

FACTORY AUTOMATION POWER AND CONTROL MEDIA



miniBOSS[™], microBOSS[™] M12, DeviceNet[™], PowerBOSSlite[™] M35 and ControlPower[™]

We are **Amphenol**, a GLOBAL LEADER in providing YOU with INTERCONNECTONS and SOLUTIONS.

We fulfill your interconnect requirements, freeing you up to focus on

your core business. WE RECOGNIZE YOUR REQUIREMENTS AS OUR TOP

PRIORITY and are committed to constantly meeting and exceeding your

expectations.



NOTES	

Amphenol Sine Systems has the ability to offer many Factory Automation solutions to YOU, the consumer. With our GLOBAL design and manufacturing presence, we are able to provide quick-turn services, no matter the project or location. With such a large GLOBAL footprint, you can rest assured that Amphenol Sine Systems will be able to provide you the most cost-effective and economical solutions for your needs.

The products in this catalog were developed in response to the need for a robust, streamlined and scalable product for use in all robotic and material handling systems, such as: conveyors, sorting, automated storage and retrieval, packaging, overhead transport, palletizing and any other options imaginable.

The miniBOSS™ system is offered in 2, 3, 4, 5 and 6 position configurations. This system allows for cost-effective power and signal distribution, utilizing UL STOOW/CSA Type ST cable, as well as High Flex TPE jacketed UL Listed TC-ER cable.

The microBOSS™ M12 system is offered in 3, 4, and 5 pin configurations that deliver signal to a wide variety of devices, utilizing both UL AWM-style 2661 and CSA AWM I/II A/B cable, as well as Flex and High Flex cable options.

DeviceNet™ cables are available in static, thick and thin sizes, set to cover the many different demands in the field, utilizing UL Type CL2 or PLTC and CSA AWM I/II A/B FT4 cable, as well as Flex and High Flex cable options.

The PowerBOSSlite™ M35 power distribution system was developed in response to a need for a simplified and standardized design with modular plug and play set-up, utilizing dual-rated TC-ER/STOOW cables. One of the benefits is that excessive parts and labor costs have been eliminated, in terms of installation and maintenance, in the system. In addition, PowerBOSSlite™ M35 system was designed to fit with other industry products of the same nature, allowing you the flexibility of choice. No longer are you tied down to one specific provider of parts.

Lastly, our **ControlPower™** line, specifically developed as a 6 pin/5 use option to support the Rockwell ArmorStart system, is now available thru us without having to purchase directly from Rockwell Automation. This system utilizes UL Dual-rated TC-ER STOOW and CSA STOOW cable.

Changes to the NFPA 79 Code

The NFPA 79 Code was changed in 2002 to state that although conductors must be run from terminal to terminal without splices, factory applied connectors molded to cables shall be permitted and not considered splices. This reduces the chance of mis-wiring, allows for quick replacement of cables and the use of tees for easy addition of drop cable assemblies.

It also states that conductors and their connections external to the control panel shall be totally enclosed in suitable raceways or enclosures. But, exposed cables installed along the structure of the equipment or chassis of the machinery shall be permitted as long as they are installed closely to follow the surface and structural members of the machinery. This permits the use of cable assemblies to replace conduit and raceways allowing faster and more cost effective installation. Amphenol Sine Systems provides Tray Rated Exposed Run cable to you so that you benefit from this increased architectural flexibility.

The NFPA 79 code was changed in 2007 to state that single conductor and multi-conductor AWM are no longer permitted for use on industrial machinery, unless the entire assembly is UL listed. Many reasons lead to the restriction of AWM's use: a wide degree of flame ratings, incorrect application, a wide degree of mechanical characteristics and NEC does not recognize it as acceptable for wiring installation. To comply with NFPA 79 code Amphenol Sine Systems offers the following options: Machine Tool Wire (MTW) and Tray Rated Cable (UL Type TC, TC-ER and PLTC) For pre-listed machinery we offer AWM, etc.

RoHS Compliant All materials in our products meet the requirements of the European Directive 2002/95/EC, Issue 13.2.2003.

1 - 5
6 - 9
10 - 13
14 - 18

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miniBOSS[™] System

	ENVIRONMENTAL						
TEMPERATURE RANGE	-20°C to +105°C	PROTECTION	IP 68, NEMA 6P				
CABLE							
CABLE DIAMETER	2/C37" [9.4MM]	Yellow PVC jacket					
	3/C41" [10.4MM]	PVC insulated #16 AWG strande	ed copper (65 X #34)				
	4/C42" [10.7MM]	[10.7MM] UL listed type STOOW					
	5/C50" [12.7MM]	CSA certified type ST					
	6/C54" [13.7MM]	600V, 105°C					
	TE	ECHNICAL DATA					
VOLTAGE RATING	600VAC/600VDC	CONTACT PLATING	5μ inches (min) Gold, over 25μ inches (min) Nickel				
AMPERAGE	See below	CONNECTOR FACE	PVC				
BODY	Oil resistant PVC	COUPLER	Machined Aluminum, Anodized				
CONTACTS	Copper Alloy	RECEPTACLE HOUSING	Machined Aluminum, Anodized				

miniBOSS™ Patchcords and Cordsets

	2P	3P	4P	5P	6P
Male Face View	2 1	(2) (3)	(2) (1) (3) (4)	3 4 5	(2 (1) (3 (6) (4 (5)
Color Code	1 - White 2 - Black	1 - Green 3 - White 2 - Black	1 - Black 3 - Red 2 - White 4 - Green	1 - White 4 - Orange 2 - Red 5 - Black 3 - Green	1 - White 4 - Orange 2 - Red 5 - Black 3 - Green 6 - Blue
Voltage	600 V	600 V	600 V	600 V	600 V
Current	13 A	13 A	10 A	8 A	8 A
Conductor	16 AWG	16 AWG	16 AWG	16 AWG	16 AWG

miniBOSS™ Double-Ended Patchcords with 16AWG 600V Plugs, STOOW Cable



Female/Male	FIG*	2P	3P	4P	5P	6P
Straight/ Straight	1,2	MN27A4AC01Mxxx	MN37A4AC01Mxxx	MN47A4AC01Mxxx	MN57A4AC01Mxxx	MN67A4AC01Mxxx
90°/Straight	1,4	MN27A4BC01Mxxx	MN37A4BC01Mxxx	MN47A4BC01Mxxx	MN57A4BC01Mxxx	MN67A4BC01Mxxx
Straight/ 90°	2,3	MN27B4AC01Mxxx	MN37B4AC01Mxxx	MN47B4AC01Mxxx	MN57B4AC01Mxxx	MN67B4AC01Mxxx
90°/90°	3,4	MN27B4BC01Mxxx	MN37B4BC01Mxxx	MN47B4BC01Mxxx	MN57B4BC01Mxxx	MN67B4BC01Mxxx

