP

HBE 48 Enclosure: Duplex AC Outlet, 3 Amp Circuit Breaker, & DB 9 Gender to Gender Coupler

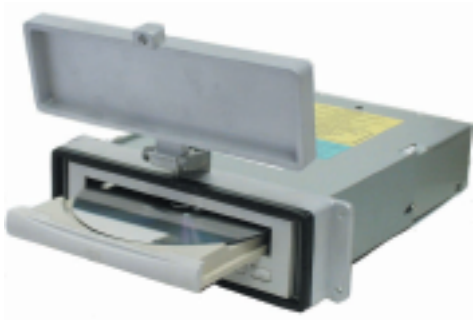
SLC 500

Part # 6-45T

HBE 6 Enclosure: RJ45 Connector with Terminal Block Interface

Many designs available for IMMEDIATE delivery.

CD Rom Unit



Part # 10.9000NCDR

Custom Enclosure Bracket set for CD-ROM or 5 1/4" protocol

Remote Access Ports

Standard Configurations

RS232

Part # 24-1-3A-9XP

HBE 24 Enclosure: Single AC Outlet, 3 Amp Circuit Breaker, DB 9 Gender to Gender Coupler

RS232

Part # 6-9XP

HBE 6 Enclosure: DB 9 Gender to Gender Coupler

Part # 24-35ND

Remote Access Port with 3.5" Disk Drive Assembly bracket without drive

Computer Port

Part # 10-2MD6P

HBE 10 Enclosure: 2- 6 Position Mini Din Coupler

Device Net

Part # 24-1-3A-5H

HBE 24 Enclosure: Single AC Outlet, 3 Amp Circuit Breaker, 5P Header

Select the gender of the D'subs.

DH+

Part # 48-2S-3A-9XP-3H

HBE 48 Enclosure: Duplex AC Outlet, 3 Amp Circuit Breaker, DB 9 Gender to Gender Coupler, 3 Pos Header

USB 2.0 Interface

Part # 48-2S-3A-UFP

HBE 48 Enclosure: Duplex AC Outlet, 3 Amp Circuit Breaker & USB Interface Coupler

Remote Access Ports

Standard Configurations

STANDARD REMOTE ACCESS PORTS

PART #:	DESCRIPTION:	INTERFACE PROTOCOLS:
6-11C	HBE 6 W/ RJ 11 COUPLER	MODEM INTFC
6-45CS	HBE 6 W/ RJ 45 SHIELDED COUPLER	DH485/ETHERNET/CONTROL NET/10 BASE T
10-1-45CS	HBE 10 W/ SINGLE AC OUTLET, RJ 45 SHIELDED COUPLER	DH485/ETHERNET/CONTROL NET/10 BASE T
10-1S-9MP	HBE 10 W/ SINGLE AC OUTLET (SLIM), DB 9 MALE TO MALE COUPLER	DH+/DH485/ASCII/DF1
16-9MP-MD6P	HBE 16 W/ DB 9 MALE TO MALE CPLR, 6 POS MINI DIN CPLR F-F	DH+
24-1-3A-MD6P	HBE 24 W/ SINGLE AC OUTLET, 3A CIRCUIT BRK, 6 POS MINI DIN CPLR F-F	DH+
24-1-45CS-9MP	HBE 24 W/ SINGLE AC OUTLET, RJ 45 SHIELDED CPLR, DB 9 MALE TO MALE COUPLER	DH+/DH485/ASCII/DF1/SERIAL/RS232/SERIAL MOUSE/ETHERNET/CONTROL NET/10 BASE T
32-2-3A-9FP	HBE 32 W/ DUPLEX AC OUTLET, 3A CIRCUIT BRK, DB 9 FEMALE TO FEMALE COUPLER	DH+/DH485/ASCII/DF1/SERIAL/RS232/SERIAL MOUSE
32-G2-9MP	HBE 32 W/ GFCI DUPLEX AC OUTLET, DB 9 MALE TO MALE COUPLER	DH+/DH485/ASCII/DF1/SERIAL/RS232/SERIAL MOUSE
32-2S-3A-45CS	HBE 32 W/ DUPLEX AC OUTLET (SCREW TERM), 3A CIRCUIT BRK, RJ 45 SHIELDED COUPLER	DH485/ETHERNET/CONTROL NET/10 BASE T
48-2S-29FP	HBE 48 W/ DUPLEX AC OUTLET (SCREW TERM), (2) DB9 FEM TO FEM COUPLERS	DH+/DH485/ASCII/DF1/SERIAL/RS232/SERIAL MOUSE
48-2S-3A-15FP	HBE 48 W/ DUPLEX AC OUTLET (SCREW TERM), 3A CIRCUIT BRK, DB 15 FEM TO FEM COUPLER	AB 9 SERIES - PLC-2 - GE FANUC SNP - SIEMENS CURRENT LOOP
48-2S-3A-25MP	HBE 48 W/ DUPLEX AC OUTLET (SCREW TERM), 3A CIRCUIT BRK, DB 25 MALE TO MALE COUPLER	PARALLEL DEVICE
48-2S-3A-MD6P	DUPLEX AC OUTLET, 3A CIRCUIT BRK, 6 PIN MIN DIN COUPLER	DH+
48-G2-9MP-45CS	GFCI DUPLEX AC OUTLET, DB 9 MALE TO MALE COUPLER, RJ 45 SHIELDED COUPLER	DH+/DH485/ASCII/DF1/SERIAL/RS232/SERIAL MOUSE/ETHERNET/CONTROL NET/10 BASE T

All ports are available with cable assemblies. Call factory for quote.

