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A wide variety of field devices are available specifically for use on DeviceNet networks.






They include:






- RightSight™ Photoelectric Sensor
- Series 9000 Photoelectric Sensor
- 871TM Inductive Proximity Sensor
- 802DN Limit Switch
- 842D Encoder
- DeviceLink™
- SafeShield™ Safety Light Curtain Interface Module
- Bulletin 284 Distributed Starter
- Bulletin 280/281 ArmorStart™ Distributed Motor Controller
- Bulletin 855T—70mm Control Tower™ Stack Lights





Spare Allen-Bradley Parts

Quick Selection Guide

Specifications	 1485C KwikLink™ Cable	 1485P KwikLink General Purpose Connectors	 1485P KwikLink Connectors	 1485T & 1485P Pigtail KwikLink Connectors	 1485P KwikLink Splice Kits
Description	<ul style="list-style-type: none"> Keyed flat trunk cable for use with Insulation Displacement Connectors (IDCs) 	<ul style="list-style-type: none"> Vampire connectors for use with KwikLink flat cable in general purpose applications 	<ul style="list-style-type: none"> Insulation Displacement Connectors (IDCs) for use with KwikLink flat cable 	<ul style="list-style-type: none"> Insulation Displacement Connector with integral class 1 round cable pigtail for interfacing a device or power supply to flat cable 	<ul style="list-style-type: none"> A pair of IDCs factory-joined with Class 1 round cable for splicing together two sections of flat cable network
Features	<ul style="list-style-type: none"> Keyed to prevent wiring mishaps TPE or PVC jacket Class 1 or class 2 rated cable versions Available in spools up to 420m (1378ft) 	<ul style="list-style-type: none"> Plug and play installation Two-piece housing Designed for general purpose applications IP67 rated 	<ul style="list-style-type: none"> Plug and play installation UL listed and CSA certified Valox® construction Sealed: 1200psi (8270kPa) washdown 	<ul style="list-style-type: none"> Plug and play installation Allows Class 1 drop to KwikLink system Includes IDC connector and pigtail module 	<ul style="list-style-type: none"> Plug and play installation Available in standard splice kit and power isolation splice kit versions Includes IDC, splice module and flat cable end caps
Connections	<ul style="list-style-type: none"> NA 	<ul style="list-style-type: none"> Micro QD 	<ul style="list-style-type: none"> Micro QD Open-style Terminator 	<ul style="list-style-type: none"> Mini QD Conductor 	<ul style="list-style-type: none"> KwikLink module to KwikLink module
Available Models	<ul style="list-style-type: none"> TPE CL1 rated PVC CL2 rated 	<ul style="list-style-type: none"> Micro QD 	<ul style="list-style-type: none"> Sealed Unsealed 	<ul style="list-style-type: none"> Sealed Unsealed 	<ul style="list-style-type: none"> Sealed Unsealed Standard splice kit Power isolation splice kit
Additional Info	<ul style="list-style-type: none"> See page 6-6, 6-12 	<ul style="list-style-type: none"> See page 6-7 	<ul style="list-style-type: none"> See page 6-14 	<ul style="list-style-type: none"> See page 6-15 	<ul style="list-style-type: none"> See page 6-13

Specifications	 1485A Bulkhead Pass-Through Connectors	 1485T PowerTap	 1485P DeviceBox	 1485P DevicePort	 1485P T-Port
Description	<ul style="list-style-type: none"> Mini or micro bulkhead pass-through connectors for convenient routing of DeviceNet wiring through panel walls 	<ul style="list-style-type: none"> Passive coupling device used to limit trunk current 	<ul style="list-style-type: none"> Passive sealed junction boxes for up to 8 smart devices 	<ul style="list-style-type: none"> Passive multi-port tap for up to 8 smart devices 	<ul style="list-style-type: none"> Connects a single drop line to the trunk
Features	<ul style="list-style-type: none"> Nickel-plated brass housing standard Stainless steel housing versions available 	<ul style="list-style-type: none"> Allows for multiple power supplies 7.5A or 3.0A fuse protection (2x) Thick media and thin media versions 	<ul style="list-style-type: none"> 2, 4, or 8 ports Cord grip openings Direct connection to trunk Thick media and thin media versions 	<ul style="list-style-type: none"> 4 or 8 ports Connection to trunk via drop line Stainless steel option 	<ul style="list-style-type: none"> Right or left keyway for positioning purposes Stainless steel option
Connections	<ul style="list-style-type: none"> Mini QD Micro QD 		<ul style="list-style-type: none"> Cage-clamp terminal strips 	<ul style="list-style-type: none"> Mini QD Micro QD 	<ul style="list-style-type: none"> Mini QD Micro QD
Enclosure	<ul style="list-style-type: none"> 4- and 5-pin mini 5-pin DC micro 	<ul style="list-style-type: none"> Thick media Thin media 	<ul style="list-style-type: none"> Thick media Thin media 	<ul style="list-style-type: none"> QD drop connector Pigtail drop connector Cable drop connector Thru-Trunk 	<ul style="list-style-type: none"> Mini drop connector Micro drop connector
Additional Info	<ul style="list-style-type: none"> See page 6-38 	<ul style="list-style-type: none"> See page 6-33 	<ul style="list-style-type: none"> See page 6-34 	<ul style="list-style-type: none"> See page 6-16, 6-35 	<ul style="list-style-type: none"> See page 6-30, 6-32

 <p style="text-align: center;">1485K KwikLink Drop Cables</p>	 <p style="text-align: center;">1485A Accessories</p>	 <p style="text-align: center;">1485C Thick Media</p>	 <p style="text-align: center;">1485C Thin Media</p>	 <p style="text-align: center;">1485A Terminal Chambers</p>
<ul style="list-style-type: none"> • Four-wire unshielded drop cables for use exclusively with KwikLink systems 	<ul style="list-style-type: none"> • Accessories to complement KwikLink flat media systems 	<ul style="list-style-type: none"> • 12.2mm (1/2in) cable for DeviceNet trunkline offered in cable spools, molded connectors and receptacles 	<ul style="list-style-type: none"> • 6.9mm (1/4in) cable for DeviceNet trunkline or droplines offered in cable spools, molded connectors and receptacles 	<ul style="list-style-type: none"> • Mini or micro field attachable connectors with screw terminals for DeviceNet
<ul style="list-style-type: none"> • For use only with KwikLink Flat Media system • Epoxy-coated zinc coupling nut • PVC jacket 	<ul style="list-style-type: none"> • Durable construction • Simple mounting and installation 	<ul style="list-style-type: none"> • PVC jacket • Standard cordset lengths up to 30m (98ft) • Available in raw spools up to 500m (1640ft) • Stainless steel option 	<ul style="list-style-type: none"> • Yellow TPE or gray PVC jacket • Standard cordset lengths up to 6m (19.6ft) • Available in raw spools up to 600m (1968ft) • Stainless steel option 	<ul style="list-style-type: none"> • Straight or right angle • Male and female versions • Screw terminal connection • IP67 rating
<ul style="list-style-type: none"> • Mini QD • Micro QD • Conductor 	<ul style="list-style-type: none"> • Micro QD 	<ul style="list-style-type: none"> • Mini QD • Conductor 	<ul style="list-style-type: none"> • Mini QD • Micro QD • Conductor 	<ul style="list-style-type: none"> • Mini QD • Micro QD
<ul style="list-style-type: none"> • Single ended • Double ended 	<ul style="list-style-type: none"> • KwikLink Dust Cap • Conduit adaptors • KwikLink end caps • Flat cable mounting clamp • Micro sealing cap • Micro terminator 	<ul style="list-style-type: none"> • Cable spools • Premolded segments • Panel mount receptacles • Field attachable conn. • Terminators 	<ul style="list-style-type: none"> • Cable spools • Premolded segments • Panel mount receptacles • Field attachable conn. • Terminators 	<ul style="list-style-type: none"> • Mini for Thick Media • Mini for Thin Media • Micro for Thin Media
<ul style="list-style-type: none"> • See page 6-8, 6-17 	<ul style="list-style-type: none"> • See page 6-10, 6-19 	<ul style="list-style-type: none"> • See page 6-20 	<ul style="list-style-type: none"> • See page 6-24 	<ul style="list-style-type: none"> • See page 6-9, 6-27

 <p style="text-align: center;">889N Auxiliary Power Media</p>	 <p style="text-align: center;">889N Auxiliary Power/Single Channel Safety Media</p>	 <p style="text-align: center;">1485 Accessories</p>	 <p style="text-align: center;">1786 ControlNet™ Media</p>
<ul style="list-style-type: none"> • 4-pin patchcords, receptacles, T-ports, terminal chambers, bulkhead pass-through connectors and accessories for auxiliary power for DeviceNet 	<ul style="list-style-type: none"> • 4-pin T-ports and shorting plugs wired to provide both auxiliary power and a single channel safety circuit • Note: safety circuit is passive and not part of the DeviceNet communication network. 	<ul style="list-style-type: none"> • Accessories to complement DeviceNet media system installations 	<ul style="list-style-type: none"> • Sealed media utilizing threaded connectors for ControlNet
<ul style="list-style-type: none"> • Yellow PVC jacket • Standard patchcord lengths up to 30m (98ft) 	<ul style="list-style-type: none"> • Red PBT housing • Male or female shorting plugs available • For use in conjunction with standard auxiliary power media components 	<ul style="list-style-type: none"> • Durable construction • Broad range of connection types • Simplified installation 	<ul style="list-style-type: none"> • Threaded connectors • IP67 rating • Rugged durable construction
<ul style="list-style-type: none"> • Mini QD 	<ul style="list-style-type: none"> • Mini QD 	<ul style="list-style-type: none"> • Mini QD • Micro QD • Open-style 	<ul style="list-style-type: none"> • TNC
<ul style="list-style-type: none"> • Patchcords • T-ports • Receptacles • Bulkhead pass-thru 	<ul style="list-style-type: none"> • T-ports • Shorting Plugs 	<ul style="list-style-type: none"> • Terminating resistor • Sealing caps • Open-style connectors • Open 	<ul style="list-style-type: none"> • Plug Connectors • T-taps • Bulkhead connectors • Terminators
<ul style="list-style-type: none"> • See page 6-18 	<ul style="list-style-type: none"> • See page 6-41 	<ul style="list-style-type: none"> • See page 6-42 	<ul style="list-style-type: none"> • See page 6-46

Spare Allen-Bradley Parts

General Description

DeviceNet™ is an open communication network designed to connect factory floor devices such as photoelectric sensors, inductive proximity sensors, motorstarters, drives, valve manifolds, and simple operator interfaces together without interfacing through an I/O system. It increases the amount and rate of information flowing from plant floor devices to control systems, and has the potential to substantially reduce wiring costs. Up to 64 intelligent nodes can be connected to one DeviceNet network. The ability to remove and replace devices from the network while under power without a programming tool is a distinct advantage of the DeviceNet network.

The DeviceNet network consists of a cabling system that provides both power and communication to nodes. Rockwell Automation offers a number of media products for device connection and communication needs.

KwikLink™ Flat Media System

The KwikLink flat media system provides a simple, modular cabling method with its flat 4-wire cable and Insulation Displacement Connectors (IDCs). Designed to promote up to 50% savings in installation costs by offering a drastic reduction in labor and materials, the KwikLink system allows nodes to be added to the network quickly and easily—without severing the trunkline. Cutting or stripping of the trunkline is eliminated, as is the need for predetermined cable lengths. KwikLink offers maximum simplicity while still supporting 64 nodes.

KwikLink Heavy Duty Connectors are the original connector style for flat media. This rugged industrial connector design incorporates a removable field interface cap in a multitude of connection types including micro, mini pigtail, cable pigtail, open style, and terminator styles, in addition to splice kits for joining two separate flat media trunk sections.

KwikLink General Purpose connectors provide a simple low profile two-piece connector design for less demanding industrial applications. These micro style connectors are offered with an extremely pliable flat cable for maximum ease of installation and cable routing and are rated for use in IP67 environments.

ArmorBlock MaXum I/O is also specifically designed to provide a direct interface to the KwikLink flat media system. A full complement of accessories is also available. For complete information on system installation and associated details, see Rockwell Automation publication DN-6.7.2 and 1485-IN001A-EN-P.

Round Media—Thick Trunk System

Rockwell Automation round media thick trunk systems are based on the use of “thick cable” for DeviceNet. Rockwell Automation thick trunk cable allows maximum trunk line distance and is the original DeviceNet system configuration. Thick trunk cable is available in bulk spools or as mini male to mini female cordsets or patchcords in

varying lengths. A wide variety of rugged, durable Allen-Bradley DeviceNet components are available for use in thick trunk systems. These components include drop cables, T-Ports, DeviceBox, DevicePort, PowerTap and a multitude of other components and accessories. Stainless steel versions of thick cable system components are also available. For complete information on system installation and associated details, see Rockwell Automation publication DN-6.7.2.

Round Media—Thin Trunk System

Rockwell Automation round media thin trunk systems are based on the use of “thin cable” for DeviceNet. The use of thin cable reduces maximum trunk line distances but allows for a more compact and cost effective installation for some applications. Rockwell Automation thin cable outer jacket material is TPE for additional chemical resistance. Thin trunk cable is available in a wide variety of configurations including raw spools and both micro and mini cordsets and patchcords. Similar to Rockwell Automation thick trunk systems, compatible components include T-Ports, DeviceBox, DevicePort, PowerTap, and a multitude of other components and accessories. Stainless steel versions of thin cable system components are also available. For complete information on system installation and associated details, see Rockwell Automation publication DN-6.7.2.

General Characteristics

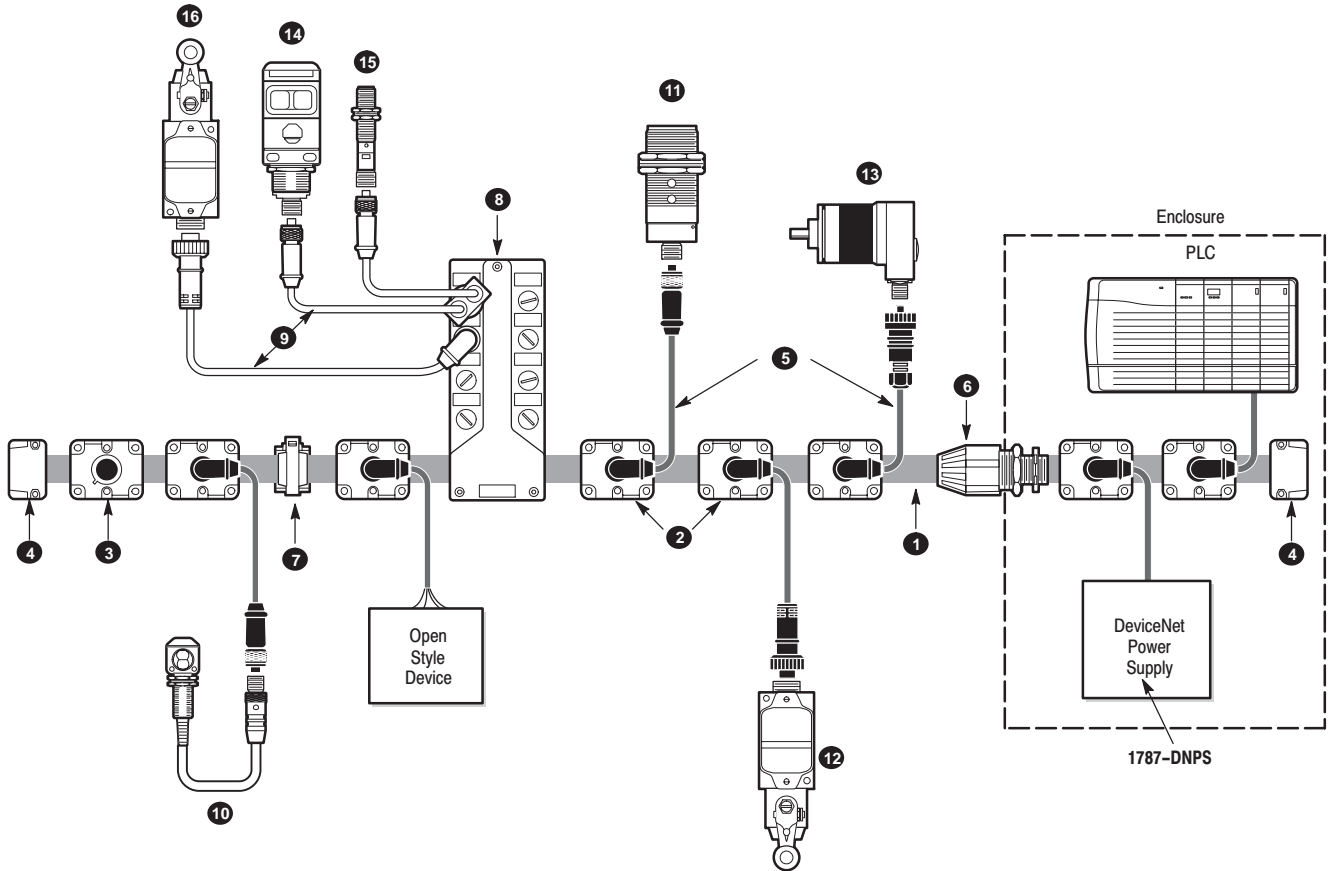
Data Rates	125k baud	250k baud	500k baud
Flat Trunk Distance	420m (1378ft)	200m (656ft)	75m (246ft)
Thick Trunk Distance	500m (1640ft)	250m (820ft)	100m (328ft)
Thin Trunk Distance		100m (328ft)	
Max. Drop Length		6.1m (20ft)	
Cumulative Drop	156m (512ft)	78m (256ft)	39m (128ft)
Number of Nodes	64		

For detailed information on these characteristics, see Rockwell Automation publication DN 6.7.2.

