

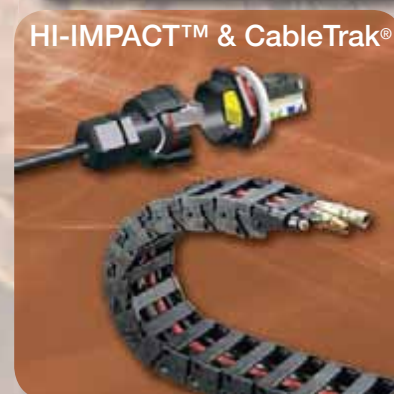


Section G

Industrial Connectivity and Control Products

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Power Components 20A, 30A Up To 600V

Cables and Receptacles

Device Type	Ratings	Wires	Conductor Colors**	Length (FT)
 PH = Double Ended Cable - Male/Female Straight PM = Male Single Ended Straight PN = Male Single Ended 90° PF = Female Single Ended Straight PG = Female Single Ended 90° PQ = Double Ended Cable with Female 90° PR = Double Ended Cable with Male 90° PS = Double Ended Cable with (2) 90° Connectors	20 = 20A up to 600V	02 03 04 05	PA = Green/Yellow Black (all others) PB = Green/Yellow White Black (all others) <i>**other color codes available upon request</i>	001 = 1' 005 = 5' 010 = 10' 015 = 15' 020 = 20' 025 = 25' 030 = 30' 035 = 35' 040 = 40' 045 = 45' 050 = 50'
23 = 20A up to 600V Specialty construction (Includes isolated ground on 6 wire and 10AWG super neutral conductor on 5 and 6 wire devices)	03 04 05 06			
30 = 30A up to 600V	04			
 RF = Female Receptacle*  RM = Male Receptacle (Inlet)*				
Example: PH	23	06	PB	005

Note: * 1/2" N.P.T. rear thread.

Configurations (Male face view shown, female view is opposite)

20 AMP				
20A SNIG (with super neutral and IG)				
30 AMP				

Tees

Description	Catalog Number
LINKOSITY M/F/F Tee, 20A, 2P	TX2002002002T00
LINKOSITY M/F/F Tee, 20A, 3P	TX2003002003T00
LINKOSITY M/F/F Tee, 20A, 4P	TX2004002004T00
LINKOSITY M/F/F Tee, 20A, 5P	TX2005002005T00
LINKOSITY M/F/F Tee, 20A SNIG, 4P	TX2304002304T00
LINKOSITY M/F/F Tee, 20A SNIG, 6P	TX2306002306T00
LINKOSITY M/F/F Tee, 20A SNIG, A Phase Tap	TX2306002304A00
LINKOSITY M/F/F Tee, 20A SNIG, B Phase Tap	TX2306002304B00
LINKOSITY M/F/F Tee, 20A SNIG, C Phase Tap	TX2306002304C00
LINKOSITY M/F/F Tee, 30A, 4P	TX3004003004T00



TX2304002304T00



CCMB

Closure Caps

Description	For use with Female Receptacle	Male Inlet
20A and 30A Receptacle Closure Cap	CCMB	CCFBC

Control Integration Components 3A Up To 300V 10A Up To 600V

Cables and Receptacles

Device Type	Ratings	Wires	Conductor Colors**	Length (FT)
 PH = Double Ended Cable - Male/Female Straight PM = Male Single Ended Straight PN = Male Single Ended 90° PF = Female Single Ended Straight PG = Female Single Ended 90° PQ = Double Ended Cable with Female 90° PR = Double Ended Cable with Male 90° PS = Double Ended Cable with (2) 90° Connectors  RF = Female Receptacle*  RM = Male Receptacle (Inlet)*	03 = 3A - 2W, 3W 3A - 4W up to 300V R3 = 3A - 2W, 3W 3A - 4W up to 300V 10 = 10A - 2W, 3W 10A - 4W 10A - 5W, 6W, 7W 10A - 8W, 9W 7A - 10W, 12W up to 600V	02 03 04 02 03 04 02 03 04 05 06 07 08 09 10 12	PA = Green/Yellow Black (all others) PB = Green/Yellow White Black (all others) PE = All Blue <i>**other color codes available upon request</i>	001 = 1' 005 = 5' 010 = 10' 015 = 15' 020 = 20' 025 = 25' 030 = 30' 035 = 35' 040 = 40' 045 = 45' 050 = 50'

Example: PH

10

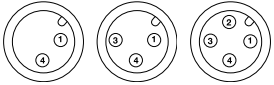
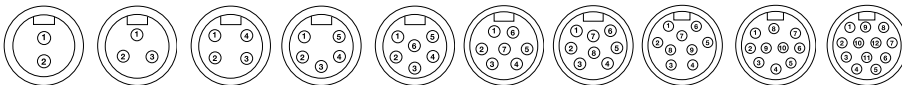
06

PB

005

Note: * 1/2" N.P.T. rear thread.

Configurations (Male Face View Shown, Female view is opposite)

03		Typically used for inputs in DC control circuits
R3		Typically used for outputs in DC control circuits
10		

Splitters/Tees

Description	Catalog Number
LINKOSITY M/F/F Splitter, 3A/4W	TX0304000304T00
LINKOSITY M/F/F Tee, 10A, 2 Pole	TX1002001002T00
LINKOSITY M/F/F Tee, 10A, 3 Pole	TX1003001003T00
LINKOSITY M/F/F Tee, 10A, 4 Pole	TX1004001004T00
LINKOSITY M/F/F Tee, 10A, 5 Pole	TX1005001005T00
LINKOSITY M/F/F Tee, 10A, 6 Pole	TX1006001006T00



TX1004001004T00



CCFAC

Closure Caps

Description	For use with Female Receptacle	Male Inlet
3A Closure Cap	CCM1C	CCF1C
10A Closure Cap, 2, 3, 4, 4, 5 and 6 Pole	CCMAC	CCFAC
10A Closure Cap, 7 and 8 Pole	CCMBC	CCFBC
10A Closure Cap, 9, 10, 12 Pole	CCMCC	CCFCC



Power System Distribution Assemblies

Device identification marking

Versatile mounting provision

LINKOSITY® connection

Local or master switch



Available with up to 5 receptacles
Wide variety of NEMA 5-20 receptacle grades

Power pass thru option

16 gauge sheet metal enclosure
ANSI 61 gray powder coat NEMA 1

Note: Accepts PH2304 series cables.

Straight Blade - UL Type 1

Device Type	Switch Types	# Recepts	Receptacle Type	Receptacle Feature	Pass-thru
M	SL = Switch Local SM = Switch Master 00 = No Switch	1 2 3 4 5	SG = Spec Grade HG = Hospital Grade CR = Corrosion Resistant	IG = Isolated Ground GF = Ground Fault SI = Surge Suppression w/ Isolated Ground SS = Surge Suppression 00 = Standard	P = Pass-thru 0 = No Pass-thru
Example: M	SL	1	SG	00	P

Twist-Lock® - UL Type 1

Device Type	Switch Types	# Recepts	Receptacle Type	Receptacle Feature	Pass-thru
M	SL = Switch Local SM = Switch Master 00 = No Switch	1 2 3 4 5	L1 = 15A	IG = Isolated Ground 00 = Standard	P = Pass-thru 0 = No Pass-thru
Example: M	00	3	L1	IG	0

Note: Local switches control all receptacles in a box. Master switches control local and downstream receptacles.
Consult factory for alternate wiring schemes.

Switch Only (On/Off) - UL Type 1

Device Type	Switch Types	Switch Style	Poles
S	1 = 1 Gang 2 = 2 Gang 3 = 3 Gang	2W = On/Off	1P = Single Pole DP = Two Pole
Example: S	1	2W	1P

Switch Only (4-Way) - UL Type 1

Device Type	Switch Types	Switch Style
S	1 = 1 Gang	4W = 4 Way
Example: S	1	4W

Switch Only (3-Way) - UL Type 1

Device Type	Switch Types	Switch Style	Position
S	1 = 1 Gang	3W = 3 Way	M = Main R = Remote LM = Line to Main LR = Load to Remote
Example: S	1	3W	M

Note: For use with Px2304PBxxx series cables.

Features

Receptacle Types	CR	HG	SG	L1
00 Standard	HBL53CM62	HBL8300GY	5362G	HBL4700
IG Isolated Ground	—	—	CR5352IGGY	IG4700A
GF Ground Fault	—	GFR8300GYTR	GF20GYLA	—
SI Surge Suppression with Isolated Ground	—	IG8362GYSA	IG5362GYSA	—
SS Surge Suppression	—	HBL8362GYSA	HBL5362GYSA	—
Switch Types	CR			
SL Local On/Off	HBL1221PL			
SM Master On/Off	HBL1221PL			

LINKOSITY® FEED - UL Type 3R Rated*

3R Rated Standard Items

Description	Catalog Number
20A 125V Ground Fault	M3R002SGGF0
20A 125V Switched, Spec Grade	M3RSL1SG000
20A 125V Switched, Ground Fault	M3RSL1SGGF0
20A 125V Spec Grade	M3R002SG000
20A 125V Ground Fault, Pass-Thru	M3R002SGGFP
20A 125V Switched, Spec Grade, Pass-Thru	M3RSL1SG00P
20A 125V Switched, Ground Fault, Pass-Thru	M3RSL1SGGFP
Spec Grade, Pass-Thru	M3R002SG00P

Note: * When not in use only.

Device Type	Style	Type	No. of Devices	Device Type	Device Feature	Pass-Thru
M	3R - 3R Lids 3D - 3R Deep Cover	SL - Switch Local SM - Switch Master 00 - None	1 2	SG - Spec Grade HG - Hospital Grade CR - Corrosion Resistant L1 - 15A Locking	IG - Isolated Ground GF - Ground Fault SI - Surge/IG SS - Surge 00 - Standard	P - Pass-Thru 0 - No Pass-Thru



LINKOSITY® FEED - UL Type 4X Rated*

4X Rated NEMA Standard Items

Description	Catalog Number
20A 125V Straight Blade	MLWF2010
20A 125V WTSSTL	MLWF2020
20A 125V Straight Blade, Pass-Thru	MLWF201P
20A 125V WTSSTL, Pass-Thru	MLWF202P

Note: * Watertight Safety-Shroud® Twist-Lock® Plug required when in use.

** Straight Blade are UL Type 4X when not in use only.

WTSSTL is an abbreviation for Watertight Safety-Shroud® Twist-Lock®.

Device Type	Style	Type	No. of Devices	Device Type	Pass-Thru
M	L - LINKOSITY	WF - Watertight Safety-Shroud® Receptacle WM - Watertight Safety-Shroud® Inlet	2	01 - 20A 125V Straight Blade** 02 - 20A 125V Twist-Lock 03 - 20A 250V Twist-Lock 04 - 20A 277V Twist-Lock 05 - 30A 125V Twist-Lock 06 - 30A 250V Twist-Lock 07 - 20A 125/250V Twist-Lock 08 - 20A 3Ø 250V Twist-Lock 09 - 20A 3Ø 480V Twist-Lock 10 - 30A 125/250V Twist-Lock 11 - 30A 3Ø 250V Twist-Lock 12 - 30A 3Ø 480V Twist-Lock 13 - 30A 3Ø 600V Twist-Lock	P - Pass-Thru 0 - No Pass-Thru



ALL LINKOSITY® - UL Type 4X Rated*

4X Rated LINKOSITY Standard Items

Description	Catalog Number
20A 3W up to 600V, 4 Port	M4L2003PB0
20A 3W up to 600V, 4 Port Pass-Thru	M4L2003PBP

Note: * Closure Cap required when not in use.

Device Type	Style	Type	No. of Poles	Conductor Colors	Pass - Thru
M	4L - LINKOSITY	20 - 20A 23 - 20A Super Neutral Isolated Ground 30 - 30A	02 03 04 05 03 04 05 06 04	PA - Green/Yellow Black (all others) PB - Green/Yellow White Black (all others)	P - Pass-Thru 0 - No Pass-Thru



CONDUIT FEED - UL Type 4X Rated*

Conduit Feed Standard Items

Description	Catalog Number
20A 125V Straight Blade	MCWF2010
20A 125V WTSSTL	MCWF2020
20A 250V WTSSTL	MCWF2030
20A 277V WTSSTL	MCWF2040
30A 125V WTSSTL	MCWF2050
30A 250V WTSSTL	MCWF2060
20A 125/250V WTSSTL	MCWF2070
20A 3Ø, 250V WTSSTL	MCWF2080
20A 3Ø, 480V WTSSTL	MCWF2090
30A 125/250V WTSSTL	MCWF2100
30A 3Ø 250V WTSSTL	MCWF2110
30A 3Ø 480V WTSSTL	MCWF2120
30A 3Ø 600V WTSSTL	MCWF2130

Note: * Watertight Safety-Shroud® Twist-Lock® Plug required when in use.

WTSSTL is an abbreviation for Watertight Safety-Shroud® Twist-Lock®.

Device Type	Style	Type	No. of Devices	NEMA Device Type	Pass-Thru
M	C - Conduit Feed	WF - Watertight Safety-Shroud® Receptacles WM - Watertight Safety-Shroud® Inlet	2	01 - 20A 125V Straight Blade 02 - 20A 125V Twist-Lock 03 - 20A 250V Twist-Lock 04 - 20A 277V Twist-Lock 05 - 30A 125V Twist-Lock 06 - 30A 250V Twist-Lock 07 - 20A 125/250V Twist-Lock 08 - 20A 3Ø 250V Twist-Lock 09 - 20A 3Ø 480V Twist-Lock 10 - 30A 125/250V Twist-Lock 11 - 30A 3Ø 250V Twist-Lock 12 - 30A 3Ø 480V Twist-Lock 13 - 30A 3Ø 600V Twist-Lock	0 - No Pass-Thru



MotorQuick®



Disconnect Switches

Thermoplastic Cover on Plated Steel Base

Lockable Handle to Meet OSHA Lockout/
Tagout Regulations

NEMA 1 Enclosure

Prewired with LINKOSITY® Components

Crush and Impact Resistance
of MC CableCable Ratings:
TC-ER, MTW, ST00W

Type 4X Enclosure

Lockable Handle to Meet OSHA Lockout/
Tagout Regulations

High Impact Valox® Enclosure



HBL1389MQR2



HBL1389MQ5



HBLDS3MQR



HBLDS3MQ5



PH2030C

Quick Disconnect Switches

Type 1	30A 3 Pole 600V AC	Catalog Number
HBL1389D	with one pre-wired LINKOSITY® female receptacle (load side).	HBL1389MQR
HBL1389D	with 5 foot pre-wired LINKOSITY® female cable (load side).	HBL1389MQ5
HBL1389D	with one pre-wired LINKOSITY® male receptacle (line side) and one pre-wired LINKOSITY® female receptacle (load side).	HBL1389MQR2
Type 4X	30A 3 Pole 600V AC	
HBLDS3	with one pre-wired LINKOSITY® female receptacle (load side).	HBLDS3MQR
HBLDS3	with 5 foot pre-wired LINKOSITY® female cable (load side).	HBLDS3MQ5
HBLDS3	with one pre-wired LINKOSITY® male receptacle (line side) and one pre-wired LINKOSITY® female receptacle (load side).	HBLDS3MQR2

Accessories

Description	Catalog Number
3P 4W LINKOSITY® male receptacle for installation on motor.	RM3004PA001
3P 4W LINKOSITY® female receptacle for installation in switch.	RF3004PA001
3P 4W LINKOSITY® double ended (male/female) 5-50 foot cable.	PH3004PAXXX*
3P 4W LINKOSITY® single ended (female) 5-50 foot cable.	PF3004PAXXX*
Cord connector, 3/4 in. N.P.T. .63-.75 in. (16.0-19.1) diameter.	SHC1037CR
Lock-on cover for LINKOSITY® connections.	PH2030C

Note: * Cables available from 5-50 feet in 5 foot increments. To purchase larger cable, replace the XXX with the required length in feet. (Examples: PH3004PA005 = 5 foot cable, PH3004PA015 = 15 foot cable.)

Sample Set Up

(1) HBLDS3MQR + (1) PH3004PAXXX + (1) RM3004PA001 = Total Set Up**



+



+



=



Note: ** Retrofit parts available for pre-existing disconnect switch installations.
Please consult factory for availability.
See Section C, page C-31 for technical info.

Valox® is a trademark of SABIC Innovative Plastics, acquired from General Electric Company.



Features

- Shielded
- Super neutral
- K factor 20, copper wound
- Surge Suppression
- Branch circuit protection
- Integral bonding
- Open or enclosed NEMA 1 and 3R designs
- Floor mount



Transformer primary protection and disconnect

Grounding conductor electrode provision

Branch circuit protection

LINKOSITY® connections

Power System Supply Assemblies

KVA	Phase	Input	Cycles	Branch Circuit Output	Circuits	Mounting	Catalog Number
15	3-ph	575/480/400V AC	50/60 Hz	20A 208/120V AC	3	Floor	P150CUNV208F

Note: Additional custom configurations are possible. Consult factory for wall or rack mount options.