REMOTE ACCESS PORTS FOR PLC

6-45CS

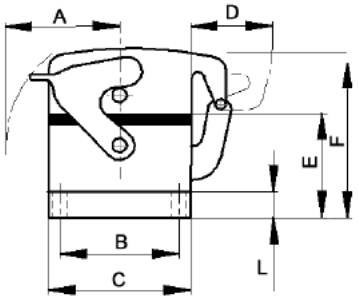
10-1-45CS

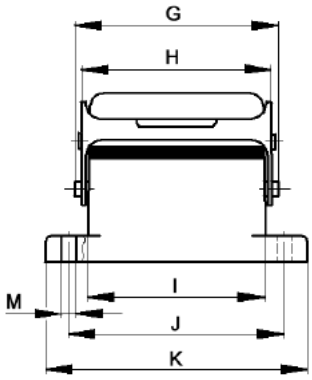
PLC TYPE	RELATIVE PROTOCOLS	P/N W/ AC	P/N W/O AC
A-B PLC-5/10	· DB9F (PROGRAMMING TERMINAL) · 3P HEADER (DH+)	· 24-1-9FP-3H	· 16-9FP-3H
A-B PLC 5/12 & 5/15 & 5/25	· DB9F (PROGRAMMING TERMINAL) · 3P HEADER (DH+) · 3P HEADER (REMOTE I/O)	· 24-1-9FP-23H	· 16-9FP-23H
A-B PLC 5	· 8P MINI DIN (DH+) · 3P HEADER (DH+)	· 24-1-MD8P-3H	· 16-MD8P-3H
SLC 5/04	· 3P HEADER (DH+) · 8P MINI DIN (DH+) · DB9F (RS232/DH485)	· 24-1-3H-MD8P-9FP	· 16-3H-MD8P-9FP
SLC 5/03	· RJ45 (DH485) · DB9F (RS232/DH485)	· 24-1-45CS-9FP	· 16-45CS-9FP
SLC 5/02	· RJ45 (DH485)	· 16-1-45CS	· 6-45CS
SLC 5/01	· RJ45 (DH485)	· 16-1-45CS	· 6-45CS
SLC 500	· RJ45/TB INTFC (DH485)	· 16-1-45T	· 6-45T
A-B PANELVIEW 900	· DB9F (RS232)	· 16-1-9FP	· 6-9FP
A-B PANELVIEW 1200E/1400E	· DB9F (PROGRAMMING)	· 16-1-9FP	· 6-9FP
A-B CONTROL NET	· RJ45 (DH485)	· 16-1-45CS	· 6-45CS
A-B 1394	· DB9F (RS232)	· 16-1-9FP	· 6-9FP
A-B PLC 2	· DB15F	· 16-1-15FP	· 6-15FP
A-B DEVICE NET	· 5P HEADER	· 16-1-5H	· 10-5H
GE SNP	· DB9M	· 16-1-9MP	· 6-9MP
GE SNP	· DB15F	· 16-1-15FP	· 6-15FP
GE CNC	· PCR20M	· 16-1-20M	· 6-20M
SIEMENS CURRENT LOOP	· DB15F	· 16-1-15FP	· 6-15FP · 6-9FP
MODICON MODBUS	· DB9F	· 16-1-9FP	· 6-9MP
MODICON MODBUS +	· DB9M	· 16-1-9MP	N/A
ALTERNATE NOTES	TO APPLY DUPLEX	CHANGE PREFIX TO EITHER 32 OR 48 & CHANGE "1" TO "2"	N/A
	TO APPLY CIRCUIT PROTECTION TO AC	ADD 1A, 2A, 3A, 5A, OR 10A BETWEEN 1ST & 2ND P/N SEGMENTS	SAME
	TO ADD CABLE ASSEMBLIES	ADD "-CXX (XX=LENGTH)	

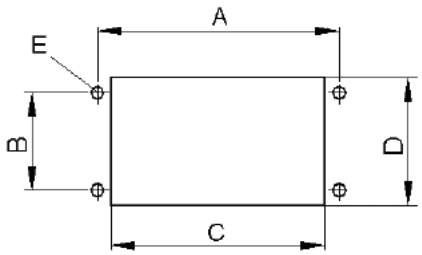
All ports are available with cable assemblies. Call factory for quote.

Remote Access Ports
Additional Information

PANEL MOUNT BASE DIMENSIONS



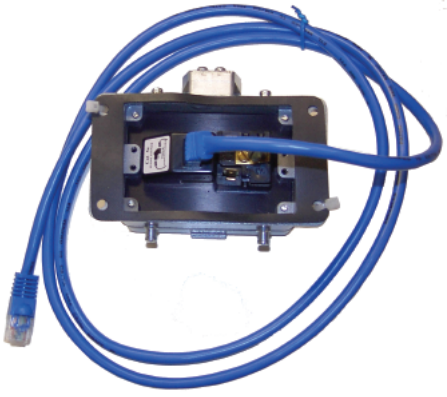




Series	A	B	C	D	E	F	G	H	I	J	K	L	M
HBE 6	44	32	43	25	27.8	44.8	74.8	70	60	70	80	4	4.3
HBE 10	50	32	43	25	27.8	44.8	91	88.5	73	83	93	4	4.3
HBE 16	50	32	43	25	27.8	44.8	111	109.5	93.3	103	113	4	4.3
HBE 24	50	32	43	25	27.8	44.8	138	136.5	120	130	140	4	4.3
HBE 32	57.7	65	90.2	17.8	32.7	45	112.8	105	88.3	110	124.3	6.2	4.85
HBE 48	105	70	90	30	39.5	56.5	152	139.5	132	148	165	10	7

Series	A	B	C	D	E
HBE 6	70	32	52.2	35	4.3
HBE 10	83	32	65.2	35	4.3
HBE 16	103	32	85.5	35	4.3
HBE 24	130	32	112.2	35	4.3
HBE 32	110	65	85.5	79	5.5
HBE 48	148	70	117	82	7

CABLE ASSEMBLY SUFFIX



Type	Gender	Length	P/N Adder	Gender	Length	P/N Adder
DB 9	M-M	5	C9M5	M-F	5	C9MF5
		10	C9M10		10	C9MF10
HDB15	M-M	5	CH15M5	M-F	5	CH15MFH5
		10	CH15M10		10	CH15MFH10
DB15	M-M	5	C15M5	M-F	5	C15MF5
		10	C15M10		10	C15MF10
DB25	M-M	5	C25M5	M-F	5	C25MF5
		10	C25M10		10	C25MF10
RJ 45	M-M	10	C45M10	M-M	20	C45M20
6P Mini Din	M-M	3	C6M3	M-M	6	C6M6
	M-M	10	C6M10			
8P Mini Din	M-M	3	C8M3	M-M	6	C8M3
	M-M	10	C8M10			
USB	M-M	3	CUM3	M-M	6	CUM6
	M-M	10	CUM10			
RJ45 CAT 5	M-M	10	C455M10			

Remote Access Ports

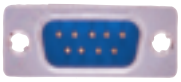
Custom Configurations

Section 1: Enclosures:

☑ Description:	Part #:	☑ Description:	Part #:	☑ Description:	Part #:
☐ HBE 6 Enclosure	6	☐ HBE 24 Enclosure	24	☐ CD-ROM Housing	10.9000
☐ HBE 10 Enclosure	10	☐ HBE 32 Enclosure	32	* Note: Available in surface mount bases.	
☐ HBE 16 Enclosure	16	☐ HBE 48 Enclosure	48		

Section 2: Components:

