



PROCESS AUTOMATION



MARINE CABLE

- ABS Approved
- Certified per IEEE-45
- UL listed for Marine Applications to STD UL 1309
- Meets IEC 332-3 Category A Flame Test
- CSA listed to C22.2 No. 245
- Jacket Material Provides Impact Protection to -50°C (-58°F)
- Available in Multiple Configurations

www.turek.com

# **Process Connectivity Products**

extremelife<sup>™</sup> cables are heavy duty for extreme temperature environments. These cables provide excellent resistance to extreme cold temperatures and oilfield drilling muds. **TURCK** offers multiple single and twisted pair conductor options. extremelife cables are available in two jacket types, extremelife-25 and extremelife-55. The following characteristics are specific to each cable.

Characteristics	extremelife-25	extremelife-55			
Cable Gage Range	16 to 22				
UL Rating	UL1309				
CSA Rating	CSA 22.2	? No. 245			
ABS Approval No.	03-HS400	0763-PDA			
IEEE Approvals	IEEE 45-1998 and	d IEEE 1580-2001			
Flexible Stranding	Yes				
Standard Insulation	T75 and T90 UL and CSA, T75 IEEE				
XLPE Insulation	110X for increased electrical properties required for network applications				
Flame Retardancy	IEEE 1202/FT4 and I	EC 332-3 Category A			
Cold Bend Pass Temperature	-40°C (-40°F)	-55°C (-67°F)			
Cold Impact Pass Temperature	Good	-50°C (-58°F)			
Cut through and Abrasion Resistance	Good	Excellent			
Moisture and Oil Resistance	Exce	llent			
Installation Handling	Go	ood			
Oilfield Drilling Mud Resistance	Excellent				
Braided Armor	Available with or without				
Sunlight Resistance	Y	es			



# Process Automation



**extremelife**™ cables have been extensively tested in various drilling muds/fluids. Samples of five different drilling fluids were used to evaluate how **extremelife** cables handle harsh environments. Cable samples were placed in the muds and put in a test oven at +65.6°C (+150°F). Shrink/swell as well as tensile strength/elongation were monitored throughout a 28 day aging test.

The **extremelife** cables, with their exclusive jacket materials, were compared with the industry standard neoprene cables. All tested cables passed the tensile strength and elongation tests. The **extremelife** cables proved to be much more stable in size through the tests when compared to the neoprene jacketed cables.

Drilling Mud Types Used:

- Water based
- Synthetic based (two types)
- Diesel based
- Mineral oil based





#### extremelife Cables:

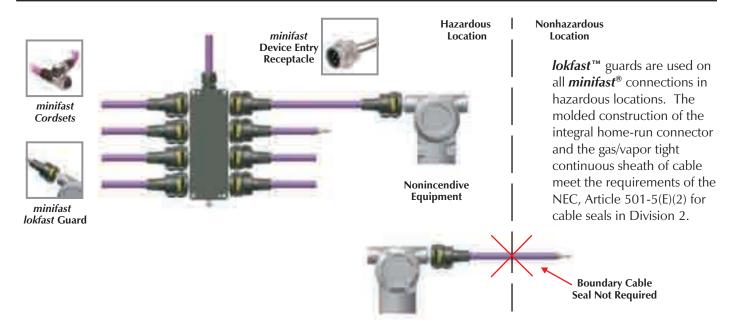
- Standard cables are stocked for quick delivery, and custom designs ship within 6 to 10 weeks.
- Multiple designs and custom configurations can be built using 16 to 22 AWG wires and up to 42 single conductors or 48 twisted pairs.
- Bronze armor styles combined with stable tinned-copper armor.
- Cost effective cables, since *extremelife* can be made with 22 AWG conductors and tinned-copper armor.
- Assorted conductor sizes and insulation materials allow usage in network applications.

#### **Process Connectivity Products**

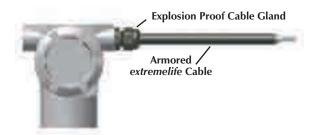
#### **Hazardous Locations**

**TURCK** process wiring systems provide flexibility and functionality for use in hazardous locations. When installed correctly, the system is FM approved for use in Class 1, Divisions 1 and 2 per **TURCK** drawing QCF-00147, found at www.TURCK.com/fmcd.

