



ADALET PLM

INDUSTRIAL CABLE COUPLERS



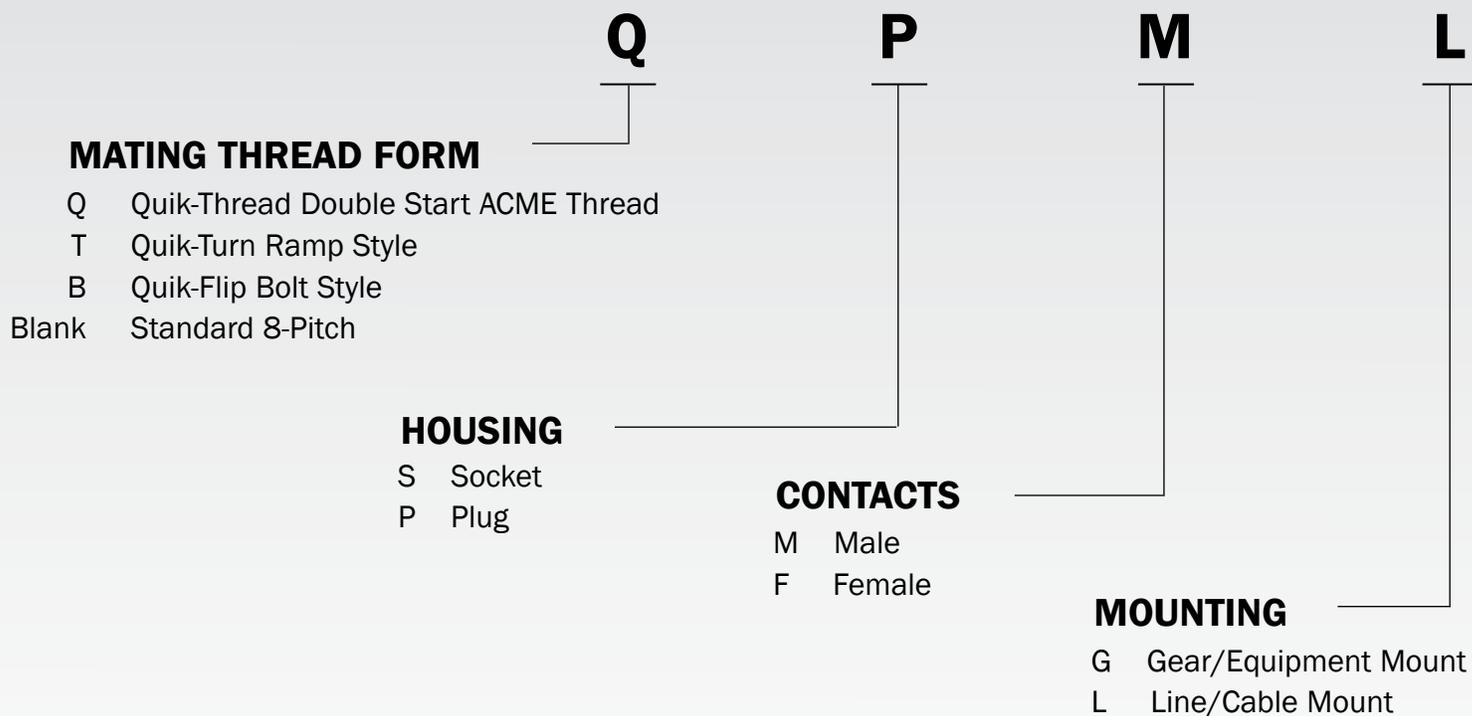
www.adalet.com/plm

Portable Cable Systems Couplers / Plugs-Receptacles

Cable Couplers Identification & Application

Couplers are utilized in underground, strip, and pit operations on every continent in the world. Adalet PLM Cable Couplers provide safe, convenient means for connecting portable cable rated up to 15,000 volt and up to 500 Amperes, copper or aluminum conductor to mining equipment, electric shovels, drag lines, loaders, barges, tunneling machines, portable substations, portable junction boxes, or for joining lengths of high voltage cables.