D'SUBMINIATURES



Qty:	☑ Description:	Part #:	Gender:	Termination:	Pass Through Configuration:
___	☐ DB 9 = DH+, DH 485, M984	9	☐ M ☐ F	☐ T ☐ S ☐ P	_____
___	☐ DB 15= PLC 2	15	☐ M ☐ F	☐ T ☐ S ☐ P	_____
___	☐ DB 15 High Density= Video, VGA	15H	☐ M ☐ F	☐ T ☐ S ☐ P	_____
___	☐ DB 25= RS232, Parallel, Printer, PLC3	25	☐ M ☐ F	☐ T ☐ S ☐ P	_____
___	☐ DB 37=	37	☐ M ☐ F	☐ T ☐ S ☐ P	_____

Terminal Block Interface (T), Solder Cup (S), Pass-Through (P) (specify genders)

AC OUTLETS

☑ Description:	Part #:
☐ Single AC Outlet	1
☐ Single AC Outlet Slim	1S
☐ Single AC Plug	1M
☐ Duplex AC Outlet	2
☐ Duplex Outlet w/Screw Term	2S
☐ GFCI: Ground Fault Circuit Interrupt	G2
☐ European Outlet	GAC

PERIPHERAL DEVICES

☑ Description:	Part #:
☐ 3.5" Disk Drive Bracket with Drive	35DD
☐ 3.5" Disk Drive Bracket without Drive	35ND
☐ CD-Rom Bracket with drive	CDR
☐ CD-Rom Bracket without drive	NCDR
☐ Zip Drive Bracket with Drive	ZIPDD
☐ Zip Drive Bracket without Drive	ZIPND
☐ 3.5" Disk Drive/ CD-Rom Drive	DD-CD

MINI DIN COUPLERS

☑ Description:	Part #:
☐ 6 Pos Mini Din Coupler	MD6P
☐ 8 Pos Mini Din= SLC5/04, Data Highway+, Enhanced PLC5	MD8P
☐ Terminal Block Interface	T

CIRCUIT BREAKERS

☑ Description:	Part #:
☐ 1 Amp Circuit Breaker	1A
☐ 2 Amp Circuit Breaker	2A
☐ 3 Amp Circuit Breaker	3A
☐ 5 Amp Circuit Breaker	5A

DIN COUPLERS

☑ Description:	Part #:
☐ 5 Pos Din Coupler= AT style keyboard	D5P
☐ Terminal Block Interface	T

PHONE JACKS

☑ Description:	Part #:
☐ RJ 45 Coupler= DH 485, SLC 500 Ethernet, Control Net, 10 Base	45C
☐ RJ 45 Shielded Coupler	45CS
☐ RJ 45 CAT5	45C5
☐ RJ 45 Shielded CAT5	45C5S
☐ RJ 11 Coupler	11C
☐ RJ 11 Shielded Coupler	11CS
☐ Terminal Block Interface	T

LOCKS

☑ Description:	Part #:
☐ Electrical / Switch Lock	L
☐ Cover Lock Out	LO

FIBER OPTIC COUPLERS

☐ Fiber Optic Coupler: Specify type:_____

3 POSITION HEADER

☑ Description:	Part #:
☐ 3 Pos Header = Data Highway +	3H
☐ 5 Pos Header	5H

USB PORTS

☐ USB Port — UFP

Other Components Available. Specify your requirements: _____

Cable Assemblies:

Ports may be ordered prewired with cable sets. Add CX to the end of the component part number which should be prewired. Replace the X with the desired cable length in feet. See previous page.

Part Numbers:

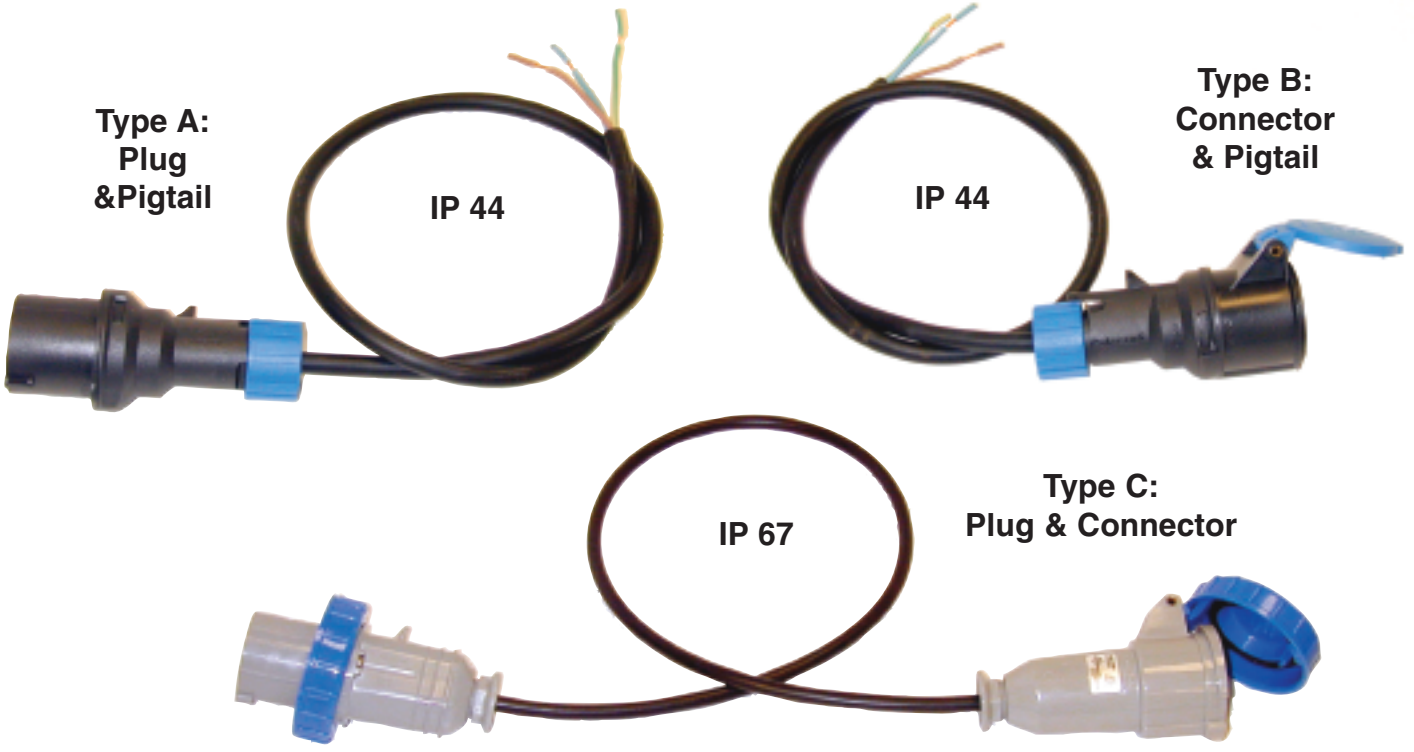
____ - ___ - ___ - ___ - ___ - ___

Section 1: Enclosure **Section 2: Components and and Cable Assemblies**

Example: HBE 48 Enclosure with Duplex AC Outlet, 25 Pos Male D'Sub with 10' of cable, 3 Amp Circuit Breaker (Part # 48-2-25MC10-3A)

Harmonized/ UL Cord Sets with IEC 60309 Pin & Sleeve Connectors

These pre-assembled and tested cable connector/cord sets are easy to order and stock. They speed initial installation and replacement, minimizing installation cost and downtime. They are available in several popular international and North American voltage and current configurations, and are typically ready for shipment within a few days. In addition, these assemblies are available in other cable lengths and other configurations using any of our wide offering of EPIC® Pin & Sleeve connectors and cables. Please contact a representative with your specific requirements for a custom cord set.



