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M12 Power L-Code, T-Code and S-Code

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Powerfast | L-code, T-code and S-code Intro

Turck's M12 Power offering provides up to 12 amps of power in a space-saving M12 connector size, enabling a high power distribution system to fit into compact areas. A range of connector codings provide proper installation assurance as each coding is specifically designed for AC or DC voltage applications. Numerous connection types provide your powering needs with a scalable, modular and expandable solution.

Product Overview

Number of Poles	4,5
Conductor size range	16 AWG
Rated current	12A
Rated voltage	63 VDC / 600 VAC
Protection Class	Up to NEMA 1,3,4,6P and IEC IP67 / IP68
Ambient Temperature	From -40C to +90C
Insertion Cycles	>100
Design standard	IEC 61076-2-111
Hardware choices	Nickel Plated Brass 316 Stainless Steel Passivated

Quick Links:



Part Number Key
Find the part number keys on pg 25



Installation Guide
M12 Keyway Installation Guide



Installation Guide
Cable Installation
Guide for Power and Control Cables



Installation Guide
Ingress Protection
A Guide to IP and NEMA Type Ratings



Technical Information
Changes to NFPA 79



Technical Information
Interpreting NFPA 79

Power Tray | Exposed Run - 16 AWG PVC cable



Connector Coding	Product Details	Gender	Orientation	Part Number	Wiring Reference	Contact Assignment
L-Code	4 x 16 AWG Cable #RF52537 12 amps 63 V _{DC}	Female	Straight	RKP46PL-*	1. BN 2. WH 3. BU 4. BK	 Female
		Female	Right Angled	WKP46PL-*		
		Male	Straight	RSP46PL-*		 Male
		Male	Right Angled	WSP46PL-*		
		Female/Male	Straight/Straight	RKP46PL-*.RSP46PL		
		Female/Male	Straight/Right Angled	RKP46PL-*.WSP46PL		
		Female/Male	Right Angled/Straight	WKP46PL-*.RSP46PL		
		Female/Male	Right Angled/Right Angled	WKP46PL-*.WSP46PL		
L-Code	5 x 16 AWG Cable #RF52611 12 amps 63 V _{DC}	Female	Straight	RKP56PL-*	1. BN 2. WH 3. BU 4. BK 5. GY	 Female
		Female	Right Angled	WKP56PL-*		
		Male	Straight	RSP56PL-*		 Male
		Male	Right Angled	WSP56PL-*		
		Female/Male	Straight/Straight	RKP56PL-*.RSP56PL		
		Female/Male	Straight/Right Angled	RKP56PL-*.WSP56PL		
		Female/Male	Right Angled/Straight	WKP56PL-*.RSP56PL		
		Female/Male	Right Angled/Right Angled	WKP56PL-*.WSP56PL		
T-Code	4 x 16 AWG Cable #RF52537 12 amps 63 V _{DC}	Female	Straight	RKP46PT-*	1. BN 2. WH 3. BU 4. BK	 Female
		Female	Right Angled	WKP46PT-*		
		Male	Straight	RSP46PT-*		 Male
		Male	Right Angled	WSP46PT-*		
		Female/Male	Straight/Straight	RKP46PT-*.RSP46PT		
		Female/Male	Straight/Right Angled	RKP46PT-*.WSP46PT		
		Female/Male	Right Angled/Straight	WKP46PT-*.RSP46PT		
		Female/Male	Right Angled/Right Angled	WKP46PT-*.WSP46PT		
S-Code	4 x 16 AWG Cable #RF52538 12 amps 600 V _{AC}	Female	Straight	RKP46PS-*	1. BK 1 2. BK 2 3. BK 3 PE. GN/YE	 Female
		Female	Right Angled	WKP46PS-*		
		Male	Straight	RSP46PS-*		 Male
		Male	Right Angled	WSP46PS-*		
		Female/Male	Straight/Straight	RKP46PS-*.RSP46PS		
		Female/Male	Straight/Right Angled	RKP46PS-*.WSP46PS		
		Female/Male	Right Angled/Straight	WKP46PS-*.RSP46PS		
		Female/Male	Right Angled/Right Angled	WKP46PS-*.WSP46PS		

We reserve the right to make technical alterations without prior notice.

*Length in meters. Standard cable lengths are 2, 4, 6, 8, and 10 meters. Consult factory for other lengths.