FIG*: Reference Dimensions on Page 2. | Mxxx = length in meters. | Standard lengths offerred: 1, 3, 6, 10, 15 (meters)



 $\textbf{Custom Options:} \ \textbf{Contact your Sales Representative.} \ \textbf{Coupler Options:} \ \textbf{Stainless Steel, Plastic}$

$\underset{\text{with 16AWG 600V Plugs, STOOW Cable}}{\text{miniBOSS}^{\text{TM}}} \, \underset{\text{STOOW Cable}}{\text{Single-Ended Cordsets - MALE}}$



All Dimensions in: Inch [mm]

Male	FIG*	2P	3P	4P	5P	6P
Straight	2	MN23AC01Mxxx	MN33AC01Mxxx	MN43AC01Mxxx	MN53AC01Mxxx	MN63AC01Mxxx
90°	4	MN23BC01Mxxx	MN33BC01Mxxx	MN43BC01Mxxx	MN53BC01Mxxx	MN63BC01Mxxx

FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: 1, 3, 6, 10, 15 (meters)

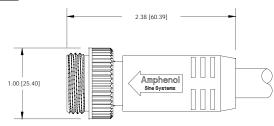
$\begin{array}{l} \text{miniBOSS}^{\text{\tiny{TM}}} \text{ Single-Ended Cordsets - FEMALE} \\ \text{with 16AWG 600V Plugs, STOOW Cable} \end{array}$



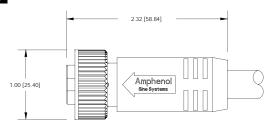
Female	FIG*	2P	3P	4P	5P	6P
Straight	2	MN24AC01Mxxx	MN34AC01Mxxx	MN44AC01Mxxx	MN54AC01Mxxx	MN64AC01Mxxx
90°	4	MN24BC01Mxxx	MN34BC01Mxxx	MN44BC01Mxxx	MN54BC01Mxxx	MN64BC01Mxxx

FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: 1, 3, 6, 10, 15 (meters)

DIMENSIONS - Male Straight (Exterior Thread)

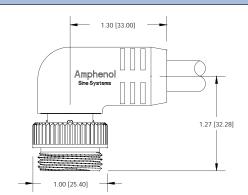


DIMENSIONS - Female Straight / Male Straight

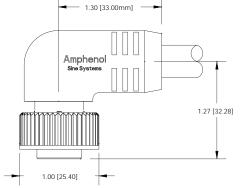


DIMENSIONS - Male 90° (Exterior Thread)

FIG 3



DIMENSIONS - Female 90° / Male 90°



Custom Options: Contact your Sales Representative. Coupler Options: Stainless Steel, Plastic

miniBOSS™ Receptacles and Dimensions

All Dimensions in: Inch [mm]

	2P	3P	4P	5P	6P
Male Face View	2 1	(2) (1)	2 1 3 4	(2 1) (3) (4) (5)	(2 (1) (3 (6) (4 (5)
Color Code	1 - White 2 - Black	1 - Green 3 - White 2 - Black	1 - Black 3 - Red 2 - White 4 - Green	1 - White 4 - Orange 2 - Red 5 - Black 3 - Green	1 - White 4 - Orange 2 - Red 5 - Black 3 - Green 6 - Blue
Voltage	600 V	600 V	600 V	600 V	600 V
Current	13 A	13 A	10 A	8 A	8 A
Conductor	16 AWG	16 AWG	16 AWG	16 AWG	16 AWG

miniBOSS™ Receptacles with 16AWG 600V, MTW and AWM 1015



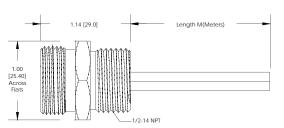


Male	FIG*	2P	3P	4P	5P	6P
External Threads	1	MN21PW02Mxxx	MN31PW02Mxxx	MN41PW02Mxxx	MN51PW02Mxxx	MN61PW02Mxxx
Female	FIG*	2P	3P	4P	5P	6P
External Threads	1	MN22PW02Mxxx	MN32PW02Mxxx	MN42PW02Mxxx	MN52PW02Mxxx	MN62PW02Mxxx
Internal Threads	2	MN24PW02Mxxx	MN34PW02Mxxx	MN44PW02Mxxx	MN54PW02Mxxx	MN64PW02Mxxx

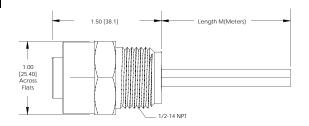
FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: .5, 1, 2, 3 (meters)

DIMENSIONS - Male/Female w/ External Threading





DIMENSIONS - Female w/ Internal Threading



 $miniBOSS^{^{\text{\tiny TM}}}$

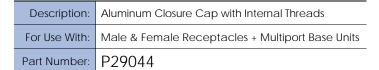
Custom Options: Additional wire styles, colors and sizes are available. Contact your Sales Representative. **Housing Options:** Stainless Steel

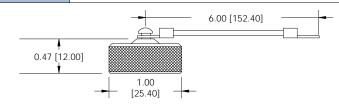
miniBOSS™ Closure Caps and **Threaded Unions**



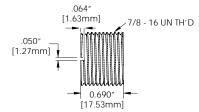


All Dimensions in: Inch [mm]



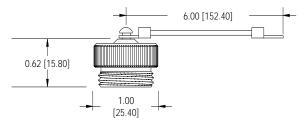


Description:	Aluminum Threaded Union	
For Use With:	Male & Female Connectors	
Part Number:	10-54938	





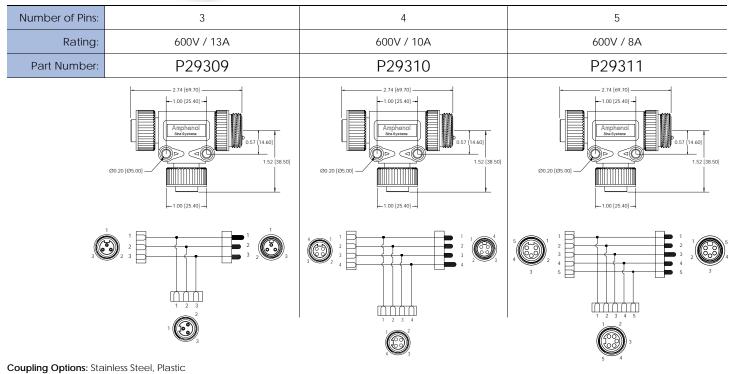
Description:	Aluminum Closure Cap with External Threads
For Use With:	Male & Female Connections
Part Number:	P29045











miniBOSS™ Attachable Connectors



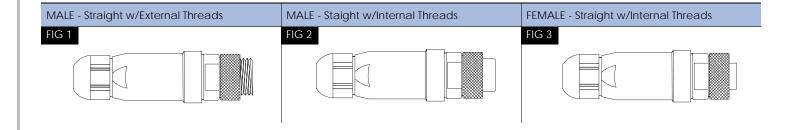
	3P	4P	5P
Female Face View (Male Face View is Counter-Clockwise Order.)	(3) 2)	(4 1) (3 2)	(6 T) (4 3 2)
Voltage	600 V	600 V	600 V
Current	13 A	10 A	8 A
Conductor	16 AWG	16 AWG	16 AWG