IP 44: 250 Volt, 16 Amp, 3-wire (2+PE) Assembly

Type	Plug/Connector	Cable	Order No.
A	250V, 16A, 2+PE, 6H, Blue, IP 44	OLFLEX® POWER QUAD II, 3 x 1.5, PVC, OD: 8.4 mm	44-25016-Q2-15-PX-**
A	250V, 16A, 2+PE, 6H, Blue, IP 44	OLFLEX® POWER IX, 3 x 1.5, Neoprene, OD: 10.2 mm	44-25016-IX-15-PX-**
B	250V, 16A, 2+PE, 6H, Blue, IP 44	OLFLEX® POWER QUAD II, 3 x 1.5, PVC, OD: 8.4 mm	44-25016-Q2-15-CX-**
B	250V, 16A, 2+PE, 6H, Blue, IP 44	OLFLEX® POWER IX, 3x 1.5, Neoprene, OD: 10.2 mm	44-25016-IX-15-CX-**
C	250V, 16A, 2+PE, 6H, Blue, IP 44	OLFLEX® POWER QUAD II, 3 x 1.5, PVC, OD: 8.4 mm	44-25016-Q2-15-PC-**
C	250V, 16A, 2+PE, 6H, Blue, IP 44	OLFLEX® POWER IX, 3 x 1.5, Neoprene, OD: 10.2 mm	44-25016-IX-15-PC-**

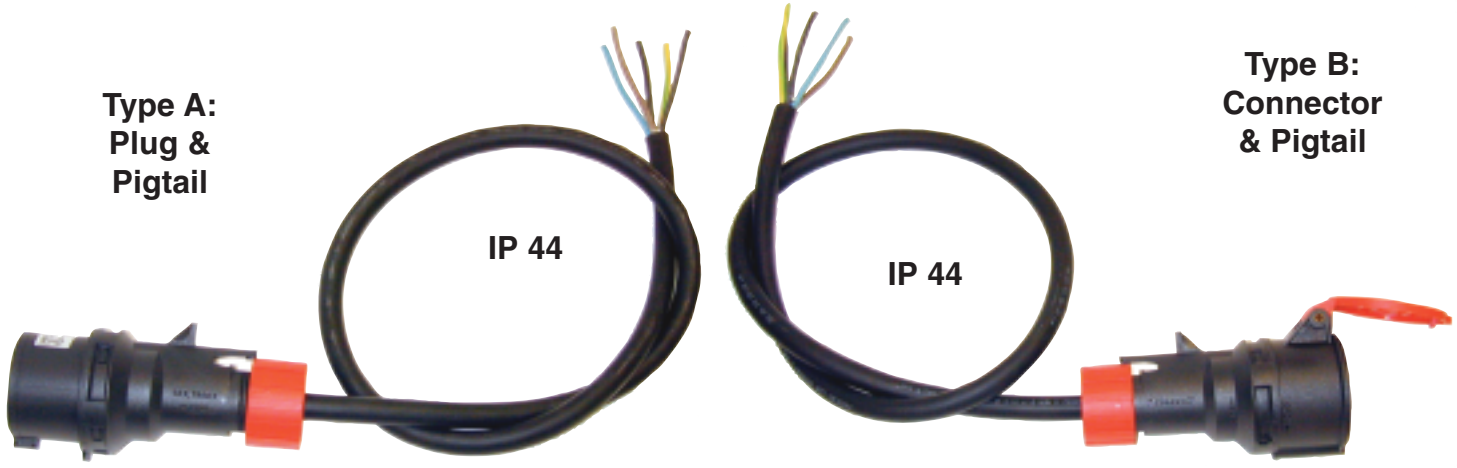
IP 67: 250 Volt, 16 Amp, 3-wire (2+PE) Assembly

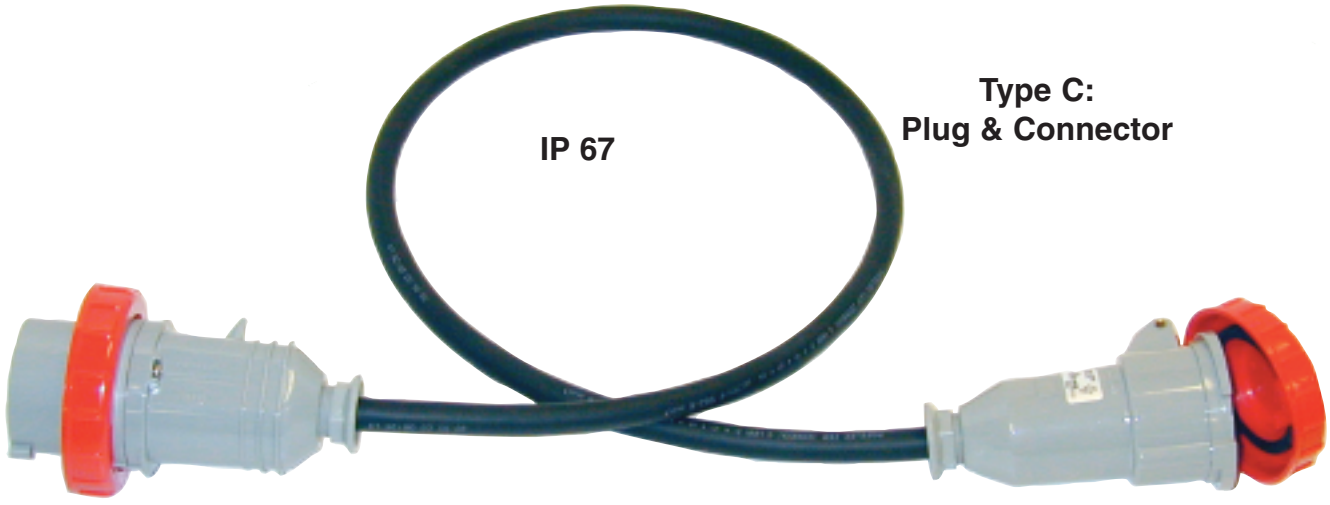
Type	Plug/Connector	Cable	Order No.
A	250V, 16A, 2+PE, 6H, Blue, IP 67	OLFLEX® POWER QUAD II, 3 x 1.5, PVC, OD: 8.4 mm	67-25016-Q2-15-PX-**
A	250V, 16A, 2+PE, 6H, Blue, IP 67	OLFLEX® POWER IX, 3 x 1.5, Neoprene, OD: 10.25 mm	67-25016-IX-15-PX-**
B	250V, 16A, 2+PE, 6H, Blue, IP 67	OLFLEX® POWER QUAD II, 3 x 1.5, PVC, OD: 8.4 mm	67-25016-Q2-15-CX-**
B	250V, 16A, 2+PE, 6H, Blue, IP 67	OLFLEX® POWER IX, 3x 1.5, Neoprene, OD: 10.2 mm	67-25016-IX-15-CX-**
C	250V, 16A, 2+PE, 6H, Blue, IP 67	OLFLEX® POWER QUAD II, 3 x 1.5, PVC, OD: 8.4 mm	67-25016-Q2-15-PC-**
C	250V, 16A, 2+PE, 6H, Blue, IP 67	OLFLEX® POWER IX, 3 x 1.5, Neoprene, OD: 10.2 mm	67-25016-IX-15-PC-**

