



PATTON & COOKE CO.

# 5/8 kV, 250 & 400 Amp CABLE COUPLERS



Meeting your high  
voltage electrical  
equipment needs

## GREAT NEW FEATURES! GREAT LOW PRICE!

Patton & Cooke set the standard for performance and dependability with the PK Series 5kV, 250 and 400 Amp cable couplers. The PK series couplers have proven their value throughout the mining industry worldwide. As mining equipment has increased in size, so to has their demand for power.

To meet the increasing power requirements, Patton & Cooke has introduced the C80 Series 250 Amp and 400 Amp Couplers. The C80 series incorporates all of our standard features but with added design features to give reliable and lasting performance at higher current levels.



*C80 Series  
couplers  
...we've  
definitely left  
our competitors  
trailing far  
behind*

### Standard Features - All Models

### Benefits

Enhanced entrance fitting combines strain relief and cable seal

- eliminates need for separate strain relief.
- easier installation.
- provides concentric, uniform clamping pressure, eliminating the problems of offset clamping.
- provides positive, waterproof seal.
- eliminates all hose clamps.

External stainless steel tensor springs on all female contacts

- provides superior conductivity.
- reduces damage from wear & tear.
- eliminates internal contact band.

Solderless contact stems (provides positive mechanical connection using two allen head fastening screws)

- reduces installation time.
- no special tools or soldering equipment needed.
- silver plated sockets for efficient power transfer.

Stainless steel quick flip coupling eye bolts

- eliminates pin damage from repeated assembly operations.
- increased pin tensile strength.

Heat treated, cast aluminum body

- greater strength and impact resistance.

Bolted stainless steel external jumpers

- provides positive grounding of body sections.
- maximizes personnel safety by providing visual confirmation of body ground continuity.

### New Features - C80 Series

### Benefits

Extended ground plane (runs uninterrupted through the length of the phase insulators)

- offers protection from phase to phase faults and flashovers.

Individual phase and ground check insulators

- convenience of front end replaceability.
- individually removable.
- reduces downtime.
- lowers replacement costs.
- can be replaced without purchasing entire three phase insulator assembly.



Contacts and insulator (shown disassembled) for PK Series 250 Amp couplers - available for 5kV and 8kV applications



Contacts and insulator (shown disassembled) for PK Series 400 Amp couplers - available for 5kV applications only.



Cable entrance assembly (shown disassembled) for PK Series couplers

## Feature Comparison

## 5/8 kV Couplers

### C80 Series 8 kV Couplers

Available in:

8kV 250 Amp  
8kV 400 Amp  
8kV 500 Amp

Our most advanced coupler design, the C80 series coupler provides the ultimate in coupler safety and performance. The C80 coupler is ideal for critical applications where reliability and long term performance are paramount.

#### Features

- ▶ Fully shielded phase conductors
- ▶ Individually replaceable phase tubes
- ▶ Solderless stems
- ▶ Quick flip front body
- ▶ Replaceable parts
- ▶ Front-end serviceable contacts

### PK / PL Series 5 / 8 kV Couplers

Available in:

5 kV 250 Amp  
5kV 400 Amp  
8kV 250 Amp

A versatile, rugged coupler with all of the most sought after Patton & Cooke features. Ideal for applications where a reliable and economical solution is required.

#### Features

- ▶ Solderless stems
- ▶ Quick flip front body
- ▶ Replaceable parts
- ▶ Front-end serviceable contacts



**C80 Series couplers**



**PK Series couplers**



### Ordering Information

- ▶ When ordering the Patton & Cooke 5/8 kV couplers, please specify our catalog numbers and your cable type, size and diameter.
- ▶ The standard contact arrangement for the 250 Amp 5/8kV C80 and PK couplers includes three insulated phase contacts one ground contact, and one isolated ground check (pilot contact). The standard arrangement for 400 Amp 5/8kV C80 and PK couplers includes three insulated phase contacts one ground contact, and two isolated ground check (pilot contact).

Photo Left: Protective aluminum hoods and caps  
Photo Right: Color coded PK series couplers



Patton & Cooke also manufactures 600/1100 V, 5 & 8 kV, 15 kV and 25 kV cable couplers, ground fault products and cable handling accessories.