PLM Cable Coupler



APPLICATIONS

- Extending Portable Cables
- Mine Power Cables
- Electric Shovels, Drills, drag lines
- Tunneling Machines
- Transformer Connections
- Barge, Ship-Dock Applications
- Turbine Generators
- Motor Disconnect 600V-15kV to 500 Amp

FEATURES

- Corrosion-resistant aluminum
- Rigid, non-breakable insulators
- 500 Amp contacts
- Portable cable mounting
- Switchgear or equipment mounting
- Standard cover, stress control kit instructions included





TO ORDER, PROVIDE:

1. Conductor sizes of phase, ground wires, and ground check wire
2. Overall cable diameter.

Contact Adalet sales representative or email info@adalet.com to place order.

Selection Guide

415

A

B

GROUND CHECK

- A One contact included
- AA Two contacts
- AAA Three contacts
- AAAA Four contacts

ADDED FEATURES

- B Interlock contacts in cover for plug
- BB Interlock contacts in cover for socket
- C Kirklock sockets only
- E Electrolytic copper contacts-female
- L Insulation in plug mount
- N Non-interchangeable amperage or voltage index
- P Padlock provision socket
- R Insulation in socket cover
- TF Teflon® insulator
- Z Beryllium contacts

VOLTAGE CLASS & END BELL SIZE

- 415 Accommodates cable diameter ranging from 1.50" to 3.50"
- 515 Accommodates cable diameter ranging from 3.51" to 4.50"

BENEFITS

- Superior electrical and physical protection
- Fewer mating problems
- Quicker installation
- Quick connect - disconnect
- Versatile application

COMPLIANCE

- Pennsylvania Bureau of Deep Mine Safety



415 / 515 Series Cable Couplers

Standard EPDM Insulators 15kv, 500 Amp

415/515 Series Cable Couplers are suitable for use up to 15kV. Each coupler includes silver-plated copper contacts rated up to 500 amperes. PLM Couplers feature a durable, corrosion-resistant aluminum shell. Rigid, non-breakable, EPDM insulator tubes are supplied standard. 415/515 Series Couplers are available in line-mount (cable-mount) or gear-mount (equipment-mount) configurations. Select from four different connection options to provide the best solution for your application. Each coupler we ship includes a stress control kit and detailed installation instructions. Several options are available to customize each coupler to your specific requirements.



FEATURES

- Corrosion-resistant aluminum
- Rigid, non-breakable EPDM insulators
- 500 amp contacts
- Portable cable mounting
- Switchgear or equipment mounting
- Standard cover, stress control kit instructions included

BENEFITS

- Superior electrical and physical protection
- Fewer mating problems
- Quicker installation
- Quick connect-disconnect
- Versatile application

Compound is not included and is not required up to 7,500 volts. Above 7,500 volts and when compound is required, use COLDPOUR Compound. Do not use asphalt compound with EPDM style couplers. Compound mandatory for 15kv.

Catalog Number Standard Threads	Catalog Number Acme Quik-Thread	Catalog Number Quik-Turn	Catalog Number Quik-Flip	Description	Ship Weight (lbs)
SFG 415 A	QSFG 415 A	TSFG 415 A	BSFG 415 A	Equipment-mounted couplers socket, female contacts plug, male contacts	34
PMG 415 A	QPMG 415 A	TPMG 415 A	BPMG 415 A		
SFL 415 A	QSFL 415 A	TSGFL 415 A	BSFL 415 A	Line-mounted couplers 1.50-3.50 O.D. cables socket, female contacts plug, male contacts	51
PML 415 A	QPML 415 A	TPML 415 A	BPML 415 A		
SFL 515 A	QSFL 515 A	TSFL 415 A	BSFL 515 A	3.50-4.50 O.D. cables socket, female contacts plug, male contacts	53
PML 515 A	QPML 515 A	TPML 415 A	BPML 515 A		

Options Available at Additional Cost

- Catalog Number Suffix
- A Ground check circuit contact (1) included
 - AA Two ground check circuit contacts
 - B Cover interlock for plug
 - BB Cover interlock for socket
 - C Kirk interlock (key-type)-sockets only
 - E Electrolytic copper contacts-female
 - L Cover/insulator assembly for plug
 - N Non-interchangeable amperage or voltage index
 - P Padlock provision-socket
 - R Cover / insulator assembly for socket
 - Z Beryllium contacts-male
 - TF Teflon® Insulator



QPLM415A



415 / 515 Series Cable Couplers

Teflon® Insulators 15kv, 500 Amp

Teflon® tubes combine a non-tracking, easy-to-clean hydrophobic material with an internal o-ring seal between tubes. 415/515 Series Couplers are available in line-mount (cable-mount) or gear-mount (equipment-mount) configurations. Select from four different connection options to provide the best solution for your application. Each coupler we ship includes a stress control kit and detailed installation instructions. Several options are available to customize each coupler to your specific requirements.