LINKOSITY® Specifications

Certifications

System Level	ETL Classified to NEC
Component Assemblies	
PSDA	UL Listed
PSSA	Listed to UL508A
Connecting Components	Listed to UL2238 and UL 50
Cable (Up to 22AWG)	UL 300V Type ITC/PLTC 105°C
Cable (16AWG and Up)	UL 600V Type TC-ER, MTW 90°C or STOOW 600V 105°C

Performance

Electrical

Voltage	Up to 600V
Amperage	Up to 30A

Environmental

Connectivity System Components

Moisture Resistance	UL Type 4, 4X, 12 and 13
Ingress Protection	IP67 Suitability
Flammability	UL94HB Cables/UL94V-0 receptacles

Power System Distribution Assemblies

Moisture Resistance	NEMA Type 1, Type 3R, Type 4X
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Power System Supply Assemblies

Moisture Resistance	NEMA Type 3R
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Mini-Quick® Control Connectors Features and Benefits

Gated Strain Relief with Graduated Window Sizes

Improved flexibility and strength protects wire terminations;
Superior arc of bend control

Hard Gold Over Palladium Nickel Contact Plating

Superior conductivity, extended contact life

O-Rings

Moisture protection

Anti-Vibration Coupling Nut

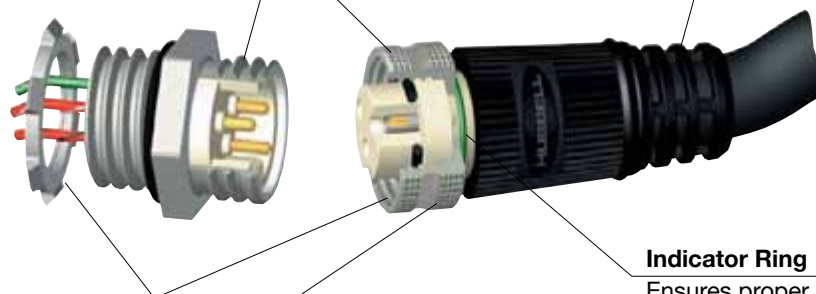
Prevents coupling nut from loosening
under harsh vibration conditions

Leaded Nickel Copper Sleeved Contact

Extended contact life and continuity

Indicator Ring

Ensures proper mating



Features

- Nickel plated brass coupling nuts and receptacle shells.
- Black overmold and cable.
- Insulgrip connector body design.
- UL Listed cable assemblies and receptacles.
- Plating resists corrosion in high abuse environments.

Benefits

- Cable assembly resists dirt and blends with environment giving a clean look to the installation.
- Ergonomic connector body has an industrial look.
- Third party certified for electrical, mechanical and environmental performance.

Material Specifications

Insulator Materials	Nylon 6/6, White	Cable	#16 AWG SEOOW - TPE jacket, Black, PVC conductor insulation, Stranding - 65/34
Contact Materials	Pins - Brass, Sockets Leaded nickel copper w/ stainless steel sleeve		#18 AWG SEOOW - TPE jacket, Black, PVC conductor insulation, Stranding - 41/34
Contact Plating	Hard gold over palladium/nickel		#18 AWM2661 - PVC jacket, Black, PVC conductor insulation, Stranding - 41/34
Overmold Material	Polyurethane, Black	Strain Relief	#16 AWG and #18 AWG - 30 pounds min per UL2238
Coupling Nut, Metallic	Nickel plated brass		
Coupling Nut, Nylon	Nylon 6/6, Black		
Receptacle Shell	Nickel plated brass		
Receptacle Shell, Nylon	Nylon 6/6, Black		
Receptacle Shell, Right Angle	Nickel plated zinc alloy die cast		

Electrical Specifications

Voltage Rating	600VDC/600VAC
Amperage	#16 AWG - 2&3P=15A, 4P=12A, 5&6P=10A 7P=10A, 8&9P=9A, 10&12P=8A #18 AWG - 2&3P=11A, 4P=8A, 5&6P=7A
Contact Resistance	≤ 5 mΩ
Isolation Resistance	≥ 1000 MΩ

Environmental Specifications

Moisture Protection	UL Type 4, 4X, 12 and 13
Ingress Protection	IP67 Suitability
Operating Temperature	AWM2661 cables: -20°C to 105° C SEOOW cable: -40°C to 105° C
Corrosion Resistance	500 hours salt spray per MIL-STD-1344, Method 1001
Vibration Resistance	10 - 2,000 Hz @15g per MIL-STD-1344, Method 2005

Certifications

UL 2238 and UL50, File No. E192071

CSA Certified, C22.2 No. 182.3 and CSA C22.2 No. 94

Mini-Quick® Control Connectors 2 - 6 Pole Plugs



Choose the appropriate configuration from the Selector below.

Hubbell Logic Configurator

For example, catalog number **HCMA05212** is derived as follows:

DEVICE TYPE	COUPLING NUT MATERIAL	BODY STYLE	POLES	CONDUCTOR TYPE	CABLE LENGTH (ft)
HC = Plug, Female HP = Plug, Male HI = Plug, Male Inline ♦ HE = Male/Female Extension Cable ♦ HJ = Male/Female Jumper Cable	M = Metallic N = Nylon	A = Right Angle S = Straight	02 03 04 05 06	1 = #16 AWG SEOOW Cable 3 = #18 AWM2661 IEC Cable* 4 = #18 AWG SEOOW Cable <i>* 3 - 5 Pole Only</i>	** 03 06 12 20 <i>** Replace w / Length</i>
HC	M	A	05	2	12

Note: Availability of specific items may vary. Consult factory for delivery. Consult the factory for additional cable lengths or cable types.

♦ Available with metallic coupling nut only.

2 - 6 Pole Plugs

Catalog numbers using #16 AWG SEOOW cable are listed below. For #18 AWG SEOOW or #18 AWM2661 IEC cable, change the conductor type per the Hubbell Logic chart above.

Poles	Male Face Shown Female - mirror image	Cable Length	Female Plugs		Male Plugs		Male/Female Jumper Cables
			Straight	Right Angle	Straight	Right Angle	Straight
2		3 ft (0.91m)	HCMS02103	HCMA02103	HPMS02103	HPMA02103	HJMS02103
		6 ft (1.83m)	HCMS02106	HCMA02106	HPMS02106	HPMA02106	HJMS02106
		12 ft (3.66m)	HCMS02112	HCMA02112	HPMS02112	HPMA02112	HJMS02112
		All other lengths ▲	HCMS021**	HCMA021**	HPMS021**	HPMA021**	HJMS021**
3		3 ft (0.91m)	HCMS03103	HCMA03103	HPMS03103	HPMA03103	HJMS03103
		6 ft (1.83m)	HCMS03106	HCMA03106	HPMS03106	HPMA03106	HJMS03106
		12 ft (3.66m)	HCMS03112	HCMA03112	HPMS03112	HPMA03112	HJMS03112
		All other lengths ▲	HCMS031**	HCMA031**	HPMS031**	HPMA031**	HJMS031**
4		3 ft (0.91m)	HCMS04103	HCMA04103	HPMS04103	HPMA04103	HJMS04103
		6 ft (1.83m)	HCMS04106	HCMA04106	HPMS04106	HPMA04106	HJMS04106
		12 ft (3.66m)	HCMS04112	HCMA04112	HPMS04112	HPMA04112	HJMS04112
		All other lengths ▲	HCMS041**	HCMA041**	HPMS041**	HPMA041**	HJMS041**
5		3 ft (0.91m)	HCMS05103	HCMA05103	HPMS05103	HPMA05103	HJMS05103
		6 ft (1.83m)	HCMS05106	HCMA05106	HPMS05106	HPMA05106	HJMS05106
		12 ft (3.66m)	HCMS05112	HCMA05112	HPMS05112	HPMA05112	HJMS05112
		All other lengths ▲	HCMS051**	HCMA051**	HPMS051**	HPMA051**	HJMS051**
6		3 ft (0.91m)	HCMS06103	HCMA06103	HPMS06103	HPMA06103	HJMS06103
		6 ft (1.83m)	HCMS06106	HCMA06106	HPMS06106	HPMA06106	HJMS06106
		12 ft (3.66m)	HCMS06112	HCMA06112	HPMS06112	HPMA06112	HJMS06112
		All other lengths ▲	HCMS061**	HCMA061**	HPMS061**	HPMA061**	HJMS061**

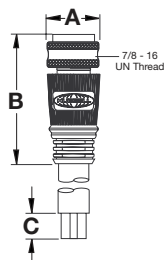
Note: ▲ Replace ** with length required in feet. For nylon coupling nuts, replace "M" with "N" per the ordering chart above.

Example: change HPMA05106 to HPNA05106.



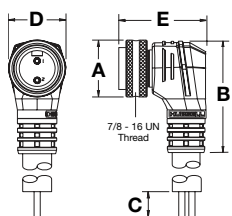
Mini-Quick® Control Connectors 2 - 6 Pole Plugs

Straight Plug



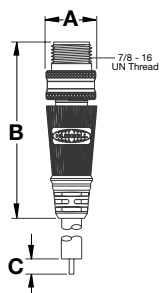
	MALE	FEMALE
A	0.99" (25.2)	0.99" (25.2)
B	2.44" (62.0)	2.40" (61.0)
C	2.75" (69.9)	2.75" (69.9)

Right Angle Plug



	MALE	FEMALE
A	0.99" (25.2)	0.99" (25.2)
B	2.14" (54.4)	2.14" (54.4)
C	2.75" (69.9)	2.75" (69.9)
D	1.03" (26.2)	1.03" (26.2)
E	1.64" (40.6)	1.60" (40.6)

Inline Plug



	MALE
A	0.99" (25.2)
B	2.47" (62.8)
C	2.75" (69.9)

Right Angle version also available.

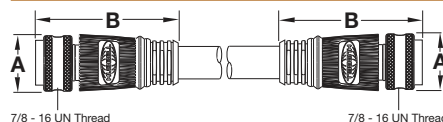
Accessories

Closure caps protect plugs and receptacles when not in use. Adapter rings allow the mating of male and female plugs for in-line applications. Shell size is 1, and the thread is 7/8-16 UN.

Description Catalog Number

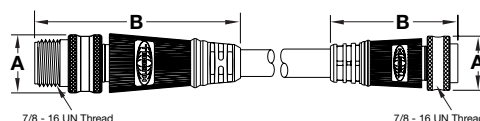
Closure Cap	HPCAP1	
Closure Cap	HRCAP1	
Adapter Ring	HMQAR1	

Jumper Cable



	MALE	FEMALE
A	0.99" (25.2)	0.99" (25.2)
B	2.44" (62.0)	2.40" (61.0)

Male/Female Extension Cable



	MALE	FEMALE
A	0.99" (25.2)	0.99" (25.2)
B	2.47" (62.7)	2.40" (61.0)

Cable Diameters By Cable Type

Number of Conductors	#16 AWG SEOOW	#18 AWG SEOOW
2	0.37" (9.4)	0.35" (8.9)
3	0.39" (9.9)	0.37" (9.4)
4	0.42" (10.7)	0.39" (9.9)
5	0.50" (12.7)	0.47" (11.9)
6	0.52" (13.2)	0.48" (12.2)

Number of Conductors	#18 AWM2661 IEC
3	0.26" (6.6)
4	0.26" (6.6)
5	0.26" (6.6)

Conductor Color Code

#16 AWG SEOOW Plugs

Contact Number	2 Pole	3 Pole	4 Pole	5 Pole	6 Pole
1	White	Green	Black	White	White
2	Black	Black	White	Red	Red
3		White	Red	Green	Green
4			Green	Orange	Orange
5				Black	Black
6					Blue

#18 AWG SEOOW Plugs

Contact Number	3 Pole	4 Pole	5 Pole
1	Green	Black	White
2	Black	White	Red
3	White	Red	Green
4		Green	Orange
5			Black

#18 AWM 2661 IEC

Contact Number	3 Pole	4 Pole	5 Pole
1	Yellow/Green	Black	Black
2	Brown	Blue	Blue
3	Blue	Brown	Yellow/Green
4		White	Brown
5			White

Mini-Quick® Control Connectors

2 - 6 Pole Receptacles



Choose the appropriate configuration from the Selector below.

Hubbell Logic Configurator

For example, catalog number **HBMS05501** is derived as follows:

DEVICE TYPE	SHELL MATERIAL	BODY STYLE	POLES	CONDUCTOR TYPE	LEAD WIRE LENGTH (ft)
HR = Receptacle, Female HB = Receptacle, Male	M = Metallic N = Nylon	A = Right Angle* S = Straight F = Flange Mount* <i>* Metallic Only</i>	02 03 04 05 06	5 = #16 AWG Discrete Wire 6 = #18 AWG IEC Discrete Wire (IEC colors)* <i>* 3 - 5 Pole Only</i>	01* ** <i>*1 Standard Length</i> <i>** Replace w / Length</i>
HB	M	S	05	5	01

Note: Availability of specific items may vary. Consult factory for delivery. Use this chart to build receptacles to meet any application need. Consult the factory for additional wire lengths or wire types.

2 - 6 Pole Receptacles

#16 AWG Discrete Wire◆

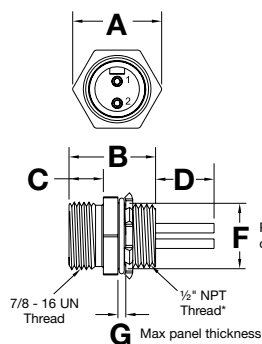
Poles	Male Face Shown Female - mirror image	Female Receptacle				Male Receptacle			
		Straight	Nylon	Right Angle	Flange Mount	Straight	Nylon	Right Angle	Flange Mount
2		HRMS02501	HRNS02501	HRMA02501	HRMF02501	HBMS02501	HBNS02501	HBMA02501	HBMF02501
3		HRMS03501	HRNS03501	HRMA03501	HRMF03501	HBMS03501	HBNS03501	HBMA03501	HBMF03501
4		HRMS04501	HRNS04501	HRMA04501	HRMF04501	HBMS04501	HBNS04501	HBMA04501	HBMF04501
5		HRMS05501	HRNS05501	HRMA05501	HRMF05501	HBMS05501	HBNS05501	HBMA05501	HBMF05501
6		HRMS06501	HRNS06501	HRMA06501	HRMF06501	HBMS06501	HBNS06501	HBMA06501	HBMF06501

Note: ◆ For #18 AWG IEC discrete wire, change the conductor type using the Hubbell Logic chart above.



Mini-Quick® Control Connectors 2 - 6 Pole Receptacles

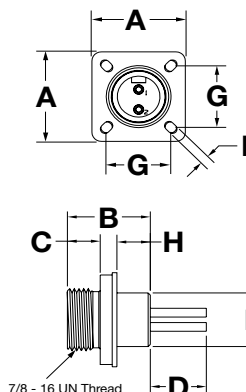
Straight Receptacles



	MALE	FEMALE
A	1.14" (29.0)	1.14" (29.0)
B	1.11" (28.2)	1.11" (28.2)
C	0.44" (11.2)	0.44" (11.2)
D	12.0" (304.8)	12.0" (304.8)
F	0.88" (22.4)	0.83" (22.4)
G	0.25" (6.4)	0.25" (6.4)

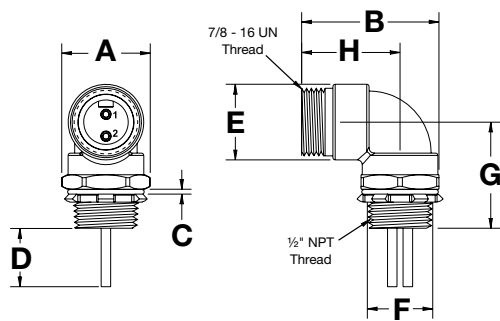
Note: *IEC receptacle has PG13.5 rear thread.

Flange Mount Receptacles



	MALE	FEMALE
A	1.25" (31.75)	1.25" (31.75)
B	1.11" (28.19)	1.11" (28.19)
C	0.44" (11.18)	0.44" (11.18)
D	12.0" (304.8)	12.0" (304.8)
F	0.75" (19.05)	0.75" (19.05)
G	0.86" (21.84)	0.86" (21.84)
H	0.45" (11.43)	0.45" (11.43)
I	0.12" (03.02)	0.12" (03.02)

Right Angle Receptacles



	MALE	FEMALE
A	1.14" (29.0)	1.14" (29.0)
B	1.76" (44.7)	1.76" (44.7)
C	0.25" (6.4)	0.25" (6.4)
D	12.0" (304.8)	12.0" (304.8)
E	0.97" (24.6)	0.97" (24.6)
F	0.83" (21.8)	0.83" (21.8)
G	1.36" (34.5)	1.36" (34.5)
H	1.26" (32.0)	1.26" (32.0)

Color Code By Wire Type

#16 AWG Receptacles

Contact Number	2 Pole	3 Pole	4 Pole	5 Pole	6 Pole
1	White	Green	Black	White	White
2	Black	Black	White	Red	Red
3		White	Red	Green	Green
4			Green	Orange	Orange
5				Black	Black
6					Blue

#18 AWG Receptacles

Contact Number	3 Pole	4 Pole	5 Pole
1	Yellow/Green	Black	Black
2	Brown	Blue	Blue
3	Blue	Brown	Yellow/Green
4		White	Brown
5			White

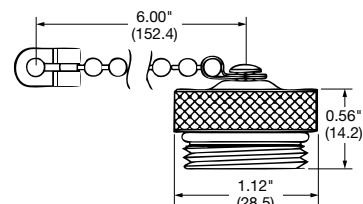
Accessories

Closure caps protect plugs and receptacles when not in use. Shell size is 1, and the thread is 7/8-16 UN.