For 316 Stainless steel coupling nut, add V to description (ex: RKPV46PT-*)



Powerfast | M12 Power Receptacles

16 AWG PVC Conductors



Connector Coding	Product Details	Gender	Mounting Thread	Mounting Orientation	Part Number	Wiring Reference	Contact Assignment
L-Code	4 x 16 AWG 12 amps 63 V _{DC}	Female	1/2-14 NPT	Front Mount	FK46PL-*/14.5/NPT	1. BN 2. WH 3. BU 4. BK	4  1
		Female	M16	Front Mount	FK46PL-*/M16		3 2
		Female	M16	Rear Mount	FKFD46PL-*/M16		Female
		Male	1/2-14 NPT	Front Mount	FS46PL-*/14.5/NPT		1 4
		Male	M16	Front Mount	FS46PL-*/M16		2 3
		Male	M16	Rear Mount	FSFD46PL-*/M16		Male
L-Code	4 x 14 AWG 16 amps 63 V _{DC}	Female	1/2-14 NPT	Front Mount	FK44PL-*/14.5/NPT	1. BN 2. WH 3. BU 4. BK	4  1
		Female	M16	Front Mount	FK44PL-*/M16		3 2
		Female	M16	Rear Mount	FKFD44PL-*/M16		Female
		Male	1/2-14 NPT	Front Mount	FS44PL-*/14.5/NPT		1 4
		Male	M16	Front Mount	FS44PL-*/M16		2 3
		Male	M16	Rear Mount	FSFD44PL-*/M16		Male
L-Code	5 x 16 AWG 12 amps 63 V _{DC}	Female	1/2-14 NPT	Front Mount	FK56PL-*/14.5/NPT	1. BN 2. WH 3. BU 4. BK 5. GY	FE 4  1
		Female	M16	Front Mount	FK56PL-*/M16		3 2
		Female	M16	Rear Mount	FKFD56PL-*/M16		Female
		Male	1/2-14 NPT	Front Mount	FS56PL-*/14.5/NPT		1 4
		Male	M16	Front Mount	FS56PL-*/M16		2 3
		Male	M16	Rear Mount	FSFD56PL-*/M16		Male
L-Code	5 x 14 AWG 16 amps 63 V _{DC}	Female	1/2-14 NPT	Front Mount	FK54PL-*/14.5/NPT	1. BN 2. WH 3. BU 4. BK 5. GY	FE 4  1
		Female	M16	Front Mount	FK54PL-*/M16		3 2
		Female	M16	Rear Mount	FKFD54PL-*/M16		Female
		Male	1/2-14 NPT	Front Mount	FS54PL-*/14.5/NPT		1 4
		Male	M16	Front Mount	FS54PL-*/M16		2 3
		Male	M16	Rear Mount	FSFD54PL-*/M16		Male
T-Code	4 x 16 AWG 12 amps 63 V _{DC}	Female	1/2-14 NPT	Front Mount	FK46PT-*/14.5/NPT	1. BN 2. WH 3. BU 4. BK	4  1
		Female	M16	Front Mount	FK46PT-*/M16		3 2
		Female	M16	Rear Mount	FKFD46PT-*/M16		Female
		Male	1/2-14 NPT	Front Mount	FS46PT-*/14.5/NPT		4 3
		Male	M16	Front Mount	FS46PT-*/M16		1 2
		Male	M16	Rear Mount	FSFD46PT-*/M16		Male

We reserve the right to make technical alterations without prior notice.



Powerfast | M12 Power Receptacles (continued)

Connector Coding	Product Details	Gender	Mounting Thread	Mounting Orientation	Part Number	Wiring Reference	Contact Assignment
T-Code	4 x 14 AWG 16 amps 63 V _{DC}	Female	1/2-14 NPT	Front Mount	FK44PT-*/14.5/NPT	1. BN 2. WH 3. BU 4. BK	
		Female	M16	Front Mount	FK44PT-*/M16		
		Female	M16	Rear Mount	FKFD44PT-*/M16		
		Male	1/2-14 NPT	Front Mount	FS44PT-*/14.5/NPT		
		Male	M16	Front Mount	FS44PT-*/M16		
		Male	M16	Rear Mount	FSFD44PT-*/M16		
S-Code	4 x 16 AWG 12 amps 600 V _{AC}	Female	1/2-14 NPT	Front Mount	FK46PS-*/14.5/NPT	1. BK 1 2. BK 2 3. BK 3 PE. GN/YE	
		Female	M16	Front Mount	FK46PS-*/M16		
		Female	M16	Rear Mount	FKFD46PS-*/M16		
		Male	1/2-14 NPT	Front Mount	FS46PS-*/14.5/NPT		
		Male	M16	Front Mount	FS46PS-*/M16		
		Male	M16	Rear Mount	FSFD46PS-*/M16		
S-Code	4 x 14 AWG 16 amps 600 V _{AC}	Female	1/2-14 NPT	Front Mount	FK44PS-*/14.5/NPT	1. BK 1 2. BK 2 3. BK 3 PE. GN/YE	
		Female	M16	Front Mount	FK44PS-*/M16		
		Female	M16	Rear Mount	FKFD44PS-*/M16		
		Male	1/2-14 NPT	Front Mount	FS44PS-*/14.5/NPT		
		Male	M16	Front Mount	FS44PS-*/M16		
		Male	M16	Rear Mount	FSFD44PS-*/M16		

*Length in meters. Standard lead length is 0.5 meters. Consult factory for other lengths.

For 316 stainless steel receptacle housings & locknuts add a V following gender designation. (ex: FKV46PL-*/14.5/NPT)

We reserve the right to make technical alterations without prior notice.