Note: Complete the Order Number by adding the final 2 digits to indicate assembly cable length. Use “10” for 10 feet, “15” for 15 feet, or “25” for 25 feet. Custom lengths and configurations are available, please consult with a representative.

For North American equivalent (UL), replace ‘25016’ in the order number with ‘25020’

Harmonized/ UL Cord Sets with IEC 60309 Pin & Sleeve Connectors





IP 44: 380 - 415 Volt, 16 Amp, 5-wire (3+N+PE) Assembly

Type	Plug/Connector	Cable	Order No.
A	380 - 415V, 16A, 3+N+PE, 6H, Red, IP 44	OLFLEX® POWER IX, 5 x 1.5, Neoprene, OD: 13.1 mm	44-40016-IX-25-PX-**
B	380 - 415V, 16A, 3+N+PE, 6H, Red, IP 44	OLFLEX® POWER IX, 5 x 1.5, Neoprene, OD: 13.1 mm	44-40016-IX-25-CX-**
C	380 - 415V, 16A, 3+N+PE, 6H, Red, IP 44	OLFLEX® POWER IX, 5 x 1.5, Neoprene, OD: 13.1 mm	44-40016-IX-25-PC-**

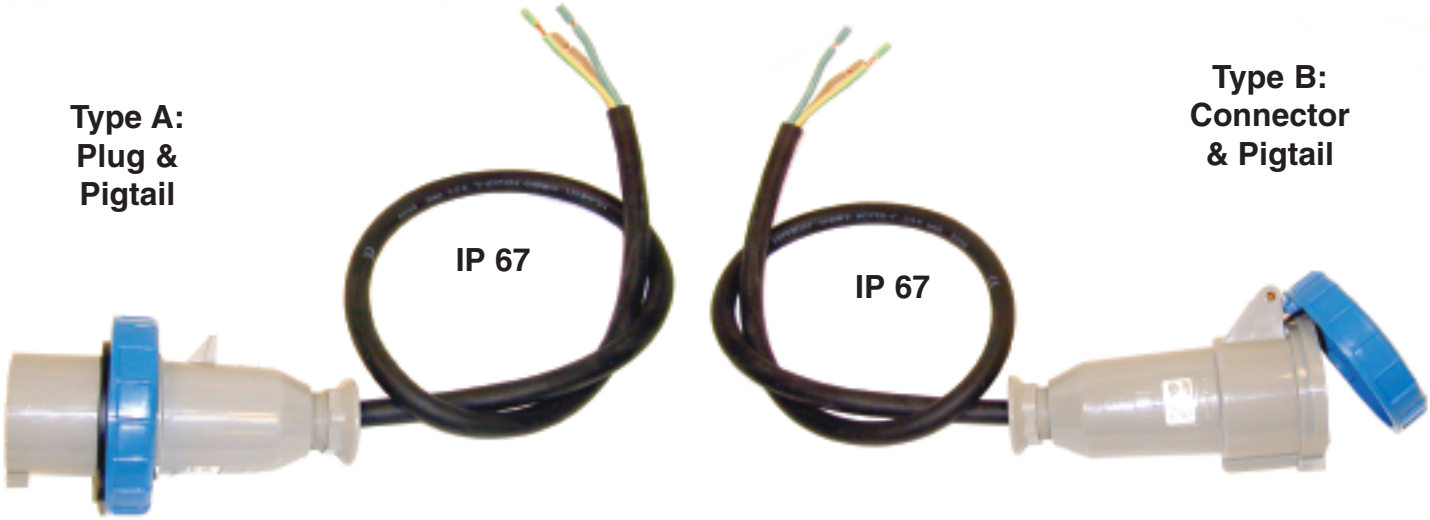
IP 67: 380 - 415 Volt, 16 Amp, 5-wire (3+N+PE) Assembly

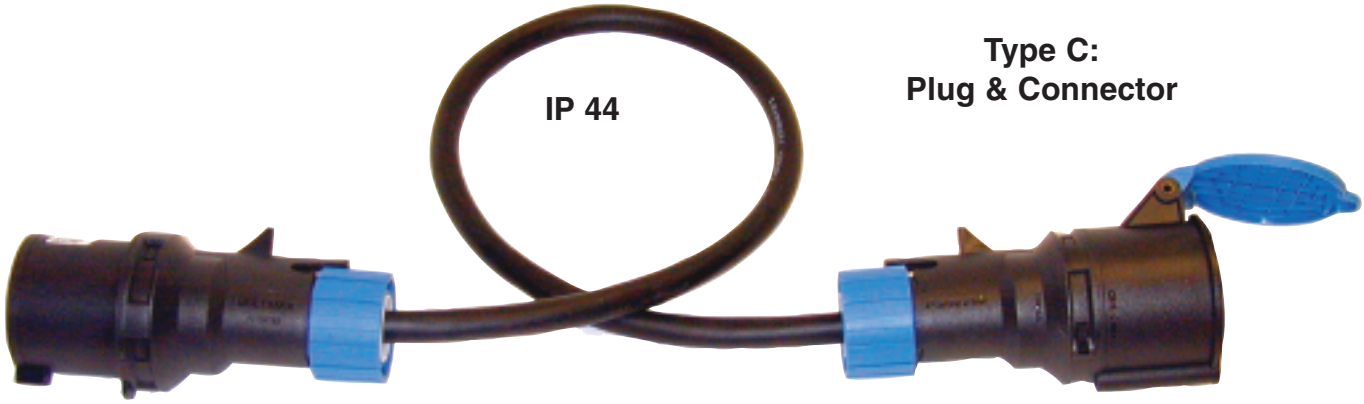
Type	Plug/Connector	Cable	Order No.
A	380 - 415V, 16A, 3+N+PE, 6H, Red, IP 67	OLFLEX® POWER IX, 5 x 1.5, Neoprene, OD: 13.1 mm	67-40016-IX-25-PX-**
B	380 - 415V, 16A, 3+N+PE, 6H, Red, IP 67	OLFLEX® POWER IX, 5 x 1.5, Neoprene, OD: 13.1 mm	67-40016-IX-25-CX-**
C	380 - 415V, 16A, 3+N+PE, 6H, Red, IP 67	OLFLEX® POWER IX, 5 x 1.5, Neoprene, OD: 13.1 mm	67-40016-IX-25-PC-**