Male	FIG*	3P	4P	5P
Straight w/ External Threads	1	P29442	P29443	P29444
Straight w/ Internal Threads	2	P29445	P29446	P29447

^{*}Reference Drawings below.

Female	FIG*	3P	4P	5P
Straight w/ Internal Threads	3	P29448	P29449	P29450

^{*}Reference Drawings below.



$miniBOSS^{^{\text{\tiny TM}}}$

microBOSS[™] M12 System

		ENVIRONMENTAL	
TEMPERATURE RANGE	-20°C to +105°C	PROTECTION	IP 68, NEMA 6P
		CABLE	
CABLE DIAMETER	3/C18" [4.6MM]	Yellow PVC jacket	
	4/C20" [5.1MM]	PVC insulated #22 AWG strar	nded copper (26 X #36)
	5/C23" [5.8MM]	UL AWM style 2661, CSA AWN	/I I/II A/B, 300V, 105°C
		TECHNICAL DATA	
VOLTAGE RATING	300VAC/300VDC	CONTACT PLATING	5μ inches (min) Gold, over 5μ inches (min) Nickel
AMPERAGE	4A	CONNECTOR FACE	Nylon 6/6
BODY	Oil resistant PVC	COUPLER	Machined Aluminum, Anodized
CONTACTS	Copper Alloy	RECEPTACLE HOUSING	Machined Aluminum, Anodized
O-RING	Nitrile Rubber		

microBOSS™ M12 Patchcords and Cordsets

	3P	4P	5P
Male Face View			
Color Code	1 - Brown 4 - Black 2 - Not Used 5 - Not Used 3 - Blue	1 - Brown 4 - Black 2 - White 5 - Not Used 3 - Blue	1 - Brown 4 - Black 2 - White 5 - Gray 3 - Blue
Voltage	300 V	300 V	300 V
Current	4 A	4 A	4 A
Conductor	22 AWG	22 AWG	22 AWG

microBOSS™ M12 Double-Ended Patchcords with 300V, AWM UL 2661



Female/Male	FIG*	3P	4P	5P
Straight/ Straight	1,2	MC37A4AC05Mxxx	MC47A4AC05Mxxx	MC57A4AC05Mxxx
90°/Straight	1,4	MC37A4BC05Mxxx	MC47A4BC05Mxxx	MC57A4BC05Mxxx
Straight/ 90°	2,3	MC37B4AC05Mxxx	MC47B4AC05Mxxx	MC57B4AC05Mxxx
90°/90°	3,4	MC37B4BC05Mxxx	MC47B4BC05Mxxx	MC57B4BC05Mxxx

FIG*: Reference Dimensions on Page 7. | Mxxx = length in meters. | Standard lengths offerred: .5, 1.5, 2, 3, 4, 5, 6, 8,10 (meters)

Custom Options: Contact your Sales Representative. **Coupler Options:** Stainless Steel, Plastic

microBOSS™ M12

microBOSS™ M12 Single-Ended Cordsets - MALE with 300V, AWM UL 2661



All Dimensions in: Inch [mm]

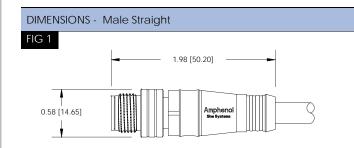
Male	FIG*	3P	4P	5P
Straight	1	MC37AC01Mxx	MC47AC01Mxx	MC57AC01Mxx
90°	3	MC37BC01Mxx	MC47BC01Mxx	MC57BC01Mxx

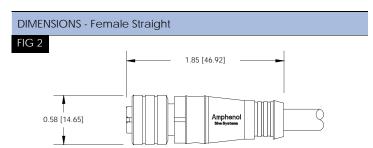
microBOSS[™] M12 Single-Ended Cordsets - FEMALE with 300V, AWM UL 2661

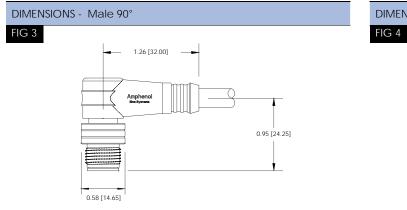


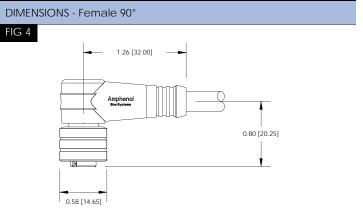
Female	FIG*	3P	4P	5P
Straight	2	MC34AC05Mxx	MC44AC05Mxx	MC54AC05Mxx
90°	4	MC34BC05Mxx	MC44BC05Mxx	MC54BC05Mxx

FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: .5, 1, 1.5, 2, 3, 4, 5, 6, 8, 10 (meters)









microBOSS TM M12 Custom Options: Contact your Sales Representative. Coupler Options: Stainless Steel, Plastic

microBOSS™ M12 Receptacles

All Dimensions in: Inch [mm]

	3P	4P	5P	
Male Face View				
Color Code	1 - Brown 4 - Black 2 - Not Used 5 - Not Used 3 - Blue	1 - Brown 4 - Black 2 - White 5 - Not Used 3 - Blue	1 - Brown 4 - Black 2 - White 5 - Gray 3 - Blue	
Voltage	300 V	300 V	300 V	
Current	4 A	4 A	4 A	
Conductor	22 AWG	22 AWG	22 AWG	