Description Catalog Number

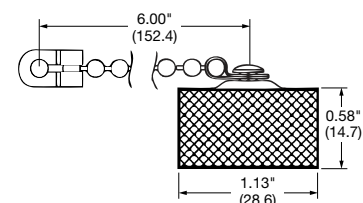
Closure Cap

HPCAP1



Closure Cap

HRCAP1



Mini-Quick® Control Connectors

7 - 12 Pole Plugs



Choose the appropriate configuration from the Selector below.

Hubbell Logic Configurator

For example, catalog number **HCMA08112** is derived as follows:

DEVICE TYPE	COUPLING NUT MATERIAL	BODY STYLE	POLES	CONDUCTOR TYPE	CABLE LENGTH (ft)
HC = Plug, Female HP = Plug, Male HJ = Male/Female Jumper Cable	M = Metallic N = Nylon	A = Right Angle S = Straight	07 08 09 10 12	1 = #16 AWG SEOOW Cable	** 03 06 12 20 <i>** Replace w / Length</i>
HC	M	A	08	1	12

Note: Availability of specific items may vary. Consult factory for delivery. Consult the factory for additional cable lengths or cable types.

7 - 12 Pole Plugs

Catalog numbers using #16 AWG SEOOW cable are listed below.

Poles	Male Face Shown Female - mirror image	Cable Length	Female Plugs		Male Plugs		Male/Female Jumper Cables
			Straight	Right Angle	Straight	Right Angle	Straight
7		3 ft (0.91m)	HCMS07103	HCMA07103	HPMS07103	HPMA07103	HJMS07103
		6 ft (1.83m)	HCMS07106	HCMA07106	HPMS07106	HPMA07106	HJMS07106
		12 ft (3.66m)	HCMS07112	HCMA07112	HPMS07112	HPMA07112	HJMS07112
		All other lengths ▲	HCMS071**	HCMA071**	HPMS071**	HPMA071**	HJMS071**
8		3 ft (0.91m)	HCMS08103	HCMA08103	HPMS08103	HPMA08103	HJMS08103
		6 ft (1.83m)	HCMS08106	HCMA08106	HPMS08106	HPMA08106	HJMS08106
		12 ft (3.66m)	HCMS08112	HCMA08112	HPMS08112	HPMA08112	HJMS08112
		All other lengths ▲	HCMS081**	HCMA081**	HPMS081**	HPMA081**	HJMS081**
9		3 ft (0.91m)	HCMS09103	HCMA09103	HPMS09103	HPMA09103	HJMS09103
		6 ft (1.83m)	HCMS09106	HCMA09106	HPMS09106	HPMA09106	HJMS09106
		12 ft (3.66m)	HCMS09112	HCMA09112	HPMS09112	HPMA09112	HJMS09112
		All other lengths ▲	HCMS091**	HCMA091**	HPMS091**	HPMA091**	HJMS091**
10		3 ft (0.91m)	HCMS10103	HCMA10103	HPMS10103	HPMA10103	HJMS10103
		6 ft (1.83m)	HCMS10106	HCMA10106	HPMS10106	HPMA10106	HJMS10106
		12 ft (3.66m)	HCMS10112	HCMA10112	HPMS10112	HPMA10112	HJMS10112
		All other lengths ▲	HCMS101**	HCMA101**	HPMS101**	HPMA101**	HJMS101**
12		3 ft (0.91m)	HCMS12103	HCMA12103	HPMS12103	HPMA12103	HJMS12103
		6 ft (1.83m)	HCMS12106	HCMA12106	HPMS12106	HPMA12106	HJMS12106
		12 ft (3.66m)	HCMS12112	HCMA12112	HPMS12112	HPMA12112	HJMS12112
		All other lengths ▲	HCMS121**	HCMA121**	HPMS121**	HPMA121**	HJMS121**

Note: ▲ Replace ** with length required in feet. For nylon coupling nuts, replace "M" with "N" per the ordering chart above.
 Example: change HPMA07106 to HPNA07106.

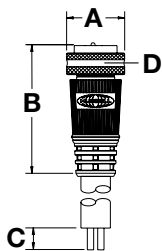


Mini-Quick® Control Connectors 7 - 12 Pole Plugs

Straight Plug

7 - 8 Pole			
	MALE	FEMALE	
A	1.12" (28.5)	1.12" (28.5)	
B	2.53" (64.3)	2.49" (63.3)	
C	2.75" (69.9)	2.75" (69.9)	
D	1 - 16 UN Thread		

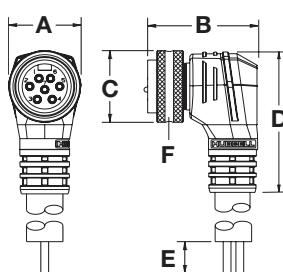
9 - 12 Pole			
	MALE	FEMALE	
A	1.25" (31.8)	1.25" (31.8)	
B	2.77" (70.4)	2.73" (69.3)	
C	2.75" (69.9)	2.75" (69.9)	
D	1 1/8 - 16 UN Thread		



Right Angle Plug

7 - 8 Pole			
	MALE	FEMALE	
A	1.14" (29.0)	1.14" (29.0)	
B	1.73" (43.9)	1.69" (42.9)	
C	1.12" (28.5)	1.12" (28.5)	
D	2.22" (56.4)	2.22" (56.4)	
E	2.75" (69.9)	2.75" (69.9)	
F	1 - 16 UN Thread		

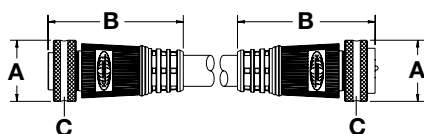
9 - 12 Pole			
	MALE	FEMALE	
A	1.25" (31.8)	1.25" (31.8)	
B	1.84" (47.0)	1.80" (45.7)	
C	1.25" (31.8)	1.25" (31.8)	
D	2.54" (64.5)	2.54" (64.5)	
E	2.75" (69.9)	2.75" (69.9)	
F	1 1/8 - 16 UN Thread		



Jumper Cable

7 - 8 Pole			
	MALE	FEMALE	
A	1.12" (28.5)	1.12" (28.5)	
B	2.53" (64.3)	2.49" (63.3)	
C	1 - 16 UN Thread		

9 - 12 Pole			
	MALE	FEMALE	
A	1.25" (31.8)	1.25" (31.8)	
B	2.77" (70.4)	2.73" (69.3)	
C	1 1/8 - 16 UN Thread		



Cable Diameters By Cable Type

Number of Conductors	#16 AWG STOOW
7	0.52" (13.2)
8	0.56" (14.2)
9	0.60" (15.2)
10	0.65" (16.7)
12	0.70" (17.7)

Conductor Color Code

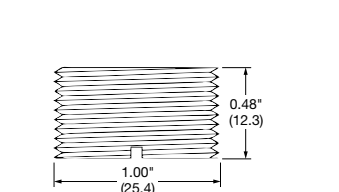
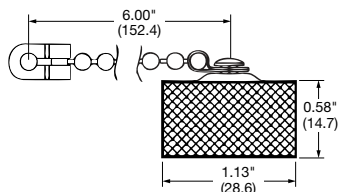
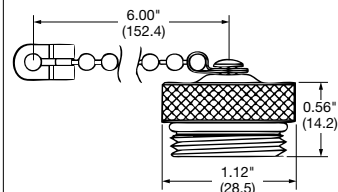
#16 AWG SEOW Plugs

Contact Number	2 Pole	3 Pole	4 Pole	5 Pole	6 Pole	7 Pole	8 Pole	9 Pole	10 Pole	12 Pole
1	White	Green	Black	White	White	White/Black	Orange	Orange	Orange	Orange
2	Black	Black	White	Red	Red	Black	Blue	Blue	Blue	Blue
3		White	Red	Green	Green	White	White/Black	Red/Black	White/Black	White/Black
4			Green	Orange	Orange	Red	Black	Green/Black	Red/Black	Red/Black
5				Black	Black	Orange	White	White	Green/Black	Green/Black
6					Blue	Blue	Red	Red	Orange/Black	Orange/Black
7						Green	Green	Green	Red	Blue/Black
8							Red/Black	White/Black	Green	Black/White
9								Black	Black	Green
10									White	Red
11										White
12										Black

Accessories

Closure caps protect plugs and receptacles when not in use. Adapter rings allow the mating of male and female plugs for in-line applications.

Description	Closure Cap Shell Thread Size	Catalog Number	Closure Cap Shell Thread Size	Catalog Number	Adapter Ring Shell Thread Size	Catalog Number
7 to 8 Pole	II 1 - 16 UN	HPCAP2	II 1 - 16 UN	HRCAP2	II 1 - 16 UN	HMQAR2
9 to 12 Pole	III 1 1/8 - 16UN	HPCAP3	III 1 1/8 - 16UN	HRCAP3	III 1 1/8 - 16UN	HMQAR3
Cap Size	II- 1.12" (28.5), III- 1.25" (31.8)		II- 1.13" (28.6), III- 1.25" (31.8)		II- 1.00" (25.4), III- 1.13" (28.6)	



Mini-Quick® Control Connectors 7 - 12 Pole Receptacles



Choose the appropriate configuration from the Selector below.

Hubbell Logic Configurator

For example, catalog number **HRMS10501** is derived as follows:

DEVICE TYPE	SHELL MATERIAL	BODY STYLE	POLES	CONDUCTOR TYPE	LEAD WIRE LENGTH (ft)
HR = Receptacle, Female HB = Receptacle, Male	M = Metallic	S = Straight	07 08 09 10 12	5 = #16 AWG Discrete Wire	01* ** <i>*1 Standard Length</i> <i>** Replace w / Length</i>
HR	M	S	10	5	01

Note: Availability of specific items may vary. Consult factory for delivery. Consult the factory for additional wire lengths or wire types.

7-12 Pole Receptacles

#16 AWG Discrete Wire

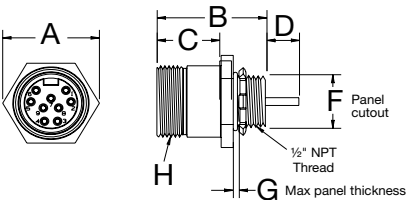
Poles	Male Face Shown Female - mirror image	Female Receptacle	Male Receptacle
7		HRMS07501	HBMS07501
8		HRMS08501	HBMS08501
9		HRMS09501	HBMS09501
10		HRMS10501	HBMS10501
12		HRMS12501	HBMS12501





Mini-Quick® Control Connectors
7 - 12 Pole Receptacles

Straight Receptacles



7 - 8 Pole

	MALE	FEMALE
A	1.29" (32.8)	1.29" (32.8)
B	1.44" (36.6)	1.44" (36.6)
C	0.80" (20.3)	0.80" (20.3)
D	12.0" (304.8)	12.0" (304.8)
F	0.83" (21.1)	0.83" (21.1)
G	0.25" (6.4)	0.25" (6.4)
H	1 - 16 UN Thread	

9 - 12 Pole

	MALE	FEMALE
A	1.44" (36.6)	1.44" (36.6)
B	1.62" (41.2)	1.62" (41.2)
C	0.96" (24.4)	0.96" (24.4)
D	12.0" (304.8)	12.0" (304.8)
F	0.83" (21.1)	0.83" (21.1)
G	0.25" (6.4)	0.25" (6.4)
H	1 1/8 - 16 UN Thread	

Conductor Color Code

#16 AWG Receptacles

Contact Number	2 Pole	3 Pole	4 Pole	5 Pole	6 Pole	7 Pole	8 Pole	9 Pole	10 Pole	12 Pole
1	White	Green	Black	White	White	White/Black	Orange	Orange	Orange	Orange
2	Black	Black	White	Red	Red	Black	Blue	Blue	Blue	Blue
3		White	Red	Green	Green	White	White/Black	Red/Black	White/Black	White/Black
4			Green	Orange	Orange	Red	Black	Green/Black	Red/Black	Red/Black
5				Black	Black	Orange	White	White	Green/Black	Green/Black
6					Blue	Blue	Red	Red	Orange/Black	Orange/Black
7						Green	Green	Green	Red	Blue/Black
8							Red/Black	White/Black	Green	Black/White
9								Black	Black	Green
10									White	Red
11										White
12										Black

Accessories

Closure caps protect plugs and receptacles when not in use. Adapter rings allow the mating of male and female plugs for in-line applications.

Description	Closure Cap Shell Thread Size Size	Catalog Number	Closure Cap Shell Thread Size Size	Catalog Number	Adapter Ring Shell Thread Size Size	Catalog Number
7 to 8 Pole	II 1 - 16 UN	HPCAP2	II 1 - 16 UN	HRCAP2	II 1 - 16 UN	HMQR2
9 to 12 Pole	III 1 1/8 - 16UN	HPCAP3	III 1 1/8 - 16UN	HRCAP3	III 1 1/8 - 16UN	HMQR3
Cap Size	II- 1.12" (28.5), III- 1.25" (31.8)		II- 1.13" (28.6), III- 1.25" (31.8)		II- 1.00" (25.4), III- 1.13" (28.6)	

Mini-Quick® Control Connectors Field Attachable Connectors - Screw Terminal Style



Male Face Shown
Female - mirror
image



	Body	Cable Range	3 Pole	4 Pole	5 Pole
Female	Straight	.24"-.32" (6.1-8.1)	HCMS03F9	HCMS04F9	HCMS05F9
		.39"-.47" (9.9-11.9)	HCMS03F13	HCMS04F13	HCMS05F13
		.47"-.55" (11.9-13.1)	—	HCMS04F16	HCMS05F16
	Right Angle	.24"-.32" (6.1-8.1)	HCMA03F9	HCMA04F9	HCMA05F9
Male In-Line	Straight	.24"-.32" (6.1-8.1)	HIMS03F9	HIMS04F9	HIMS05F9
		.39"-.47" (9.9-11.9)	HIMS03F13	HIMS04F13	HIMS05F13
		.47"-.55" (11.9-13.1)	—	HIMS04F16	HIMS05F16
	Right Angle	.24"-.32" (6.1-8.1)	HIMA03F9	HIMA04F9	HIMA05F9
Male	Straight	.24"-.32" (6.1-8.1)	HPMS03F9	HPMS04F9	HPMS05F9
		.39"-.47" (9.9-11.9)	HPMS03F13	HPMS04F13	HPMS05F13
		.47"-.55" (11.9-13.1)	—	HPMS04F16	HPMS05F16
	Right Angle	.24"-.32" (6.1-8.1)	HPMA03F9	HPMA04F9	HPMA05F9

Electrical Specifications

Voltage Rating	250V
Amperage	3 Pin - 12A 4,5 Pin - 9A
Wire Size, Max	16AWG

Mechanical Specifications

Coupling Nut	Anodized aluminum
Connector Shell	PBT
Connector Insert	PUR/PA
Contacts	Brass, Gold plate over palladium nickel

Environmental Specifications

Moisture Resistance	IP67
Operating Temperature	-40°C to 85°C

Female, Right Angle Male, Right Angle



Female, Straight Male, Straight



Male In-Line, Right Angle



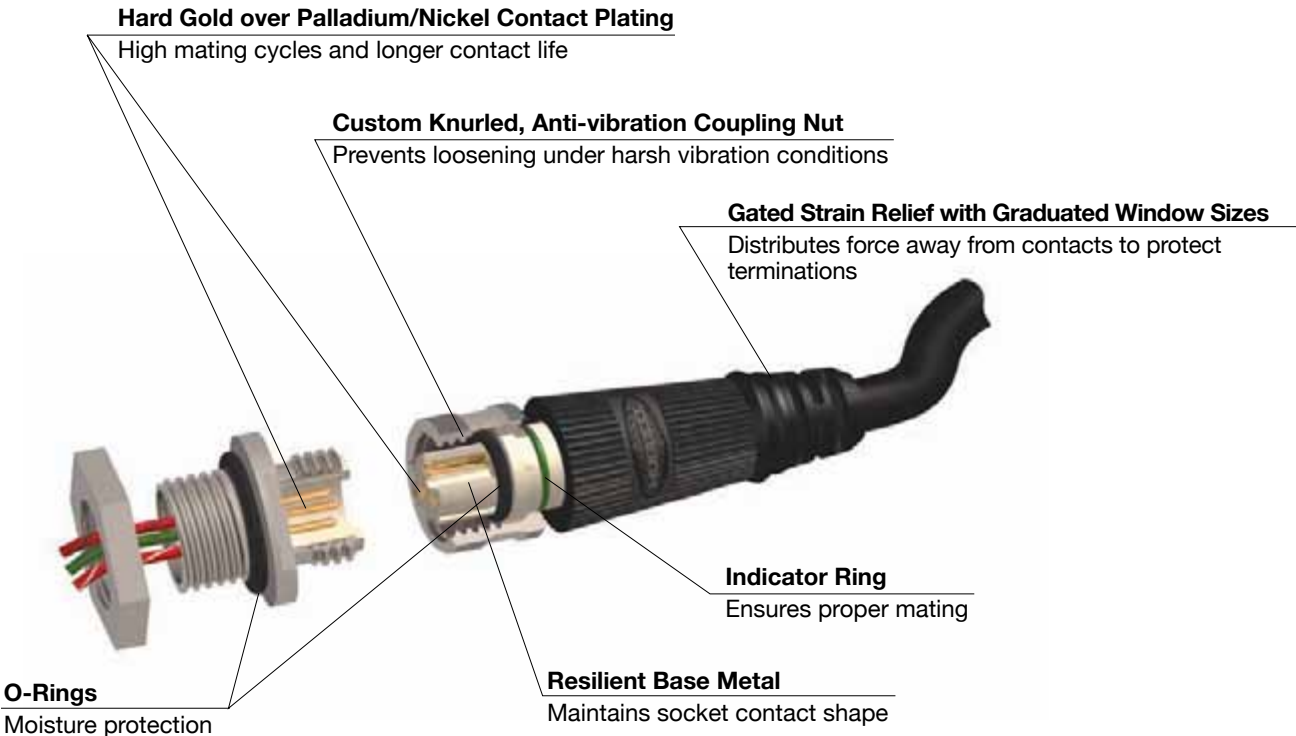
Male In-Line, Straight





Micro-Quick® Control Connectors

Features and Benefits



Features

- Nickel plated brass coupling nuts and receptacle shells.
- Beryllium copper socket contacts.
- Standard #22 AWG cable 85% copper braid coverage.
- Black overmold and cable.
- Insulgrip connector body design.
- Plating resists corrosion in high abuse environments.