Note: Complete the Order Number by adding the final 2 digits to indicate assembly cable length. Use “10” for 10 feet, “15” for 15 feet, or “25” for 25 feet. Custom lengths and configurations are available, please consult with a representative.

For North American equivalent (UL), replace ‘40016’ in the order number with ‘40020’.
Connector= 3øY, 277/480V, 20A, 3+N+PE, 7H, Red

Harmonized/ UL Cord Sets with IEC 60309 Pin & Sleeve Connectors





IP 44: 250 Volt, 32 Amp, 3-wire (2+PE) Assembly

Type	Plug/Connector	Cable	Order No.
A	250V, 32A, 2+PE, 6H, Blue, IP 44	OLFLEX® POWER IX, 3 x 4, Neoprene, OD: 15.7 mm	44-25032-IX-40-PX-**
B	250V, 32A, 2+PE, 6H, Blue, IP 44	OLFLEX® POWER IX, 3 x 4, Neoprene, OD: 15.7 mm	44-25032-IX-40-CX-**
C	250V, 32A, 2+PE, 6H, Blue, IP 44	OLFLEX® POWER IX, 3 x 4, Neoprene, OD: 15.7 mm	44-25032-IX-40-PC-**

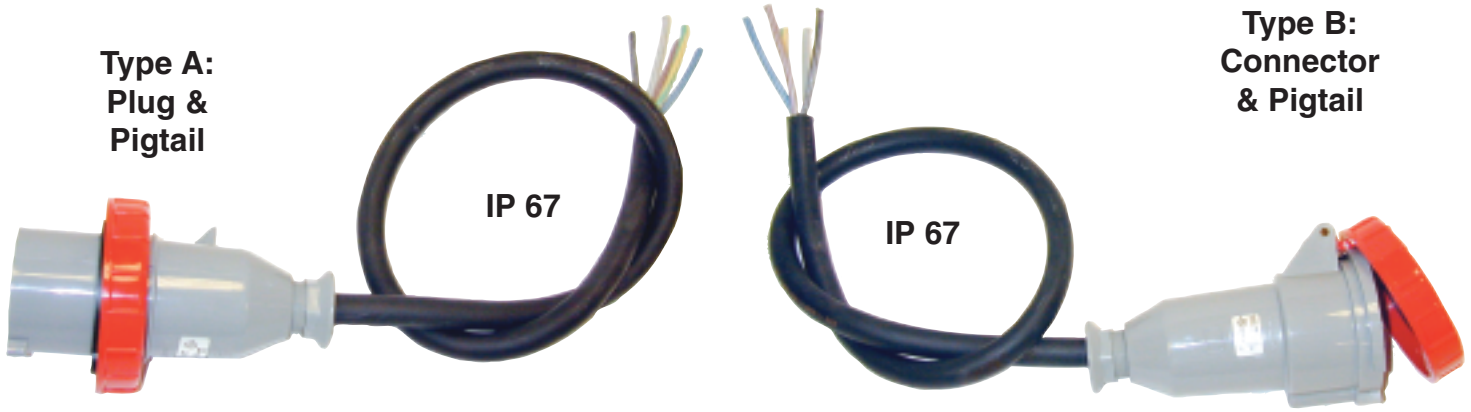
IP 67: 250 Volt, 32 Amp, 3-wire (2+PE) Assembly

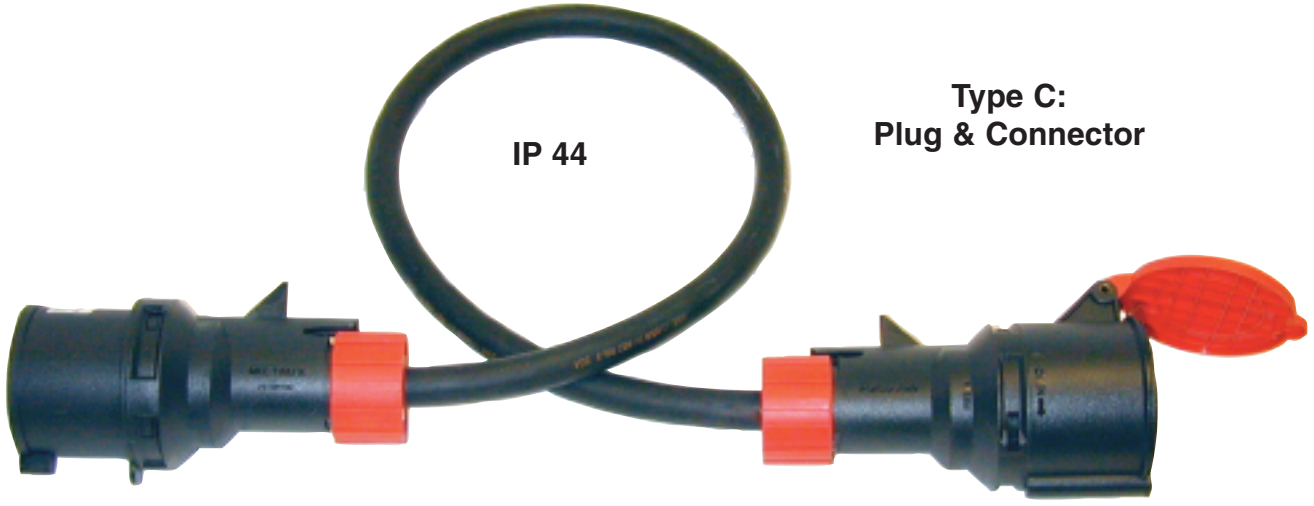
Type	Plug/Connector	Cable	Order No.
A	250V, 32A, 2+PE, 6H, Blue, IP 67	OLFLEX® POWER IX, 3 x 4, Neoprene, OD: 15.7 mm	67-25032-IX-40-PX-**
B	250V, 32A, 2+PE, 6H, Blue, IP 67	OLFLEX® POWER IX, 3 x 4, Neoprene, OD: 15.7 mm	67-25032-IX-40-CX-**
C	250V, 32A, 2+PE, 6H, Blue, IP 67	OLFLEX® POWER IX, 3 x 4, Neoprene, OD: 15.7 mm	67-25032-IX-40-PC-**

Note: Complete the Order Number by adding the final 2 digits to indicate assembly cable length. Use “10” for 10 feet, “15” for 15 feet, or “25” for 25 feet. Custom lengths and configurations are available, please consult with a representative.