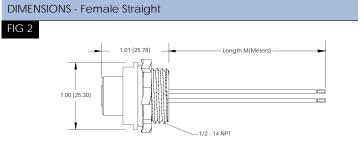




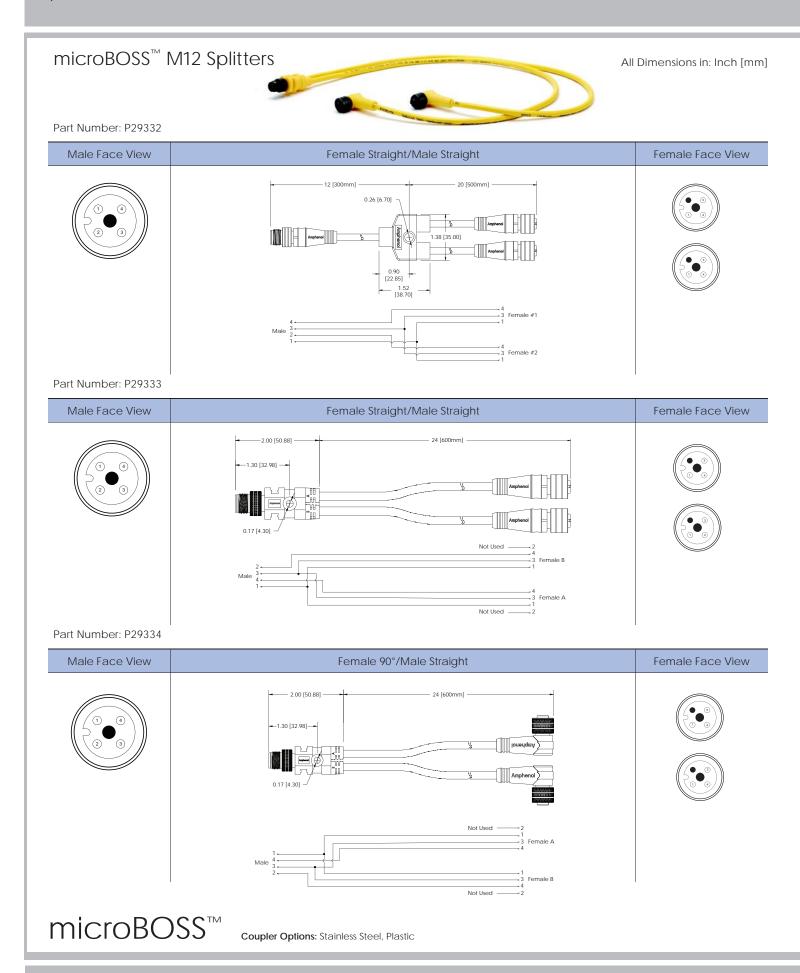
Male	FIG*	3P	4P	5P
External Threads	1	MC31PW03Mxx	MC41PW03Mxx	MC51PW03Mxx
Female	FIG*	3P	4P	5P
Internal Threads	2	MC34PW03Mxx	MC44PW03Mxx	MC54PW03Mxx

FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: .5, 1, 2, 3 (meters)

DIMENSIONS - Male Straight



Custom Options: Additional wire styles, colors and sizes available. Contact your Sales Representative.



DeviceNet[™] System

	ENVIRON	NMENTAL		
TEMPERATURE RANGE -20°C to +105°C		PROTECTION IP 68, NEMA 6P		
CABLE:	Thick Static	CABLE:	Thin Static	
Gray PVC jacket		Gray PVC jacket		
Two individually shielded pair inner co	onductors	Two individually shielded pair inner o	onductors	
Power pair PVC insulated 2 x #15 AW	G stranded copper (19 x#28)	Power pair PVC insulated 2 x #22 AV	/G stranded copper (19 x#34)	
Data pair PVC insulated 2 x #18 AWG	stranded copper (19 x #30)	Data pair PVC insulated 2 x #24 AW	G stranded copper (19 x #36)	
Drain wire #18 AWG stranded coppe	r (19 x #30)	Drain wire #22 AWG stranded copper (19 x #34)		
UL type CL2 or PLTC; CSA AWM I/II A/	B FT4; 300 V, 80° C	UL type CL2 or PLTC; CSA AWM I/II A/B FT4; 300 V, 105° C		
CABLE DIAMETER	.457" [12.07MM]	CABLE DIAMETER	.270" [6.86MM]	
	TECHNIC	AL DATA		
VOLTAGE RATING	300VAC/300VDC	CONTACTS	Copper Alloy	
AMPERAGE See cable description		CONNECTOR FACE	MINI STYLE: PVC MICRO STYLE: Nylon 6/6	
BODY Oil resistant PVC		COUPLER	Aluminum, Anodized	
MINI STYLE: 5µ inches (min) Gold, over 25µ inches (min) Nickel MICRO STYLE: 5µ inches (min) Gold, over 5µ inches (min) Nickel		RECEPTACLE HOUSING	Aluminum, Anodized	

DeviceNet[™] Patchcords and Cordsets

5P Mini Thick Media		5P Mini Thin Media	5P Micro Thin Media
Male Face View	(2 1) (3) (4 5)	(2 1) (3) (4) (5)	
Color Code	1 - Drain 4 - White 2 - Red 5 - Blue 3 - Black	1 - Drain 4 - White 2 - Red 5 - Blue 3 - Black	1 - Drain 4 - White 2 - Red 5 - Blue 3 - Black
Voltage	300 V	300 V	300 V
Current	Per Cable	Per Cable	Per Cable
Conductor	15 & 18 AWG	22 & 24 AWG	22 & 24 AWG

DeviceNet[™] Double-Ended Patchcords with PVC Cable





Female/Male	FIG*	5P Mini Thick Media	5P Mini Thin Media	FIG*	5P Micro Thin Media
Straight/Straight	1,2	MN57A4AD01Mxx	MN57A4AD02Mxx	5,6	MC57A4AD02Mxx
90°/Straight	1,4	MN57A4BD01Mxx	MN57A4BD02Mxx	5,8	MC57A4BD02Mxx
Straight/ 90°	2,3	MN57B4AD01Mxx	MN57B4AD02Mxx	6,7	MC57B4AD02Mxx
90°/90°	3,4	MN57B4BD01Mxx	MN57B4BD02Mxx	7,8	MC57B4BD02Mxx

FIG*: Reference Dimensions on Page 11. Mxxx = length in meters.