Round Media DeviceNet Connection Wiring

Mini Connector		Micro Connector		1. Drain 2. Red (V+) 3. Black (V-) 4. White (CAN_H) 5. Blue (CAN_L)
Face View of Female	Face View of Male	Face View of Female	Face View of Male	

Typical Configuration



- | | | |
|---|--|--|
| <ul style="list-style-type: none"> ➊ KwikLink General Purpose Flat Trunk Cable page 6–6 ➋ KwikLink General Purpose Connector page 6–7 ➌ Micro Terminator page 6–10 ➍ Flat Cable End Cap page 6–10 | <ul style="list-style-type: none"> ➎ KwikLink Drop Cable page 6–8 ➏ Conduit Adaptor page 6–10 ➐ Mounting Clamp page 6–10 ➑ ArmorBlock MaXum page 7–20 ➒ Standard Cordsets page 3–35 | <ul style="list-style-type: none"> ➓ DeviceNet Photoelectric ➑ DeviceNet Inductive ➒ DeviceNet Limit Switch ➓ DeviceNet Encoder ➑ Standard Photoelectric ➒ Standard Proximity ➓ Standard Limit Switch |
|---|--|--|

See the Sensors Catalog.

Spare Allen-Bradley Parts

DeviceNet™ Flat Media System—KwikLink™ General Purpose

Flat Cable Trunk



Class 2 Flex Flat Cable



Features

- Physical key to ensure proper connection alignment
- Sized to fit inside 1" conduit
- Highly pliable PVC jacket material
- UL recognized and CSA certified

Specifications

Cable	4-conductor unshielded
Agency Approvals	UL listed and CSA certified
Operating Temperature	-25°C to +75°C (-13°F to +167°F)

Description

KwikLink General Purpose Class 2 (CL2) flat cable is specifically designed for use with the new KwikLink General Purpose connectors. This PVC jacketed cable conforms to the same physical profile as original KwikLink flat cables, but is highly flexible for ease of installation and routing.

Note: KwikLink General Purpose Flat Cable is not recommended for use with original heavy duty KwikLink connectors.

The cable adheres to NEC Article 725, which states that for a Class 2 circuit, the power source must have a rated output of less than 30V and 100VA. In the case of DeviceNet, running at 24V, the maximum allowable current is then 100VA/24V or 4A. Therefore, KwikLink General Purpose Class 2 cable is rated to 4A at 24V DC.

Product Selection

Dimensions—mm (inches)	Rating	Use	Jacket Material	Color	Catalog Number		
					75m Spool	200m Spool	420m Spool
	24V DC 4A (Class 2)	DeviceNet Trunk	PVC	Grey	1485C-P1K75	1485C-P1K200	1485C-P1K420

Note: The KwikLink General Purpose flat cable is only for use with the KwikLink General Purpose connectors and ArmorBlock MaXum flat cable base. It is not suitable for use with original KwikLink Heavy Duty connectors.

DeviceNet™ Flat Media System—KwikLink™ General Purpose Connectors



KwikLink General Purpose

Features

- Quick, simple installation
- Simple 2-piece, low profile housing
- Rugged, durable construction
- IP67 rated
- Designed for single use
- Integral micro connector

Specifications

Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Installation Temperature	0°C to 50°C (32°F to 122°F)
Operating Temperature	-25°C to +75°C (-13°F to +167°F)
Enclosure Rating	IP67
Vibration	0.35mm (0.014in) displacement @ 10 to 150Hz, 3 planes
Connector Body	Cover: Glass-filled polyester, type PBT Base: Glass-filled nylon, type PA66
Installation Torque	10 to 12in lbs (1.1 to 1.3Nm)
Dimensions	45mm x 40mm x 32mm (1.8in x 1.6in x 1.3in)

Description

Allen-Bradley KwikLink General Purpose connectors are the next generation of the original KwikLink. Designed to interface drop cables to the flat cable trunkline with optimal plug-and-play capability at minimal cost, the KwikLink General Purpose connector's simple 2-piece design results in a low profile housing and decreases installation time.

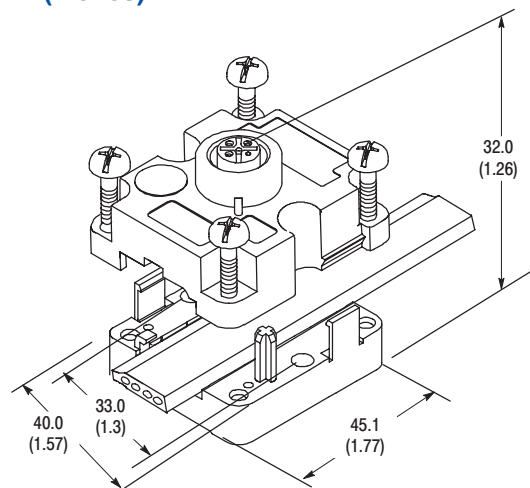
The connector snaps onto the flat cable at any point along the trunk. Contact is made with the cable's 4 conductors by tightening 4 screws that drive the

contacts through the cable jacket into the conductors.

These connectors are sealed to IP67 requirements and provide a wide working temperature range for application flexibility.

KwikLink General Purpose connectors, similar to original KwikLink, are designed for single use only and, once installed, should not be removed from the trunkline.

Dimensions—mm (inches)



Product Selection

Connector Style	Rating	Color	Catalog Number
Micro Style	24V DC 3A	Black	1485P-K1E4-R5

Spare Allen-Bradley Parts



KwikLink Drop Cordset

Features

- Drop cables designed exclusively for use with KwikLink systems
- Micro, mini and cable connection
- Ratcheting coupling nut for vibration resistance

Specifications

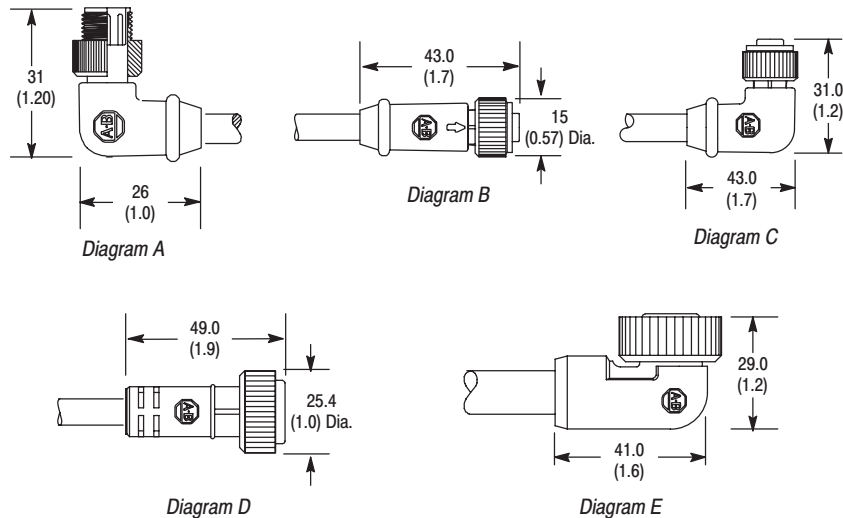
Coupling Nut	Epoxy coated zinc
Connector	Molded oil resistant PVC
Contacts	Gold-plated palladium nickel
Cable	Oil resistant grey PVC jacket, unshielded, 22AWG power conductors, 24AWG signal conductors
Cable O.D.	6mm (0.24in)
Temperature	-20°C to +105°C (-4°F to +221°F)
Maximum Current	3 Amps

Drop Cables

Designed specifically for use with KwikLink, these drop cables come in the most common connection configurations. All trunkline connections

are 90° micro male with 4-wire unshielded cable. Device connection options include 5-pin mini and micro as well as flying leads.

Dimensions—mm (in)



Product Selection

KwikLink Drop Cable Cordsets and Patchcords

Connector Style	Dimensions (Diagram No.)	Catalog Number and Length—m (ft)					
		1 (3.3)	2 (6.5)	3 (9.8)	4 (13.1)	5 (16.4)	6 (19.7)
Right Angle Micro to Conductor	A	1485K-P1F5-C	1485K-P2F5-C	—	1485K-P4F5-C	—	1485K-P6F5-C
Right Angle Micro to Str Micro	A, B	1485K-P1F5-R5	1485K-P2F5-R5	1485K-P3F5-R5	1485K-P4F5-R5	1485K-P5F5-R5	1485K-P6F5-R5
Right Angle Micro to Right Angle Micro	A, C	1485K-P1F5-V5	1485K-P2F5-V5	1485K-P3F5-V5	1485K-P4F5-V5	1485K-P5F5-V5	1485K-P6F5-V5
Right Angle Micro to Str Mini	A, D	1485K-P1F5-N5	1485K-P2F5-N5	1485K-P3F5-N5	1485K-P4F5-N5	1485K-P5F5-N5	1485K-P6F5-N5
Right Angle Micro to Right Angle Mini	A, E	1485K-P1F5-Z5	1485K-P2F5-Z5	1485K-P3F5-Z5	1485K-P4F5-Z5	1485K-P5F5-Z5	1485K-P6F5-Z5

Additional drop cable configurations are available, contact your local Allen-Bradley distributor.

Note: These drop cables are only for use with the KwikLink flat cable system. They are not suitable for use with standard DeviceNet round cable systems.

DeviceNet™ Flat Media System—KwikLink™ General Purpose Terminal Chambers



Straight Female Micro Style Terminal Chamber

Features

- Field installable
- Straight and right angle 5-pin terminal chambers
- Mini and micro versions
- Screw terminal installation

Specifications

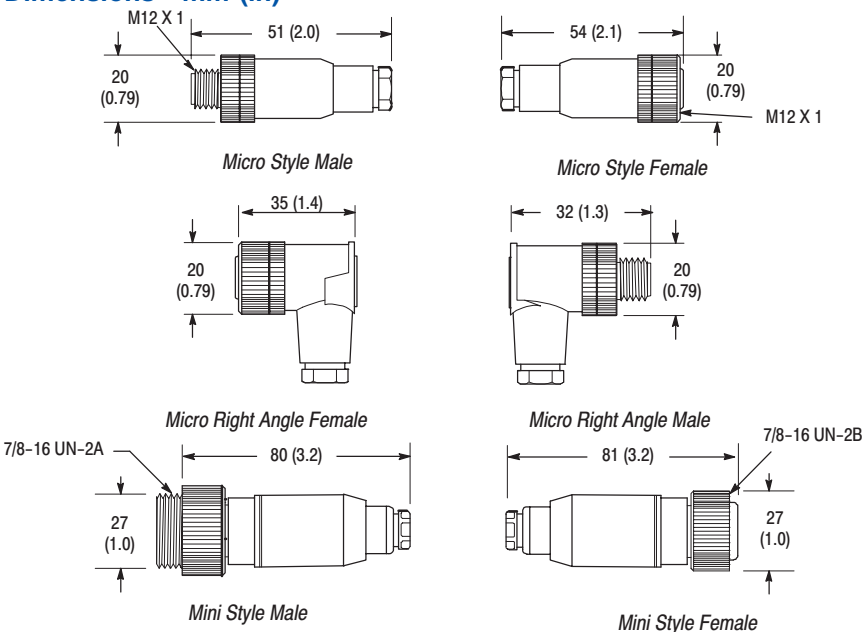
Coupling Nut	Micro: nickel-plated brass; Mini: anodized aluminum
Connector Shell	Nylon
Contacts	Gold-plated palladium nickel
Enclosure	NEMA 6; IP67 (IEC 529)
Temperature	-40°C to 90°C (-40°F to 194°F)

Description

Terminal chambers are passive field-installable connectors. Allen-Bradley 5-pin micro style and 5-pin mini style terminal chambers are designed for use with DeviceNet systems. These connectors contain

screw terminals for quick and easy installation and are sized for use with DeviceNet thin cables. Other versions are also available for use with thick cable, see page 6–28.

Dimensions—mm (in)



Product Selection

Thin Trunk or Drop Cable Terminal Chambers		
Connector Style	Type	Catalog Number
Straight Micro	Male	871A-TS5-DM1
	Female	871A-TS5-D1
Right Angle Micro	Male	871A-TR5-DM1
	Female	871A-TR5-D1
Straight Mini	Male	871A-TS5-NM1
	Female	871A-TS5-N1

Spare Allen-Bradley Parts

Accessories

In order to support all of the options associated with the flexibility of KwikLink, Allen-Bradley offers an array of accessories including cable mounts, conduit adaptors, flat cable end caps, and threaded plugs for sealing unused micro connectors.

Catalog Number	Description
1485A-KCAP	Flat Cable End Cap
1485A-T1D5	Micro Terminator, Male
1485A-CAD	Conduit Adaptor (PG21)
1485A-FCM	Flat Cable Mounting Clamp
1485A-M12	Plastic Threaded Plug (M12)



Flat Cable End Cap



Conduit Adaptor



Micro Terminator

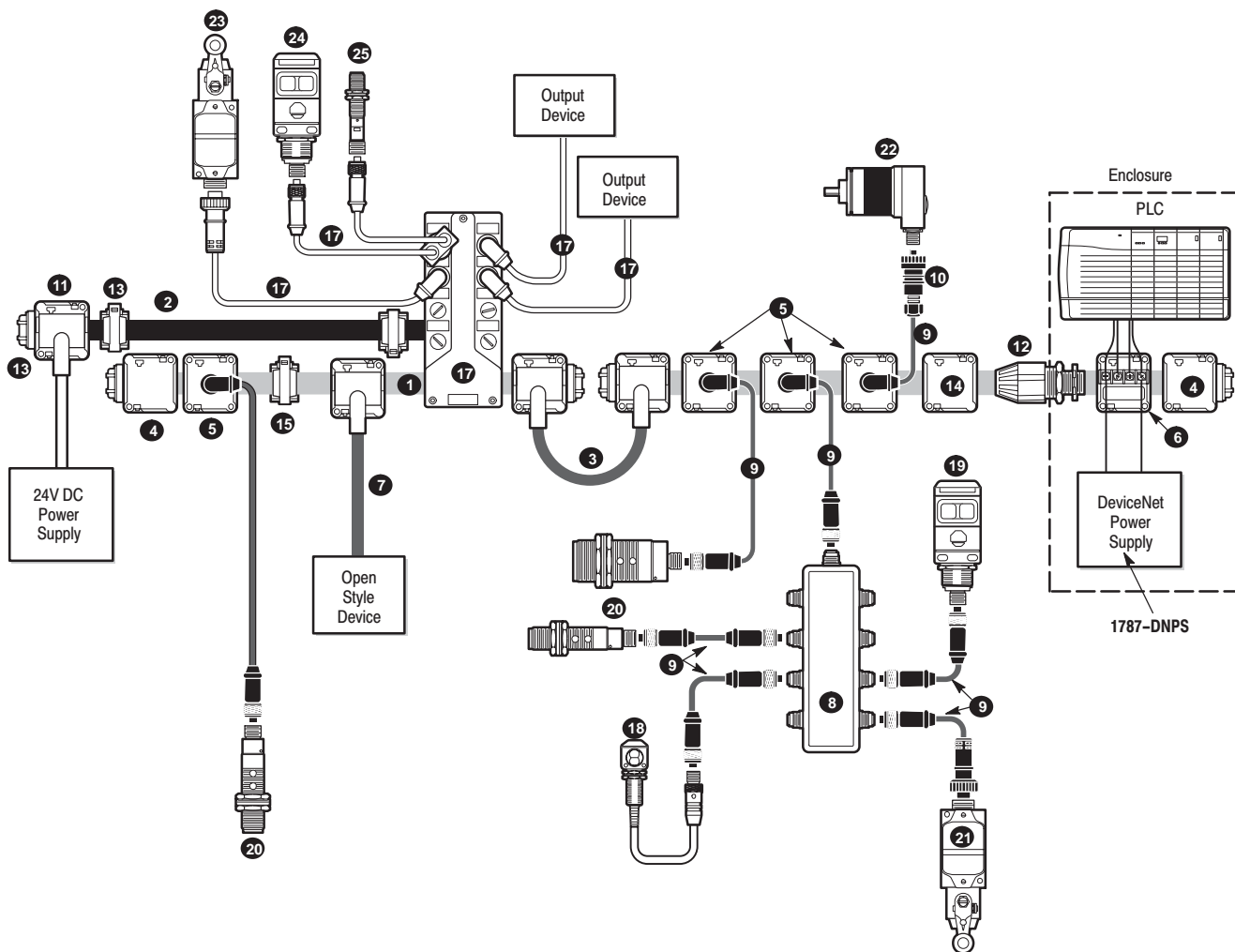


Mounting Clamp



M12 Threaded Plug (Plastic)