Benefits

- Strong, resilient base metal ensures contacts maintain their shape and continuity over time.
- Cable resists nicks and abrasions and provides shielding when braid is terminated.
- Cable assembly resists dirt and blends with environment giving a clean look to the installation.
- Ergonomic connector body has an industrial look.

Material Specifications

Insulator Materials	Nylon 6/6, White	Cable	#22 AWG - PVC jacket (black) PVC conductor insulation
Contact Materials	Pins - Brass Sockets - Beryllium copper		Copper braid - 85% coverage Stranding - 19/34
Contact Plating	Hard gold over palladium/nickel		#18 AWG - TPE jacket (black) PVC conductor insulation
Overmold Material	Glass filled polyurethane, Black		Stranding - 41/34
Coupling Nut, Metallic	Nickel plated brass	Strain Relief	#22 AWG - 20 pounds min per UL2238 #18 AWG - 30 pounds min per UL 2238
Coupling Nut, Nylon	Nylon 6/6, Black		
Receptacle Shell	Nickel plated brass		

Electrical Specifications

Voltage Rating	300VDC/300VAC
Amperage	#22 AWG - 2&3P=5A, 4&5P=4A, 6P=3A #18 AWG - 2&3P=8A, 4P=6A, 5P=5A
Contact Resistance	≤ 5 mΩ
Isolation Resistance	≥ 1000 MΩ

Environmental Specifications

Moisture Protection	UL Type 4, 4X, 12 and 13
Ingress Protection	IP67 Suitability
Operating Temperature	#22 AWG PVC cable: -20°C to 105° C #18 AWG TPE cable: -40°C to 105° C
Corrosion Resistance	500 hours salt spray per MIL-STD-1344, Method 1001
Vibration Resistance	10 - 2,000 Hz @15g per MIL-STD-1344, Method 2005

Certifications

UL 2238 and UL50, File No. E192071

CSA Certified, C22.2 No. 182.3 and CSA C22.2 No. 94





Micro-Quick® Control Connectors

Single Key 3 - 5 Pole Plugs

Choose the appropriate configuration from the Selector below.

Hubbell Logic Configurator

For example, catalog number **MCMS1312** is derived as follows:

DEVICE TYPE	COUPLING NUT MATERIAL	BODY STYLE	KEY STYLE	POLES	CONDUCTOR TYPE	CABLE LENGTH (m)
MC = Plug, Female MI = Plug, Male Inline ME = Male/Female Extension Cable	M = Metallic N = Nylon	A = Right Angle S = Straight	1 = Single	3 4 5	1 = #22 AWG PVC Cable 2 = #18 AWG TPE Cable*	** 2 4 5
MC	M	S	1	3	* 2 - 4 Pole Only	2

Note: Availability of specific items may vary. Consult factory for delivery. Consult the factory for additional cable lengths or cable types.

3 - 5 Pole Single Key Plugs

Catalog numbers using #22 AWG PVC cable are listed below. For #18 AWG TPE cable, change the conductor type per the Hubbell Logic chart above.

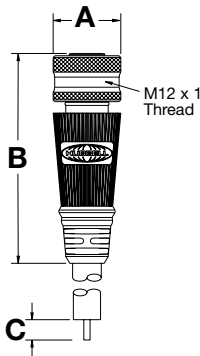
Poles	Male Face Shown Female - mirror image	Cable Length	Female Plugs		Male In-Line Plugs Straight	Male/Female Extension Cables Right Angle
			Straight	Right Angle		
3		6.56 ft (2m)	MCMS1312	MCMA1312	MIMS1312	MEMS1312
		13.12 ft (4m)	MCMS1314	MCMA1314	MIMS1314	MEMS1314
		16.40 ft (5m)	MCMS1315	MCMA1315	MIMS1315	MEMS1315
		All other lengths ▲	MCMS131**	MCMA131**	MIMS131**	MEMS131**
4		6.56 ft (2m)	MCMS1412	MCMA1412	MIMS1412	MEMS1412
		13.12 ft (4m)	MCMS1414	MCMA1414	MIMS1414	MEMS1414
		16.40 ft (5m)	MCMS1415	MCMA1415	MIMS1415	MEMS1415
		All other lengths ▲	MCMS141**	MCMA141**	MIMS141**	MEMS141**
5		6.56 ft (2m)	MCMS1512	MCMA1512	MIMS1512	MEMS1512
		13.12 ft (4m)	MCMS1514	MCMA1514	MIMS1514	MEMS1514
		16.40 ft (5m)	MCMS1515	MCMA1515	MIMS1515	MEMS1515
		All other lengths ▲	MCMS151**	MCMA151**	MIMS151**	MEMS151**

Note: ▲ Replace ** with length required in meters. For nylon coupling nuts, replace "M" with "N" per the ordering chart above.
 Example: change **MCMA1412** to **MCNA1412**.



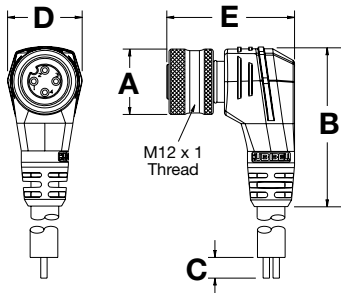
Micro-Quick® Control Connectors
Single Key 3 - 5 Pole Plugs
Drawings (in/mm)

Straight Female Plug



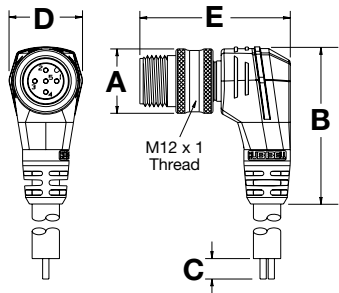
A	0.59" (15.0)
B	1.83" (46.5)
C	2.75" (69.9)

Right Angle Female Plug



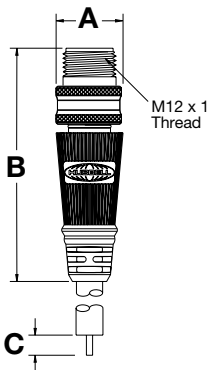
A	0.59" (15.0)
B	1.44" (36.6)
C	2.75" (69.9)
D	0.67" (17.0)
E	1.15" (29.2)

Right Male In-Line Plug



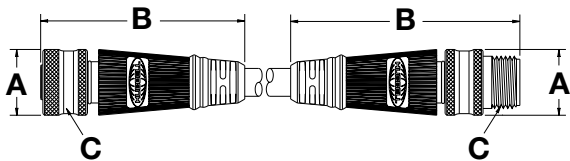
A	0.59" (15.0)
B	1.44" (36.6)
C	2.75" (69.9)
D	0.67" (17.0)
E	1.38" (35.1)

Straight Male In-Line Plug



	MALE
A	0.59" (15.0)
B	2.06" (52.3)
C	2.75" (69.9)

Extension Cable



	FEMALE	MALE
A	0.59" (15.0)	0.59" (15.0)
B	1.83" (46.5)	2.06" (52.3)
C	M12 x 1	

Cable Diameters By Cable Type

Number of Conductors	#22 AWG PVC	#18 AWG TPE
3	0.21" (5.3)	0.24" (6.1)
4	0.22" (5.7)	0.26" (6.6)
5	0.26" (6.6)	0.28" (7.1)

Conductor Color Code

Contact Number	3 Pole	4 Pole	5 Pole
1	Brown	Brown	Brown
2	Not Used	White	White
3	Blue	Blue	Blue
4	Black	Black	Black
5	Not Used	Not Used	Gray

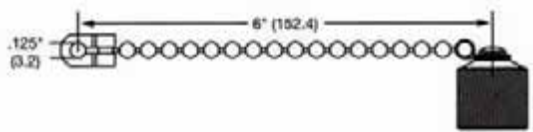
Accessories

Dust Caps

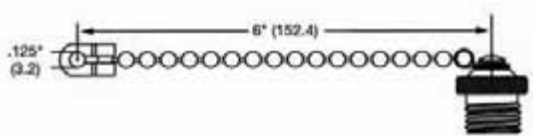
Closure caps protect plugs and receptacles when not in use. Thread is M12 x 1.

Catalog Number

MRCM1



MPCM1





Micro-Quick® Control Connectors Single Key 3 - 5 Pole Receptacles

Choose the appropriate configuration from the Selector below.

Hubbell Logic Configurator

For example, catalog number **MRMS13314** is derived as follows:

DEVICE TYPE	COUPLING NUT MATERIAL	BODY STYLE	KEY STYLE	POLES	CONDUCTOR TYPE	REAR THREAD STYLE
MR = Receptacle, Female MB = Receptacle, Male MF = Receptacle, Female Inverse	M = Metallic	S = Straight	1 = Single	3 4 5	3 = #22 AWG PVC Discrete Wire 4 = #18 AWG PVC Discrete Wire* * 3 - 4 Pole Only	14 = M14x1* 25 = 1/4" NPT** 50 = 1/2" NPT* * MB Style Only ** MF Style Only
MR	M	S	1	3	3	14

Note: Availability of specific items may vary. Consult factory for delivery. Consult the factory for additional cable lengths or cable types.

3 - 5 Pole Single Key Receptacles

Catalog numbers using #22 AWG PVC discrete wire are listed below. For #18 AWG PVC discrete wire, change the conductor type per the Hubbell Logic chart above.

3 - 5 Pole Single Key Receptacles- #22 AWG Discrete Wire*

Poles	Male Face Shown Female - mirror image	Male Receptacle Rear Thread Style		Female Inverse Receptacles Rear Thread Style
		M14 x 1	1/2" NPT	1/4" NPT
3		MBMS13314	MBMS13350	MFMS13325
4		MBMS14314	MBMS14350	MFMS14325
5		MBMS15314	MBMS15350	MFMS15325

Note: * For 18 AWG discrete wire, replace the conductor type per Hubbell Logic chart above.
All receptacles available in 1ft. length standard. For additional lengths, please consult factory.

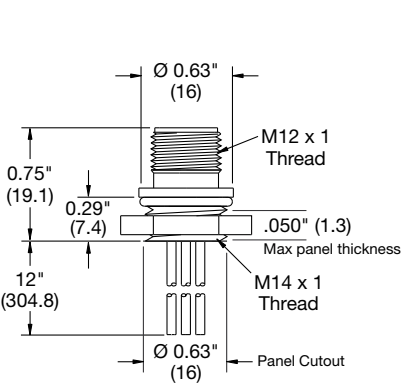


Micro-Quick® Control Connectors

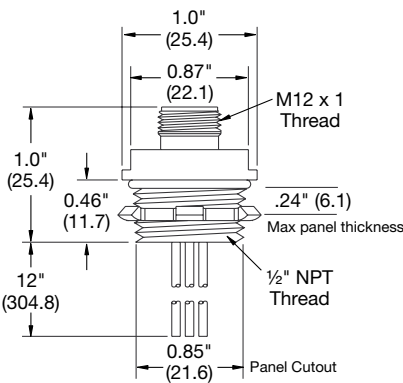
Single Key 3 - 5 Pole Receptacles

Drawings (in/mm)

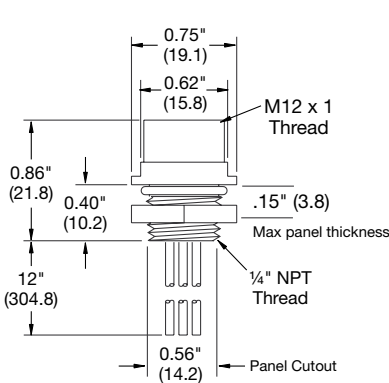
Male Receptacle
Rear Thread - M14x1



Male Receptacle
Rear Thread - 1/2" NPT



Female Inverse Receptacle
Rear Thread - 1/4" NPT



Conductor Color Code - Single Key

Contact Number	3 Pole	4 Pole	5 Pole
1	Brown	Brown	Brown
2	Not Used	White	White
3	Blue	Blue	Blue
4	Black	Black	Black
5	Not Used	Not Used	Gray

Accessories

Dust Caps

Closure caps protect plugs and receptacles when not in use. Thread is M12 x 1.

Catalog Number

MRCM1	
MPCM1	



Micro-Quick® Control Connectors Dual Key 2 - 6 Pole Plugs

Choose the appropriate configuration from the Selector below.

Hubbell Logic Configurator

For example, catalog number **MPMS2512** is derived as follows:

DEVICE TYPE	COUPLING NUT MATERIAL	BODY STYLE	KEY STYLE	POLES	CONDUCTOR TYPE	CABLE LENGTH (m)
MC = Plug, Female MP = Plug, Male MI = Plug, Male Inline ME = Male/Female Extension Cable	M = Metallic N = Nylon	A = Right Angle S = Straight	2 = Dual	3 4 5 6	1 = #22 AWG PVC Cable 2 = #18 AWG TPE Cable*	** 2 4 5
MP	M	S	2	5	* 2 - 5 Pole Only	** Replace w / Length

Note: Availability of specific items may vary. Consult factory for delivery. Consult the factory for additional cable lengths or cable types.

2 - 6 Pole Dual Key Plugs

Catalog numbers using #22 AWG PVC cable are listed below. For #18 AWG TPE cable, change the conductor type per the Hubbell Logic chart above.

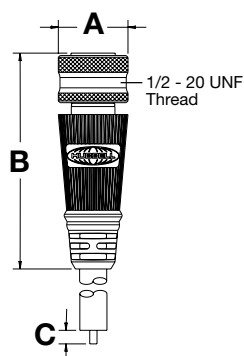
Poles	Male Face Shown Female - mirror image	Cable Length	Female Plugs		Male Plugs			Male/Female Extension Cables
			Straight	Right Angle	Straight	Right Angle	In-line Straight	Straight
2		6.56 ft (2m)	MCMS2212	MCMA2212	MPMS2212	MPMA2212	MIMS2212	MEMS2212
		13.12 ft (4m)	MCMS2214	MCMA2214	MPMS2214	MPMA2214	MIMS2214	MEMS2214
		16.40 ft (5m)	MCMS2215	MCMA2215	MPMS2215	MPMA2215	MIMS2215	MEMS2215
		All other lengths ▲	MCMS221**	MCMA221**	MPMS221**	MPMA221**	MIMS221**	MEMS221**
3		6.56 ft (2m)	MCMS2312	MCMA2312	MPMS2312	MPMA2312	MIMS2312	MEMS2312
		13.12 ft (4m)	MCMS2314	MCMA2314	MPMS2314	MPMA2314	MIMS2314	MEMS2314
		16.40 ft (5m)	MCMS2315	MCMA2315	MPMS2315	MPMA2315	MIMS2315	MEMS2315
		All other lengths ▲	MCMS231**	MCMA231**	MPMS231**	MPMA231**	MIMS231**	MEMS231**
4		6.56 ft (2m)	MCMS2412	MCMA2412	MPMS2412	MPMA2412	MIMS2412	MEMS2412
		13.12 ft (4m)	MCMS2414	MCMA2414	MPMS2414	MPMA2414	MIMS2414	MEMS2414
		16.40 ft (5m)	MCMS2415	MCMA2415	MPMS2415	MPMA2415	MIMS2415	MEMS2415
		All other lengths ▲	MCMS241**	MCMA241**	MPMS241**	MPMA241**	MIMS241**	MEMS241**
5		6.56 ft (2m)	MCMS2512	MCMA2512	MPMS2512	MPMA2512	MIMS2512	MEMS2512
		13.12 ft (4m)	MCMS2514	MCMA2514	MPMS2514	MPMA2514	MIMS2514	MEMS2514
		16.40 ft (5m)	MCMS2515	MCMA2515	MPMS2515	MPMA2515	MIMS2515	MEMS2515
		All other lengths ▲	MCMS251**	MCMA251**	MPMS251**	MPMA251**	MIMS251**	MEMS251**
6		6.56 ft (2m)	MCMS2612	MCMA2612	MPMS2612	MPMA2612	MIMS2612	MEMS2612
		13.12 ft (4m)	MCMS2614	MCMA2614	MPMS2614	MPMA2614	MIMS2614	MEMS2614
		16.40 ft (5m)	MCMS2615	MCMA2615	MPMS2615	MPMA2615	MIMS2615	MEMS2615
		All other lengths ▲	MCMS261**	MCMA261**	MPMS261**	MPMA261**	MIMS261**	MEMS261**

Note: ▲ Replace ** with length required in meters. For nylon coupling nuts, replace "M" with "N" per the ordering chart above.
Example: change MCMS2314 to MCNS2314.