Standard lengths offerred: 1, 2, 3, 4, 5, 6, 9, 12, 15, 18, 21, 24, 27, 30 (meters)

Coupler Options: Stainless Steel, Plastic



$\underset{\text{with PVC Cable}}{\mathsf{DeviceNet}}^{\mathsf{\tiny TM}} \mathbf{Single}\text{-}\mathbf{Ended} \ \mathbf{Cordsets} \ \textbf{-} \ \mathbf{MALE}$



All Dimensions in: Inch [mm]

Male	FIG*	5P Mini Thick Media	5P Mini Thin Media	FIG*	5P Micro Thin Media
Straight	1	MN57AD01Mxx	MN57AD02Mxx	5	MC57AD02Mxx
90°	3	MN57BD01Mxx	MN57BD02Mxx	7	MC57BD02Mxx

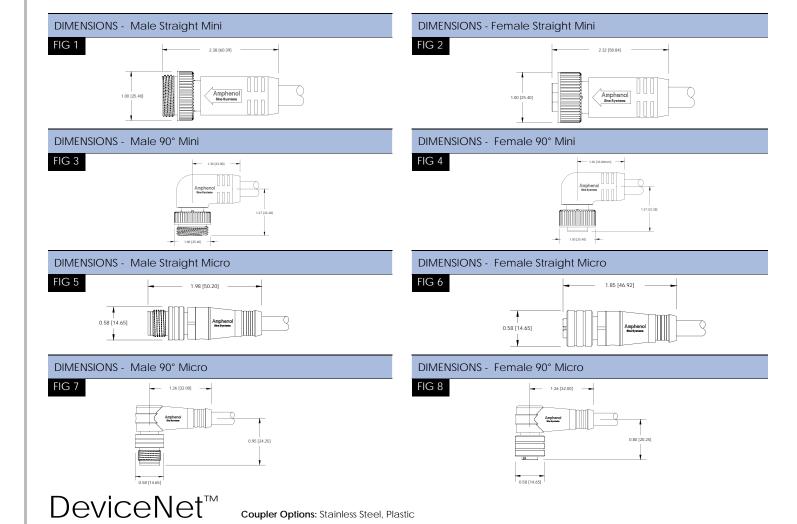
FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: 1, 2, 3, 4, 5, 6, 9, 12, 15, 18 (meters)

DeviceNet[™] Single-Ended Cordsets - FEMALE with PVC Cable



Female	FIG*	5P Mini Thick Media	5P Mini Thin Media	FIG*	5P Micro Thin Media
Straight	2	MN54AD01Mxx	MN54AD02Mxx	6	MC54AD02Mxx
90°	4	MN54BD01Mxx	MN54BD02Mxx	8	MC54BD02Mxx

FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: 1, 2, 3, 4, 5, 6, 9, 12, 15, 18 (meters)



DeviceNet[™] Receptacles

All Dimensions in: Inch [mm]

5P Mini Thick Media		5P Mini Thin Media	5P Micro Thin Media	
Male Face View	(2 1) (3) (4 5)	(2 (1) (3) (4 (5)		
Color Code	1 - Bare 4 - White 2 - Red 5 - Blue 3 - Black	1 - Bare 4 - White 2 - Red 5 - Blue 3 - Black	1 - Bare 4 - White 2 - Red 5 - Blue 3 - Black	
Voltage	300 V	300 V	300 V	
Current	See Cable	See Cable	See Cable	
Conductor	15 & 18 AWG	22 & 24 AWG	22 & 24 AWG	

DeviceNet[™] Receptacles with PVC Cable



Male	FIG*	5P Mini Thick Media	5P Mini Thin Media	FIG*	5P Micro Thin Media
External Threads	1	MN51PD01Mxx	MN51PD02Mxx	3	MC51PD02Mxx
Female	FIG*	5P Mini Thick Media	5P Mini Thin Media	FIG*	5P Micro Thin Media
External Threads	1	MN52PD01Mxx	MN52PD02Mxx	3	MC52PD02Mxx
Internal Threads	2	MN54PD01Mxx	MN54PD02Mxx	4	MC54PD02Mxx

FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: .5, 1, 2, 4 (meters)

DIMENSIONS - Female 5P Mini (Thick Media)

DIMENSIONS - Male 5P Mini (Thick Media) DIMENSIONS - Male 5P Micro (Thin Media) FIG 3

DIMENSIONS - Female 5P Micro (Thin Media)

Housing Options: Stainless Steel

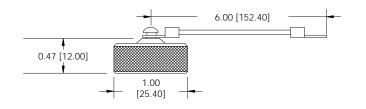
DeviceNet[™] Closure Caps

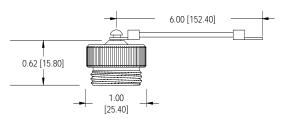


All Dimensions in: Inch [mm]

Description:	Aluminum Closure Cap with Internal Threads
For Use With:	Male & Female Receptacles + Multiport Base Units
Part Number:	P29044

Description:	Aluminum Closure Cap with External Threads
For Use With:	Male & Female Connections
Part Number:	P29045

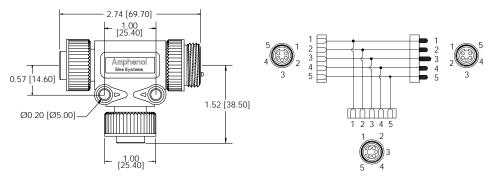




DeviceNet[™] Tees



Number of Pins:	5
Rating:	300V / 8A
Part Number:	P29312

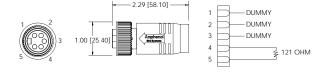


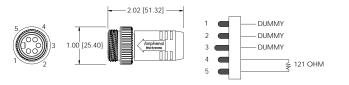
DeviceNet[™] Terminating Plugs



Description:	Female
Part Number:	P29318

Description:	Male
Part Number:	P29319





DeviceNet™

Coupler Options: Stainless Steel, Plastic

PowerBOSSlite[™] M35 System

NOTE: Pending UL Rating for: Motor-Rated Branch Circuit per UL2237

TEMPERATURE RANGE	-20°C to +105°C	PROTECTION	IP 67, NEMA 6P	
CAB	LE: Trunk	CABLI	E: Drop	
Black PVC jacket		Black PVC jacket		
PVC insulated #10 AWG stranded co	pper (105 x #30)	PVC insulated #14 AWG stranded cop	oper (105 x #34)	
UL listed dual-rated TC-ER and STOO	W; CSA certified type STOOW	UL listed dual-rated TC-ER and STOOW; CSA certified type STOOW		
600V, 90°C dry and 75°C wet (TC-ER)	, 105°C (STOOW)	600V, 90°C dry and 75°C wet (TC-ER), 105°C (STOOW)		
CABLE DIAMETER	.79" [20.0MM]	CABLE DIAMETER	.62" [15.7MM]	
VOLTAGE RATING	600VAC/600VDC	CONTACT PLATING	5μ inches (min) Gold, over 25μ inches (min) Nickel	
AMPERAGE	25A (Trunk), 15A (Drop)	CONNECTOR FACE	PVC	
BODY	Oil resistant PVC	COUPLER	Machined Aluminum, Anodized	
CONTACTS	Copper Alloy	RECEPTACLE HOUSING	Machined Aluminum, Anodized	