For North American equivalent (UL), replace ‘25032’ in the order number with ‘25030’

Harmonized/ UL Cord Sets with IEC 60309 Pin & Sleeve Connectors





IP 44: 380 - 415 Volt, 32 Amp, 5-wire (3+N+PE) Assembly

Type	Plug/Connector	Cable	Order No.
A	380 - 415V, 32A, 3+N+PE, 6H, Red, IP 44	OLFLEX® POWER IX, 5 x 4, Neoprene, OD: 18.7 mm	44-40032-IX-40-PX-**
B	380 - 415V, 32A, 3+N+PE, 6H, Red, IP 44	OLFLEX® POWER IX, 5 x 4, Neoprene, OD: 18.7 mm	44-40032-IX-40-CX-**
C	380 - 415V, 32A, 3+N+PE, 6H, Red, IP 44	OLFLEX® POWER IX, 5 x 4, Neoprene, OD: 18.7 mm	44-40032-IX-40-PC-**

IP 67: 380 - 415 Volt, 32 Amp, 5-wire (3+N+PE) Assembly

Type	Plug/Connector	Cable	Order No.
A	380 - 415V, 32A, 3+N+PE, 6H, Red, IP 67	OLFLEX® POWER IX, 5 x 4, Neoprene, OD: 18.7 mm	67-40032-IX-40-PX-**
B	380 - 415V, 32A, 3+N+PE, 6H, Red, IP 67	OLFLEX® POWER IX, 5 x 4, Neoprene, OD: 18.7 mm	67-40032-IX-40-CX-**
C	380 - 415V, 32A, 3+N+PE, 6H, Red, IP 67	OLFLEX® POWER IX, 5 x 4, Neoprene, OD: 18.7 mm	67-40032-IX-40-PC-**

Note: Complete the Order Number by adding the final 2 digits to indicate assembly cable length. Use “10” for 10 feet, “15” for 15 feet, or “25” for 25 feet. Custom lengths and configurations are available, please consult with a representative.

For North American equivalent (UL), replace ‘40032’ in the order number with ‘40030’.
Connector= 3øY, 277/480V, 20A, 3+N+PE, 7H, Red

Custom Assemblies

Lapp Systems offers the complete custom cable assembly solution. Concept development, application engineering, and high quality production, are performed by a team of experts with over 40 years of experience in the industry. A variety of connectorization methods and types are offered to satisfy almost any application requirement. With the ability to use a wide array of hardware and component manufacturers, Lapp Systems can provide existing designs, or new concepts and techniques can be created based on unique customer needs.

UL E192484 CSA 209964

CUSTOM CABLE ASSEMBLY

Overall Assembly Length

Connector A | Cable Length | Connector B

Cable Type

Housing (Hood/ Base): _____
Strain Relief: _____
Insert: _____

Housing (Hood/ Base): _____
Strain Relief: _____
Insert: _____

CABLE SPECIFICATIONS

Manufacturer: _____ Part # (Standard): _____ Cable Type: ☐ Round Cable ☐ Flat Cable

TERMINATION

☐ Screw ☐ Crimp
☐ Solder ☐ Cage Clamp

Voltage: _____
Amperage: _____
Temperature: _____

Flexibility: _____
Color Code: _____
Jacket Color: _____

CONDUCTORS

of Conductors: _____
AWG Size: _____ O.D. (inches) _____

☐ Solid ☐ Stranded
☐ Bare ☐ Tinned

SHIELD TYPE

☐ Mylar Shield ☐ Braid Shield
☐ Individual Shield ☐ Unshielded

ENVIRONMENT

☐ NEMA 4 ☐ NEMA 4X ☐ NEMA 12 ☐ IP 54 ☐ IP 65 ☐ IP 67 ☐ Other: _____

APPROVALS

☐ UL ☐ CSA ☐ CE
☐ None ☐ Other _____

REQUIREMENTS

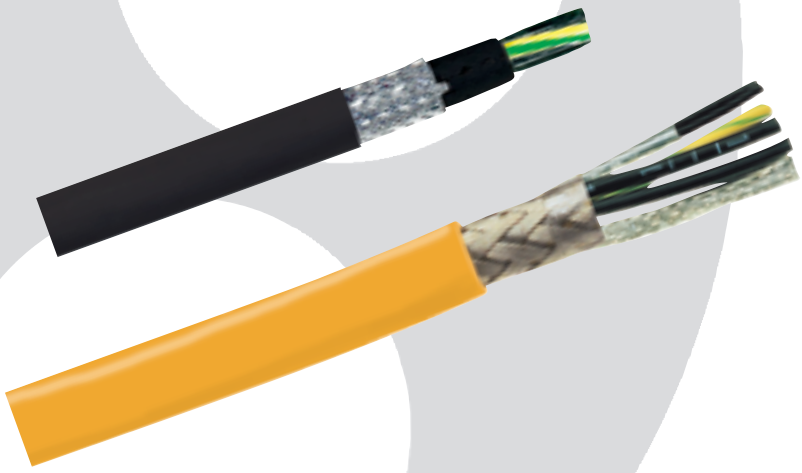
Conduit Type: _____
Ground Requirements: _____
Special Concerns (ex. Chemicals): _____

Lapp Custom Cable Design Capabilities

With over 40 years of experience, Lapp can provide the cable solutions needed for the most demanding specifications!