FEATURES

- Corrosion-resistant aluminum
- Rigid, non-breakable Teflon® insulators
- 500 amp contacts
- Portable cable mounting
- Switchgear or equipment mounting
- Standard cover, stress control kit, instructions included
- Solid polyester fiberglass flange
- Teflon® tubes O-ring sealed to flange
- Nylon lock nuts for positive seal

BENEFITS

- Superior electrical and physical protection
- Fewer mating problems
- Quicker Installation
- Quick connect-disconnect
- Versatile application

Teflon® is a registered trademark of E.J. DuPont de Nemours and Company.

Catalog Number Standard Threads	Catalog Number Acme Quik-Thread	Catalog Number Quik-Turn	Catalog Number Quik-Flip	Description	Ship Weight (lbs)
SFG 415 ATF	QSFG 415 ATF	TSFG 415 ATF	BSFG 415 ATF	Equipment-mounted couplers socket, female contacts plug, male contacts	34
PMG 415 ATF	QPMG 415 ATF	TPMG 415 ATF	BPMG 415 ATF		
SFL 415 ATF	QSFL 415 ATF	TSGL 415 ATF	BSFL 415 ATF	Line-mounted couplers 1.50- 3.50 O.D. cables socket, female contacts plug, male contacts	51
PML 415 ATF	QPML 415 ATF	TPML 415 ATF	BPML 415 ATF		
SFL 515 ATF	QSFL 515 ATF	TSFL 415 ATF	BSFL 515 ATF	3.50-4.50 O.D. cables socket, female contacts plug, male contacts	53
PML 515 ATF	QPML 515 ATF	TPML 415 ATF	BPML 515 ATF		

Options Available at Additional Cost

Catalog Number Suffix

- A Ground check circuit contact (1) included
- AA Two ground check circuit contacts
- B Cover interlock for plug
- BB Cover interlock for socket
- C Kirk interlock (key-type)-sockets only
- E Electrolytic copper contacts-female
- L Cover/insulator assembly for plug
- N Non-interchangeable amperage or voltage index
- P Padlock provision-socket
- R Cover / insulator assembly for socket
- Z Beryllium contacts-male



415 / 515 Series Cable Couplers

Standard EPDM Insulators 15kv, 500 Amp



Electrical Characteristics	No Compound	With Compound
Maximum voltage phase-to-ground	5.5 KV rms	8.7 KV rms
1 minute dry withstand AC	35.0 KV rms	45.0 KV rms
6 hour dry withstand DC	25.0 KV rms	35.0 KV rms
15 minute dry withstand DC	65.0 KV rms	75.0 KV rms
Corona extinction level	7.5 KV rms	11.0 KV rms
Basic impulse level	75.0 KV crest	95.0 KV crest

All tests per IEEE Standard 48-1990

415 / 515 Series Cable Couplers

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All tests per IEEE Standard 48-1990



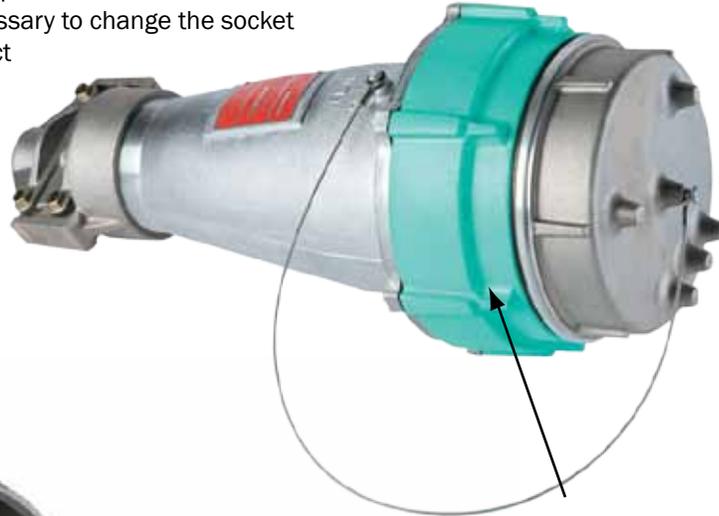
PLM Contact Pins

PLM's standard couplers include silver-plated, copper contact pins that provide excellent electrical connections. Phase and ground contacts are modified to your specific cable requirements. Simply specify the phase and ground conductor diameter and PLM will pre-drill the contact pins to meet your specifications and reduce installation time.