PowerBOSSlite[™] M35 Patchcords and Cordsets

4P Trunk		4P Drop		
Male Face View	4 1 3 2			
Color Code	1 - BLACK 3 - RED 2 - GREEN 4 - WHITE	1 - BLACK 3 - RED 2 - WHITE 4 - GREEN		
Voltage	600 V	600 V		
Current	25 A	15 A		
Conductor	10 AWG	14 AWG		

PowerBOSSlite[™] M35 Double-Ended Patchcords with 600V, TC-ER/STOOW Rated Cable



Female/Male	FIG*	4P Trunk	FIG*	4P Drop
Straight/Straight	1,2	P28976Mxxx	5,6	P29008Mxxx
90°/Straight	1,4	P28977Mxxx	5,8	P29009Mxxx
Straight/ 90°	2,3	P28978Mxxx	6,7	P29010Mxxx
90°/90°	3,4	P28979Mxxx	7,8	P29011Mxxx

FIG*: Reference Dimensions on Page 15. | Mxxx = length in meters. | Standard lengths offerred: .5,1.5,2,2.5,3,4,5,6,8,10,12,14 (meters)

Custom Cable Options: High Flex and Motor VFD cables are available. Contact your Sales Representative.
Coupler Options: Stainless Steel

PowerBOSSlite™M35

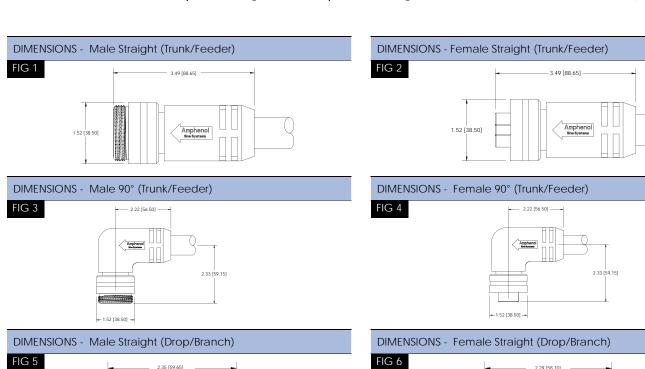
PowerBOSSlite[™] M35 Single-Ended Cordsets with 600V, TC-ER/STOOW Rated Cable

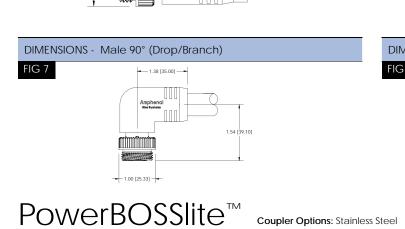


All Dimensions in: Inch [mm]

Male	FIG*	4P Trunk	FIG*	4P Drop
Straight	1	P28992Mxxx	5	P29016Mxxx
90°	3	P28993Mxxx	7	P29017Mxxx
Female	FIG*	4P Trunk	FIG*	4P Drop
Straight	2	P28996Mxxx	6	P29018Mxxx
90°	4	P28997Mxxx	8	P29019Mxxx

FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: .5, 1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10, 12, 14 (meters)





DIMENSIONS - Female 90° (Drop/Branch)

PowerBOSSlite[™] M35 Receptacles

All Dimensions in: Inch [mm]

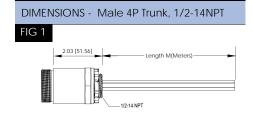
	4P Trunk	4P Drop
Male Face View	4 1 3 2	① ④ ② ③
Color Code	1 - BLACK 3 - RED 2 - GREEN/YELLOW 4 - WHITE	1 - BLACK 3 - RED 2 - WHITE 4 - GREEN/YELLOW
Voltage	600 V	600 V
Current	25 A	15 A
Conductor	10 AWG	14 AWG

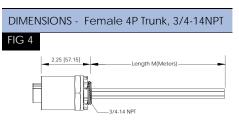


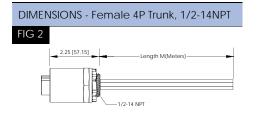


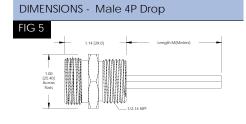
Male	FIG*	4P Trunk (1/2-14NPT)	FIG*	4P Trunk (3/4-14NPT)	FIG*	4P Drop
External Threads	1	P29059Mxxx	3	P29057Mxxx	5	P29036Mxxx
Female	FIG*	4P Trunk (1/2-14NPT)	FIG*	4P Trunk (3/4-14NPT)	FIG*	4P Drop
Internal Threads	2	P29026Mxxx	4	P29024Mxxx	6	P29037Mxxx

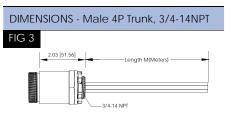
FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: .5, 1, 3 (meters)

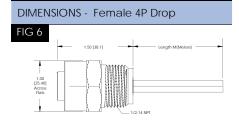










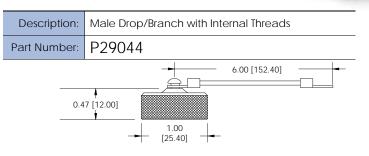


Custom Options: Additional wire styles, colors and sizes available. Contact your Sales Representative. **Housing Options:** Stainless Steel

PowerBOSSlite[™] M35 Closure Caps



All Dimensions in: Inch [mm]

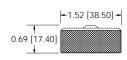


Description: Male Trunk/Feeder with Internal Threads

Description:	Female Drop/Branch with External Threads
Part Number:	P29045
	0.62 [15.80]
	A .

Part Number: P29042

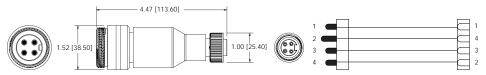




PowerBOSSlite[™] M35 In-Line Reducers



Description:	: Reducer, Male Trunk to Female Drop	
Rating:	600V, 15A	
Part Number:	P28972	



PowerBOSSlite[™] M35 Locking Clips



Description:	for Trunk/Feeder	Description:	for Drop/Branch
Part Number:	P29040	Part Number:	P29041













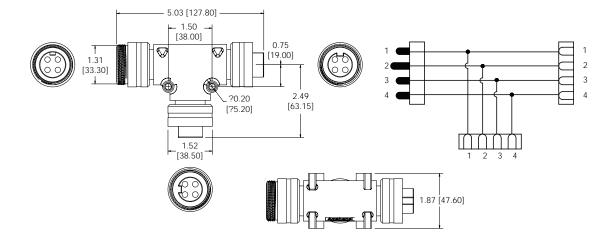


PowerBOSSlite[™] M35 Tee



All Dimensions in: Inch [mm]