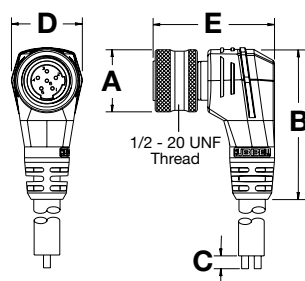
Micro-Quick® Control Connectors Dual Key 2 - 6 Pole Plugs

Straight Plug



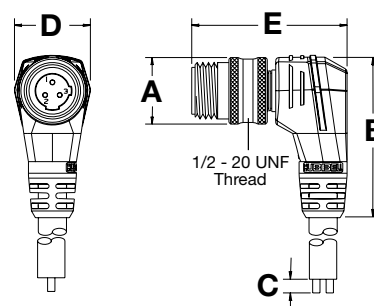
	MALE	FEMALE
A	0.59" (15.0)	0.59" (15.0)
B	1.83" (46.5)	1.83" (46.5)
C	2.75" (69.9)	2.75" (69.9)

Right Angle Plug



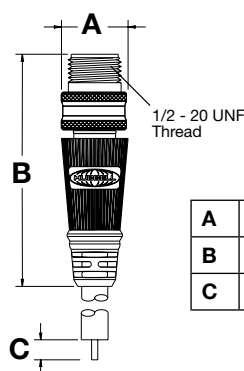
	MALE	FEMALE
A	0.59" (15.0)	0.59" (15.0)
B	1.44" (36.6)	1.44" (36.6)
C	2.75" (69.9)	2.75" (69.9)
D	0.67" (17.0)	0.67" (17.0)
E	1.15" (29.2)	1.15" (29.2)

Right Angle Male In-Line Plug



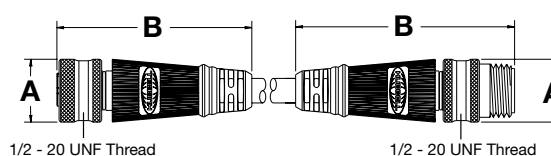
A	0.59" (15.0)
B	1.44" (36.6)
C	2.75" (69.9)
D	0.67" (17.0)
E	1.38" (35.1)

Male In-Line Plug



A	0.59" (15.0)
B	2.06" (52.3)
C	2.75" (69.9)

Extension Cable



	MALE	FEMALE
A	0.59" (15.0)	0.59" (15.0)
B	2.06" (52.3)	1.83" (46.5)

Conductor Color Code - Dual Key

Contact Number	2 Pole	3 Pole	4 Pole	5 Pole	6 Pole
1	Brown	Green	Red/Black	Red/White	Red/White
2	Blue	Red/Black	Red/White	Red	Red
3		Red/White	Red	Green	Green
4			Green	Red/Yellow	Red/Yellow
5				Red/Black	Red/Black
6					Red/Blue

Cable Diameters By Cable Type

Number of Conductors	#22 AWG PVC	#18 AWG TPE
2	0.20" (5.1)	0.23" (5.8)
3	0.21" (5.3)	0.24" (6.09)
4	0.22" (5.7)	0.26" (6.6)
5	0.26" (6.7)	0.28" (7.1)
6	0.26" (6.5)	-

Accessories

Dust Caps

Closure caps protect plugs and receptacles when not in use. Key style is for dual with thread of 1/2"-20 UNF.

Catalog Number	
MRCM2	
MPCM2	

Micro-Quick® Control Connectors

Dual Key 2 - 6 Pole Receptacles



Choose the appropriate configuration from the Selector below.

Hubbell Logic Configurator

For example, catalog number **MRMS22325** is derived as follows:

DEVICE TYPE	COUPLING NUT MATERIAL	BODY STYLE	KEY STYLE	POLES	CONDUCTOR TYPE	REAR THREAD STYLE
MR = Receptacle, Female MB = Receptacle, Male MF = Receptacle, Female Inverse	M = Metallic	S = Straight	2 = Dual	3 4 5 6	3 = #22 AWG PVC Discrete Wire 4 = #18 AWG PVC Discrete Wire* * 2 - 5 Pole Only	25 = ¼" NPT* 50 = ½" NPT * MF Style Only
MR	M	S	2	2	3	25

Note: Availability of specific items may vary. Consult factory for delivery. Consult the factory for additional cable lengths or cable types.

2 - 6 Pole Dual Key Receptacles

Catalog numbers using #22 AWG PVC cable are listed below. For #18 AWG PVC discrete wire, change the conductor type per the Hubbell Logic chart above.

Poles	Male Face Shown Female - mirror image	Female Receptacles		Male Receptacles		Female Inverse Receptacles
		Rear Thread Style		Rear Thread Style	Rear Thread Style	
		¼" NPT	½" NPT	¼" NPT	½" NPT	
2		MRMS22325	MRMS22350	MBMS22325	MBMS22350	MFMS22325
3		MRMS23325	MRMS23350	MBMS23325	MBMS23350	MFMS23325
4		MRMS24325	MRMS24350	MBMS24325	MBMS24350	MFMS24325
5		MRMS25325	MRMS25350	MBMS25325	MBMS25350	MFMS25325
6		MRMS26325	MRMS26350	MBMS26325	MBMS26350	MFMS26325

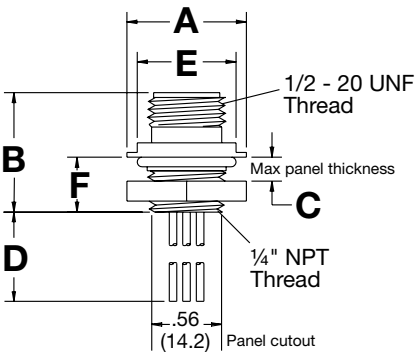




Micro-Quick® Control Connectors

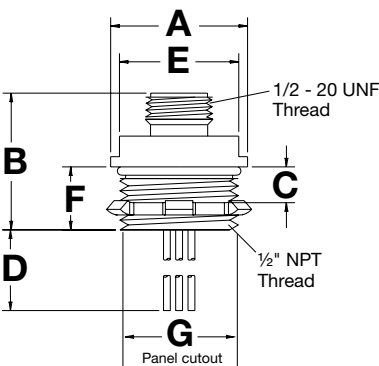
Dual Key 2 - 6 Pole Receptacles

1/4" NPT Rear Thread Receptacle



	MALE	FEMALE
A	0.75" (19.1)	0.75" (19.1)
B	0.75" (19.1)	0.86" (21.8)
C	0.10" (2.5)	0.10" (2.5)
D	12.0" (304.8)	12.0" (304.8)
E	0.62" (15.8)	0.62" (15.8)
F	0.35" (8.9)	0.38" (9.7)

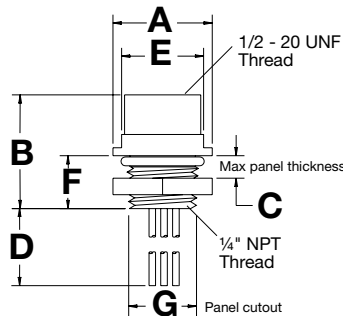
1/2" NPT Rear Thread Receptacle



	MALE	FEMALE
A	1.00" (25.4)	1.00" (25.4)
B	1.00" (25.4)	1.00" (25.4)
C	0.24" (6.10)	0.24" (6.10)
D	12.0" (304.8)	12.0" (304.8)
E	0.87" (22.1)	0.87" (22.1)
F	0.46" (11.7)	0.46" (11.7)
G	0.85" (21.6)	0.85" (21.6)

Female Inverse Receptacle

1/4" NPT Rear Thread



A	0.75" (19.1)
B	0.86" (21.8)
C	0.15" (3.8)
D	12.0" (304.8)
E	0.62" (15.8)
F	0.40" (10.2)
G	0.56" (14.2)

Conductor Color Code - Dual Key

Contact Number	2 Pole	3 Pole	4 Pole	5 Pole	6 Pole
1	Brown	Green	Red/Black	Red/White	Red/White
2	Blue	Red/Black	Red/White	Red	Red
3		Red/White	Red	Green	Green
4			Green	Red/Yellow	Red/Yellow
5				Red/Black	Red/Black
6					Red/Blue

Accessories

Dust Caps

Closure caps protect plugs and receptacles when not in use. Key style is for dual with thread of 1/2"-20 UNF.

Catalog Number	
MRCM2	
MPCM2	

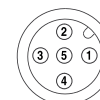
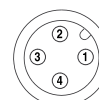
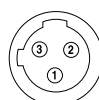


Micro-Quick® Control Connectors

Field Attachable Connectors - Screw Terminal Style



Male Face Shown
Female - mirror
image



	Body	Cable Range	3 Pole	4 Pole	5 Pole
Female	Straight	.16"-.24" (4.1-6.1) .24"-.32" (6.1-8.1)	MCMS23F7 MCMS23F9	MCMS14F7 MCMS14F9	MCMS15F7 MCMS15F9
		.16"-.24" (4.1-6.1) .24"-.32" (6.1-8.1)	MCMA23F7 MCMA23F9	MCMA14F7 MCMA14F9	MCMA15F7 MCMA15F9
Male In-Line	Straight	.16"-.24" (4.1-6.1) .24"-.32" (6.1-8.1)	MIMS23F7 MIMS23F9	MIMS14F7 MIMS14F9	MIMS15F7 MIMS15F9
		.16"-.24" (4.1-6.1) .24"-.32" (6.1-8.1)	MIMA23F7 MIMA23F9	MIMA14F7 MIMA14F9	MIMA15F7 MIMA15F9

Electrical Specifications

Voltage Rating	250V
Amperage	4A
Wire Size, Max	18AWG

Mechanical Specifications

Coupling Nut	Nickel plated brass
Connector Shell	PBT
Connector Insert	Nylon
Contacts	Brass, gold plate over palladium nickel

Environmental Specifications

Moisture Resistance	IP67
Operating Temperature	-40°C to 90°C

Female, Right Angle



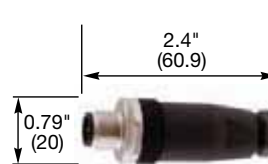
Female, Straight



Male In-Line, Right Angle



Male In-Line, Straight

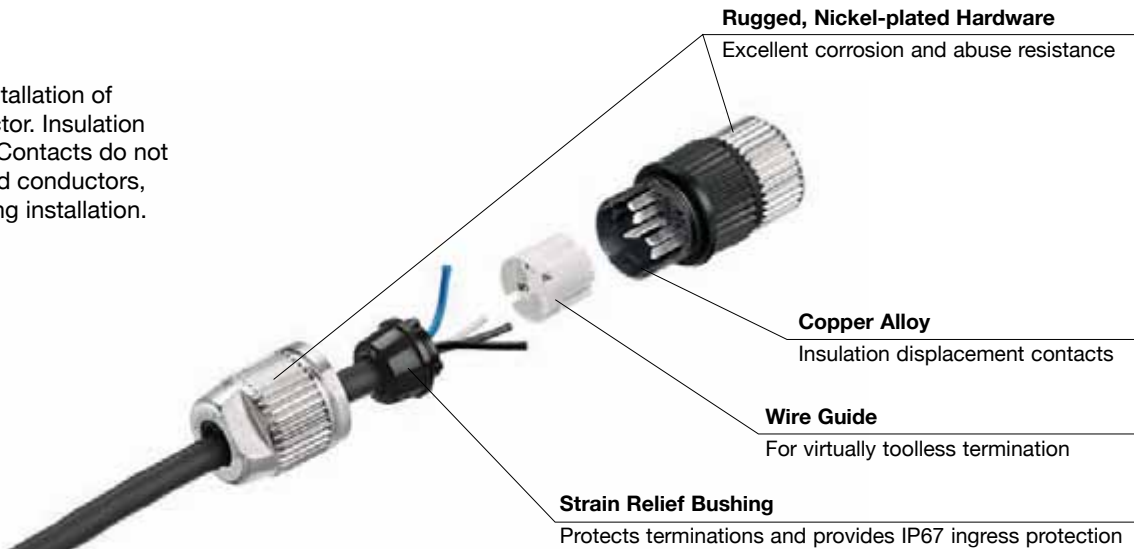




Micro-Quick® Control Connectors

Field Attachable Connectors - IDC Style

Allows field installation of control connector. Insulation Displacement Contacts do not require stripped conductors, greatly speeding installation.



Micro-Quick® IDC

	Body	Cable Range	Wire Gauge	Male Face Shown Female - mirror image	
				3 Pole	4 Pole
Female	Straight	.16"-.21" (4.1-5.3)	22 - 24	MCMS13IDC	MCMS14IDC
		.22"-.32" (5.6-8.1)	18 - 22	MCMS13IDCL	MCMS14IDCL
	Right Angle	.16"-.21" (4.1-5.3)	22 - 24	MCMA13IDC	MCMA14IDC
Male	Straight	.16"-.21" (4.1-5.3)	22 - 24	MIMS13IDC	MIMS14IDC
		.22"-.32" (5.6-8.1)	18 - 22	MIMS13IDCL	MIMS14IDCL
In-Line	Right Angle	.16"-.21" (4.1-5.3)	22 - 24	MIMA13IDC	MIMA14IDC



MCMS13IDC



MCMA13IDC



MCMS13IDCL



MIMS13IDC



MIMS13IDCL



MIMA13IDC

Material Specifications

Housing	Polyester Elastomer, Black
Wire Guide	Nylon 6/6, Gray
Strain Relief Bushing	Neoprene, Black
Contact Materials	Copper Alloy
Contact Plating	Tin over Nickel
Coupling Nut	Zinc Alloy with Nickel Plating
O-ring	Neoprene, Black
Cable Compression Nut	Zinc Alloy with Nickel Plating

Electrical Specifications

Catalog Suffix	IDC	IDCL
Voltage Rating	32VAC/DC	50VAC/DC
Wire Range	#22AWG max., #24AWG min.	#18AWG max., #22AWG min.
Cable Diameters	.160" to .211" (4.1 to 5.3 mm)	.22" to .32" (5.6 to 8.1 mm)
Amperage	3A	6A
Contact Res.	≤ 5 mΩ	≤ 5 mΩ

Environmental Specifications

Ingress Protection IP67 Suitability	
Operating Temperature	-20°C to 110°C

Nano-Quick® Control Connectors Features and Benefits



Features

- Nickel plated brass coupling nuts and receptacle shells.
- Black overmold and cable.
- Insulgrip connector body design.
- UL Listed cable assemblies and receptacles.
- Plating resists corrosion in high abuse environments.

Benefits

- Cable assembly resists dirt and blends with environment giving a clean look to the installation.
- Ergonomic connector body has an industrial look.
- Third party certified for electrical, mechanical and environmental performance.

Material Specifications

Insulator Materials	Nylon 6/6, White
Contact Materials	Pins - Brass, Sockets - Beryllium copper
Contact Plating	Hard gold over palladium/nickel
Overmold Material	Polyurethane, Black
Coupling Nut, Metallic	Nickel plated brass
Receptacle Shell	Nickel plated brass

Cable	#24 AWG - PVC jacket, Black, PVC conductor insulation, Copper braid - 85% coverage, Stranding 19/36
	#24 AWG - TPE jacket, Black, PVC conductor insulation, Stranding - 19/36
Strain Relief	20 pounds min per UL 2238

Electrical Specifications

Voltage Rating	125VAC/75VDC
Amperage	3&4P=4A
Contact Resistance	≤ 5 mΩ
Isolation Resistance	≥ 1000 MΩ

Environmental Specifications

Moisture Protection	UL Type 4, 4X, 12 and 13
Ingress Protection	IP67 Suitability
Operating Temperature	PVC Cable: -20° to 105° C TPE Cable: -40°C to 105° C
Corrosion Resistance	500 hours salt spray per MIL-STD-1344, Method 1001
Vibration Resistance	10 - 2,000 Hz @15g per MIL-STD1344, Method 2005

Certifications

UL 2238 and UL50, File No. E192071

CSA Certified, C22.2 No. 182.3 and CSA C22.2 No. 94



Nano-Quick® Control Connectors

3 - 4 Pole Plugs and Receptacles

Choose the appropriate configuration from the Selector below.

Hubbell Logic Configurator

For example, catalog number **NCTA3105** is derived as follows:

DEVICE TYPE	RETENTION STYLE	BODY STYLE	POLES	CABLE TYPE	CABLE LENGTH (m)
NC = Plug, Female	T = Threaded, Locking S = Snap On	A = Right Angle S = Straight	3 4	1 = #24 AWG PVC Cable 2 = #24 AWG TPE Cable	** 02 05 ** Replace w / Length
↓	↓	↓	↓	↓	↓
NC	T	A	3	1	05

Note: Availability of specific items may vary. Consult factory for delivery. Use this chart to build plugs to meet any application need. Consult the factory for additional cable lengths or cable types.

3 - 4 Pole Female Plugs

Catalog numbers using #24 AWG PVC cable are listed below. For #24 AWG TPE cable, change the cable type per the Hubbell Logic chart above.