FOR FURTHER INFORMATION:



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LOCALLY DISTRIBUTED BY:





**PATTON & COOKE CO.**



**5 or 8 kV COUPLERS**

**PK8 - 5 or 8 kV 250 AMP MALE COUPLERS  
RK8 - 5 or 8 kV 250 AMP FEMALE COUPLERS  
JK8 - 5 or 8 kV 250 AMP JUNCTION BOX**

**PL5 - 5 kV 400 AMP MALE COUPLERS  
RL5 - 5 kV 400 AMP FEMALE COUPLERS  
JL5 - 5 kV 400 AMP JUNCTION BOX**

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**C80C - 5 or 8 kV 250 AMP MALE & FEMALE COUPLERS AND JUNCTION BOXES  
C80D - 5 or 8 kV 400 AMP MALE & FEMALE COUPLERS AND JUNCTION BOXES**

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5 or 8 kV COUPLERS  
P/R K/L SERIES



**250 & 400 AMP COUPLER CATALOG NUMBERS**

250 Amp Contact Structure: 3 Power + 1 Ground + 1 Pilot  
400 Amp Contact Structure: 3 Power + 2 Ground + 1 Pilot

Coupler Rating (A)	Voltage Class (kV)	Male/Female	Mounting Options	Patton & Cooke Catalog Number
250	5 or 8	M	Cable Mount	<b>PK8S-M <u>x</u> <u>y</u></b>
		F		<b>RK8S-F <u>x</u> <u>y</u></b>
		M	Equipment Mount	<b>PK8F-M <u>x</u></b>
		F		<b>RK8F-F <u>x</u></b>
400	5	M	Cable Mount	<b>PL5S-M <u>x</u> <u>y</u></b>
		F		<b>RL5S-F <u>x</u> <u>y</u></b>
		M	Equipment Mount	<b>PL5F-M <u>x</u></b>
		F		<b>RL5F-F <u>x</u></b>

**TABLE A: 250 and 400 AMP COUPLER CATALOG NUMBER SUFFIXES - x & y**

Max. Cable Size (mm <sup>2</sup> )	Max. Cable Size (AWG)	<u>x</u> - Cat. No. Suffix	Outside Cable Diameter		<u>y</u> - Cat. No. Suffix
			(mm)	(in)	
21	#4	<b>11</b>	20.8-47.5	0.82-1.87	<b>A</b>
27	#3	<b>12</b>	47.8-60.2	1.88-2.37	<b>B</b>
34	#2	<b>13</b>			
42	#1	<b>14</b>			
54	1/0	<b>15</b>			
67	2/0	<b>16</b>	60.4-69.9	2.38-2.75	<b>C</b>
85	3/0	<b>17</b>			
107	4/0	<b>18</b>			
127	250 MCM	<b>19</b>	70.0-90.0	2.76-3.54	<b>D</b>
178	350 MCM	<b>21</b>			

**ORDERING PROCEDURE:**

1. Determine the following:
  - a. Voltage class, 5 or 8 kV.
  - b. Current rating, 250 or 400 Amp.
  - c. Male (plug) or female (receptacle) contacts.
  - d. Cable or equipment mounting.
2. Select catalog number of coupler.
3. Determine the conductor size and substitute appropriate code from Table A for "x" in catalog number.
4. If cable mounting, determine outside diameter of cable and substitute code from Table A for "y". Provide outside cable diameter on order.

**\*When requesting for quote or help with completing a part number, please state EXACT cable outside diameter, providing cable ranges stated above will not be accepted\***

Example: male plug, 8 kV, 250 Amp, cable mount, #2 cable,  
outside cable diameter 2.125"  
Catalog number PK8S-M13B

Available options refer to Table B page 3. Available accessories refer to page 11.

All couplers and junction boxes are supplied with cover, attachment chain and provision for padlocking two mated couplers and/or covers. Termination kits and potting compound can be purchased separately, refer to page 11. Potting compound is also available as an option. Refer to Table C on page 3.

Standard terminations for phase, pilot and ground conductors are designed for soldering. Solderless stems are available as a no charge option, see page 3.