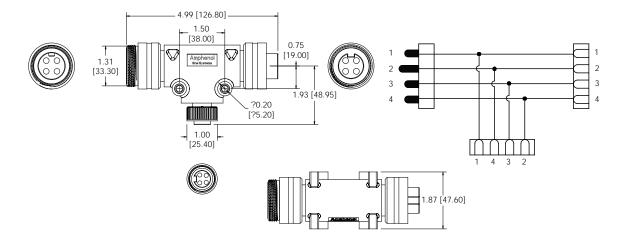
Description:	Tee
Rating:	600V, 25A
Part Number:	P28964



PowerBOSSlite[™] M35 Tee with Reducing Drop



Description:	Tee with Reducing Drop	
Rating:	600V, 25A Trunk, 15A Drop	
Part Number:	P28968	



Coupler Options: Stainless Steel

ControlPower[™] System

		ENVIRONMENTAL	
TEMPERATURE RANGE	-20°C to +105°C	PROTECTION	IP 67, NEMA 6P
		CABLE	
Black PVC jacket		UL listed dual-rated TC-ER and S	WOOTS
PVC insulated #16 AWG strand	ed copper (65 x #34)	CSA certified type STOOW	
CABLE DIAMETER	.49" [12.5MM]	600V, 90°C dry and 75°C wet (T	C-ER), 105°C (STOOW)
		TECHNICAL DATA	
VOLTAGE RATING	600VAC/600VDC	CONTACT PLATING	5µ inches (min) Gold, over 25µ inches (min) Nickel
AMPERAGE	10A	CONNECTOR FACE	PVC
BODY	Oil resistant PVC	COUPLER	Machined Aluminum, Anodized
CONTACTS	Copper Alloy	RECEPTACLE HOUSING	Machined Aluminum, Anodized

ControlPower[™] Patchcords and Cordsets

	6P/5 Used
Male Face View	1 2 6 3 5
Color Code	1 - Red 2 - Black 3 - Green 4 - Not Used 5 - Blue 6 - White
Voltage	600 V
Current	10 A
Conductor	16 AWG

ControlPower[™] Double-Ended Patchcords with 16AWG, 600V, TC-ER/STOOW Cable

NOTE: This product is fully compatible with Allen-Bradley ArmorStart Drives.

	Female/Male	FIG*	6P/5 Used
	Straight/Straight	1,2	MN657A4AC03Mxxx
	90°/Straight	1,4	MN657A4BC03Mxxx
-	Straight/ 90°	2,3	MN657B4AC03Mxxx
•	90°/90°	3,4	MN657B4BC03Mxxx

FIG*: Reference Dimensions on Page 20. | Mxxx = length in meters. | Standard lengths offerred: .5, 1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10, 12, 14 (meters)



Custom Options: Contact your Sales Representative. Coupler Options: Stainless Steel, Plastic

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${\color{blue}\textbf{ControlPower}^{^{\text{TM}}}} {\color{blue}\textbf{Single-Ended Cordsets - MALE}} \\ {\color{blue}\textbf{with 16AWG, 600V, TC-ER/STOOW Cable}} \\ {\color{blue}\textbf{ControlPower}^{^{\text{TM}}}} {\color{blue}\textbf{Single-Ended Cordsets - MALE}} \\ {\color{blue}\textbf{ControlPower}^{^{\text{TM}}}}} {\color{blue}\textbf{Single-Ended Cordsets - MALE}} \\ {\color{blue}\textbf{Single-Ended Co$



All Dimensions in: Inch [mm]

Male	FIG*	6P/5 Used
Straight	1	MN657AC03Mxxx
90°	3	MN657BC03Mxxx

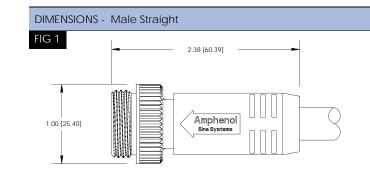
FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: .5, 1.5, 2, 2.5, 3, 4, 5, 6, 8,10, 12, 14 (meters)

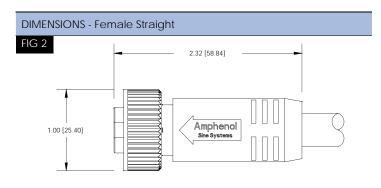
${\bf Control Power}^{^{\rm TM}} \, {\bf Single}\text{-}{\bf Ended} \, \, {\bf Cordsets} \, \text{-} \, \, {\bf FEMALE} \,$ with 16AWG, 600V, TC-ER/STOOW Cable

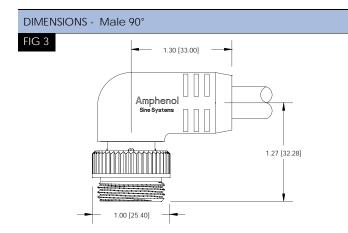


Female	FIG*	6P/5 Used
Straight	2	MN654AC03Mxxx
90°	4	MN654BC03Mxxx

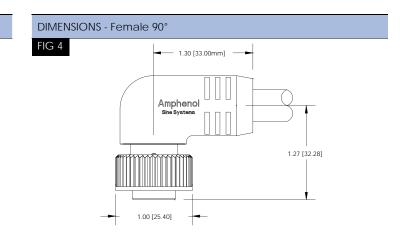
FIG*: Reference Dimensions below. | Mxxx = length in meters. | Standard lengths offerred: .5, 1.5, 2, 2.5, 3, 4, 5, 6, 8,10, 12, 14 (meters)







Custom Options: Contact your Sales Representative. Coupler Options: Stainless Steel, Plastic



ControlPower™ Receptacles

All Dimensions in: Inch [mm]

	6P/5 Used
Male Face View	(2) 1 (3) 6 (5)
Color Code	1 - Red 2 - Black 3 - Green 4 - Not Used 5 - Blue 6 - White
Voltage	600 V
Current	10 A
Conductor	16 AWG

ControlPower[™] Receptacles with 16AWG 600V, UL1015 Wire

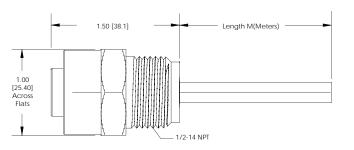


Male 6P/5 Used w/ External Threading

Part Number: MN651PW02Mxxx

Female 6P/5 Used w/ Internal Threading

Part Number: MN654PW02Mxxx



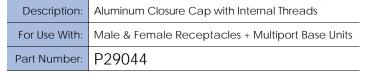
Mxxx = length in meters. Standard lengths offerred: .5, 1, 2, 3 (meters)