Poles	Female Face Shown	Cable Length	Threaded, Locking		Snap Together	
			Straight	Right Angle	Straight	Right Angle
3		6.56 ft/2m	NCTS3102	NCTA3102	NCSS3102	NCSA3102
		16.40 ft (5m)	NCTS3105	NCTA3105	NCSS3105	NCSA3105
		All other lengths ▲	NCTS31**	NCTA31**	NCSS31**	NCSA31**
4		6.56 ft (2m)	NCTS4102	NCTA4102	NCSS4102	NCSA4102
		16.40 ft (5m)	NCTS4105	NCTA4105	NCSS4105	NCSA4105
		All other lengths ▲	NCTS41**	NCTA41**	NCSS41**	NCSA41**

Note: ▲ Replace ** with length required in feet. For snap on retention style, replace "T" with "S" per the ordering chart above.
Example: change **NCTA3105** to **NCSA3105**.

Hubbell Logic Configurator

For example, Catalog Number **NBCS3D** is derived as follows:

DEVICE TYPE	RETENTION STYLE	BODY STYLE	POLES	CONDUCTOR TYPE
NB = Receptacle, Male	C = Combination	S = Straight	3 4	D = 0.25m #24 AWG discrete wire
↓	↓	↓	↓	↓
NB	C	S	3	D

3 - 4 Pole Male Receptacles

Poles	Male Face Shown	Male Receptacle Rear Thread Style	Poles	Male Face Shown	Male Receptacle Rear Thread Style
		M8 x 1			M8 x 1
3		NBCS3D	4		NBCS4D

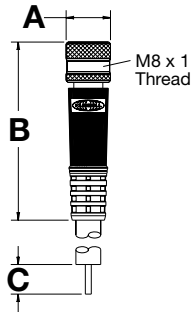
Note: Replace ** with length required in feet.

Nano-Quick® Control Connectors

3 - 4 Pole Plugs and Receptacles

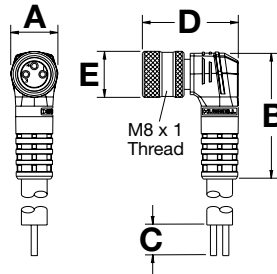


Straight Female Locking Plug



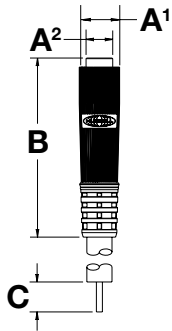
A	0.38" (9.7)
B	1.51" (38.4)
C	2.75" (69.9)

Right Angle Female Locking Plug



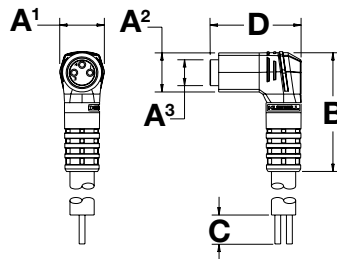
A	0.39" (9.9)
B	1.04" (26.4)
C	2.75" (69.9)
D	0.78" (19.8)
E	0.38" (9.7)

Straight Female Snap Together Plug



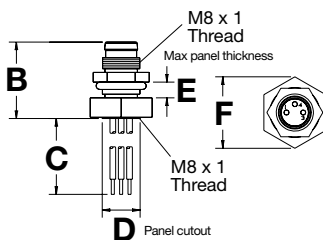
A1	0.34" (8.6)
A2	0.22" (5.6)
B	1.50" (38.1)
C	2.75" (69.9)

Right Angle Female Snap Together Plug



A1	0.39" (9.9)
A2	0.38" (9.7)
A3	0.22" (5.6)
B	1.04" (26.4)
C	2.75" (69.9)
D	0.79" (20.1)

Male Combination Receptacle



A	0.31" (7.9)
B	0.63" (16.0)
C	12.0" (304.8)
D	0.35" (8.8)
E	0.80" (2.0)
F	0.59" (15.0)

Cable Diameters By Cable Type

Number of Conductors	#24 AWG PVC	#24 AWG TPE
3	0.21" (5.3)	0.21" (5.3)
4	0.21" (5.3)	0.21" (5.3)

Conductor Color Code

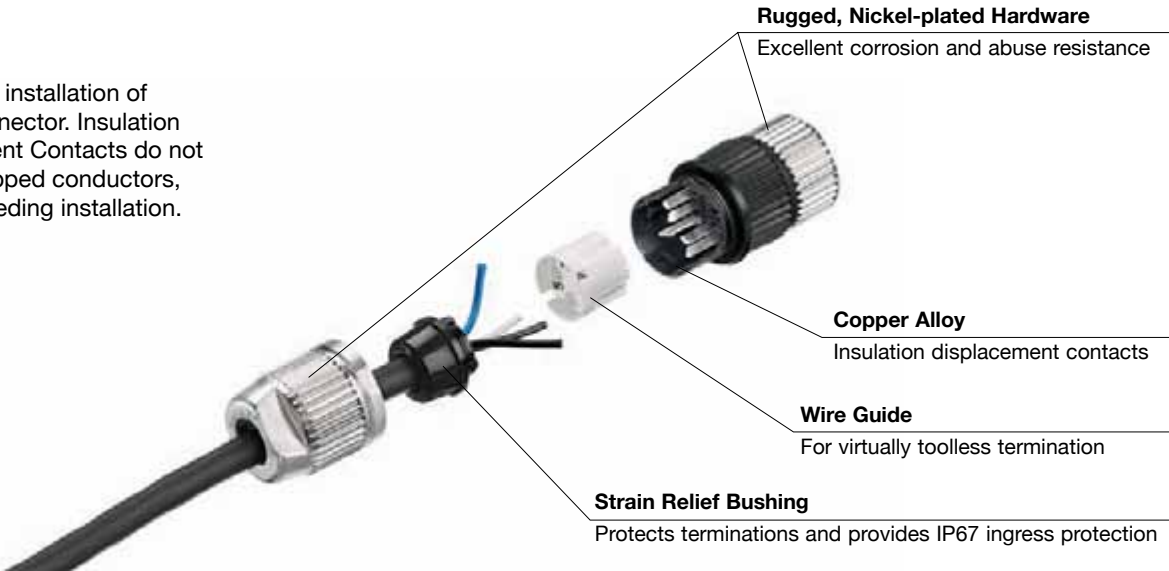
Contact Number	3 Pole	4 Pole
1	Brown	Brown
2	Not Used	White
3	Blue	Blue
4	Black	Black



Nano-Quick® Control Connectors

Field Attachable Connectors - IDC Style

Allows field installation of control connector. Insulation Displacement Contacts do not require stripped conductors, greatly speeding installation.



Nano-Quick® IDC

	Body	Cable Range	Wire Gauge	Male Face Shown Female - mirror image		
Female	Straight	.13"-.21" (3.3-5.3)	22 - 24		NCTS13IDC	NCTS14IDC
Male	Straight	.13"-.21" (3.3-5.3)	22 - 24		NITS13IDC	NITS14IDC



NCTS13IDC



NITS13IDC

Material Specifications

Housing	Polyester Elasomer, Black
Wire Guide	Nylon 6/6, Gray
Strain Relief Bushing	Neoprene, Black
Contact Materials	Copper Alloy
Contact Plating	Tin over Nickel
Coupling Nut	Zinc Alloy with Nickel Plating
O-ring	Neoprene, Black
Cable Compression Nut	Zinc Alloy with Nickel Plating

Electrical Specifications

Voltage Rating	32VAC/DC
Wire Range	#22AWG max., #24AWG min.
Cable Diameters	.13" to .21" (3.3 to 5.3 mm)
Amperage	3A
Contact Resistance	≤ 5 mΩ

Environmental Specifications

Ingress Protection	IP67 Suitability
Operating Temperature	-20°C to 110°C



Signal-Quick® Sensor Mounting Accessories

Cushioned Sensor Mounts

Sensor Mounts

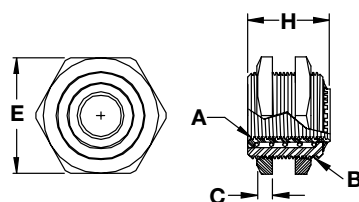
Install tubular proximity sensors with a Cushioned Sensor Mount and protect against over-travel damage. Reduces replacement expenses and downtime. Hubbell's Cushioned Sensor Mounts feature:

- Spring-loaded housing eliminates impact damage.
- Reduces downtime and replacement expenses.
- Reduces spare sensor inventories.
- Shielded and non-shielded end caps eliminate abrasion damage.
- Block style or threaded housing designs.
- Anodized aluminum or stainless steel.

When something out of the ordinary happens or targets over-travel, the sensor simply retracts to avoid damage. The sensor returns to its original position and the equipment continues to operate.

Material Specifications

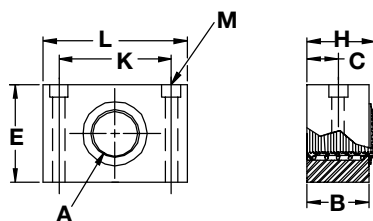
Material: Anodized aluminum housing
Zinc-plated brass jam nuts
CSM12LP is all Stainless Steel



Threaded Style

Threaded Style

Catalog Number	A	B	C	E	H
CSM8	M8 x 1	M16 x 1.5	0.12" (3.1)	0.87" (22.1)	0.87" (22.1)
CSM12LP	M12 x 1	M18 x 1	0.16" (4.1)	0.95" (24)	0.83" (21.1)
CSM18	M18 x 1	M30 x 1.5	0.20" (5.1)	1.41" (35.8)	1.17" (29.7)
CSM30	M30 x 1.5	M47 x 1.5	0.20" (5.1)	2.01" (51)	1.47" (37.3)



Block Style

Block Style

Catalog Number	A	B	C	E	H	K	L	M
BCSM8	M8 x 1	0.75" (19)	0.37" (9.5)	0.62" (15.8)	0.87" (22.1)	0.72" (18.4)	1.0" (25.4)	0.14" (3.6)
BCSM12	M12 x 1	0.75" (19)	0.37" (9.5)	1.0" (25.4)	0.87" (22.1)	0.98" (24.8)	1.5" (38.1)	0.20" (5.2)
BCSM18	M18 x 1	1.0" (25.4)	0.50" (12.7)	1.25" (31.7)	1.17" (29.7)	1.21" (30.7)	1.5" (38.1)	0.18" (4.6)
BCSM30	M30 x 1.5	1.38" (34.9)	0.68" (17.5)	2.0" (50.8)	1.47" (37.4)	2.03" (51.5)	2.5" (63.5)	0.26" (6.7)



Signal-Quick® Sensor Mounting Accessories

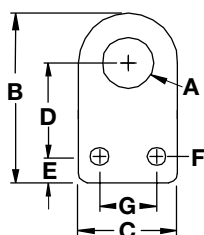
Flat and Right Angle Adjustable and Fixed Brackets



Sensor Mounting Brackets

Eliminate design time and fabrication expense. Choose the Hubbell Angle Bracket or Flat Bracket to mount any tubular proximity sensor.

- Fixed mounting patterns or multi-slotted for positioning versatility.
- Industry standard mounting footprints.
- Rapid installation.
- Immediately available from stock.
- Cost savings over "make your own".

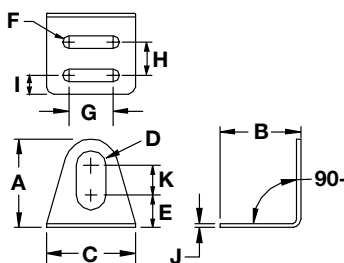


Material Specifications

Material: Stainless Steel

Flat Brackets

Catalog Number	A	B	C	D	E	F	G	Thickness
FB12	0.48" (12.1)	1.95" (49.6)	1.25" (31.8)	0.86" (21.8)	0.47" (11.9)	0.22" (5.54)	0.75" (19.1)	0.12" (3.02)
FB18	0.72" (18.2)	2.27" (57.6)	1.38" (34.9)	1.36" (34.6)	0.22" (5.56)	0.24" (6.05)	1.0" (25.4)	0.12" (3.02)
FB30	1.19" (30.1)	3.42" (86.9)	2.0" (50.8)	2.05" (52)	0.37" (9.40)	0.31" (7.94)	1.25" (31.8)	0.12" (3.02)

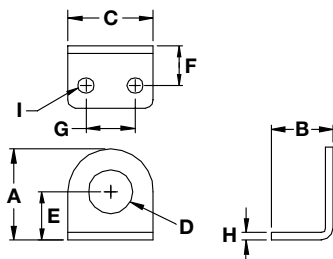


Material Specifications

Material: Stainless steel
Zinc-plated steel (AAB47)

Adjustable Angle Brackets

Catalog Number	A	B	C	D	E	F	G	H	I	J	K
AAB08	1.0" (25.4)	1.25" (31.8)	1.25" (31.8)	0.34" (8.74)	0.31" (7.92)	0.22" (5.54)	0.62" (15.9)	0.46" (11.9)	0.28" (7.14)	0.07" (1.78)	0.38" (9.53)
AAB12	1.5" (38.1)	1.37" (34.8)	1.5" (38.1)	0.50" (12.7)	0.55" (13.9)	0.22" (5.54)	0.75" (19.1)	0.56" (14.3)	0.31" (7.92)	0.07" (1.78)	0.50" (12.7)
AAB18	2.0" (50.8)	1.37" (34.8)	1.75" (44.5)	0.72" (18.3)	0.75" (19.1)	0.22" (5.54)	1.0" (25.4)	0.56" (14.3)	0.31" (7.92)	0.07" (1.78)	0.63" (15.9)
AAB22	2.0" (50.8)	1.37" (34.8)	1.75" (44.5)	0.88" (22.2)	0.69" (17.4)	0.22" (5.54)	1.0" (25.4)	0.56" (14.3)	0.31" (7.92)	0.07" (1.78)	0.63" (15.9)
AAB30	2.5" (63.5)	1.75" (44.5)	2.25" (57.2)	1.19" (30.1)	0.91" (23)	0.28" (7.11)	1.37" (34.8)	0.81" (20.6)	0.41" (10.3)	0.09" (2.29)	0.75" (19.1)



Material Specifications

Bracket Material: Stainless Steel

Angle Brackets

Catalog Number	A	B	C	D	E	F	G	H	I
AB12	1.16" (29.3)	1.0" (25.4)	1.25" (31.8)	0.48" (12.1)	0.53" (13.5)	0.53" (13.5)	0.75" (19.1)	0.12" (3.02)	0.22" (5.6)
AB18	1.47" (37.3)	1.0" (25.4)	1.38" (34.9)	0.48" (12.1)	0.53" (13.5)	0.78" (19.8)	1.0" (25.4)	1.12" (3.02)	0.24" (6.0)
AB30	2.13" (54.0)	1.50" (38.1)	2.00" (50.8)	1.19" (30.1)	1.13" (28.7)	1.13" (28.7)	1.25" (31.8)	0.12" (3.02)	0.31" (7.9)

Signal-Quick® Sensor Mounting Accessories

End Caps and Block Mounts



End Caps

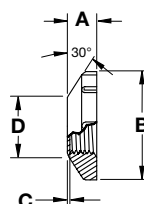
- Use alone or with Cushioned Sensor Mount.
- Beveled edge deflects lateral impacts.
- Reduces and or eliminates abrasion damage.
- Reduces downtime and sensor replacement expenses.



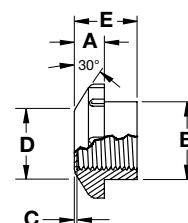
Specifications

Material: Delrin (Non-Shielded)
Glass-filled Nylon (Shielded)
Polypropylene (EC30)

Shielded



Non-Shielded



End Caps

Catalog Number	Style	A	B	C	D	E	Thread
Shielded							
EC08	8mm	0.21" (5.28)	0.60" (15.2)	0.015" (.38)	0.25" (6.45)	N/A	M8 x 1
EC12	12mm	0.25" (6.35)	0.96" (24.4)	0.015" (.38)	0.45" (11.4)	N/A	M12 x 1
EC18	18mm	0.33" (8.38)	1.23" (31.3)	0.03" (.76)	0.73" (17.5)	N/A	M18 x 1
EC30	30mm	0.30" (7.62)	1.72" (43.7)	0.03" (.76)	1.13" (28.6)	N/A	M30 x 1
Non-Shielded							
EC08N	8mm	0.20" (5.08)	0.57" (14.5)	0.015" (.38)	0.25" (6.45)	0.37" (9.50)	M8 x 2
EC12N	12mm	0.25" (6.35)	0.90" (22.9)	0.03" (.76)	0.45" (11.4)	0.68" (17.3)	M12 x 1
EC18N	18mm	0.33" (8.38)	1.34" (34.0)	0.025" (.64)	0.67" (17.0)	0.70" (17.8)	M18 x 1
EC30N	30mm	0.31" (7.87)	1.75" (44.5)	0.04" (1.02)	1.15" (29.2)	0.90" (22.9)	M30 x 1

Note: The wear surface thickness (Dimension C) does not reduce a sensor's sensing range, but will consume an equal amount of the gap required between the sensor and target.

Block Mounts

Bond to sensor face with any epoxy.

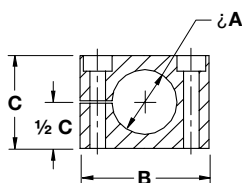
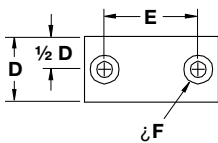
- Use when threads are inaccessible.
- Reduces and/or eliminates abrasion damage.
- Reduces downtime and sensor replacement expenses.