Powerfast | M12 Power Field Wireable Connectors

16 AWG Screw Terminal



Connector Coding	Product Details	Gender	Orientation	Part Number	Pinout Color	Contact Assignment
L-Code	5 x 16 AWG 16 amps 63 V _{DC}	Female	Straight	RK56PL-S-0	1. BN 2. WH 3. BU 4. BK 5. GY	
		Female	Right angle	WK56PL-S-0		
		Male	Straight	RS56PL-S-0		
		Male	Right angle	WS56PL-S-0		
T-Code	4 x 16 AWG 12 amps 63 V _{DC}	Female	Straight	RK46PT-S-0	1. BN 2. WH 3. BU 4. BK	
		Female	Right angle	WK46PT-S-0		
		Male	Straight	RS46PT-S-0		
		Male	Right angle	WS46PT-S-0		
S-Code	4 x 16 AWG 12 amps 600 V _{AC}	Female	Straight	RK46PS-S-0	1. BK 1 2. BK 2 3. BK 3 PE. GN/YE	
		Female	Right angle	WK46PS-S-0		
		Male	Straight	RS46PS-S-0		
		Male	Right angle	WS46PS-S-0		

We reserve the right to make technical alterations without prior notice.



Powerfast | M12 Power Tees

M12 Power Tees



Connector Coding	Product Details	Type	Configuration	Part Number	Contact Assignment
L-Code	5 x 16 AWG 16 amps 63 V _{DC}	Tee	Female trunk, male trunk, female drop	RSP/2RKPS6PL	
		Small-h splitter	Female trunk, male trunk, female drop	SH-RKP/RSP/RKPS6PL	
		Big-H splitter	Female trunk, male trunk, female drops	BH-RKP/RSP/2RKPS6PL	
T-Code	4 x 16 AWG 12 amps 63 V _{DC}	Tee	Female trunk, male trunk, female drop	RSP/2RKPA6PT	
		Small-h splitter	Female trunk, male trunk, female drop	SH-RKP/RSP/RKPA6PT	
		Big-H splitter	Female trunk, male trunk, female drops	BH-RKP/RSP/2RKPA6PT	
S-Code	4 x 16 AWG 12 amps 600 V _{AC}	Tee	Female trunk, male trunk, female drop	RSP/2RKPA6PS	
		Small-h splitter	Female trunk, male trunk, female drop	SH-RKP/RSP/RKPA6PS	
		Big-H splitter	Female trunk, male trunk, female drops	BH-RKP/RSP/2RKPA6PS	

We reserve the right to make technical alterations without prior notice.



Accessories

Miscellaneous

Part Number	Description
LOCKNUT-M16-BRASS-(10/BAG)	10 pack of brass locknuts for receptacles with M16 mounting thread.
LOCKNUT-M16-316SS-(10/BAG)	10 pack of 316SS locknuts for receptacles with M16 mounting thread.
LOCKNUT-1/2NPT-BRASS-(10/BAG)	10 pack of brass locknuts for receptacles with 1/2NPT mounting thread.
LOCKNUT-1/2NPT-316SS-(10/BAG)	10 pack of 316SS locknuts for receptacles with 1/2NPT mounting thread.
M12-GASKET-M20,1/2NPT-(10/BAG)	10 pack of NBR gasket for receptacles with M20 or 1/2NPT mounting threads.
M12-GASKET-PG9,M16,1/4NPT-(10/BAG)	10 pack of NBR gasket for receptacles with PG9, M16, or 1/4NPT mounting threads.

Torque Wrenches



Part Number	Mounting Thread
TORQUE-WRENCH-SET-M12-LEGACY	Adjustable torque driver to connect to a Ø15mm knurl. Compatible with the redesigned and legacy M12 cordsets. Includes (1) adjustable torque driver, (1) adjustment tool, (1) 1/4"square to 4mm hex adaptor bit, and (1) Ø15mm spring loaded clamp bit.
TORQUE-WRENCH-SET-M12&M8-LEGACY	Adjustable torque driver to connect to a Ø10mm and Ø15mm knurl. Compatible with the redesigned M12 cordsets and legacy M8 and M12 cordsets. Includes (1) adjustable torque driver, (1) adjustment tool, (1) 1/4"square to 4mm hex adaptor bit, (1) Ø10mm spring loaded clamp bit, and (1) Ø15mm spring loaded clamp bit.
TORQUE-WRENCH-SET-M12/SW13	Adjustable torque driver to connect to the 13mm hex. Compatible with redesigned M12 cordsets, M12 Power, and M12 X-code. NOT Compatible with legacy M12 cordsets. Includes (1) adjustable torque driver, (1) adjustment tool, and (1) 13mm forked bit.
WRENCH-M12AL/SIZE 13MM	13mm forked bit to connect to a 13mm hex. Intended to supplement an torque driver with a 4mm hex input. Compatible with redesigned M12 cordsets, M12 Power, and M12 X-code. NOT Compatible with legacy M12 cordsets.Includes (1) 13mm forked bit.

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