Typical Configuration



- 1 Flat Trunk Cable page 6–12
- 2 Flat Auxiliary Power Cablepage 6–12
- 3 Splice Kit page 6–13
- 4 Terminator page 6–14
- 5 Connector IDC page 6–14
- 6 Open Style IDC page 6–14
- 7 Class I Drop page 6–15
- 8 DevicePort page 6–16
- 9 KwikLink™ Drop Cable page 6–17
- 10 Terminal Chamber page 6–27
- 11 Auxiliary Power Drop page 6–18
- 12 Conduit Adaptor page 6–19
- 13 Flat Cable End Cap page 6–19
- 14 Mounting Clamp page 6–19
- 15 Dust Cap page 6–19
- 16 ArmorBlock MaXum page 7–20
- 17 Standard Cordsets page 3–35
- 18 DeviceNet RightSight
- 19 DeviceNet SmartSight 9000
- 20 DeviceNet Inductive
- 21 DeviceNet Limit Switch
- 22 DeviceNet Encoder
- 23 Standard Limit Switch
- 24 Standard Photoelectric
- 25 Standard Proximity

} See the
**Sensors
Catalog.**

Spare Allen-Bradley Parts

DeviceNet™ Flat Media System—KwikLink™ Heavy Duty

Flat Cable Trunk



Class 1 Flat Cable



Class 2 Flat Cable



Auxiliary Power Flat Cable



Features

- Physical key to ensure proper connection alignment
- Sized to fit inside 1" conduit
- TPE or PVC jacket material
- UL recognized and CSA certified

Specifications

Cable	4-conductor unshielded
Agency Approvals	UL listed and CSA certified
Operating Temperature	-25°C to +75°C (-13°F to +167°F)

Description

Class 1 (CL1) Cable: Per NEC specifications for a Class 1 circuit (see NEC Article 725), the power source must have a rated output of less than 30V and 1000VA. So, based on the size of the flat cable conductors, the maximum current through the network must be no more than 8A. For applications requiring 8A in the field, a Class 1 rated flat cable is available. This cable is not recommended for use with KwikLink FX™ connectors.

Allen-Bradley Class 1 KwikLink cable is UL listed for 600V and 8A at 24V DC. For optimal chemical resilience and superior protection in harsh environments, KwikLink Class 1 cable also features a TPE jacket. Maximum toughness with excellent flexibility.

Class 2 (CL2) Cable: For less demanding applications at lower currents, Allen-Bradley offers a PVC-jacketed Class 2 cable. More flexible than the CL 1 cable, this design adheres to NEC Article 725, which states that for a Class 2 circuit, the power source must have a rated output of less than 30V and 100VA. In the case of DeviceNet, running at 24V, the maximum allowable current is then 100VA/24V or 4A. Therefore, KwikLink CL 2 cable is rated to 4A at 24V DC. This cable can be used with all flat cable connectors.

Auxiliary Power Cable (CL1): In some cases, it may be desirable to run an auxiliary bus to power outputs, i.e. valves, actuators, indicators. To support such an application, Allen-Bradley provides a black PVC power cable for use with KwikLink connectors. KwikLink power cable is a Class 1 cable capable of supplying 24V of output power with currents up to 8A. This cable can be used with all flat cable connectors.

Product Selection

Dimensions—mm (in)	Rating	Use	Jacket Material	Color	Catalog Number		
					75m Spool	200m Spool	420m Spool
	24V DC 8A (Class 1)	DeviceNet Trunk	TPE	Grey	1485C-P1E75	1485C-P1E200	1485C-P1E420
	24V DC 4A (Class 2)		PVC	Light Grey	1485C-P1G75	1485C-P1G200	1485C-P1G420
	24V DC 8A (Class 1)	Aux Power Trunk	PVC	Black	1485C-P1L75	1485C-P1L200	1485C-P1L420

DeviceNet™ Flat Media System—KwikLink™ Heavy Duty Trunk Splice Kit



Splice Kit

Specifications

Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Operating Temperature	-25°C to +75°C (-13°F to +167°F)
Enclosure Rating	Unsealed: NEMA 1; IP60 (IEC 529) Sealed: NEMA 4, 6P, 13; IP67 (IEC 529) & 1200psi (8270kPa) washdown
Vibration	1.5mm displacement @ 10 to 500Hz, 10G peak, 3 planes
Housing Material	Valox®
Cable Jacket Material	Grey PVC
Dimensions	45mm x 49mm x 59mm (1.8in x 1.8in x 2.3in)

Features

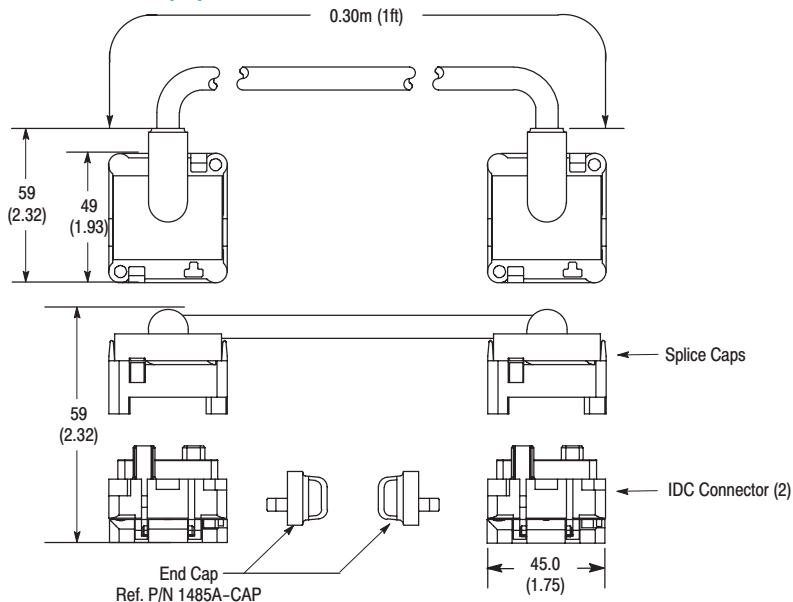
- Sealed and unsealed versions
- Connects trunk segments with 8A current capacity
- Standard and power isolation versions
- Quick, simple installation
- Includes IDC connectors, splice caps, and flat cable end caps

Description

KwikLink splice kits are used for splicing together two sections of a flat cable network. Splice kits are rated for 8A at 24VDC (Class 1) and come with all the parts necessary to join sections of flat media. Kits include a pair of snap-on KwikLink modules factory-joined with Class 1 round cable, two IDC connector bases, and two flat

cable end caps. Power Isolation versions are available to allow separation of power supplies along the network trunkline. This permits the connection of multiple power supplies to the trunk without mutual interference. Additional information on the IDC connector is found on page 6–14.

Dimensions—mm (in)



Product Selection

Connector Style	Rating	Wiring Diagram	Cable Length	Catalog Number	
				Unsealed	Sealed
Splice Kit	24V DC 8A	V+ (Red) V+ Can-H (White) Can-H Can-L (Blue) Can-L V- (Black) V-	0.3 (1.0)	1485P-P1H4-S	1485P-P1E4-S
Power Isolation Splice Kit		V+ (No Connection) V+ Can-H (White) Can-H Can-L (Blue) Can-L V- (Black) V-		1485P-P1H4-SX	1485P-P1E4-SX

Spare Allen-Bradley Parts

DeviceNet™ Flat Media System—KwikLink™ Heavy Duty

Insulation Displacement Connectors



Micro Style IDC



Open Style IDC



Terminator



Specifications

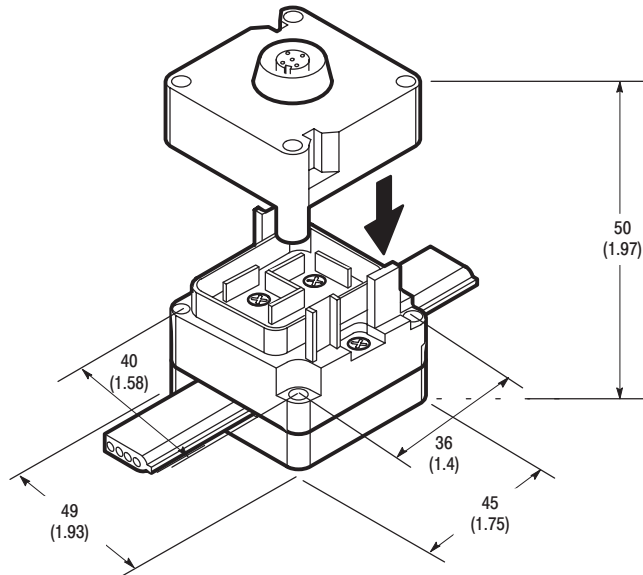
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Operating Temperature	-25°C to +75°C (-13°F to +167°F)
Enclosure Rating	Unsealed: NEMA 1; IP60 (IEC 529) Sealed: NEMA 4, 6P, 13; IP67 (IEC 529) & 1200psi (8270kPa) washdown
Vibration	1.5mm displacement @ 10 to 500Hz, 10G peak, 3 planes
Housing Material	Valox®
Dimensions	45mm x 49mm x 50mm (1.8in x 1.8in x 2in)

Description

Allen-Bradley KwikLink Insulation Displacement Connectors (IDCs) interface drop cables to the flat cable trunkline with optimal plug-and-play capability at minimal cost. The hinged, two-piece base snaps snugly around the flat cable at any point along the trunk. Contact is made with the cable's four conductors by tightening two screws that drive the contacts through the cable jacket and into the conductors. The upper portion of the

IDC provides the connection to the drop cable and is available in several versions including micro- and open-style connectors. Sealed versions offer NEMA 6P and 13, IP67 and 1200psi washdown protection and feature a wide working temperature range (-25°C to 75°C) for outdoor use. The compact Valox® construction (roughly 2" square) makes KwikLink IDCs chemically resistant for use in harsh industrial environments.

Dimensions—mm (in)



Features

- Sealed and unsealed versions
- Quick simple installation
- Rugged Valox housing
- Includes interface and IDC module
- Terminator includes interface, IDC module, and flat cable end cap

Product Selection

Connector Style	Rating	Connector Material	Color	Catalog Number	
				Unsealed	Sealed
Terminator	24V DC 8A	Valox®	Black	1485A-T1H4	1485A-T1E4
Micro Style	24V DC 3A			1485P-P1H4-R5	1485P-P1E4-R5
Open Style	24V DC 8A			1485P-P1H4-T4	—

DeviceNet™ Flat Media System—KwikLink™ Heavy Duty Insulation Displacement Connectors



Mini Style Pigtail Drop IDC



Cable Drop IDC

Specifications

Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Operating Temperature	-25°C to +75°C (-13°F to +167°F)
Enclosure Rating	Unsealed: NEMA 1; IP60 (IEC 529) Sealed: NEMA 6P, 13; IP67 (IEC 529) and 1200psi (8270kPa) washdown
Vibration	1.5mm displacement @ 10 to 500Hz, 10G peak, 3 planes
Housing Material	Valox®
Dimensions	45mm x 49mm x 59mm (1.8in x 1.8in x 2.3in)

Description

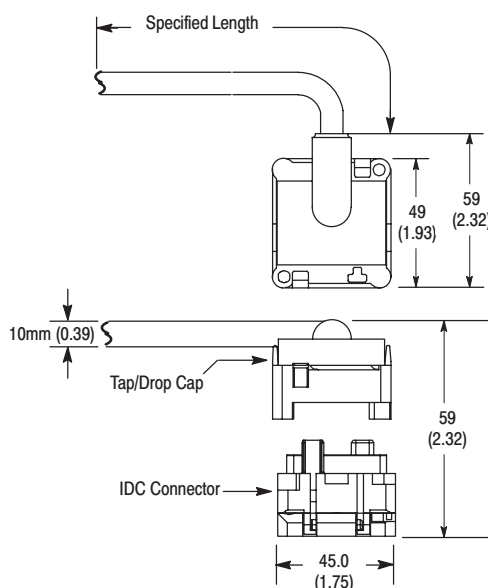
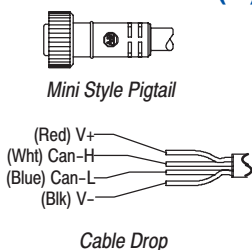
KwikLink pigtail drops are Insulation Displacement Connectors (IDC) with integral Class 1 round cables for interfacing devices or power supplies to flat cable. These components are Class 1 rated (8A at

24V DC) and are available in multiple lengths for application flexibility. Each model includes both the pigtail drop module and the insulation displacement connector. For additional information on the IDC connector, see page 6–14.

Features

- Sealed and unsealed versions
- Quick simple installation
- Rugged Valox housing and PVC cable
- Includes tap/drop and IDC connection
- Flying leads or female mini style connector

Dimensions—mm (in)



Product Selection

Connector Style	Rating	Cable Jacket Material	Cable Length	Catalog Number	
				Unsealed	Sealed
Cable Drop	24V DC 8A	Grey PVC	1m	1485T-P1H4-B1	1485T-P1E4-B1
			2m	1485T-P1H4-B2	1485T-P1E4-B2
			3m	1485T-P1H4-B3	1485T-P1E4-B3
			6m	1485T-P1H4-B6	1485T-P1E4-B6
Mini-Style Pigtail Drop	24V DC 8A	Grey PVC	1m	1485P-P1H4-B1-N5	1485P-P1E4-B1-N5
			2m	1485P-P1H4-B2-N5	1485P-P1E4-B2-N5
			3m	1485P-P1H4-B3-N5	1485P-P1E4-B3-N5
			6m	1485P-P1H4-B6-N5	1485P-P1E4-B6-N5

Spare Allen-Bradley Parts



4- and 8-Port DevicePorts with Cable Drop

Specifications

Storage Temperature	-40°F to 185°F (-40°C to +85°C)
Operating Temperature	-13°F to 158°F (-25°C to +70°C)
Enclosure Rating	NEMA 4, 6P and 1200 PSI, 3.5GPM, 140°F temperature Washdown; IP67 (IEC 529)
Shock and Vibration	5G, 30-120Hz
Housing Material	Chemical resistant black polymer

Description

DevicePort™ taps are passive multiport taps which connect via a drop cable. DevicePort™ taps are offered with 4 or 8 quick-disconnect ports in sealed versions to connect up to 8 physical nodes.

Using DevicePort reduces the number of physical taps on the trunk line from as many as eight taps to one. All device connections are micro female

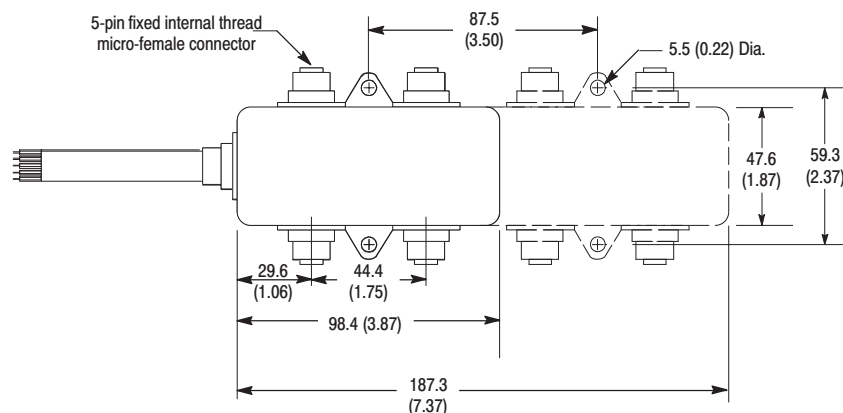
receptacles. Only micro male connectors with rotating coupling nuts can interface with each port. Allen-Bradley micro style DeviceNet drop cables are recommended.

Micro DevicePort Taps come standard with sealing caps for all ports. If replacement sealing caps are required, order catalog number **1485A-C3**.

Features

- Passive
- Sealed (NEMA 6P)
- 4-Port or 8-Port
- Drop cable
- Micro quick-disconnect

Dimensions—mm (in)



Product Selection

Male Connector Style	Female Connector Style	Number of Ports	Catalog Number
2m Cable	Micro	4	1485P-P4R5-C2
		8	1485P-P8R5-C2
4		1485P-P4R5-D5	
8		1485P-P8R5-D5	
Right Angle Micro (2m pigtail)		4	1485P-P4R5-C2-F5
		8	1485P-P8R5-C2-F5

Other DevicePort configurations are also available (page 6-35).