Potting compound is recommended for 5 and 8 kV couplers and junction boxes exposed to extreme changes in temperature and humidity. Potting compound can be purchased separately refer to page 11.



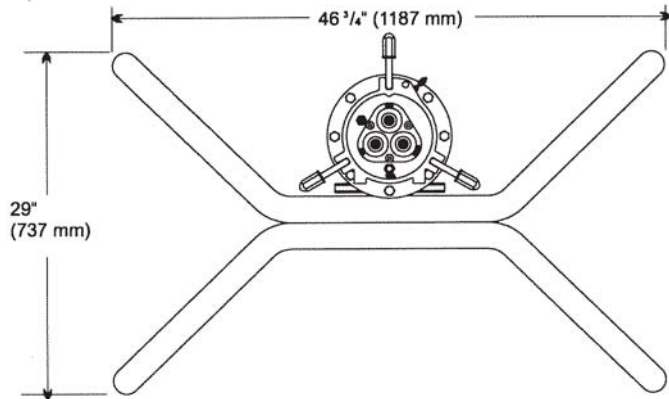
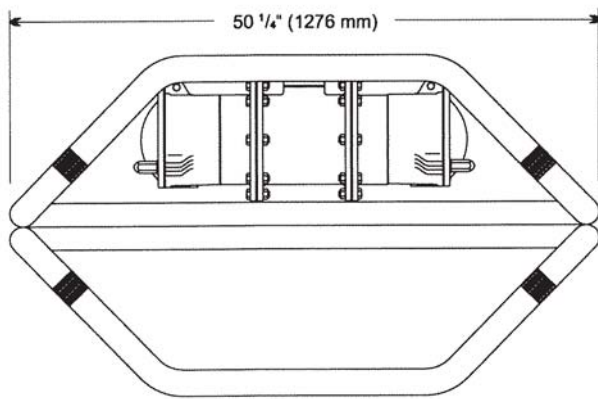
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## 5 or 8 kV COUPLERS P/R K/L SERIES



### 250 & 400 AMP JUNCTION BOX CATALOG NUMBERS

Coupler Rating (A)	Voltage Class (kV)	Description	Mounting Options	Patton & Cooke Catalog Number
250	5 or 8	Two female receptacles with phase transposing compartment. To join cables equipped with male plugs on both ends.	Less Skid	<b>JK8K-F-1</b>
			Skid Mount	<b>JK8K-F</b>
400	5		Less Skid	<b>JL5K-F-1</b>
			Skid Mount	<b>JL5K-F</b>



### SKID MOUNTED JUNCTION BOX

Available options refer to Table B page 3. Available accessories refer to page 11.

All couplers and junction boxes are supplied with cover, attachment chain and provision for padlocking two mated couplers and/or covers. Termination kits and potting compound can be purchased separately, refer to page 11. Potting compound is also available as an option. Refer to table C on page 3.

Standard terminations for phase, pilot and ground conductors are designed for soldering. Solderless stems are available as a no charge option, see page 3.

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**5 or 8 kV COUPLERS**  
**P/R K/L SERIES**



**TABLE B: 250 & 400 AMP COUPLER AND JUNCTION BOX OPTIONS**

*This table lists options that may be requested with this product class.  
 Use of this table is not required for standard configurations*

Description	Description
1. Ground Contact, One Additional	11. Pilot Contact, None
2. Interlocks, Mechanical provision for (does not include interlocks, e.g. Kirk type) Male or Female	12. Ground Lug, External
4. Ground Contact, One Additional No Pilot Contact	13. Pilot Contact, Three Additional.
5. Pilot Contact, One Additional.	14. Ground Contact, One Additional, Interlocks, Mechanical provision for (does not include interlocks, e.g. Kirk type)
6. Ground Circuit Reversed.	15. Ground Contact, Two Additional, No Pilot
7. Live End Cover Equipped with End-of-Line Device Please specify.	16. Ground Contact, Two Additional
8. Pilot Contact, Two Additional	17. Corrosion Resistant Option (Includes all stainless steel hardware and extra heavy epoxy coating)
9. Neutral Contact, One Isolated (Maximum: One Extra)	18. Ground Contact, Two Additional Pilot Contact, One Additional.
10. Solderless Stems	19. Entrance Fitting, Teck Cable Specify Size and Type