Conductors:

- Bare Copper
- Tinned Plated Copper
- Nickel Plated Copper
- Water Blocked Strands
- Stainless Steel
- Flexible Stranding
- Thermocouple Alloys
- High Strength Alloys



Insulating and Jacket Materials

- PVC
- Nylon
- TPE/TPR
- Polyurethane
- Fluoropolymers
- Semi-Conductive
- Polyester
- Polyethylene
- Polypropylene
- PVC/Nylon
- Thermoplastic Blends

Shielding and Braids (Metal and Textile)

- Aluminum/Polyester Tape
- Tinned Plated Copper Braid
- Copper Covered Steel Braid
- Stainless Steel Braid
- Nylon
- Bare Copper Braids
- Nickel Plated Copper Braid
- Silver Plated Copper Braid
- Kevlar
- Fiberglass

Markets

- Robotics
- Tranducers
- Geophysical
- Pendant & Reel
- Audio
- Instrumentation
- Custom Designs
- Control
- Lighting
- Tray Cable
- Entertainment
- Coil Cords
- Breather/ Vent Tubes
- Continuous Flex
- Sensors
- Medical/Dental
- Lead Wire
- Test and Measurement
- Thermocouples
- Automotive
- Industrial
- Shipboard
- Portable Cord
- Marine
- Elevator

Lapp Custom Design Questionnaire

Photocopy and fax to Lapp at 973-660-9330

CONTACT INFORMATION

Name: _____ **Address:** _____

Company: _____ **City, State, Zip:** _____

Phone: _____ **Email:** _____

Fax: _____

APPLICATION INFORMATION

(description of environment - i.e. oily, rugged, UV rays, chemicals, movement of cable, etc...)

_____

_____

Static: ☐ **Continuous:** ☐ **Torsional:** ☐ **Bend Radius:** _____

Acceleration: _____ **Travel Distance:** _____ **Speed of Travel:** _____

Additional Information:

_____

_____

CONDUCTORS

Element 1:

AWG: _____

Stranding/Material: _____

Insulation Material: _____

Coding: **Number** ☐ **Color** ☐

# of Conductors/Pairs: _____

Element 2:

AWG: _____

Stranding/Material: _____

Insulation Material: _____

Coding: **Number** ☐ **Color** ☐

# of Conductors/Pairs: _____

OVERALL SHIELDED TYPE

leave blank if not applicable

Foil: **Yes** ☐ **No** ☐ **Type:** _____

Braid: **Yes** ☐ **No** ☐ **Type:** _____

Spiral: **Yes** ☐ **No** ☐ **Type:** _____

Are Drain wires required: **Yes** ☐ **No** ☐

Individual Shield: **Yes** ☐ **No** ☐

Jacket Material: _____

Final OD Required: _____

Comments:

_____

_____

FINISHED PRODUCT REQUIREMENTS

Voltage: _____ **Electricals:** _____

Temperature: _____ **Quantity:** _____

Ratings: **UL** ☐ _____ **Date Required:** _____

CSA ☐ _____

Lapp Muller

Cabling Solution Partner

Marine and Underwater

Lapp Muller has successfully worked with many coastal and deep-sea engineering companies as well as oceano-graphical Research Institutes and O.E.M. providers of equip-ment to the offshore gas and oil industry. They provided both composite electrical and optical cables for many umbilicals to ship and submarine borne types for the French Navy, meeting their relevant specifications. These cables can be supplied as complete systems terminated with any preferred style of connector from galvanized, stainless steel to titanium types as either rigid or flexible assemblies dependent on customer specifications.

Nuclear

Present for more than 30 years in the nuclear field, Lapp Muller SAS has equipped the first fuel assembly handling bridges of the waste processing plant of La Hague in France. Lapp Muller SAS has built its reputation by designing and manufacturing high performance cables using constructions and materials to meet the requirement of nuclear engineering cables.

Harbor

Lapp Muller technology can be found in many containerized ports, where the need for mixed umbilical links within the winding cables is required.

Oil and Gas

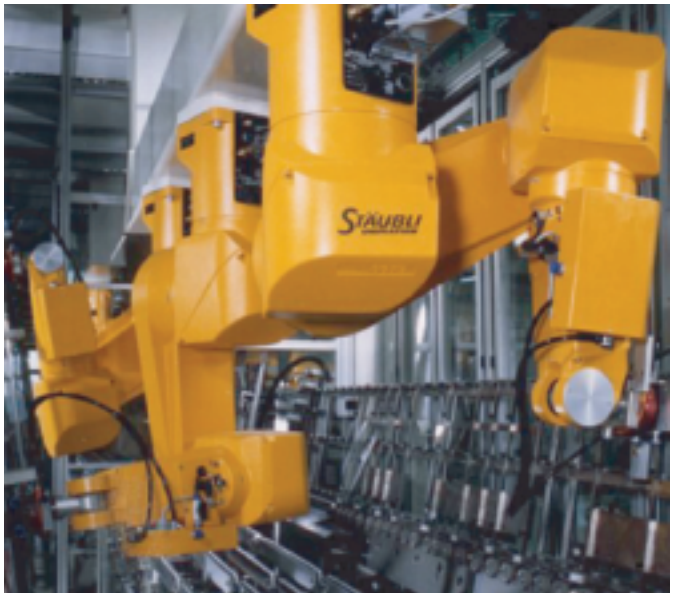
Lapp Muller cables have been used in many applications for both exploration as well as production on oil and gas platforms around the world. They can be found in day to day maintenance equipment to the actual positioning systems used for the location of platforms and pipelines to all important safety equipment. Additionally Lapp Muller cables can also be seen in valve control and monitoring equipment used for gas transportation.

Lapp Muller

Cabling Solution Partner

Robotic & Automation

Lapp Muller has more than 25 successful years in robotic and chain carry-cable applications. Working in partnership with many companies supplying original equipment into the industrial sector with applications such as machine tools, robots and gantries integrating power lines, power/control, signal, servomotors and safety control systems. Lapp Muller's knowledge and expertise have seen the production of both hybrid and dynamic cable designs ideally suited to withstand the severe mechanical demands of continual and repeated bending as well as the harsh working environment where welding, molding and chemical processes take place.



Airport

Lapp Muller ultra flexible cables are to be found in many airside applications such as rollers on aerobridges and taxiway power-stations used to energize the aircraft's electrical systems when on the ground. Both the construction and materials used in these cables make them ideal to withstand both the harsh mechanical and chemical conditions that these applications demand.

Miscellaneous

Lapp Muller cables can also be found in many other industrial sectors such as medical, petrochemical, telecommunications, leisure and defense. Cables for applications such as silo control in agriculture, ski and chair lifts control in the leisure industry, safety systems used in large buildings from railway stations to municipal complexes. Due to their lightness and high mechanical specification, technologically advanced products such as Araline cables make them ultra competitive and ideal for these applications. In fact anywhere the need for integrity of the cables is paramount particularly because of safety demands or where severe environmental conditions are to be experienced Lapp Muller cables are to be found.