KwikLink Drop Cordset

Specifications

Coupling Nut	Epoxy coated zinc
Connector	Molded oil resistant PVC
Contacts	Gold-plated palladium nickel
Cable	Oil resistant grey PVC jacket, unshielded, 22AWG power conductors, 24AWG signal conductors
Cable O.D.	6mm (0.24in)
Temperature	-20° C to +105° C (-4° F to +221° F)
Maximum Current	3 Amps

Features

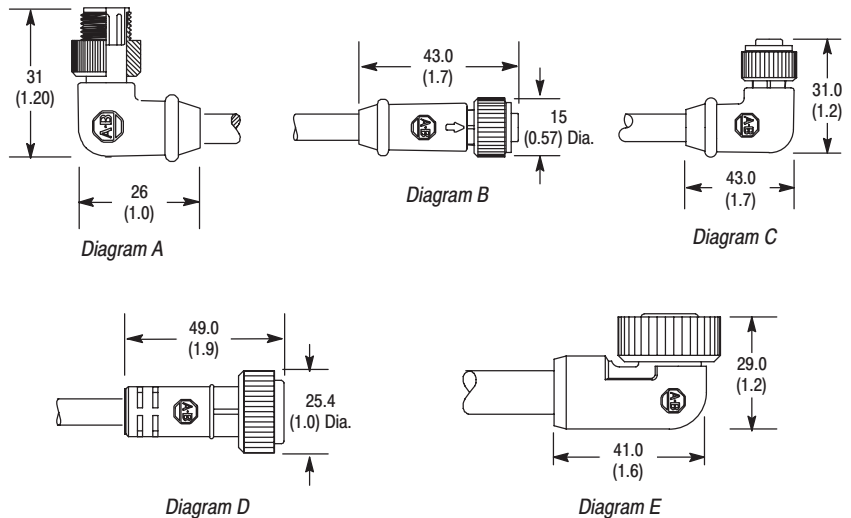
- Drop cables designed exclusively for use with KwikLink systems
- Micro, mini and cable connection
- Ratcheting coupling nut for vibration resistance

Drop Cables

Designed specifically for use with KwikLink, these drop cables come in the most common connection configurations. All trunkline connections

are 90° micro male with 4-wire unshielded cable. Device connection options include 5-pin straight mini and micro as well as flying leads.

Dimensions—mm (in)



Product Selection

KwikLink Drop Cable Cordsets and Patchcords

Connector Style	Dimensions (Diagram No.)	Catalog Number and Length—m (ft)					
		1 (3.3)	2 (6.5)	3 (9.8)	4 (13.1)	5 (16.4)	6 (19.7)
Right Angle Micro to Conductor	A	1485K-P1F5-C	1485K-P2F5-C	—	1485K-P4F5-C	—	1485K-P6F5-C
Right Angle Micro to Str Micro	A, B	1485K-P1F5-R5	1485K-P2F5-R5	1485K-P3F5-R5	1485K-P4F5-R5	1485K-P5F5-R5	1485K-P6F5-R5
Right Angle Micro to Right Angle Micro	A, C	1485K-P1F5-V5	1485K-P2F5-V5	1485K-P3F5-V5	1485K-P4F5-V5	1485K-P5F5-V5	1485K-P6F5-V5
Right Angle Micro to Str Mini	A, D	1485K-P1F5-N5	1485K-P2F5-N5	1485K-P3F5-N5	1485K-P4F5-N5	1485K-P5F5-N5	1485K-P6F5-N5
Right Angle Micro to Right Angle Mini	A, E	1485K-P1F5-Z5	1485K-P2F5-Z5	1485K-P3F5-Z5	1485K-P4F5-Z5	1485K-P5F5-Z5	1485K-P6F5-Z5

Additional drop cable configurations are available, contact your local Allen-Bradley distributor.

Note: These drop cables are only for use with the KwikLink flat cable system. They are not suitable for use with standard DeviceNet round cable systems.

Spare Allen-Bradley Parts

DeviceNet™ Flat Media System—KwikLink™ Heavy Duty

Auxiliary Power Insulation Displacement Connectors



Mini Style Pigtail Drop IDC

Features

- Designed for interfacing auxiliary power connections
- Quick simple installation
- Rugged Valox housing and PVC cable
- Includes tap/drop and insulation displacement connection
- Flying leads or female mini style connector

Wiring

Device End	Flat Cable
Black (pin 1)	Black
White (pin 2)	Blue
Red (pin 3)	Red
Green (pin 4)	White

Specifications

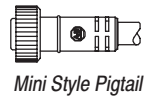
Operating Temperature	-25°C to +75°C (-13°F to +167°F)
Enclosure Rating	NEMA 6P, 13; IP67 (IEC 529) and 1200psi (8270kPa) washdown
Vibration	1.5mm displacement @ 10 to 500Hz, 10G peak, 3 planes
Housing Material	Valox®
Cable	Oil resistant yellow PVC jacket, 16AWG stranded copper, 600V, UL recognized and CSA certified, ST00W-A
Dimensions	45mm x 49mm x 59mm (1.8in x 1.8in x 2.3in)

Description

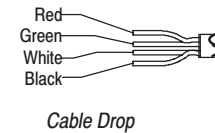
KwikLink Auxiliary Power pigtail drops are Insulation Displacement Connectors (IDC) with integral yellow ST00W round cables for connecting auxiliary power to output devices or hardened I/O platforms such as ArmorBlock MaXum or FlexArmor. These

components are Class 1 rated (8A at 24V DC) and are available in multiple lengths for application flexibility. Each model includes both the pigtail drop module and the IDC. Additional information on the IDC can be found on page 6–16.

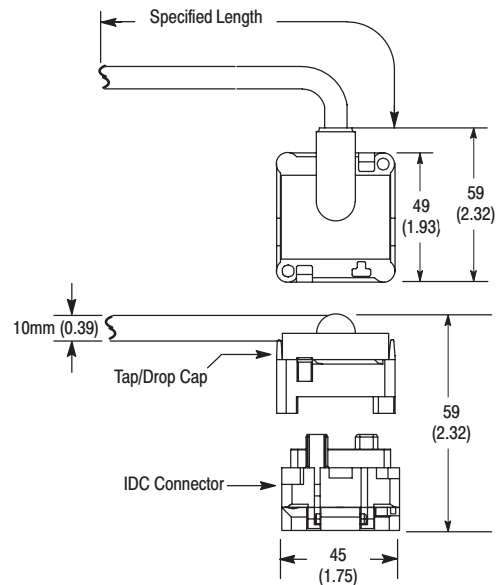
Dimensions—mm (in)



Mini Style Pigtail



Cable Drop



Product Selection

Connector Style	Rating	Device End Connection	Cable Length—m (ft)	Catalog Number	
Cable Drop	24V DC 8A	Yellow ST00W PVC Cable	1 (3.28)	1485T-P1E4-C1	
			2 (6.5)	1485T-P1E4-C2	
			3 (9.8)	1485T-P1E4-C3	
			6 (19.7)	1485T-P1E4-C6	
Mini-Style Pigtail Drop		4-Pin Mini		1 (3.28)	1485T-P1E4-C1-N4
				2 (6.5)	1485T-P1E4-C2-N4
				3 (9.8)	1485T-P1E4-C3-N4
				6 (19.7)	1485T-P1E4-C6-N4

Accessories

In order to support all of the options associated with the flexibility of KwikLink, Allen-Bradley offers an array of accessories including cable mounts, conduit adaptors, covers for unused nodes, and threaded plugs for sealing unused micro connectors.

Catalog Number	Description
1485A-C5E4	KwikLink module dust cap
1485A-CAD	Conduit adaptor (PG21)
1485A-FCM	Flat cable mounting clamp
1485A-M12	Plastic Threaded plug (M12)
1485A-C3	Aluminum Threaded Plug (M12)
1485A-CAP	Flat Cable End Cap



Dust Cap



Conduit Adaptor



Flat Cable End Cap



Mounting Clamp

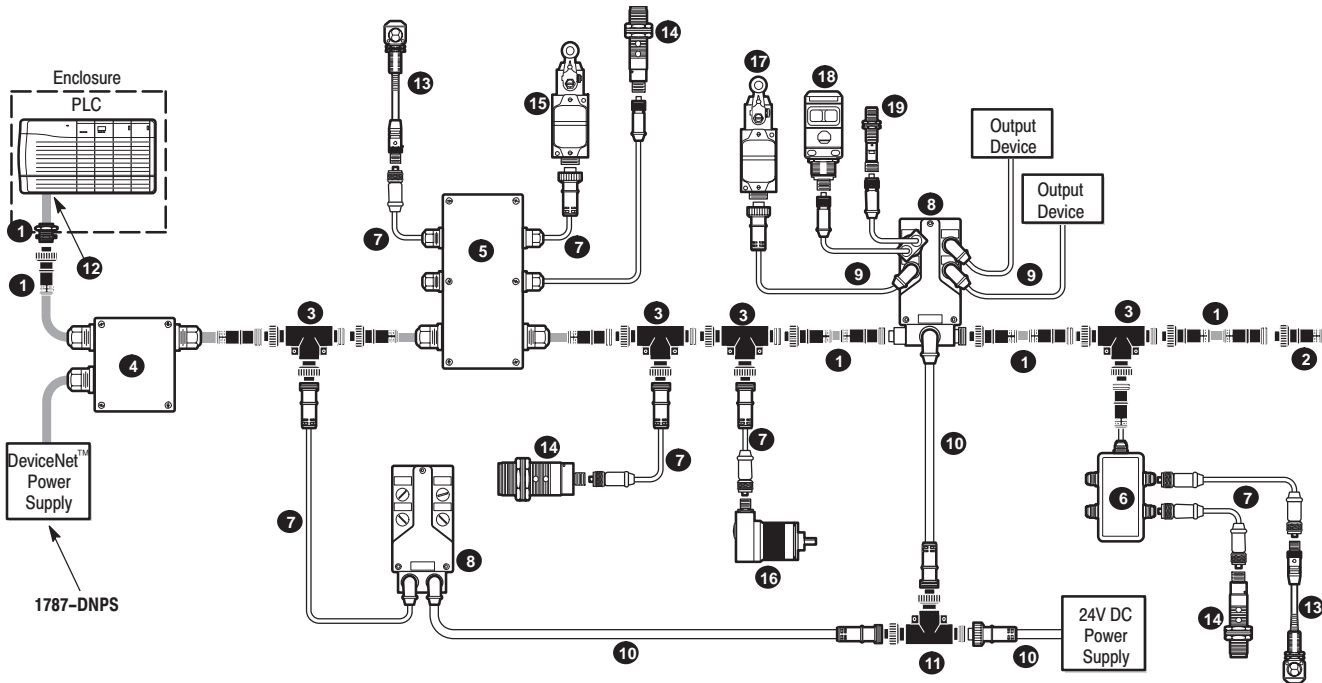


M12 Threaded Plug (Plastic)



M12 Threaded Plug (Aluminum)

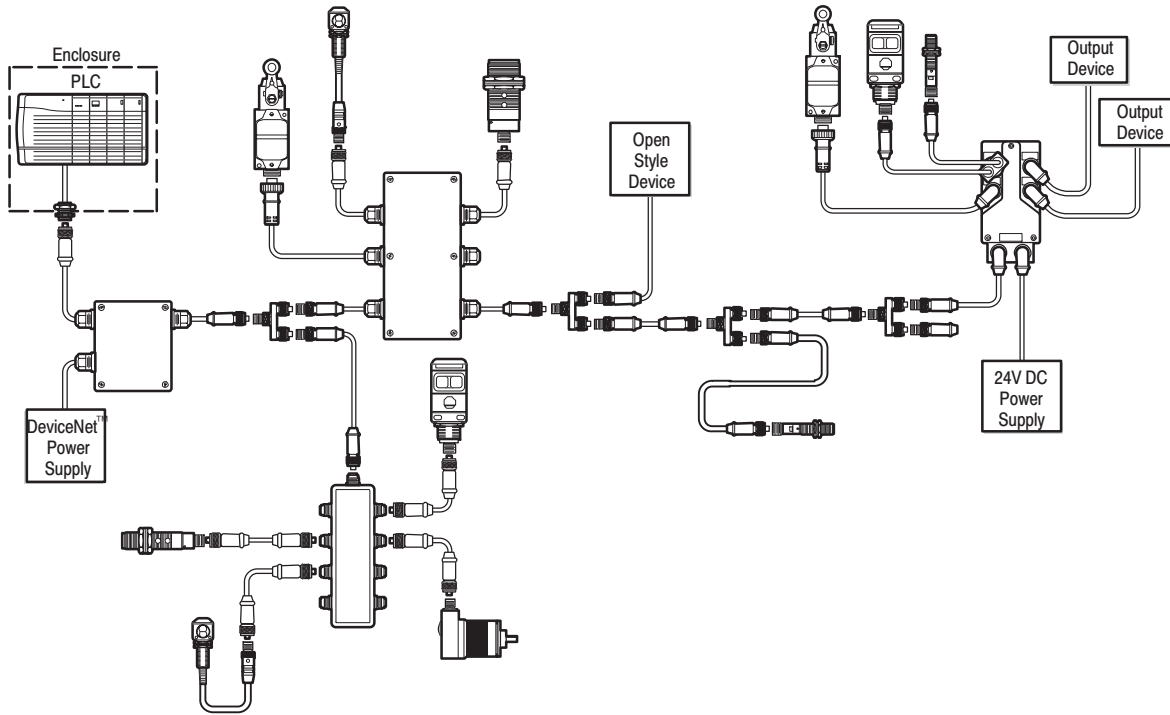
Typical Configuration



- | | | |
|---|---|----------------------------|
| 1 Thick Trunk Cable page 6-22 | 7 Thin Drop Cable page 6-24 | 13 DeviceNet Photoelectric |
| 2 Terminator page 6-29 | 8 ArmorBlock MaXum page 7-20 | 14 DeviceNet Inductive |
| 3 T-Port page 6-30 | 9 Standard Cordsets page 3-35 | 15 DeviceNet Limit Switch |
| 4 Power Tap page 6-33 | 10 Aux Power Cable page 6-37 | 16 DeviceNet Encoder |
| 5 DeviceBox page 6-34 | 11 Aux Power Tee page 6-39 | 17 Standard Limit Switch |
| 6 DevicePort page 6-35 | 12 Open Terminator page 6-42 | 18 Standard Photoelectric |
| | | 19 Standard Proximity |

See the
Sensors
Catalog.

Typical Configuration



- | | | |
|---|---|----------------------------|
| 1 Thick Trunk Cable page 6–22 | 7 Thin Drop Cable page 6–24 | 13 DeviceNet Photoelectric |
| 2 Terminator page 6–29 | 8 ArmorBlock MaXum page 7–20 | 14 DeviceNet Inductive |
| 3 T-Port page 6–30 | 9 Standard Cordsets page 3–35 | 15 DeviceNet Limit Switch |
| 4 Power Tap page 6–33 | 10 Aux Power Cable page 6–37 | 16 DeviceNet Encoder |
| 5 DeviceBox page 6–34 | 11 Aux Power Tee page 6–39 | 17 Standard Limit Switch |
| 6 DevicePort page 6–35 | 12 Open Terminator page 6–42 | 18 Standard Photoelectric |
| | | 19 Standard Proximity |

See the
**Sensors
Catalog.**

Spare Allen-Bradley Parts



Thick Trunk Cable



Mini to Mini Thick Patchcord



Mini Female Thick Receptacle



Specifications

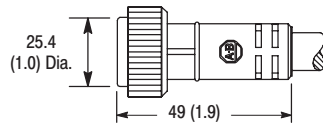
Operating Temperature	-20°C to +70°C (-15°F to +158°F)
Agency Approvals	UL listed and CSA certified
Enclosure Rating	NEMA 1, 2, 3, 4, 6P, 12, 13; IP67 1200psi (8720kPa) washdown
Coupling Nut Material	Epoxy Coated Zinc
Cable Jacket Material	Gray PVC
Outside Diameter	12.2mm (0.48in)
Maximum Current	8 Amps (4A NEC)
Conductors	1 pair 15AWG, 1 pair 18AWG and drain

Description

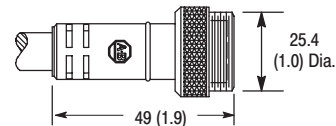
Allen-Bradley thick trunk cable is available in raw spools as well as specified lengths with any of several connectors preattached. Cordsets and patchcords are prewired and factory-molded to assure reliable connection. Allen-Bradley thick trunk

cables provide a rugged and durable foundation for DeviceNet systems. Although typically used in thick trunk systems as trunkline only, Allen-Bradley thick cable can also be used for DeviceNet drops.