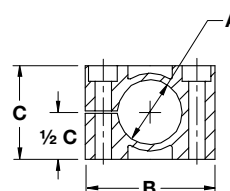
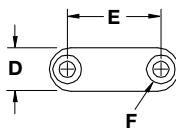
Specifications

Material: Glass-filled Nylon
Anodized aluminum

Metallic



Nylon



Block Mounts

Catalog Number	Style	A	B	C	D	E	F
Metallic							
BM08M	8mm	0.32" (8.05)	0.62" (15.8)	1.0" (25.4)	0.75" (19.0)	0.72" (18.4)	0.14" (3.58)
BM12M	12mm	0.48" (12.1)	1.0" (25.4)	1.5" (38.1)	0.75" (19.0)	0.98" (24.9)	0.20" (5.08)
BM18M	18mm	0.71" (18.1)	1.25" (31.7)	1.5" (38.1)	1.0" (25.4)	1.21" (30.7)	0.18" (4.58)
BM30M	30mm	1.19" (30.1)	2.0" (50.8)	2.5" (63.5)	1.38" (34.9)	2.03" (51.5)	0.26" (6.73)
Nylon							
BM08N	8mm	0.32" (8.05)	1.06" (27)	0.63" (16)	0.47" (12)	0.67" (17)	0.18" (4.5)
BM12N	12mm	0.48" (12.1)	1.26" (32)	0.79" (20)	0.47" (12)	0.87" (22)	0.18" (4.5)
BM16N	16mm	0.63" (16.1)	1.42" (36)	1.02" (26)	0.47" (12)	1.02" (26)	0.18" (4.5)
BM18N	18mm	0.71" (18.1)	1.42" (36)	1.02" (26)	0.47" (12)	1.02" (26)	0.18" (4.5)
BM20N	20mm	0.79" (20.1)	1.77" (45)	1.18" (30)	0.59" (15)	1.26" (32)	0.22" (5.5)
BM22N	22mm	0.87" (22.1)	1.77" (45)	1.18" (30)	0.59" (15)	1.26" (32)	0.22" (5.5)
BM30N	30mm	1.18" (30.1)	2.17" (55)	1.50" (38)	0.71" (18)	1.65" (42)	0.22" (5.5)



Signal-Quick® Sensor Mounting Accessories

Universal Aiming Brackets



Universal Aiming Brackets

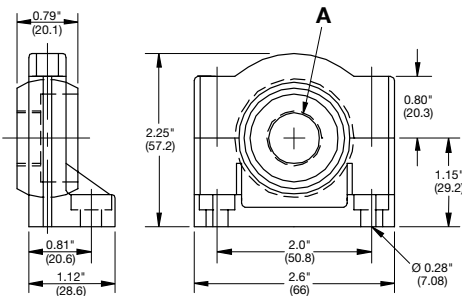
Attach limit switch style (30mm threaded base) or threaded barrel photoelectric and ultrasonic sensors. Achieve secure mounting quickly and with ease.

- Swivel action for aiming simplicity.
- Durable glass-filled nylon construction.
- Regular or extended base models.
- Sizes for 12, 18 and 30mm threaded sensors.

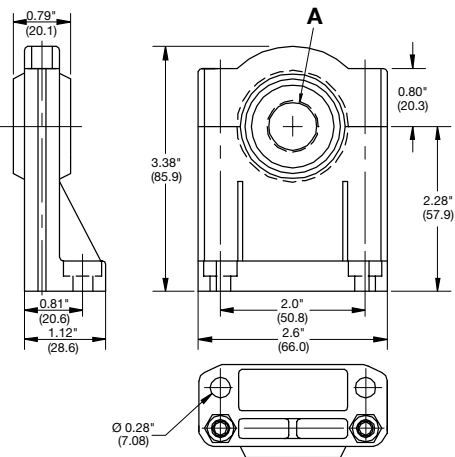
Material Specifications

Material: Glass-filled Nylon

Bracket, Standard



Bracket, Extended



Universal Aiming Brackets

Catalog Number	Style	Description	Thread
UB12	12mm	Bracket	M12 x 1
UB12E	12mm	Bracket, Extended Base	M12 x 1
UB18	18mm	Bracket	M18 x 1
UB18E	18mm	Bracket, Extended Base	M18 x 1
UB30	30mm	Bracket	M30 x 1.5
UB30E	30mm	Bracket, Extended Base	M30 x 1.5

CableTrak® Hose and Cable Carrier System

Assembly and Installation



The design of CableTrak carriers provides easy access to components during installation and repair. The track's flip top design allows the installer to lay cable and hose components directly into the track instead of pulling them through the length of the track. Hubbell CableTrak carriers can be ordered as assembled kits with brackets or by the foot without brackets. The final length of the track is easily customized by adding or removing sections of track or individual links with a flat head screwdriver.

CableTrak® Installation

1. Unlock Tab.
2. Locking tabs secure the retaining bar into place. To unlock tabs, slide a flat head screwdriver under the tab and release it with a twisting motion.

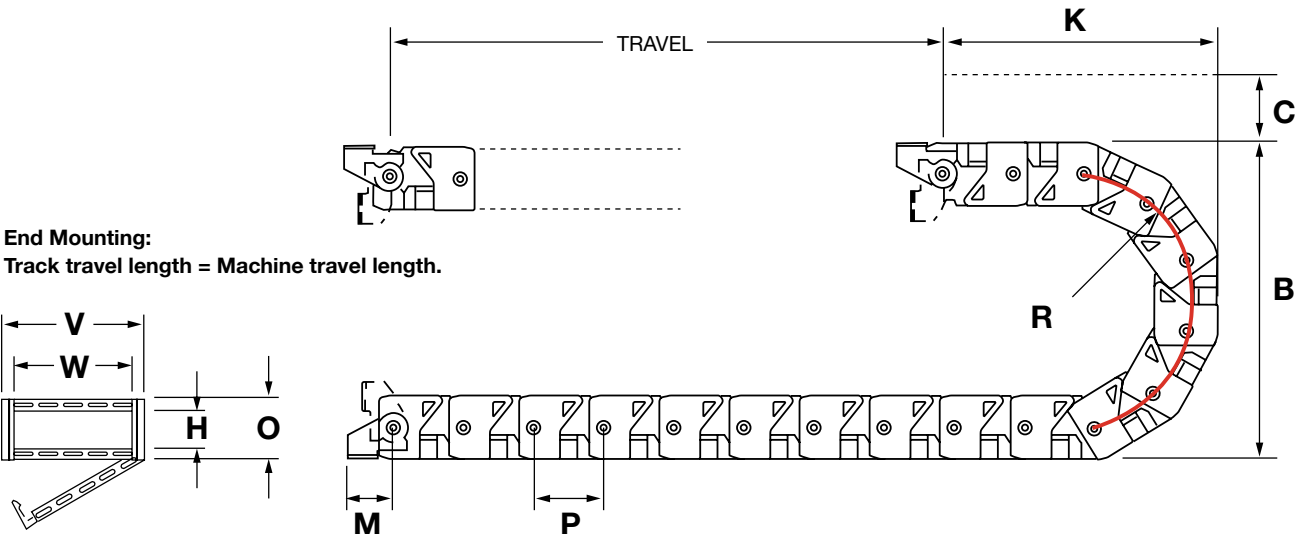
Access/Install Cables and Hoses

3. Easy access is important, especially for pre-assembled cable/hose sets involving large O.D. plugs, receptacles, and couplings.
4. Lock Tab.
5. To re-secure retaining bars, engage the hinge and snap the locking tab into place.





CableTrak® Hose and Cable Carrier System
CableTrak® Kit With and Without Brackets



CableTrak® Kit with Brackets

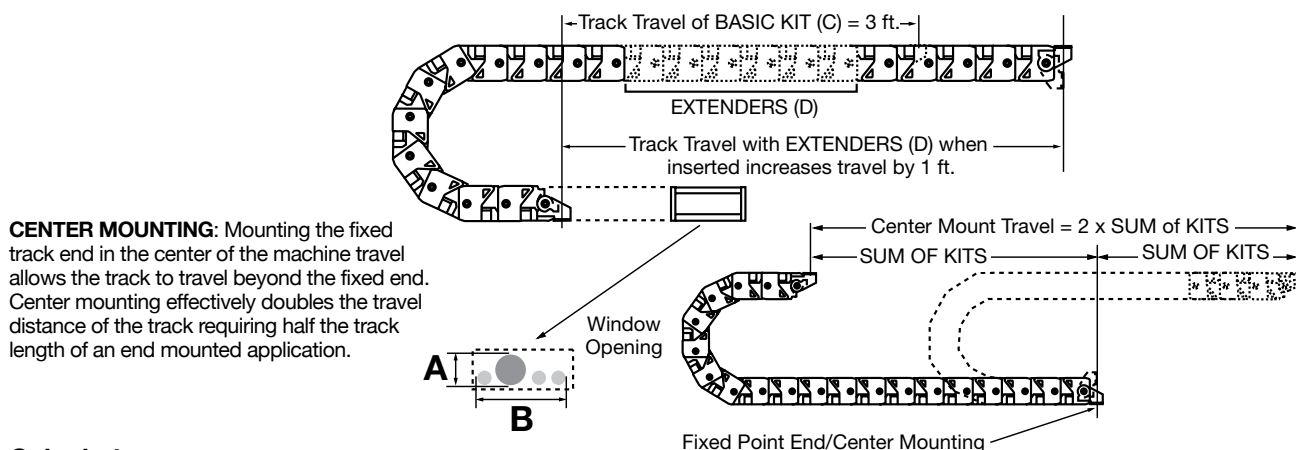
Catalog Number	Track Length (ft)	W Inner Width	H Inner Height	A Max Hose/Cab O.D.	B Max Component Width	V Outer Width	O Outer Height	R Bend Radius	B Bend Height	C Clearance	K Min Brkt to Bend	M Brkt to Pivot	P Pitch	L* Curve Length (ft)
HCT10114K**	4.0'	0.59"	0.75"	0.286"	0.531"	1.03"	1.00"	1.44"	3.86"	2.00"	5.68"	1.33"	1.250"	1.000'
HCT10219K**	4.0'	1.00"	0.75"	0.382"	0.900"	1.44"	1.00"	1.91"	4.82"	2.00"	5.41"	1.33"	1.250"	1.000'
HCT16119K	4.0'	1.50"	1.00"	0.382"	1.350"	2.12"	1.62"	1.91"	5.44"	3.00"	5.72"	1.19"	1.812"	1.000'
HCT16134K	4.5'	1.50"	1.00"	0.688"	1.350"	2.12"	1.62"	3.44"	8.50"	3.00"	7.85"	1.19"	1.812"	1.500'
HCT16219K	4.0'	2.28"	1.00"	0.328"	2.052"	2.91"	1.62"	1.91"	5.44"	3.00"	5.72"	1.19"	1.812"	1.000'
HCT16234K	4.5'	2.28"	1.00"	0.688"	2.052"	2.91"	1.62"	3.44"	8.50"	3.00"	7.85"	1.19"	1.812"	1.500'
HCT16334K	4.5'	3.08"	1.00"	0.688"	2.772"	3.70"	1.62"	3.44"	8.50"	3.00"	7.85"	1.19"	1.812"	1.500'
HCT16434K	4.5'	4.06"	1.00"	0.688"	3.654"	4.69"	1.62"	3.44"	8.50"	3.00"	7.85"	1.19"	1.812"	1.500'
HCT25134K	4.5'	2.60"	1.75"	0.680"	2.340"	3.70"	2.50"	3.40"	9.30"	3.00"	8.31"	1.75"	2.500"	1.500'
HCT25234K	4.5'	4.25"	1.75"	0.680"	3.825"	5.36"	2.50"	3.40"	9.30"	3.00"	8.31"	1.75"	2.500"	1.500'
HCT25247K	5.0'	4.25"	1.75"	0.956"	3.825"	5.36"	2.50"	4.78"	12.06"	3.00"	10.52"	1.75"	2.500"	2.000'
HCT25347K	5.0'	6.60"	1.75"	0.956"	5.940"	7.70"	2.50"	4.78"	12.06"	3.00"	10.52"	1.75"	2.500"	2.000'

CableTrak® Kit without Brackets

Catalog Number	Track Length (ft)	W Inner Width	H Inner Height	Max Hose/Cab O.D.	Max Component Width	V Outer Width	O Outer Height	R Bend Radius	B Bend Height	C Clearance	P Pitch	L* Curve Length (ft)
HCT101141**	1.0'	0.59"	0.75"	0.286"	0.531"	1.03"	1.00"	1.44"	3.86"	2.00"	1.250"	1.000'
HCT102191**	1.0'	1.00"	0.75"	0.382"	0.900"	1.44"	1.00"	1.91"	4.82"	2.00"	1.250"	1.000'
HCT161191	1.0'	1.50"	1.00"	0.382"	1.350"	2.12"	1.62"	1.91"	5.44"	3.00"	1.812"	1.000'
HCT161341	1.0'	1.50"	1.00"	0.688"	1.350"	2.12"	1.62"	3.44"	8.50"	3.00"	1.812"	1.500'
HCT162191	1.0'	2.28"	1.00"	0.328"	2.052"	2.91"	1.62"	1.91"	5.44"	3.00"	1.812"	1.000'
HCT162341	1.0'	2.28"	1.00"	0.688"	2.052"	2.91"	1.62"	3.44"	8.50"	3.00"	1.812"	1.500'
HCT163341	1.0'	3.08"	1.00"	0.688"	2.772"	3.70"	1.62"	3.44"	8.50"	3.00"	1.812"	1.500'
HCT164341	1.0'	4.06"	1.00"	0.688"	3.654"	4.69"	1.62"	3.44"	8.50"	3.00"	1.812"	1.500'
HCT251341	1.0'	2.60"	1.75"	0.680"	2.340"	3.70"	2.50"	3.40"	9.30"	3.00"	2.500"	1.500'
HCT252341	1.0'	4.25"	1.75"	0.680"	3.825"	5.36"	2.50"	3.40"	9.30"	3.00"	2.500"	1.500'
HCT252471	1.0'	4.25"	1.75"	0.956"	3.825"	5.36"	2.50"	4.78"	12.06"	3.00"	2.500"	2.000'
HCT253471	1.0'	6.60"	1.75"	0.956"	5.940"	7.70"	2.50"	4.78"	12.06"	3.00"	2.500"	2.000'

Note: * L = Minimum length in feet to form CableTrak curve.
** These models do not have a flip top design and do not accept separators due to their small size.

CableTrak® Hose and Cable Carrier System Accessories



CENTER MOUNTING: Mounting the fixed track end in the center of the machine travel allows the track to travel beyond the fixed end. Center mounting effectively doubles the travel distance of the track requiring half the track length of an end mounted application.

Calculating

Center Mount (Stationary bracket mounted in center of travel range): Track Length = (MT/2) + L

End Mount (Stationary bracket mounted off center of travel range): Track Length = (MT/2) + L + offset from center in feet

MT = Total machine travel distance in feet

L = Length of track taken up by the bend radius

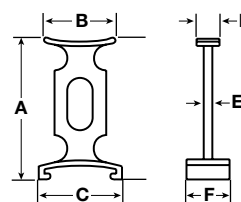
Customizing Track Length

Hubbell CableTrak is easily customized by adding or subtracting links to the track. CableTrak kits provide 4 to 5 feet of track with brackets pre-installed. Track length can be increased by installing the required number of extenders to reach the required length. To further tune the length of track, individual links can be added or removed. To determine the number of links to add or remove, divide the length in inches to be added or subtracted by the pitch of the track and round up.