**SELECTION REMINDERS:**

1. Standard Contact Structure: 250 Amp - 3 Power + 1 Ground + 1 Pilot, 400 Amp - 3 Power + 2 Ground + 1 Pilot
2. Options can be combined

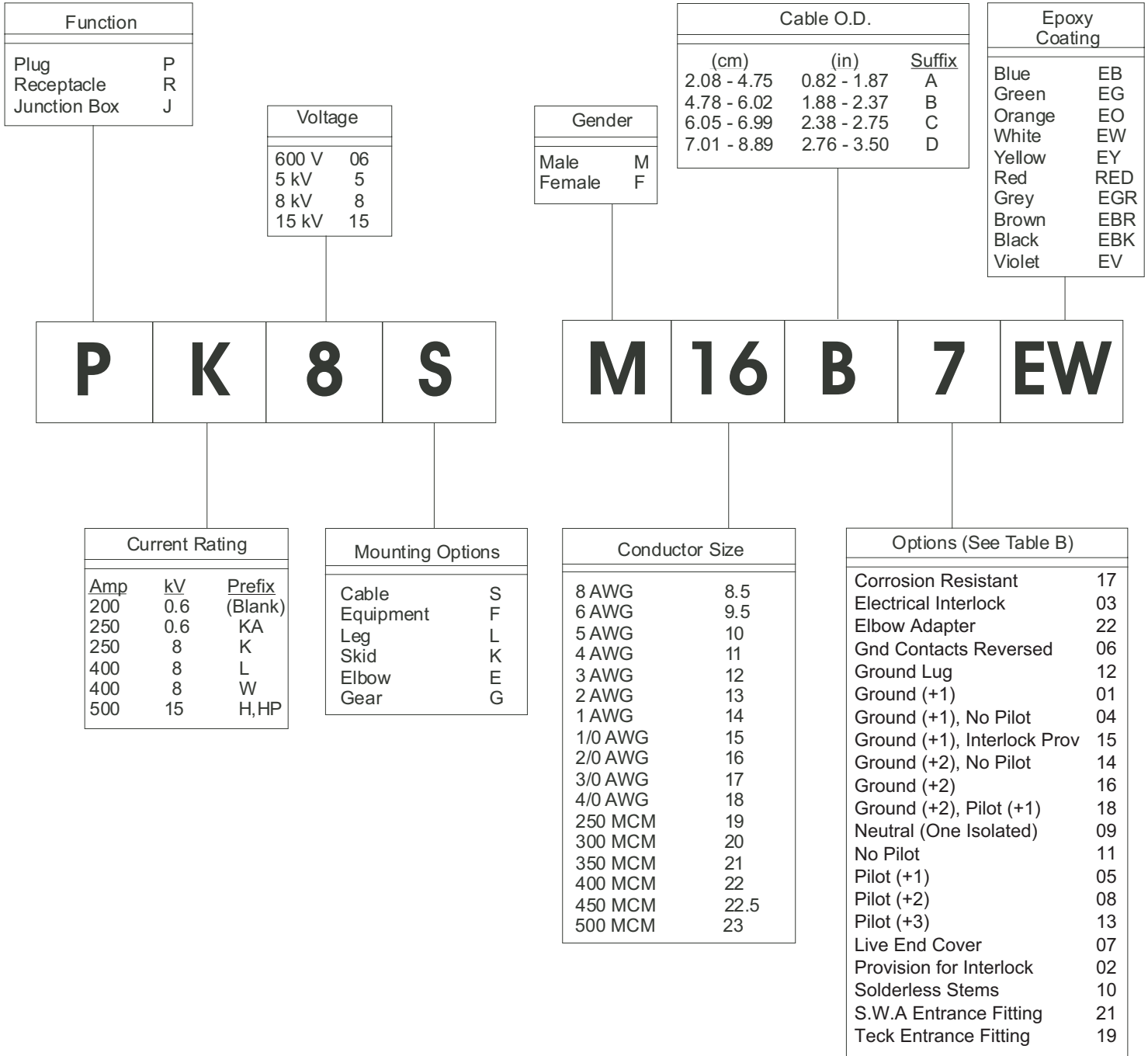
If other options are required which are not listed contact Patton & Cooke.