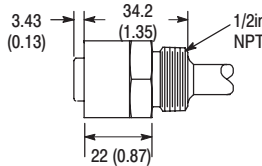
Dimensions—mm (in)



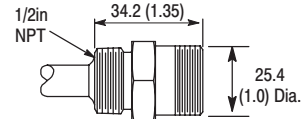
Mini Female Cordset/Patchcord



Mini Male Cordset/Patchcord



Mini Female Receptacle



Mini Male Receptacle

Dimensions are approximate. Illustrations are not drawn to scale.

Features

- PVC jacket offers good oil and chemical resistance
- Watertight connections (NEMA 4, 6P; IP67)
- Gold plated contacts
- UL recognized and CSA certified

Product Selection

Thick Trunk Cable Cordsets, Patchcords, and Receptacles

Length—m (ft)	Catalog Number				
	Male Receptacle	Female Receptacle	Male Cordset	Female Cordset	Male/Female Patchcord
1 (3.3)	1485F-P1M5-A	1485F-P1N5-A	1485C-P1M5-C	1485C-P1N5-C	1485C-P1N5-M5
2 (6.5)	1485F-P2M5-A	1485F-P2N5-A	1485C-P2M5-C	1485C-P2N5-C	1485C-P2N5-M5
3 (9.8)	1485F-P3M5-A	1485F-P3N5-A	1485C-P3M5-C	1485C-P3N5-C	1485C-P3N5-M5
4 (13.1)	1485F-P4M5-A	1485F-P4N5-A	1485C-P4M5-C	1485C-P4N5-C	1485C-P4N5-M5
5 (16.4)	1485F-P5M5-A	1485F-P5N5-A	1485C-P5M5-C	1485C-P5N5-C	1485C-P5N5-M5
6 (19.7)	1485F-P6M5-A	1485F-P6N5-A	1485C-P6M5-C	1485C-P6N5-C	1485C-P6N5-M5
8 (26.2)	—	—	1485C-P8M5-C	1485C-P8N5-C	1485C-P8N5-M5
10 (32.8)	—	—	1485C-P10M5-C	1485C-P10N5-C	1485C-P10N5-M5
12 (39.4)	—	—	1485C-P12M5-C	1485C-P12N5-C	1485C-P12N5-M5
18 (59.0)	—	—	1485C-P18M5-C	1485C-P18N5-C	1485C-P18N5-M5
24 (78.7)	—	—	1485C-P24M5-C	1485C-P24N5-C	1485C-P24N5-M5
30 (98.4)	—	—	1485C-P30M5-C	1485C-P30N5-C	1485C-P30N5-M5

Other styles and lengths are available, contact your local Allen-Bradley distributor for details.

Note: Stainless steel versions may be ordered by adding “S” to the catalog number (e.g., 1485CS-P1N5-M5).
 Flex-rated cordsets, patchcords and cable spools may be order by adding “F” to the catalog number (e.g., 1485CF-P1A50).

Thick Trunk Cable

Spool Size	Catalog Number
50m (164ft)	1485C-P1A50
150m (492ft)	1485C-P1A150
300m (984ft)	1485C-P1A300
500m (1640ft)	1485C-P1A500



Thin Cable



Mini to Micro Thin Cordset



Mini Female Thin Receptacle



Specifications

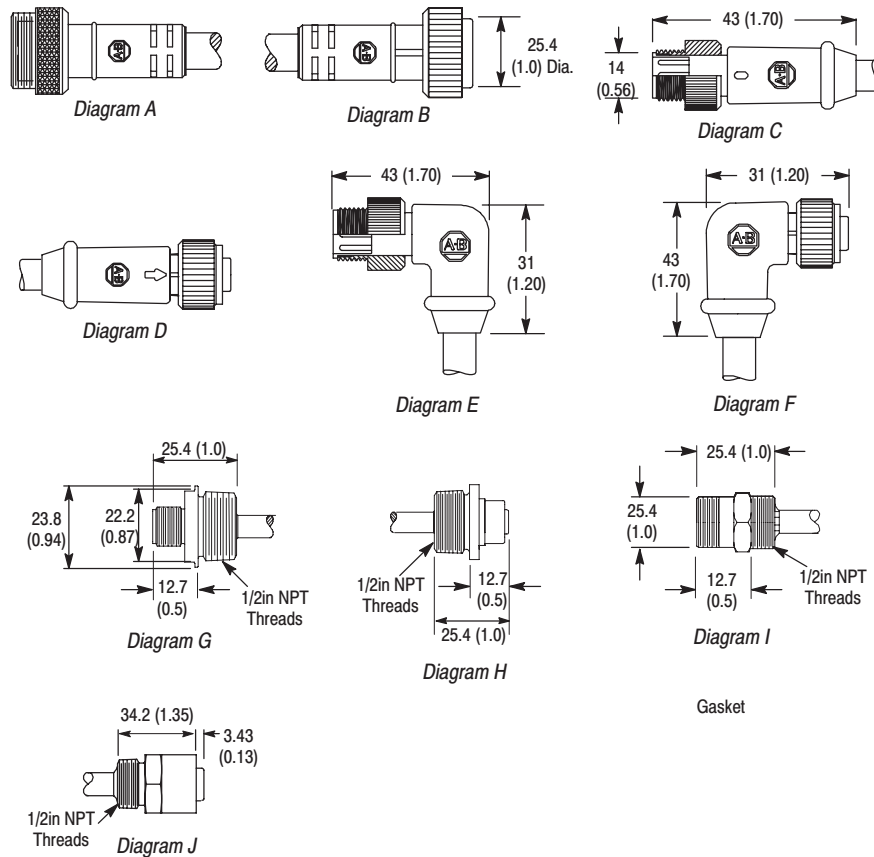
Operating Temperature	-20°C to +70°C (-15°F to +158°F)
Agency Approvals	UL listed and CSA certified
Shock/Vibration	5G, 30-120Hz
Coupling Nut Material	Epoxy Coated Zinc
Cable Jacket Material	Yellow CPE (Chemical Resistant)
Outside Diameter	6.9mm (0.270in)
Maximum Current	3 Amps
Conductors	1 pair 22AWG, 1 pair 24AWG and drain

Description

Rockwell Automation/Allen-Bradley offers thin pre-molded DeviceNet cables in various lengths for use as trunk or drops. Designed in a heavy-duty, chemical-resistant yellow jacket, these cables have been designed specifically for harsh industrial environments

including those applications involving dirt, oil and moderate flexing. The molded construction and gold plated connector pins make for reliable connections that are impervious to most external contaminants.

Dimensions—mm (in)



Features

- Standard cable jacket is chemical resistant
- Water tight performance to a rating of IP67
- Inserts are securely bonded to the connector body for superior side load and pull-out resistance
- Gold plated contacts for corrosion resistance

Product Selection

Thin Drop Cable Cordsets and Patchcords

Connector Style	Dimensions (Diagram No.)	Catalog Number Length—m (ft)					
		1 (3.3)	2 (6.5)	3 (9.8)	4 (13.1)	5 (16.4)	6 (19.7)
Str Mini Male to Str Mini Female	A and B	1485R-P1N5-M5	1485R-P2N5-M5	1485R-P3N5-M5	1485R-P4N5-M5	1485R-P5N5-M5	1485R-P6N5-M5
Str Mini Male to Str Micro Female	A and D	1485R-P1M5-R5	1485R-P2M5-R5	1485R-P3M5-R5	1485R-P4M5-R5	1485R-P5M5-R5	1485R-P6M5-R5
Str Mini Male to Rt Ang Micro Female	A and F	1485R-P1M5-V5	1485R-P2M5-V5	1485R-P3M5-V5	1485R-P4M5-V5	1485R-P5M5-V5	1485R-P6M5-V5
Str Mini Male to Conductor	A	1485R-P1M5-C	1485R-P2M5-C	1485R-P3M5-C	1485R-P4M5-C	1485R-P5M5-C	1485R-P6M5-C
Conductor to Str Mini Female	B	1485R-P1N5-C	1485R-P2N5-C	1485R-P3N5-C	1485R-P4N5-C	1485R-P5N5-C	1485R-P6N5-C
Right Angle Micro Male to Conductor	E	1485R-P1F5-C	1485R-P2F5-C	1485R-P3F5-C	1485R-P4F5-C	1485R-P5F5-C	1485R-P6F5-C
R.A. Micro Male to Str Mini Female	E and B	1485R-P1N5-F5	1485R-P2N5-F5	1485R-P3N5-F5	1485R-P4N5-F5	1485R-P5N5-F5	1485R-P6N5-F5
R.A. Micro Male to Str Micro Female	E and D	1485R-P1R5-F5	1485R-P2R5-F5	1485R-P3R5-F5	1485R-P4R5-F5	1485R-P5R5-F5	1485R-P6R5-F5
Str Micro Male to Str Micro Female	C and D	1485R-P1R5-D5	1485R-P2R5-D5	1485R-P3R5-D5	1485R-P4R5-D5	1485R-P5R5-D5	1485R-P6R5-D5
Str Micro Male to Conductor	C	1485R-P1D5-C	1485R-P2D5-C	1485R-P3D5-C	1485R-P4D5-C	1485R-P5D5-C	1485R-P6D5-C
Conductor to Str Micro Female	D	1485R-P1R5-C	1485R-P2R5-C	1485R-P3R5-C	1485R-P4R5-C	1485R-P5R5-C	1485R-P6R5-C
Conductor to R.A. Micro Female	F	1485R-P1V5-C	1485R-P2V5-C	1485R-P3V5-C	1485R-P4V5-C	1485R-P5V5-C	1485R-P6V5-C
Conductor to Mini Male Receptacle	I	1485F-P1M5-C	1485F-P2M5-C	1485F-P3M5-C	1485F-P4M5-C	1485F-P5M5-C	1485F-P6M5-C
Conductor to Mini Female Receptacle	J	1485F-P1N5-C	1485F-P2N5-C	1485F-P3N5-C	1485F-P4N5-C	1485F-P5N5-C	1485F-P6N5-C
Conductor to Micro Male Receptacle	G	1485F-P1D5-C	1485F-P2D5-C	1485F-P3D5-C	1485F-P4D5-C	1485F-P5D5-C	1485F-P6D5-C
Conductor to Micro Female Receptacle	H	1485F-P1R5-C	1485F-P2R5-C	1485F-P3R5-C	1485F-P4R5-C	1485F-P5R5-C	1485F-P6R5-C

Additional drop cable configurations are available, contact your local Allen-Bradley distributor for details.

Note: Stainless steel versions may be ordered by adding "S" to the catalog number (e.g., 1485RS-P1M5-R5).

Thin Drop Cable	
Spool Size	Catalog Number
50m (164ft)	1485C-P1C50
150m (492ft)	1485C-P1C150
300m (984ft)	1485C-P1C300
600m (1968ft)	1485C-P1C600

Spare Allen-Bradley Parts



Mini to Mini Drop Cordset,
Grey PVC



Specifications

Operating Temperature	-20°C to +70°C (-15°F to +158°F)
Agency Approvals	UL listed and CSA certified
Shock/Vibration	5G, 30–120Hz
Coupling Nut Material	Epoxy Coated Zinc
Cable Jacket Material	Grey PVC
Outside Diameter	6.9mm (0.270in)
Maximum Current	3 Amps
Conductors	1 pair 22AWG, 1 pair 24AWG and shield

Description

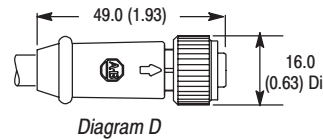
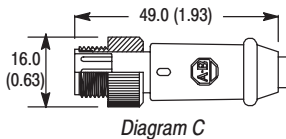
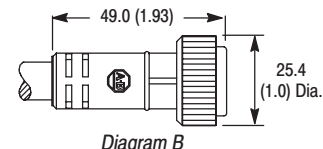
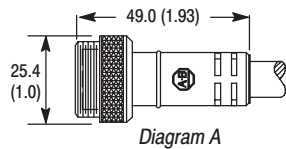
Rockwell Automation/Allen-Bradley offers thin pre-molded DeviceNet cables in various lengths for use as trunk or drops. Designed with a standard grey PVC, these cables have been designed specifically for industrial environments including those applications involving

dirt, oil and fluids. The molded construction and gold plated connector pins make for reliable connections that are impervious to most external contaminants.

Features

- Standard grey PVC cable jacket
- Water tight performance to a rating of IP67
- Inserts are securely bonded to the connector body for superior side load and pull-out resistance
- Gold plated contacts for corrosion resistance

Dimensions—mm (in)



Dimensions are approximate. Illustrations are not drawn to scale.

Product Selection

Thin Drop Cable Cordsets and Patchcords

Connector Style	Dimensions (Diagram No.)	Catalog Number—Length (m (ft))					
		1 (3.3)	2 (6.5)	3 (9.8)	4 (13.1)	5 (16.4)	6 (19.7)
Str Mini Male to Str Mini Female	A and B	1485G-P1N5-M5	1485G-P2N5-M5	1485G-P3N5-M5	1485G-P4N5-M5	1485G-P5N5-M5	1485G-P6N5-M5
Str Mini Male to Str Micro Female	A and D	1485G-P1M5-R5	1485G-P2M5-R5	1485G-P3M5-R5	1485G-P4M5-R5	1485G-P5M5-R5	1485G-P6M5-R5
Str Mini Male to Conductor	A	1485G-P1M5-C	1485G-P2M5-C	1485G-P3M5-C	1485G-P4M5-C	1485G-P5M5-C	1485G-P6M5-C
Conductor to Str Mini Female	B	1485G-P1N5-C	1485G-P2N5-C	1485G-P3N5-C	1485G-P4N5-C	1485G-P5N5-C	1485G-P6N5-C
Str Micro Male to Str Micro Female	C and D	1485G-P1R5-D5	1485G-P2R5-D5	1485G-P3R5-D5	1485G-P4R5-D5	1485G-P5R5-D5	1485G-P6R5-D5

Additional drop cable configurations are available, contact your local Allen-Bradley distributor for details.

Note: Mini to mini flex-rated versions may be ordered by adding “F” to the catalog number (e.g., 1485GF-P1N5-M5).

Thin Drop Cable—Grey PVC

Spool Size	Catalog Number	Spool Size	Catalog Number
50m (164ft)	1485C-P1CG50	300m (984ft)	1485C-P1CG300
150m (492ft)	1485C-P1CG150	600m (1968ft)	1485C-P1CG600



Straight Female Micro Style Terminal Chamber



Female Mini Style Terminal Chamber

Specifications

Coupling Nut	Micro: nickel-plated brass; Mini: anodized aluminum
Connector Shell	Nylon
Contacts	Gold-plated palladium nickel
Enclosure	NEMA 6; IP67 (IEC 529)
Storage Temperature	-40°C to 90°C (-40°F to 194°F)
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Shock/Vibration	5G, 30-120Hz

Description

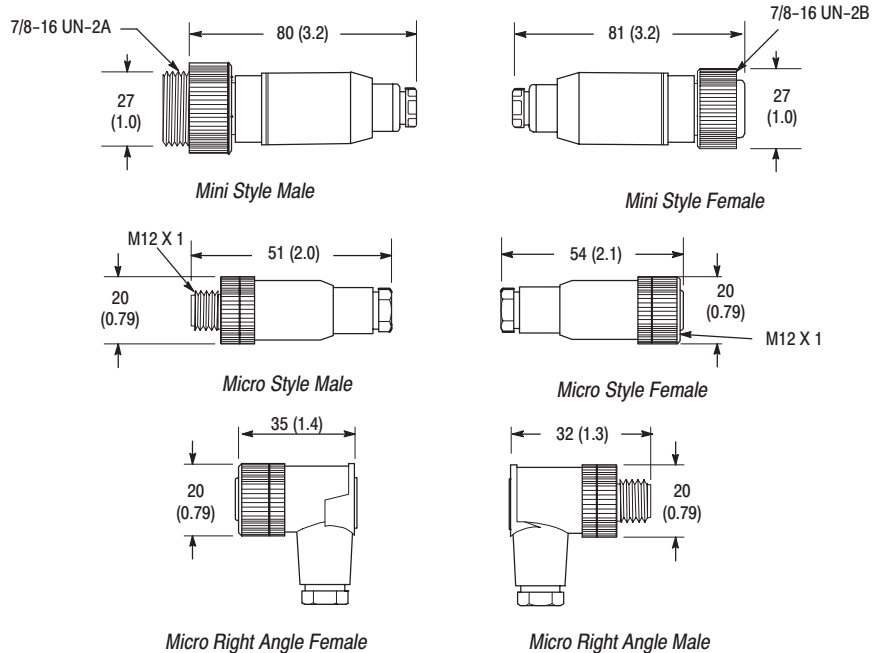
Terminal chambers are passive field-installable connectors. Allen-Bradley 5-pin micro style and 5-pin mini style terminal chambers are designed for use with DeviceNet

systems. These connectors contain screw terminals for quick and easy installation and are sized for use with either DeviceNet thick or thin cables.