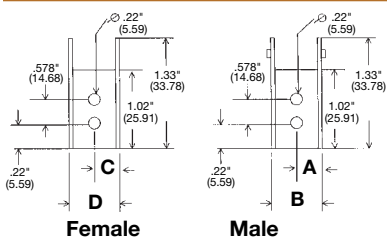
CableTrak® Accessories

Bracket Kits	For Use With	A	B	C	D	E	F	G	H
HCTBK101	HCT101	.40"	.81"	.47"	.94"	—	—	—	—
	Series	(10.2)	(20.6)	(12.0)	(23.9)	—	—	—	—
HCTBK102	HCT102	.44"	1.22"	.44"	1.35"	—	—	—	—
	Series	(11.2)	(31.0)	(11.2)	(34.3)	—	—	—	—
HCTBK161	HCT161	.99"	1.97"	.87"	1.84"	1.19"	.281"	.75"	.81"
	Series	(25.2)	(50.1)	(22.1)	(46.7)	(30.2)	(7.1)	(19.1)	(20.6)
HCTBK162	HCT162	1.78"	2.75"	1.65"	2.63"	1.19"	.281"	.75"	.81"
	Series	(45.2)	(69.9)	(41.9)	(66.8)	(30.2)	(7.1)	(19.1)	(20.6)
HCTBK163	HCT163	2.57"	3.55"	2.44"	3.42"	1.19"	.281"	.75"	.81"
	Series	(65.3)	(90.2)	(62.0)	(86.9)	(30.2)	(7.1)	(19.1)	(20.6)
HCTBK164	HCT164	3.56"	4.53"	3.47"	4.41"	1.19"	.281"	.75"	.81"
	Series	(90.4)	(115.1)	(88.1)	(112.0)	(30.2)	(7.1)	(19.1)	(20.6)
HCTBK251	HCT251	2.08"	3.21"	1.80"	3.03"	1.75"	.344"	1.00"	1.25"
	Series	(52.8)	(81.5)	(45.7)	(77.0)	(44.5)	(8.7)	(25.4)	(31.8)
HCTBK252	HCT252	3.74"	4.87"	3.46"	4.69"	1.75"	.344"	1.00"	1.25"
	Series	(95.0)	(123.7)	(87.9)	(119.1)	(44.5)	(8.7)	(25.4)	(31.8)
HCTBK253	HCT253	6.08"	7.21"	5.80"	7.03"	1.75"	.344"	1.00"	1.25"
	Series	(154.4)	(183.1)	(147.3)	(178.6)	(44.5)	(8.7)	(25.4)	(31.8)
Separators	For Use With	A	B	C	D	E	F		
HCTSP16PK12	HCT16_	1.24"	.82"	.94"	.27"	.14"	.50"		
	Series	(31.5)	(20.8)	(23.9)	(6.9)	(3.6)	(12.7)		
HCTSP25PK12	HCT25_	2.03"	1.00"	1.19"	.35"	.15"	.62"		
	Series	(51.6)	(25.4)	(30.2)	(8.9)	(3.8)	(15.8)		

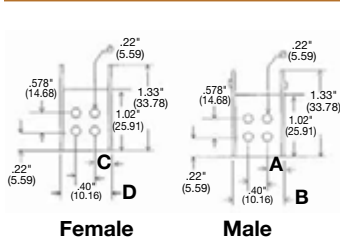
Separators



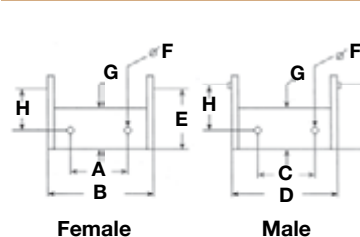
HCTBK101 – Brackets



HCTBK102 – Brackets



HCTBK161 – HCTGK253 Brackets

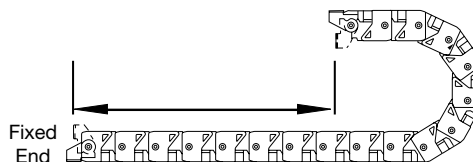
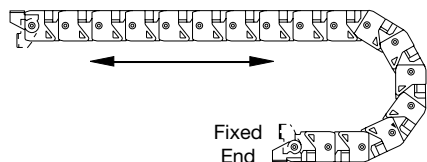




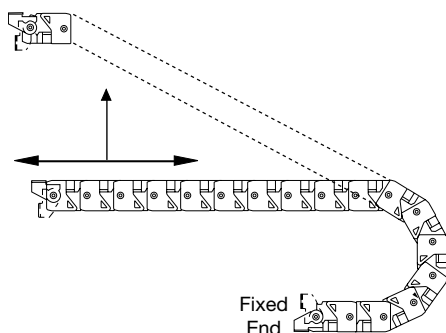
CableTrak® Hose and Cable Carrier System

Mounting Options and Specifications

Horizontal Travel



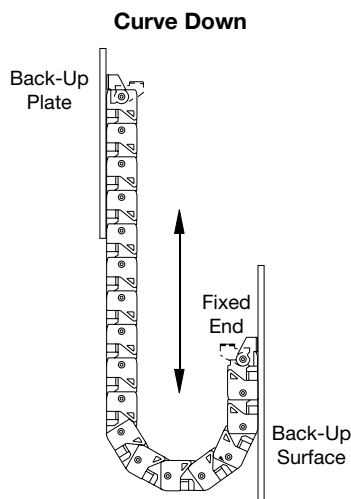
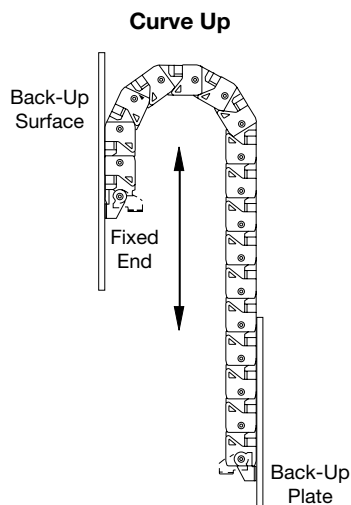
Combination Horizontal & Vertical Travel



Opposed Travel



Vertical Travel



Specifications

Material	Fiberglass reinforced nylon.
Operating Temperature	Continuous +20°F to +100°F (-7°C to 38°C). Intermittent* -40°F to +220°F (-40°C to 104°C).
Maximum Operating Speed	600 FPM (feet per minute), 180 MPM (meters per minute). Operating speed is based on short lengths that are self supported (up to 9ft.).
Maximum Unsupported Travel Distance	HCT16 Series without sag 9 ft. (2.8 m) with sag 10.5 ft. (3.2 m). HCT25 Series without sag 13.5 ft. (4.1 m) with sag 17 ft. (5.2 m).
Applications	Machine tool, robotic automation, material handling.

Note: * Intermittent refers to the operating of the product outside the normal (continuous operating) temperature range momentarily before returning back to the normal range.

DIN Rail Utility Box

Power and Data

Complete Units and Component Parts



Hubbell's DIN Rail Utility Box offers a labor saving way to provide utility power to any control cabinet. Installing the DIN Rail Utility Box is as easy as snapping the box onto a 35mm DIN Rail and connecting the line, neutral and ground wires to the terminal block. Utility power for fans, lights, laptop computers, testers or any other power requirement. If load limiting is a concern, Hubbell's "CB" version comes with a 5 Amp circuit breaker that provides over-current protection to make sure that large loads are not drawn from the DIN Rail Utility Box. All Hubbell DIN Rail Utility Boxes may be mounted either vertically or horizontally on the DIN Rail; the "H" version comes with the terminal block mounted for easy wiring when the DIN Rail Utility Box is mounted horizontally.



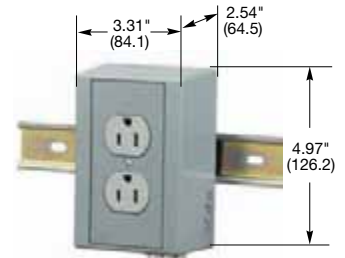
15A 125V
NEMA 5-15R
UL CSA
0.5 HP



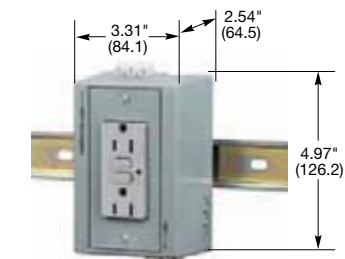
20A 125V
NEMA 5-20R
UL CSA
1 HP

Duplex Receptacles

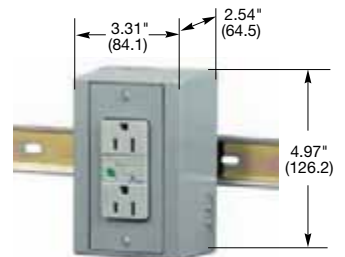
Description	Color	Catalog Number
Complete unit.	Gray	DRUB15 DRUB20
Complete unit, horizontal mount.	Gray	DRUB15H -
Complete unit with 5A circuit breaker.	Gray	DRUB15CB5 -
Complete unit with 5A circuit breaker, horizontal.	Gray	DRUB15HCB5 -
Complete unit with aux.	Gray	- DRUB20AC
Complete unit with aux and 5A circuit breaker.	Gray	- DRUB20ACCB5
Complete unit with NEMA® 6-20R duplex (250V).	Gray	- DRUB5462*



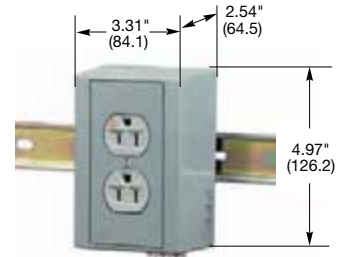
DRUB15



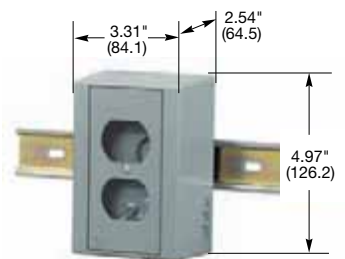
DRUBGF15AC



DRUBTVSS15



DRUBIG15



HIDRUBCKIT

GFCI Duplex Receptacles

Description	Color	Catalog Number
Complete unit.	Gray	DRUBGFI15 DRUBGFI20
Complete unit, horizontal.	Gray	DRUBGFI15H -
Complete unit with 5A circuit breaker.	Gray	DRUBGFI15CB5 -
Complete unit with 5A circuit breaker, horizontal.	Gray	DRUBGFI15HCB5 -
Complete unit with aux GFCI contacts.	Gray	DRUBGFI15AC DRUBGFI20AC
Complete unit, faceless with aux GFCI contacts.	Gray	- DRUBGFI20BFAC

TVSS Duplex Receptacles

Description	Color	Catalog Number
Complete unit.	Gray	DRUBTVSS15 -

Isolated Ground⁽¹⁾ Duplex Receptacles

Description	Color	Catalog Number
Complete unit.	Gray	DRUBIG15 -

Toggle Switch Unit

Description	Color	Catalog Number
Complete unit with HBL1221.	Gray	DRUB1221AC
Complete unit with 15A 125V SW/REC.	Gray	DRUB6404

DIN Rail Utility Box Components

Description	Color	Catalog Number
Pre-wired kit without circuit breaker.	Gray	DRUBKIT
Pre-wired kit with circuit breaker.	Gray	DRUBKITCB5
Pre-wired kit with aux.	Gray	DRUBKITAC
Pre-wired kit with circuit breaker and aux.	Gray	DRUBKITACCB5
Communications kit (unloaded).	Gray	HIDRUBCKIT
(For use with network wiring frames in section P).		
Switch plate only.	Gray	KP1GY**
Rectangular opening plate only.	Gray	KP26GY**
1.60 in. opening plate only.	Gray	KP720GY**
1.40 in. opening plate only.	Gray	KP7GY**
Duplex receptacle plate only.	Gray	KP8GY**

Note: * DRUB5462 configuration not pictured.

(1) See Section J for complete line of isolated ground devices.

**UL Listed, CSA Certified.

NEMA® is a registered trademark of the National Electrical Manufacturers Association.

PANEL-SAFE® Features and Benefits

NFPA 70E Comp



Available in
NEMA TYPE 4, 12 and
NEMA TYPE 4X Versions!

Hubbell GFCI with
Functionality Indicator

Protective clear cover

Cat. 5e Ethernet access*

Overcurrent protection



Supplemental "Tool"
entry screw closure

Locking Hasp
accepts 5/32" padlock

Additional convenience
outlet on GFCI versions



Finger-safe contacts

Stainless steel snap latch

Application



*** Additional computer interfaces and PLC connections available upon request.**

Specifications

Electrical	GFCI - conforms to UL 943 2006 requirement In-Cabinet Receptacle - GFCI protected Data Jack - Cat. 5e Circuit Breaker - 3A	Environmental	Enclosure - NEMA Type 4, 12 and NEMA Type 4X
Mechanical	Cover - Clear Polycarbonate (UV Rated) Housing - Cast Aluminum Finish - Powder Coat Latch - Stainless steel	Certification	UL Recognized CSA Certified

PANEL-SAFE® Power and Data Access Ports

NFPA 70E Compliant



Power Only

Description	NEMA TYPE 4, 12	NEMA TYPE 4X
20A 125V GFCI with In-Cabinet Receptacle.	PR20	—



PR20

Data Only

Description	NEMA TYPE 4, 12	NEMA TYPE 4X
Cat. 5e Ethernet Access only.	P5E	P4X5E
DB9 Interface Connector only.	PDB9	—
PANEL-SAFE Data Port with DB9 Connector.	PDB9MF	—
DH + Combo (DB9/8M Din) and Cat. 5e Ethernet.	PDH5E	—
PANEL-SAFE Data Port, 2 USBA, 3' Cable.	—	P4XUSBA2C3



P5E

Power and Data

Description	NEMA TYPE 4, 12	NEMA TYPE 4X
20A 125V GFCI with In-Cabinet Receptacle and Cat. 5e Ethernet Access.	PR205E	PR4X205E
20A 125V GFCI with In-Cabinet Receptacle, Cat. 5e Ethernet Access and 3A Circuit Breaker.	PR205EB	PR4X205EB
PANEL-SAFE with 20A GFCI and Cat.5E, DB9 and 3A Circuit Breaker.	PR205EDB9B	—
PANEL-SAFE with 20A GFCI and Cat.5E, 2USB.	PR205EUSBA2	—
PANEL-SAFE Data Access Port.	PR205EUSBA2VGA	—
20A 125V GFCI Power and Cat. 5e Ethernet, DH + Combo (DB9/8M Din).	P20DH5E	—
PANEL-SAFE with 20A GFCI and Cat.5/DB9.	P205EDB9	—
15A 125V Power and Cat. 5e Ethernet Access.	P155E	P4X155E
15A 125V Power, Cat. 5e Ethernet Access and 3A Circuit Breaker.	P155EB	P4X155EB
15A 125V Power and (2) Cat. 5e Ethernet Access.	P155E2	—
15A 120V AC Power, NEMA 12/4, DB9 M/F, 10' Cable.	P15DB9MFC10	—
15A 125V Power and DH485 Interface (RJ-45F to RJ-45M, 10' Cable).	P15DH485C10	—
15A 125V Power and Micrologix 8M Din/F to 8M Din/M, 10' Cable.	P15ML8F8MC10	—



PR205E



PR205EB



P155E



P155EB

Additional computer interfaces, PLC connections and configurations available upon request. Consult factory for catalog number and availability.



HI-IMPACT™

Industrial Ethernet Connector and Harsh Environment Connectors

Hubbell's Industrial Ethernet System provides leading edge Category 5e and 6 network transmission performance suitable for industrial and other harsh environments. This system incorporates the use of our standard data connectivity jacks which feature our keystone latching mechanism, in a rugged sealed housing providing IP67 rated protection.

Extend your LAN to include automation equipment and manufacturing or process control equipment. Utilize the Hubbell system to provide added protection in harsh environments such as convention centers, food processing plants, outdoor billboards and display screens, medical and other environments which require added protection from moisture, corrosion, dust-debris, vibration and chemicals.

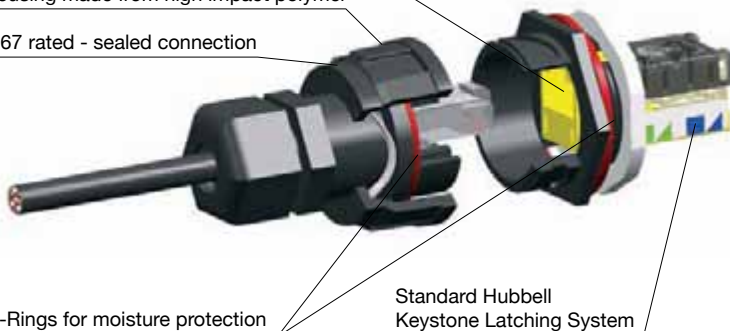
Category 6 and 5e component connectors

Housing made from high impact polymer

IP67 rated - sealed connection

O-Rings for moisture protection

Standard Hubbell
Keystone Latching System



Industrial Ethernet Connectors

Description	Catalog Number
Cat. 5e Connector	HI5E
Cat. 6 Connector	HI6
Cat. 5e Inline Coupler Connector	HI5EC

Environmental Specifications

Ingress Protection:	NEMA TYPE 4X (connectors). IP67 and IP66 (dust/water). IP55 (plates).
Corrosion:	Resistant to most common chemicals, oils and cleaning agents.
HI-IMPACT Housing:	UV resistant.
HI-IMPACT Housing Temperature Range:	TIA/EIA-568-B.2 -25°C to 70°C.

Material

HI-IMPACT Housing:	Valox®, UL 94V-0.
Nose Contacts:	Beryllium copper with a minimum of 50 micro-inch gold plating over nickel under plating.

Mechanical

Vibration Frequency Range:	10-500Hz.
Acceleration:	5g (operational).
Mating Cycles:	750 minimum.
UL 1863 compliant:	

Electrical

ANSI/TIA/EIA-568-B.2-1 (Cat. 6 and 5e). Supports TIA-1005 Industrial Telecommunications Infrastructure.

Industrial Ethernet Patch Cords and Plugs

Description	Catalog Number
HI-IMPACT RJ-45 to standard RJ-45.	HI6XXAE
HI-IMPACT RJ-45 on both ends.	HI6XXEE
Standard RJ-45 on both ends.	HI6XXAA

Note: Substitute "xx" with 03, 05, 07, 10, 15, 20, 25, 30, 35, 40, 45, 50 to indicate length in feet.

Coupler Housing and Connector Cap

Description	Catalog Number
HI-IMPACT coupler housing is a perfect solution for temporary and flexible work areas where single port drops are needed. Add any HI-IMPACT connector to support your application.	HICH
Connector Cap	HIC

HI-IMPACT™ Wallplates

Description	Port Size	Gang	Catalog Number
Stainless steel wallplate.	1	1	HISF11
Stainless steel wallplate.	2	1	HISF12
Stainless steel wallplate.	2	2	HISF22
Stainless steel wallplate.	4	2	HISF24

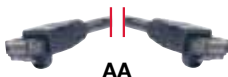
Valox® is a trademark of SABIC Innovative Plastics, acquired from General Electric Company.



AE



EE



AA



HIGH



HIC



HISF11