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**5 or 8 kV COUPLERS**  
**P/R K/L SERIES**



**250 & 400 AMP COUPLER CATALOG NUMBER**  
**COMBINATION GUIDE**



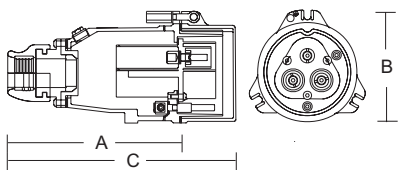
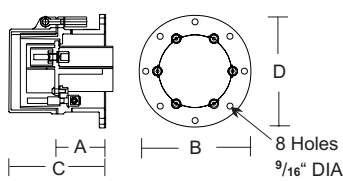
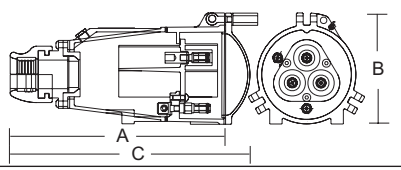
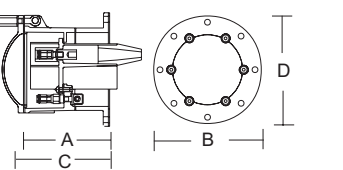
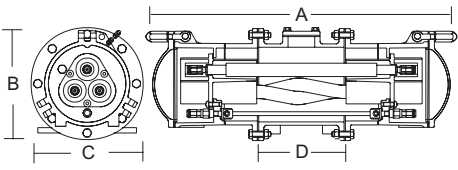


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**5 or 8 kV COUPLERS  
P/R K/L SERIES**



**250 and 400 A COUPLER WEIGHTS AND DIMENSIONS**

Illustration (not to scale)	Coupler Rating (A)	Catalog Number	Dimensions				Weight
			A	B	C	D	
<b>CABLE MOUNTED MALE</b> 	250	<b>PK8S-M x y</b>	14" 356 mm	9 1/2" 241 mm	18" 457 mm		25.0 lb 11.4 kg
	400	<b>PL5S-M x y</b>	14" 356 mm	9 1/2" 241 mm	18" 457 mm		25.0 lb 11.4 kg
<b>EQUIPMENT MOUNTED MALE</b> 	250	<b>PK8F-M x</b>	4 1/2" 114 mm	10 1/2" 267 mm	9" 229 mm	9 1/4" 235 mm	17.0 lb 7.7 kg
	400	<b>PL5F-M x</b>	4 1/2" 114 mm	10 1/2" 267 mm	9" 229 mm	9 1/4" 235 mm	17.0 lb 7.7 kg
<b>CABLE MOUNTED FEMALE</b> 	250	<b>RK8S-F x y</b>	17 1/2" 445 mm	9 1/2" 241 mm	20 1/2" 521 mm		23.0 lb 10.4 kg
	400	<b>RL5S-F x y</b>	17 1/2" 445 mm	9 1/2" 241 mm	20 1/2" 521 mm		23.0 lb 10.4 kg
<b>EQUIPMENT MOUNTED FEMALE</b> 	250	<b>RK8F-F x</b>	8" 203 mm	10 1/2" 267 mm	10 5/8" 272 mm	9 1/4" 235 mm	16.0 lb 7.3 kg
	400	<b>RL5F-F x</b>	8" 203 mm	10 1/2" 267 mm	10 5/8" 272 mm	9 1/4" 235 mm	16.0 lb 7.3 kg
<b>JUNCTION BOX</b> 	250	<b>JK8K-F-1</b>	29" 747 mm	10 1/2" 267 mm	8" 203 mm	5 1/4" 133 mm	68.0 lb 31.0 kg
	400	<b>JL5K-F-1</b>	29" 747 mm	10 1/2" 267 mm	8" 203 mm	5 1/4" 133 mm	68.0 lb 31.0 kg

**CUT-OUT DETAILS FOR EQUIPMENT MOUNT COUPLERS**