Features

- Field installable
- Straight and right angle 5-pin terminal chambers
- Mini and micro versions
- Screw terminal installation
- Thick and thin cable versions

Dimensions—mm (in)



Product Selection

Thin Trunk or Drop Cable Terminal Chambers			
Connector Style	Media Use	Type	Catalog Number
Straight Mini	Thick	Male	871A-TS5-NM3
		Female	871A-TS5-N3
Straight Mini	Thin	Male	871A-TS5-NM1
		Female	871A-TS5-N1
Straight Micro	Thin	Male	871A-TS5-DM1
		Female	871A-TS5-D1
Right Angle Micro	Thin	Male	871A-TR5-DM1
		Female	871A-TR5-D1



Mini Bulkhead Pass-thru



Micro Bulkhead Pass-thru

Specifications

	Mini	Micro
Shell & Locknut	Nickel-plated brass	
Connector Insert	PVC	Nylon
Gasket	Neoprene	
Thrust Washer	Nylong	Steel Alloy
Contacts	Gold-plated palladium/nickel	
Enclosure Rating	IP67	
Temperature	-20°C to +105°C (-4°F to 221°F)	-20°C to +80°C (-4°F to 176°F)

Description

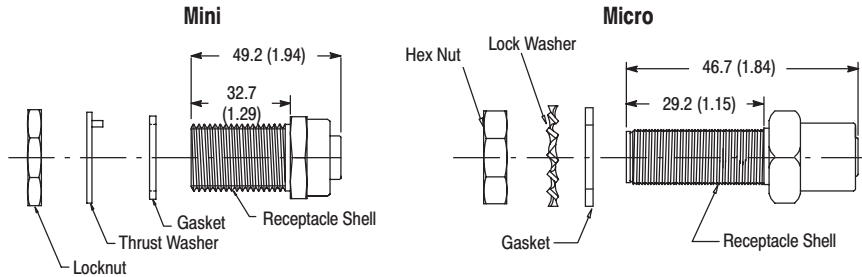
Bulkhead pass-through connectors are passive male to female connectors within a threaded metal housing. These

connectors increase system modularity and ease installation in through-panel applications.

Features

- Male to female bulkhead passthru provides flexibility in thru-panel installations
- Thick cable provides 5-pin mini version for use with DeviceNet wiring
- Thin cable provides standard 5-pin DC micro version allows use for a variety of pin-count configurations

Dimensions—mm (in)



Product Selection

Connection Type	Media Use	Catalog Number
Mini 5-pin	Thick or Thin	1485A-CXN5-M5
5-pin micro	Thin	1485A-CXR5-D5

Note: Stainless steel versions may be ordered by adding "S" to the catalog number (e.g., 1485AS-CXN5-M5).



Mini Style Thick Terminators



Micro Style Thin Terminators

Specifications

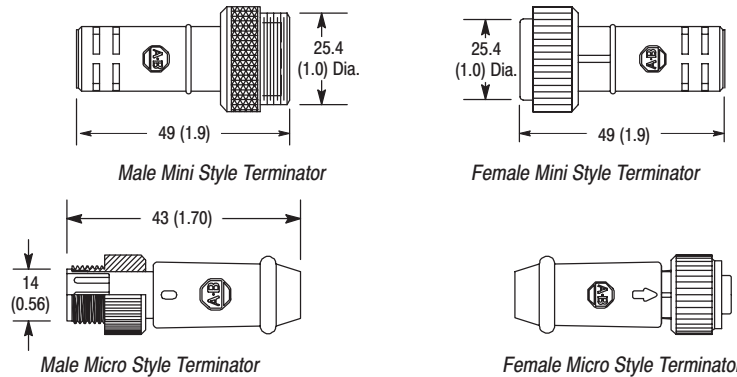
Storage Temperature	-40°F to 185°F (-40°C to +85°C)
Operating Temperature	-13°F to 158°F (-25°C to +70°C)
Enclosure Rating	NEMA 1, 2, 3, 4, 6P, 12, 13, IP67, 1200 psi (8720kPa) washdown
Coupling Nut Material	Epoxy Coated Zinc
Shock/Vibration	5G, 30-120Hz

Description

Terminators are installed at both ends of the network to stabilize the DeviceNet system electrically. Offered in

both male and female versions, each terminator contains a 121 ohm load resistor to ensure network functionality.

Dimensions—mm (in)



Dimensions are approximate. Illustrations are not drawn to scale.

Features

- Male and female connector terminators
- Electrically stabilize network
- NEMA 1, 2, 4, 6P, 12, 13; IP67 rating

Product Selection

Terminator Type	Media Use	Catalog Number
Male	Thick or Thin	1485A-T1M5
Female		1485A-T1N5
Male	Thin	1485A-T1D5
Female		1485A-T1R5

Note: Stainless steel versions may be ordered by adding "S" to the catalog number (e.g., 1485AS-T1M5).



Mini Style T-Port

Specifications

Storage Temperature	-40°C to +85°C (-40°F to 185°F)
Operating Temperature	-20°C to +70°C (-4°F to 158°F)
Operating Humidity	5%-95% relative (noncondensing)
Coupling Nut Material	Epoxy Coated Zinc
Housing Material	Santoprene
Washdown Rating	1200 PSI (8270kPa) at 60°C (140°F); temperature washdown; NEMA 6P, 12 and 13, IP67 (IEC529), 3.5GPM
Side Force Rating	5ft-lb

Features

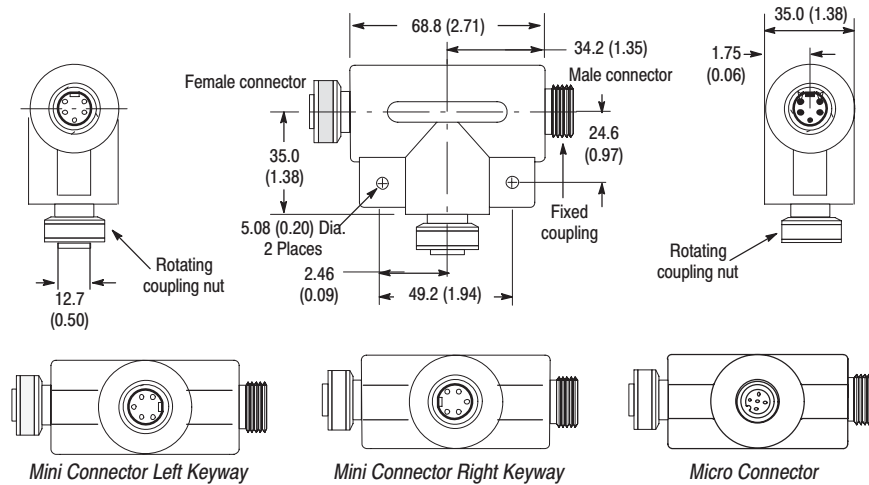
- Passive
- Sealed (NEMA 6P)
- Mini quick-disconnect trunk connections
- Mini or micro quick-disconnect drop connections
- Right or left key for positioning

Description

T-ports are another alternative for connecting to the trunk line. The T-port is sealed to NEMA 6P with mini quick-disconnect. The T-port also has a right or left keyway for positioning purposes. An example of this would be if the customer connects a Photoelectric directly off the T-port. Depending on

which direction the Photoelectric was positioned would dictate a right or left keyway. DeviceNet nodes can connect directly into the T-port or by using a drop cable or DevicePort™.

Dimensions—mm (in)



Product Selection

Trunk Connectors	Drop Connector	Keyway Orientation	Catalog Number
Mini	Mini	Left	1485P-P1N5-MN5L1
		Right	1485P-P1N5-MN5R1
	Micro		1485P-P1R5-MN5R1

Note: Stainless steel versions may be ordered by adding “S” to the catalog number (e.g., 1485PS-P1N5-MN5R1).



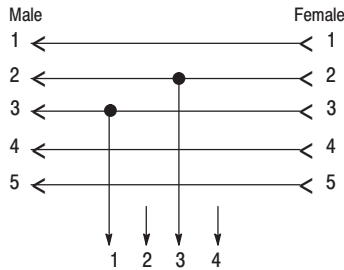
Mini Style T-Port

Specifications

Storage Temperature	-40°C to +85°C (-40°F to 185°F)
Operating Temperature	-20°C to +70°C (-4°F to 158°F)
Operating Humidity	5%–95% relative (noncondensing)
Coupling Nut Material	Epoxy Coated Zinc
Housing Material	Santoprene
Washdown Rating	1200 PSI (8270kPa) at 60°C (140°F); temperature washdown; NEMA 6P, 12 and 13, IP67 (IEC529), 3.5GPM
Side Force Rating	5ft-lb

Features

- Passive
- Sealed (NEMA 6P)
- Mini quick-disconnect trunk connections
- Four-pin mini male drop connection for power supply input
- Provides segmentation of multiple power supplies along trunk line



Description

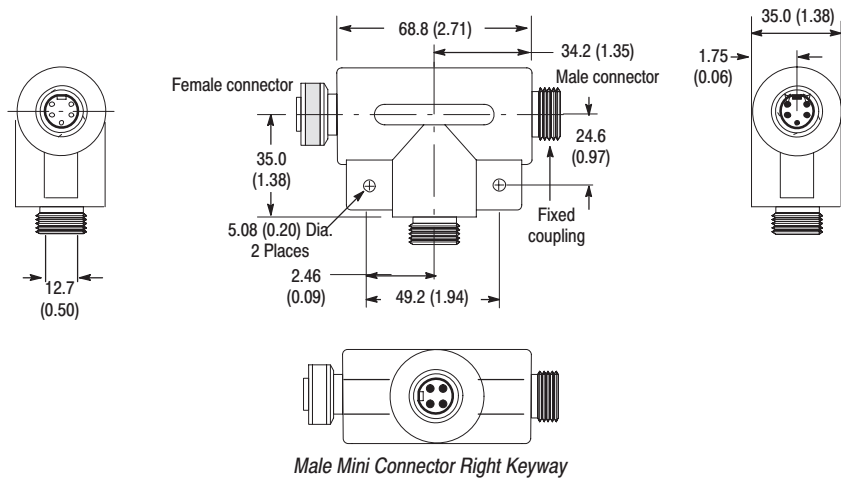
For power input requirements on your DeviceNet network, Rockwell Automation/Allen-Bradley offers a T-port configuration specifically designed for power input. These NEMA 6P rated passive coupling devices allow power to be applied to the trunkline through the use of quick-disconnect cables.

The power input style T-port provides power in only one direction, thus

permitting the use of multiple power supplies along the trunk without mutual interference. The power input T-ports are unfused and, as such, appropriate fusing must be implemented at the power supply.

For complete information on connecting power to DeviceNet, see the Rockwell Automation/Allen-Bradley publication DN 6.7.2.

Dimensions—mm (in)



Product Selection

Trunk Connectors	Drop Connector	Keyway Orientation	Catalog Number
Male/Female Mini 5-pin	Male Mini 4-pin	Right	1485T-P1M4-MN5R1

Note: Stainless steel versions may be ordered by adding "S" to the catalog number (e.g., 1485TS-P1M4-MN5R1).



Micro Style T-Port

Features

- Passive
- Sealed (NEMA 6P)
- Micro quick-disconnect trunk connections
- Micro quick-disconnect drop connections

Specifications

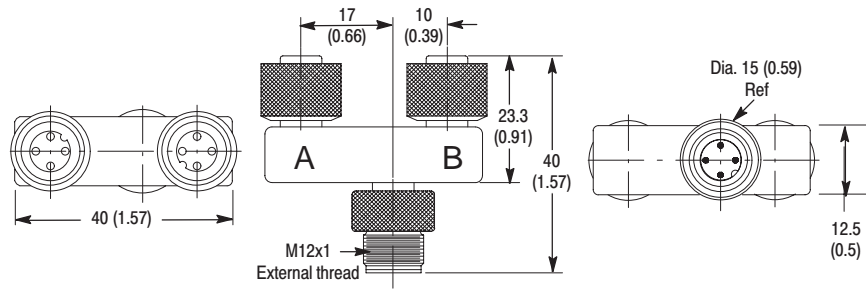
Storage Temperature	-40°C to +85°C (-40°F to 185°F)
Operating Temperature	-20°C to +70°C (-4°F to 158°F)
Operating Humidity	5%-95% relative (noncondensing)
Washdown Rating	1200 PSI (8270kPa) at 60°C (140°F); temperature washdown; NEMA 6P, 12 and 13, IP67 (IEC529), 3.5GPM
Side Force Rating	5ft-lb

Description

T-ports are another alternative for connecting to the trunk line. The T-port is sealed to NEMA 6P with micro

quick-disconnect. DeviceNet nodes can connect directly into the T-port or by using a drop cable or DevicePort™.

Dimensions—mm (in)



Product Selection

Trunk Connectors	Drop Connector	Catalog Number
Micro	Micro	1485P-P1R5-DR5



PowerTap, Thick Cable



PowerTap, Thin Cable



Specifications

Storage Temperature	-40° C to +85° C (-40° F to 185° F)
Operating Humidity	5%-95% relative (noncondensing)
Washdown Rating	1200 PSI (8270 kPa); NEMA 3, 4X, 12 and 13
Operating Temperature	-25° C to +70° C (-13° F to 158° F)
Housing Material	Black polymer
Power	
Thick	15.0A maximum total current; (7.5A maximum per trunk)
Thin	6A maximum total current; (3A maximum per trunk)

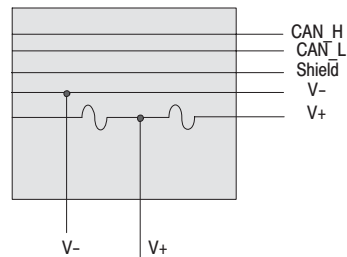
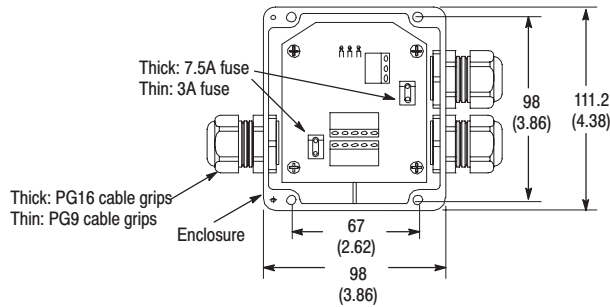
Description

For power requirements on your DeviceNet™ network, Rockwell Automation offers its PowerTap™. The PowerTap is a passive coupling device used to limit trunk current to agency specified values. This current limitation is provided by two standard mini blade-style fast blow type 7.5A or 3A fuses. The Allen-Bradley PowerTap™ is

also used to permit the connection of multiple power supplies to the trunk without mutual interference. This is achieved through selective use or removal of appropriate fuses.

For complete information on connecting power to DeviceNet, see Rockwell Automation publication DN 6.7.2.

Dimensions—mm (in)



Power Supply

Fuse Placement Schematic

Features

- Passive
- Cage clamp terminal strip connections
- Cord grip openings

Product Selection

Media Use	Trunk Connection	Power Supply Connection	Fuse (2 included)	Catalog Number
Thick	Cable Gland/Terminal Strip	Cable Gland/Terminal Strip	7.5A	1485T-P2T5-T5
Thin			3A	1485T-P2T5-T5C

DeviceNet™ Round Media

2-, 4-, 8-Port DeviceBox™



2-port DeviceBox, Thick Cable



4-port DeviceBox, Thick Cable



4-port DeviceBox, Thin Cable



Specifications

Storage Temperature	-40°C to +85°C (-40°F to 185°F)
Operating Humidity	5%–95% relative (noncondensing)
Washdown Rating	1200 PSI (8270 kPa); NEMA 3, 4X, 12 and 13
Operating Temperature	-25°C to +70°C (-13°F to 158°F)
Housing Material	Black polymer
Power	15.0A maximum total current; (7.5A maximum per trunk)

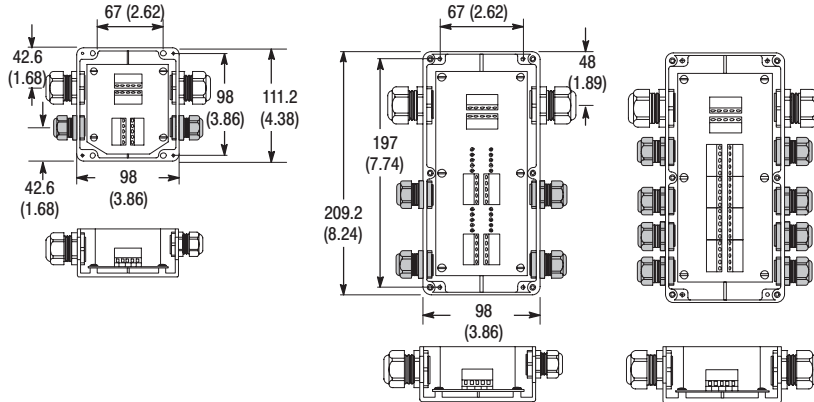
Description

DeviceBox™ taps are passive sealed junction boxes offered in a 2-, 4-, or 8-port configuration. This is a direct connection onto the trunk line, providing terminal strip connections for up to 8 intelligent nodes.