Conversion Kits

Any cable coupler, line mount or gear mount, may be converted to Quik-Thread, Quik-Turn, or Quik-Flip style. These style couplers will not mate with standard 8 pitch thread couplers; therefore, it is necessary to change the socket body, lock ring, and covers. Select the correct conversion plug or socket kit from the table below. Kits include only the thread parts which must be changed, plus new screw, and gaskets. Conversion kits should be applied to all couplers on any single cable system.



Quik-Thread coupler rings are color-coded green to provide positive identification.



Quik-Turn coupler rings are color-coded orange.



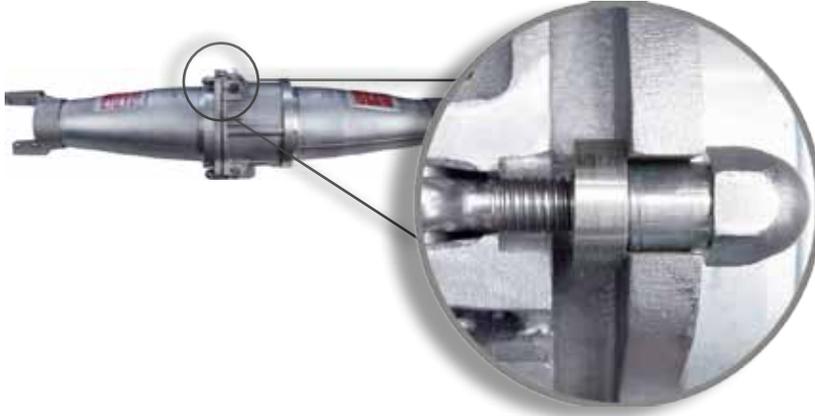
All tests per IEEE Standard 48-1990

Catalog Number	ACME Thread Parts Furnished	Description
QKP-8	Plug cover and lock ring	Replacement for plug-style couplers. Includes plain cover (without drilling for pilot or ground contacts).
TKP-8		
BKP-8		
QKP-M/F-8	Plug cover (drilled for pilot and ground contacts) and lock ring	Replacement for plug-style couplers. Includes cover drilled for ground contacts (male or female). Customer to use existing contacts.
TKP-M/F-8		
QKP-M/F-15	Plug cover (drilled for pilot and ground contacts and for cover insulator assembly) and lock ring	Replacement for plug-style couplers. Includes cover drilled for ground and pilot contacts (male or female) and for cover insulator assembly. Customer to use existing contacts and cover insulator assembly.
TKP-M/F-15		
QKS-8	Socket cover and body	Replacement for socket-style couplers. Includes plain cover (without drilling for pilot or ground contacts).
TKS-8		
BKS-8		
QKP-M/F-8	Socket cover ring and socket body	Replacement for socket-style couplers. Includes cover ring to be used with existing cover. Customer to use existing contacts.
TKP-M/F-8		
QKP-M/F-15	Socket cover ring and socket body	Replacement for socket-style couplers. Includes cover ring to be used with existing cover and cover insulator assembly. Customer to use existing contacts.
TKP-M/F-15		

Connection Options

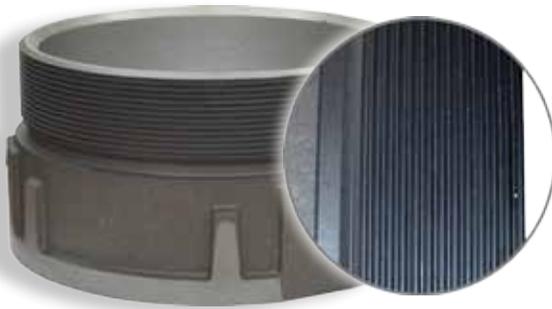
Quik-Flip Bolted Coupler Connection

PLM's Quik-Flip connection option is ideal for harsh environments where excessive dirt and other contaminants can seize threads and cause coupler damage. The innovative flip-bolt design utilizes stainless steel bolts that provide a one-second time delay between ground check and phase contact disengagement.