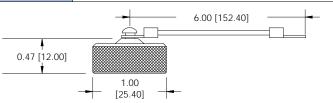
ControlPower Custom Options: Additional wire styles, colors and sizes are available. Contact your Sales Representative. Housing Options: Stainless Steel

ControlPower[™] Closure Caps

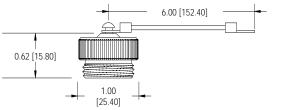


All Dimensions in: Inch [mm]





Description:	Aluminum Closure Cap with External Threads
For Use With:	Male & Female Connections
Part Number:	P29045

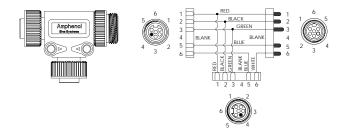


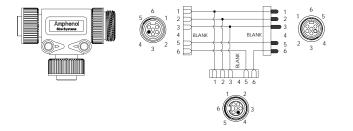
ControlPower[™]Tees



Description:	E-Stop In (BLACK)
Number of Pins:	6 Pin / 5 Used
Rating:	600V / 10A
Part Number:	P29313

Description:	E-Stop Out (RED)
Number of Pins:	6 Pin / 5 Used
Rating:	600V / 10A
Part Number:	P29328





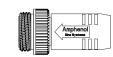
ControlPower[™] Shorting Plugs

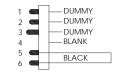


Description:	E-Stop In (RED)
Number of Pins:	6 Pin / 5 Used
Rating:	600V / 10A
Part Number:	P29325

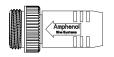
Description:	E-Stop Out (BLACK)
Number of Pins:	6 Pin / 5 Used
Rating:	600V / 10A
Part Number:	P29326

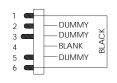












Coupler Options: Stainless Steel, Plastic

NOTES	

Amphenol Sine Systems has the ability to offer many Factory Automation solutions to YOU, the consumer. With our GLOBAL design and manufacturing presence, we are able to provide quick-turn services, no matter the project or location. With such a large GLOBAL footprint, you can rest assured that Amphenol Sine Systems will be able to provide you the most cost-effective and economical solutions for your needs.

The products in this catalog were developed in response to the need for a robust, streamlined and scalable product for use in all robotic and material handling systems, such as: conveyors, sorting, automated storage and retrieval, packaging, overhead transport, palletizing and any other options imaginable.

The miniBOSS™ system is offered in 2, 3, 4, 5 and 6 position configurations. This system allows for cost-effective power and signal distribution, utilizing UL STOOW/CSA Type ST cable, as well as High Flex TPE jacketed UL Listed TC-ER cable.

The microBOSS™ M12 system is offered in 3, 4, and 5 pin configurations that deliver signal to a wide variety of devices, utilizing both UL AWM-style 2661 and CSA AWM I/II A/B cable, as well as Flex and High Flex cable options.

DeviceNet™ cables are available in static, thick and thin sizes, set to cover the many different demands in the field, utilizing UL Type CL2 or PLTC and CSA AWM I/II A/B FT4 cable, as well as Flex and High Flex cable options.

The PowerBOSSlite™ M35 power distribution system was developed in response to a need for a simplified and standardized design with modular plug and play set-up, utilizing dual-rated TC-ER/STOOW cables. One of the benefits is that excessive parts and labor costs have been eliminated, in terms of installation and maintenance, in the system. In addition, PowerBOSSlite™ M35 system was designed to fit with other industry products of the same nature, allowing you the flexibility of choice. No longer are you tied down to one specific provider of parts.

Lastly, our **ControlPower™** line, specifically developed as a 6 pin/5 use option to support the Rockwell ArmorStart system, is now available thru us without having to purchase directly from Rockwell Automation. This system utilizes UL Dual-rated TC-ER STOOW and CSA STOOW cable.

Changes to the NFPA 79 Code

The NFPA 79 Code was changed in 2002 to state that although conductors must be run from terminal to terminal without splices, factory applied connectors molded to cables shall be permitted and not considered splices. This reduces the chance of mis-wiring, allows for quick replacement of cables and the use of TEEs for easy addition of drop cable assemblies.

It also states that conductors and their connections external to the control panel shall be totally enclosed in suitable raceways or enclosures. But, exposed cables installed along the structure of the equipment or chassis of the machinery shall be permitted as long as they are installed closely to follow the surface and structural members of the machinery. This permits the use of cable assemblies to replace conduit and raceways allowing faster and more cost effective installation. Amphenol Sine provides Tray Rated Exposed Run cable to you so that you benefit from this increased architectural flexibility.

The NFPA 79 code was changed in 2007 to state that single conductor and multi-conductor AWM are no longer permitted for use on industrial machinery, unless the entire assembly is UL listed. Many reasons lead to the restriction of AWM's use: a wide degree of flame ratings, incorrect application, a wide degree of mechanical characteristics and NEC does not recognize it as acceptable for wiring installation. To comply with NFPA 79 code Amphenol Sine Systems offers the following options: Machine Tool Wire (MTW) and Tray Rated Cable (UL Type TC, TC-ER and PLTC) For pre-listed machinery we offer AWM, etc.

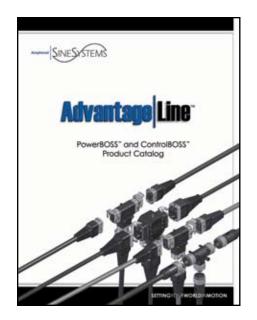
RoHS Compliant All materials in our products meet the requirements of the European Directive 2002/95/EC, Issue 13.2.2003.

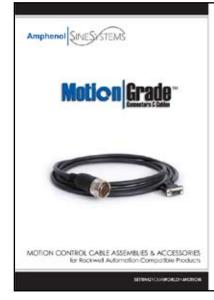
miniBOSS™ System	1 - 5
microBOSS™ M12 System	6 - 9
DeviceNet [™] System	10 - 13
PowerBOSSlite [™] M35 System	14 - 18
ControlPower [™] System	19 - 22

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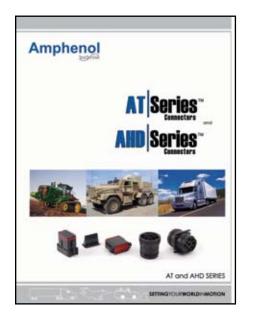
Amphenol,

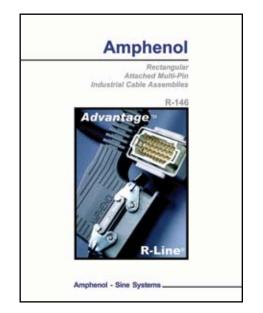
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