An accessories kit is available for DeviceBox™ which includes a wrench

for tightening down cable grips as well as mounting hardware such as combi-head sheet metal screws and machine mounting screws. The accessories kit includes spare plugs and a cable gland which provides a protective seal as well as various other spare components (see page 6–42).

Dimensions—mm (in)



Note: Trunk connection in diagrams above show thick cable gland.

Features

- Passive
- 2-, 4- or 8-Port
- Cage clamp terminal strip connections
- Cord grip openings

Product Selection

Media Use	Trunk Connection	Drop Connection	Number of Ports	Catalog Number
Thick	Thick Cable Gland/ Terminal Strip	Thin Cable Gland/ Terminal Strip	2	1485P-P2T5-T5
			4	1485P-P4T5-T5
			8	1485P-P8T5-T5
Thin	Thin Cable Gland/ Terminal Strip	Thin Cable Gland/ Terminal Strip	2	1485P-P2T5-T5C
			4	1485P-P4T5-T5C
			8	1485P-P8T5-T5C



8-Port DevicePort with Cable
Drop and Micro Connectors

Specifications

Storage Temperature	-40°F to 185°F (-40°C to +85°C)
Operating Temperature	-13°F to 158°F (-25°C to +70°C)
Enclosure Rating	IP-67 rating, NEMA 4, 6P; 1200 PSI, 3.5GPM, 140°F temperature Washdown; IP67 (IEC 529)
Shock and Vibration	5G, 30-120Hz
Housing Material	Chemical resistant black polymer

Description

DevicePort™ taps are passive multiport taps which connect to the trunk via a drop cable. DevicePort taps are offered with 4 or 8 quick-disconnect ports in sealed versions to connect up to 8 physical nodes.

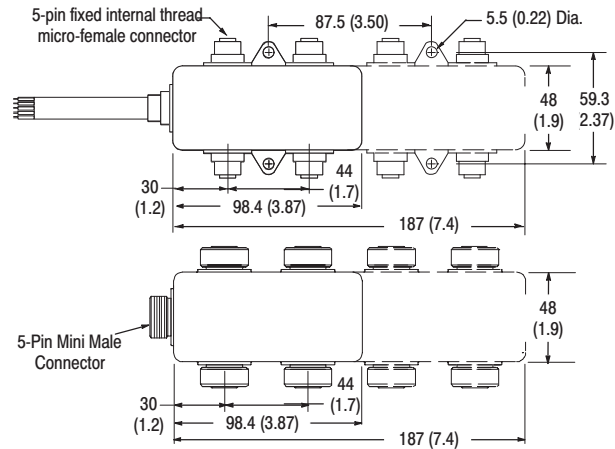
Using the DevicePort tap reduces the number of physical taps on the trunk line from as many as eight taps to one.

Allen-Bradley micro DevicePorts come standard with sealing caps for all ports and replacement caps are available using catalog number **1485A-C3**. Sealing caps are not provided with mini DevicePorts. If mini sealing caps are required, order catalog number **1485A-C1**.

Features

- Passive
- Sealed (NEMA 6P)
- 4-Port or 8-Port
- Drop cable, mini quick-disconnect, or mini quick-disconnect pigtail drop connection
- Mini or micro quick-disconnect device connections

Dimensions—mm (in)



Product Selection

Male Connector Style	Female Connector Style	Number of Ports	Catalog Number
Mini	Mini	4	1485P-P4N5-M5
		8	1485P-P8N5-M5
Mini (2m pigtail)	Micro	4	1485P-P4R5-C2-M5
		8	1485P-P8R5-C2-M5
2m Cable	Micro	4	1485P-P4R5-C2
		8	1485P-P8R5-C2
Micro	Micro	4	1485P-P4R5-D5
		8	1485P-P8R5-D5
Right Angle Micro (2m pigtail)	Micro	4	1485P-P4R5-C2-F5
		8	1485P-P8R5-C2-F5

Note: Stainless steel versions may be ordered by adding "S" to the catalog number (e.g., **1485PS-P4N5-M5**).



6-Port Thru-Trunk DevicePort with Micro Connectors

Features

- Direct trunk connection simplifies installation
- Passive
- Sealed (NEMA 6P)
- 4-Port or 6-Port
- Mini or micro quick-disconnect device connections

Specifications

Storage Temperature	-40°F to 185°F (-40°C to +85°C)
Operating Temperature	-13°F to 158°F (-25°C to +70°C)
Enclosure Rating	IP-67 rating, NEMA 4, 6P 1200 PSI, 3.5GPM, 140°F temperature Washdown; IP67 (IEC 529)
Shock and Vibration	5G, 30–120Hz
Housing Material	Chemical resistant black polymer

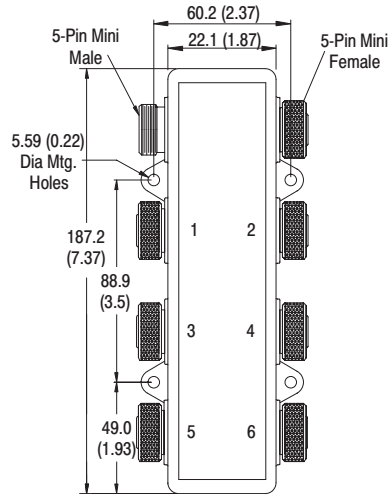
Description

Thru-trunk DevicePort™ taps are passive multiport taps which connect directly to the trunk. These DevicePort taps are offered with 4 or 6 quick-disconnect ports in sealed versions to connect up to 6 physical nodes.

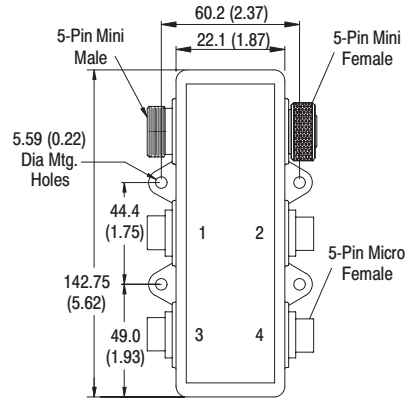
Using the thru-trunk DevicePort tap reduces the number of physical taps on the trunk line from as many as six taps to one.

Allen-Bradley micro DevicePorts come standard with sealing caps for all ports and replacement caps are available using catalog number **1485A-C3**. Sealing caps are not provided with mini DevicePorts. If mini sealing caps are required, order catalog number **1485A-C1**.

Dimensions—mm (in)



6-port mini thru-trunk DevicePort



4-port micro thru-trunk DevicePort

Dimensions are approximate. Illustrations are not drawn to scale.

Product Selection

Trunk Connection Type	Drop Connection Type	Number of Drop Ports	Catalog Number
Mini Male/Mini Female	Mini Female	4	1485P-P4N5-MN5
		6	1485P-P6N5-MN5
	Micro Female	4	1485P-P4R5-MN5
		6	1485P-P6R5-MN5



Mini to Mini Power Trunk

Features

- Male connector with external threads for cable extensions
- UL recognized and CSA certified
- Heavy duty STOOV 16AWG cable or standard 18AWG cable
- Highly visible yellow PVC jacket offers good oil and chemical resistance
- Ratcheting coupling nut for vibration resistance

Specifications

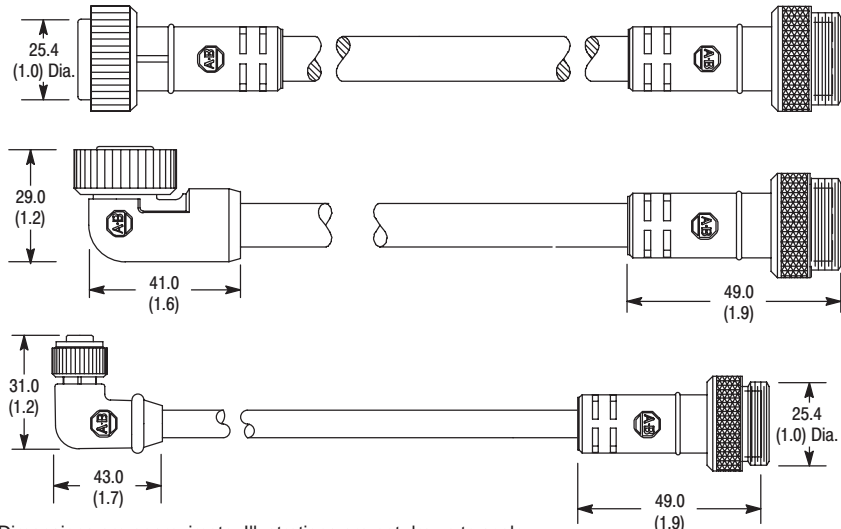
Coupling Nut	Epoxy-Coated Zinc
Connector	Molded oil-resistant PVC
Contacts	Gold-plated palladium/nickel
Cable	Oil-resistant yellow PVC jacket, UL recognized and CSA certified, 16AWG cable: 600V, 18AWG cable: 300V,
Cable O.D.	16AWG: 11mm (0.42in), 18AWG: 7.4mm (0.29in)
Temperature	-20°C to +105°C (-4°F to +221°F)

Description

Auxiliary power cables are used to provide power to output devices requiring separate power and assure proper DeviceNet operation by avoiding spikes, dropouts, or other noise being

imposed on DeviceNet power. Auxiliary power trunk cables are 4-pin mini style patchcords. Either mini or micro style connectors are available as power drop cables.

Dimensions—mm (in)



Dimensions are approximate. Illustrations are not drawn to scale.

Product Selection

Female Connector		Cable		Male Connector (External Threaded)		Catalog Number
Face View of Female	Connector Style	Wire Rating	Length m (ft)	Face View of Male	Connector Style	
	Straight	16AWG 600V 10A	1 (3.3)		Straight	889N-F4AFNM-1
			2 (6.5)			889N-F4AFNM-2
			3 (9.8)			889N-F4AFNM-3
			6 (19.8)			889N-F4AFNM-6
			1 (3.3)			889N-R4AFNM-1
			2 (6.5)			889N-R4AFNM-2
3 (9.8)	889N-R4AFNM-3					
	Right Angle	18AWG 300V 3A	6 (19.8)	889N-R4AFNM-6		
			1 (3.3)	889D-R4AENM-1		
			2 (6.5)	889D-R4AENM-2		
			3 (9.8)	889D-R4AENM-3		

Other lengths available, contact your local Allen-Bradley distributor for details.

DeviceNet™ Round Media

Auxiliary Power Bulkhead Pass-thru/Auxiliary Power Receptacle



Power Bulkhead Pass-thru

Features

- Male to female bulkhead passthru provides flexibility in thru-panel installations
- 4-pin mini version for use with Auxiliary Power for DeviceNet

Product Selection

Connection Type	Catalog Number
Mini 4-pin male to female	889A-CXN4-M4

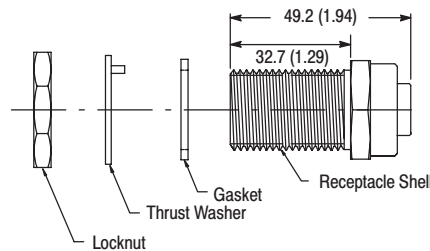
Specifications

Shell & Locknut	Nickel-plated brass
Connector Insert	PVC
Gasket	Neoprene
Thrust Washer	Nylon
Contacts	Gold-plated palladium/nickel
Enclosure Rating	IP67
Temperature	-20°C to 105°C (-4°F to 221°F)

Description

Bulkhead pass-through connectors are passive male to female connectors within a threaded metal housing. These connectors increase system modularity and ease installation in through-panel applications.

Dimensions—mm (in)



4-pin Female Receptacles

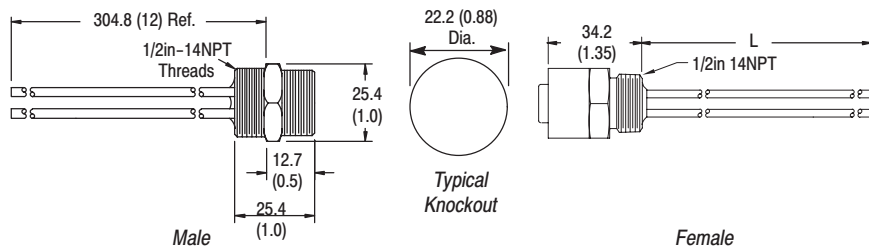
Features

- Male or female receptacles for thru-panel installation
- Internally threaded female for compatibility with mini style extension patchcords

Specifications

Receptacle Shell	Female: Aluminum with clear sealant Male: Die-cast zinc with clear sealant
Insert	PVC
Contacts	Gold-plated palladium nickel
Wire Insulation	Oil resistant PVC, 16AWG stranded copper, 600V, UL recognized and CSA certified
Temperature	-30°C to 105°C (-22°F to 221°F)

Dimensions—mm (in)



Product Selection

Face View		Cable			Catalog Number	
Male	Female	Wire Color	Wire Rating	Length—m (ft)	Male	Female
		1 Black 2 White 3 Red 4 Green	16AWG 600V 10A	0.3 (1)	888N-M4AF1-1F	888N-D4AF1-1F
				0.9 (3)	888N-M4AF1-3F	888N-D4AF1-3F



4-Pin Mini Style
Power Trunk Tee

Specifications

Storage Temperature	-40°C to +85°C (-40°F to 185°F)
Operating Temperature	-20°C to +70°C (-4°F to 158°F)
Operating Humidity	5%-95% relative (noncondensing)
Washdown Rating	1200 PSI (8270kPa) at 60°C (140°F); temperature washdown; NEMA 4x, 6P, 12 and 13, IP67 (IEC529), 3.5GPM
Side Force Rating	5ft-lb

Description

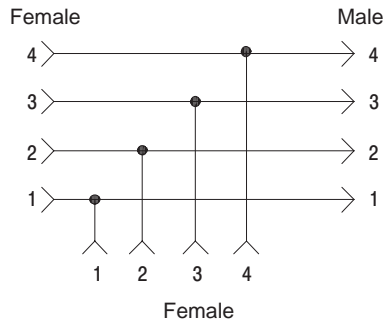
Power Trunk Tees allow connecting devices to the power trunk line. The T-port is sealed to NEMA 6P with mini quick-disconnect. The customer will

connect onto the trunkline using the Power Trunk Tee and an associated Power Drop cordset.

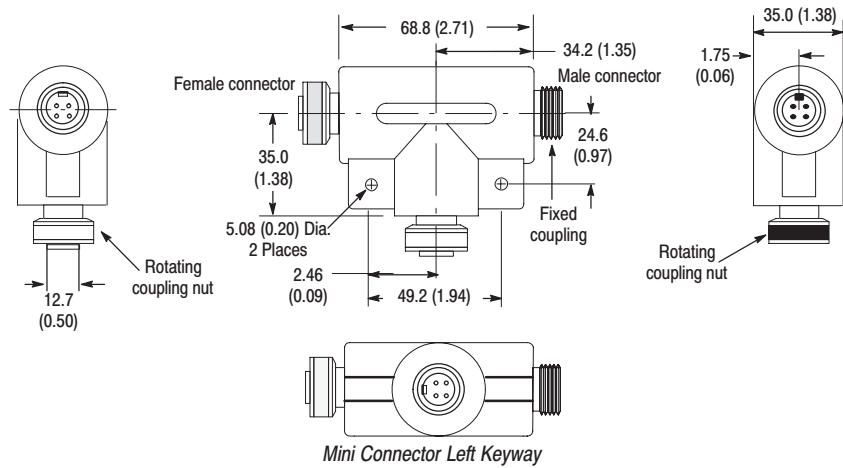
Features

- Passive
- Sealed (NEMA 6P)
- 4-pin mini quick-disconnect

Wiring Diagram



Dimensions—mm (in)



Product Selection

Auxiliary Power Trunk Connectors	Auxiliary Power Drop Connector	Catalog Number
4-Pin Mini	4-Pin Mini Female	898N-43PB-N4



4-Pin Mini Style
Power Trunk Tee

Specifications

Coupling Nut	Epoxy-coated zinc
Housing Material	Red Santoprene
Storage Temperature	-40°C to +85°C (-40°F to 185°F)
Operating Temperature	-20°C to +70°C (-4°F to 158°F)
Operating Humidity	5%–95% relative (noncondensing)
Washdown Rating	NEMA 1, 2, 3, 4, 6P, 12, 13, IP67, 1200 psi (8720kPa) washdown
Side Force Rating	5ft-lb

Description

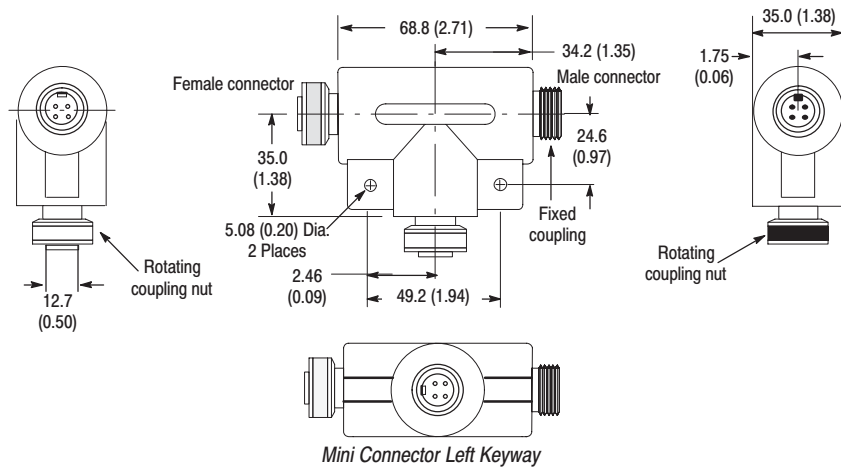
Auxiliary power/single-channel safety T-ports allow the connection of devices to the power trunk line as well as provide the capability for running a

single-channel safety circuit within the same cable. A shorting plug is used at the end of the T-port string to complete the return path for the safety circuit.