Catalog Number Quik-Flip EPDM Insulators	Catalog Number Quik-Flip Teflon Insulators
BSFG 415A	BSFG 415ATF
BPMG 415A	BPMG 415ATF
BSFL 415A	BSFL 415ATF
BPML 415A	BPML 415ATF
BSFL 515A	BSFL 515ATF
BPML 515A	BPML 515ATF

Other options available on 415/515 series couplers



8-pitch Thread (standard)

A simple, cost effective solution for use in any application



Quik-Turn Ramp Style Quarter-Turn

Color-coded orange (use prefix "T" when ordering)

Ideal for use in applications where frequent connection and disconnection is required.



Quik-Thread Double-Start ACME Thread

Color-coded green (use prefix "Q" when ordering)

Our most popular connection style, wide threads and Teflon coating make them easy to clean and maintain.

Accessories

Coupling and Contact Wrenches

Catalog Number Standard Threads	Description	Ship Weight (lbs)
WR	Contact wrench for 415, 515 series	1
C-1008	Coupling wrench (aluminum) for 415, 515 series	1
C-1008-S	Coupling wrench (steel) for 415, 515 series	3



COLDPOUR® Compound

Compound filling can prevent condensation and provide added protection in wet locations. Asphaltic compounds cannot be used with EPDM insulations. For those customers who wish to use compound, Adalet offers a COLDPOUR compound which does not require heating for installation or removal. Suitable for all couplers. No shrinkage or waste. Approximately 2-hour gel time.

Shelf life 6 mos. Should be installed at normal room temperature and allowed to cure for 24 hours

Catalog Number	Description	Ship Weight (lbs)
CP-40	1 5/8 gal. 2-part mix for one LINE mount or two GEAR mount couplers, series 415 coupler	13
CP-50	1 7/8 gal. 2-part mix for one LINE mount, series 515 coupler	14



Spare Parts

PLM couplers and accessories are utilized in some of the world's most extreme environments. PLM offers a full line of spare parts for use in maintaining, rebuilding, or repairing used couplers. All individual coupler parts are available for purchase. Most are in stock and available for immediate shipment. Contact PLM or your local PLM distributor for price and availability information.



PLM 'A' KIT

Coupler Contact Insulation Cleaning Kit

Dirt contamination can cause electrical failures. The mating contact insulators can be efficiently cleaned with the PCK100 Cleaning Kit.

The solvent used in our PCK-100 cleaning kit is an exceptional solvent degreaser formulated without chlorinated solvents or other hazardous ingredients. With its high flash point, the solvent provides an unprecedented degree of user safety. It is strong enough to remove grease, fuel oil, carbon and organic resins yet safe on most plastic and rubber surfaces.

The PLM solvent degreaser:

- Contains no water
- Fully evaporative, leaves no residue
- No hazardous ingredients as defined by the EPA
- Not a flammable liquid (TCC flash point above 145° F)
- No surface leakage of current in immediate residue tests
- High dielectric strength (ASTM D-877 test procedures to 46,000 volts)



Catalog Number	Description	Ship Weight (lbs)
PCK-100	Cleaning Kit	1.5

Kit consists of 12-oz. spray bottle of non-flammable electrical parts cleaner, bristle brush, two white wiping cloths and polyethylene glove.

PLM was founded in 1951 by Francis Calvert, a cable engineer previously employed by General Electric.

G. E. developed a line of interlocked armor cable, but there were no fittings available for terminations. Calvert manufactured the first fittings in his basement. Later that year, he sold the business to John Pescke, Quigg Lohr, and Carroll Miller, whose initials (PLM) formed the company name.

Starting with fittings for armored cables, PLM soon developed splices, terminations, and other accessories for joining cables. In 1957, PLM developed the first coupler designed with a ground check interrupting circuit for safe disconnect, and the first coupler capable of handling 500 amperes at 7500 volts.

In 1963, PLM and Adalet (high quality manufacturer of hazardous location enclosures and accessories) were acquired by the Scott Fetzer Company. The operations of Adalet and PLM merged in 1977.





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