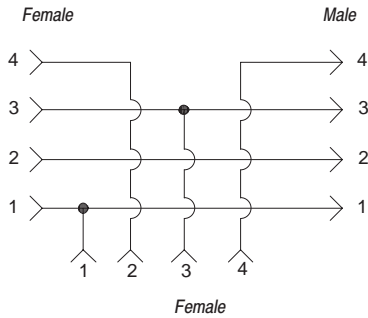
Features

- Passive
- Sealed (NEMA 6P)
- 4-pin mini quick-disconnect
- Utilizes typically unused conductor pair for single-channel safety circuit wiring

Dimensions—mm (in)



Wiring Diagram



Product Selection

Power Trunk Connectors		Power Drop Connector	Electrical Rating	Catalog Number
4-Pin Mini Female	4-Pin Mini Male	4-Pin Mini Female	300V 10A	898N-43AB-N4



Male Shorting Plug

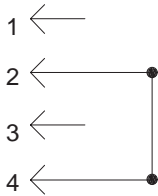
Specifications

Coupling Nut	Epoxy-coated zinc
Housing Material	Red Santoprene
Storage Temperature	-40°C to +85°C (-40°F to 185°F)
Operating Temperature	-25°C to +70°C (-13°F to 158°F)
Enclosure Rating	NEMA 1, 2, 3, 4, 6P, 12, 13, IP67, 1200 psi (8720kPa) washdown
Shock/Vibration	5G, 30-120Hz

Features

- Male and female connector shorting plugs
- Four-pin mini style
- For use with auxiliary power/single-channel safety T-ports
- NEMA 1, 2, 4, 6P, 12, 13; IP67 rating

Wiring Diagram

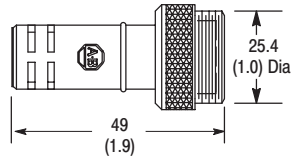


Description

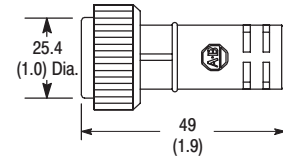
Auxiliary power/single-channel safety shorting plugs provide a return current path for the single-channel safety circuit when used with appropriate auxiliary

power/single-channel safety T-ports. These shorting plugs are offered in both male and female versions.

Dimensions—mm (in)



Male Mini Style Shorting Plug



Female Mini Style Shorting Plug

Dimensions are approximate. Illustrations are not drawn to scale.

Product Selection

Shorting Plug Type	Face View	Catalog Number
Male		898N-41AU-NM4
Female		898N-41AU-N4

DeviceNet™ Round Media

Open-Style Connectors and Accessories



Open Style Tap

Description

Open-style taps provide a way for drop cables to be connected to the trunk line using open-style wiring connections. Three sets of 5-position color coded wiring chambers accommodate all wires

(for entering trunk cable, exiting trunk cable, and drop cable). The open-style top can be mounted on a DIN rail. Jack screws on open-style taps and connectors provide additional physical support.

Product Selection

Catalog Number
1492-DN3TW



5-Pin Linear Plug



10-Pin Linear Plug



5-Pin Linear Plug

Description

Open-style connectors come in two primary varieties—5 position (5-pin linear plug) and 10 position (10-pin linear plug). Ten position connectors

provide easier daisy-chaining because there is an independent wire chamber for each wire (entering and exiting cable).

Product Selection

Number of Pins	Jack Screws	Catalog Number
5	No	1799-DNETCON
5	Yes	1799-DNETSCON
10	Yes	1787-PLUG10R



Mini and Micro Cap

Description

A variety of accessories are available to complement the DeviceNet Media systems. Accessories include both mini and micro style caps for sealing unused connectors, standalone terminating resistors, and an installation accessory kit for DeviceBox.

Product Selection

Description	Catalog Number
Mini Cap	1485A-C1
Resistor	1485A-C2
Micro Cap	1485A-C3
Kit for DeviceBox	1485A-ACCKIT

Note: Stainless steel versions may be ordered by adding "S" to the catalog number (e.g., 1485AS-C1).



Terminating Resistor



DeviceBox Accessory Kit



Specifications

Retaining Screws	Nickel-plated brass
Housing Material	Nylon
Contacts	Phosphor-bronze
Operating Temperature	-25°C to 75°C (-13°F to 167°F)
Enclosure Rating	IP20

Description

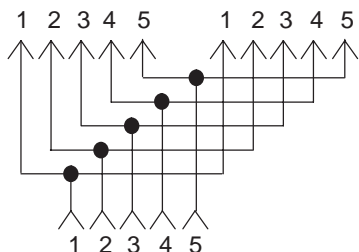
The DeviceNet open-style Y-adaptor provides a unique connectivity capability, which simplifies installations requiring daisy-chaining of open-style devices. This compact connector is

offered with retaining screws to help ensure reliable connection, and is rated up to 8A at 24V for the most demanding DeviceNet applications.

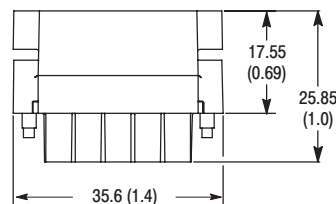
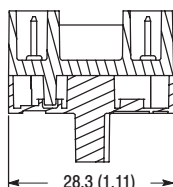
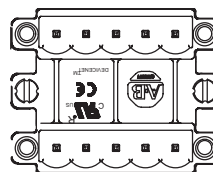
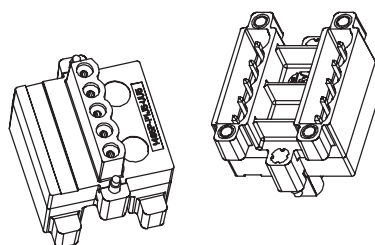
Features

- Female open style to two open style y-adaptors for DeviceNet
- Provides convenient daisy chaining of open-style DeviceNet connections
- Retaining screws for rugged reliable connection

Wiring Diagram



Dimensions—mm (in)



Dimensions are approximate. Illustrations are not drawn to scale.

Product Selection

Female Connector (x1)	Male Connector (x2)	Electrical Rating	Catalog Number
Open-Style DeviceNet	Open-Style DeviceNet	24V, 8A	1485P-P1J5-UU5

DeviceNet™ Round Media

Open-Style Y-Adaptor Accessory



Specifications

Coupling Nut	Nickel-plated brass
Retaining Screws	Zinc-plated steel
Housing Material	Nylon 66
Contacts	Gold-plated copper
Operating Temperature	-25°C to 75°C (-13°F to 167°F)
Enclosure Rating	IP20

Features

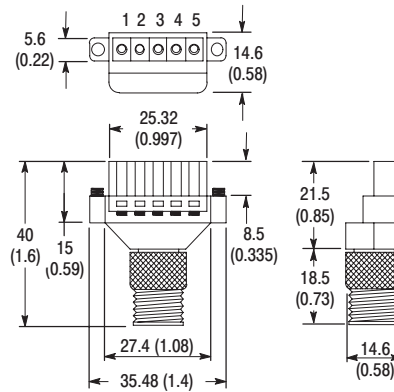
- Female open style to male micro style for DeviceNet
- Provides convenient transition from open-style DeviceNet
- Retaining screws for rugged reliable connection

Description

The DeviceNet open-style to micro-style adaptor provides simplified connectivity of open-style devices to round and flat media systems. This adaptor eliminates the need for screw-terminal connections when attaching to open style field devices. It also allows the use of standard factory molded micro drop connections throughout an installation

thus reducing the total number of parts needed in typical systems. The resulting micro connection point also simplifies troubleshooting of open-style field devices by allowing toolless connection and disconnection. This compact connector is offered with retaining screws to help ensure reliable and consistent connection.

Dimensions—mm (in)

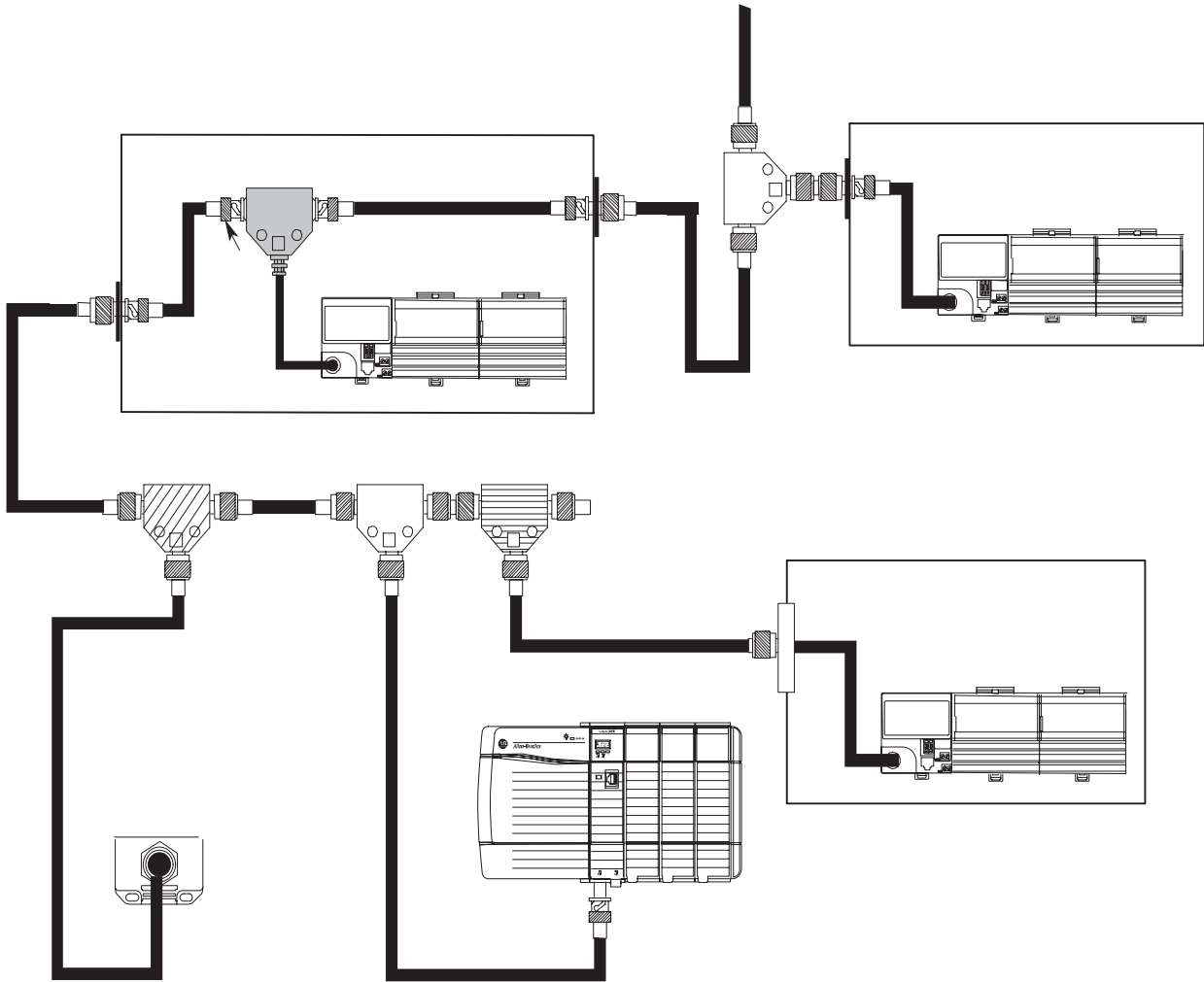


Dimensions are approximate. Illustrations are not drawn to scale.

Product Selection

Female Connector	Male Connector (x2)	Electrical Rating	Catalog Number
Open-Style DeviceNet	Micro-Style	24V DC, 4A	1799-DNC5MMS

Typical Configuration



As the premier industrial network for I/O control, ControlNet is targeted for harsh industrial environments. Typical ControlNet BNC and Ethernet RJ45 connectors are not designed to withstand conditions such as high vibration, water, etc. that can make installation difficult and lead to costly downtime.

To ease those issues, Rockwell Automation has developed ruggedized Ingress Protection: Particle/Dust Rating of 6 and Water Rating of 7 (IP67) media

using a TNC design. TNC components simplify installation because they penetrate the bulkhead easily and eliminate the need for wire glands. TNC components also increase reliability and decrease downtime in harsh environments such as stamping press, water washdown, and marine applications. And, finally, TNC components will be used with Armor products on ControlNet for 'Zero Cabinet'.

Designed for applications with cable movement, TNC components are well-suited to handle the constant stress of robotic motion or applications in which segments are routinely connected and/or disconnected. Consider using TNC connectors for any network connection outside a protected enclosure (i.e., outside a cabinet) or for any location where shock/vibration is present. ❶

❶ BNC (and Ethernet RJ45) are still good low-cost solutions for connections inside an enclosure or for connections in a benign office environment.

Spare Allen-Bradley Parts



Tap and Cable Assembly Kit

Features

- Thread connectors
- IP67 rated
- Rugged durable construction

Specifications

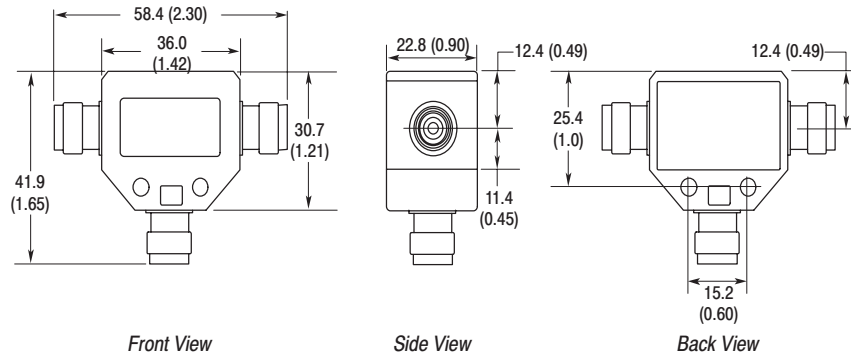
Temperature: Operating Storage	IEC 60068-2-1; IEC 60068-2-2 -20°C to 70°C (-4°F to 158°F) ambient -40°C to 85°C (-40°F to 185°F) ambient
Humidity	IEC 60068-2-30; 5 to 95% noncondensing
Vibration: Operating	IEC 60068-2-6 10-500Hz (4-15 minute cycle); 10g peak (all axis)
Vibration: Packaged	NSTA Project 1A ASTM; D999-75; Truck bed simulation
Mechanical Shock: Operating Non-operating	IEC 60068-2-27; 3 shocks per axis—category I 30g peak (all axis) 50g peak (all axis)
Mechanical Shock: Packaged	Drop test ASTM; D775-80
Sealing	IEC529—IP67 when fully mated

Description

Sealed media components are ControlNet taps and connectors suitable for use in harsh environments.

The sealed tap contained in the kit protects the BNC connector, which is not water-tight.

Dimensions—mm (inches)



Product Selection

Description	Catalog Number
Ruggedized IP67 T-tap body	1786-TCT2BD1
Plug connector	1786-TNCL10
Plug-plug barrel connector	1786-TNCP4
Jack-jack barrel connector	1786-TNCJ4
Jack-jack, isolated bulkhead	1786-TNCJ14
75ohm network terminator	1786-TNCLXT4
BNC to TNC, isolated bulkhead	1786-BNC2TNC
Adaptor for ArmorPoint	1786-TPRT2T