#### Class 1, Division 2 - Quick Disconnect Basics

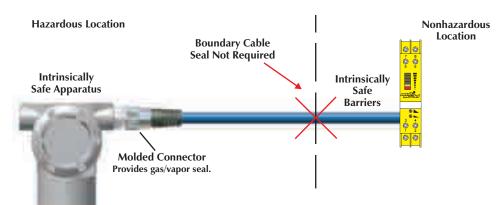


#### **Class 1, Division 1 - Explosion Proof Method**



The explosion proof method can be used in Class 1, Division 1 locations by connecting an explosion proof cable gland to the transmitter. Armored *extremelife*  $^{\text{TM}}$  marine shipboard cable, with an overall impervious sheath over the armor, is the recommended wiring method for this environment.

#### Class 1, Division 1 - Intrinsically Safe Circuits



Instrisically safe circuits do not require *lokfast* guards on quick disconnects. Boundary seals are not required as the molded construction of the home-run connector and the gas/vapor tight continous sheath of the cable meet the requirements of the NEC, Article 501-5(C) for cable seals in Class 1, Divisions 1 and 2.



#### TURCK = Total Connectivity



Cable is only part of the story. **TURCK** has been building connectivity products for over 15 years. **TURCK** connectors are approved by DNV and ABS for use in marine shipboard environments. **TURCK** also provides connectivity products for hazardous areas including our exclusive *lokfast*™, which changes any **TURCK** connector into a tool-only removable connection. For wire consolidation, **TURCK** has an entire line of junction boxes. From off-the-shelf junctions for 4-20 mA transmitters to custom boxes for any application, **TURCK** reduces costs by making wiring faster, easier and more reliable.





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# **Process Connectivity Products**

#### 4, 5, 7 and 8-Wire *minifast*® Control Cordsets

- Female Connectors
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection



Housing	Part Number	Cable	Features		Pinout
P-RKV 2.559 [65.0] 7/8-16UN	P-RKV 40-180-*M	PVC Black 3x18 AWG, 1 STP with GND Foil/Drain 90°C, 300 V, 9 A 8.4 mm OD Cable #RF51180-*M <sup>†</sup>	extremelife™-25 UL 1309 approved 2-wire Analog		
	P-RKV 40-181-*M	PVC Black, Braided Armor 3x18 AWG, 1 STP with GND Foil/Drain 90°C, 300 V, 9 A 12.5 mm OD Cable #RF51181-*M <sup>†</sup>	extremelife-25 Braided Armor Cable UL 1309 approved 2-wire Analog	1. BU 2. BN 3. Drain 4. GN/YE	3 1 2
	P-RKV 40-188-*M	TPE Black 3x18 AWG, 1 STP with GND Foil/Drain 90°C, 300 V, 9 A 8.4 mm OD Cable #RF51188-*M <sup>†</sup>	extremelife-55 UL 1309 approved 2-wire Analog		
	P-RKV 56-964-*M	PVC Blue 5x18 AWG, Foil/Drain 90°C, 300 V, 9 A 10.4 mm OD Cable #RF50964-*M <sup>†</sup>	extremelife-25 UL 1309 approved 5-wire with Foil/Drain (not connected)	1. BK 2. BU 3. GN/YE 4. BN 5. WH	2 4 5
P-RKV → 3.402 [86.4] → □ °1.240 [31.5]	P-RKV 70-182-*M	PVC Black 5x18 AWG, 2 STP with GND Foil/Drain 90°C, 300 V, 9 A 10.4 mm OD Cable #RF51182-*M <sup>†</sup>	extremelife-25 UL 1309 approved 2-wire Analog x 2	1. BU 2. BN 3. Drain 4. WH 5. BK 6. Drain 7. GN/YE	2 7 4 5 5 6
NEWWY LOCATOR THE STANDARD LOCATOR TO STANDARD	P-RKV 80-073-*M	PVC Blue, Braided Armor 8x18 AWG, 4 STP Foil/Drain 90°C, 300 V, 9 A 17.8 mm OD Cable #RF51073-*M <sup>†</sup>	extremelife-25 Braided Armor Cable UL 1309 approved 2-wire Analog x 4	1. BK 2. WH 3. BU 4. RD	3 8 4 2 (000) 5
	P-RKV 80-158-*M	TPE Black 8x18 AWG, 4 STP Foil/Drain 90°C, 300 V, 9 A 15.1 mm OD Cable #RF51158-*M <sup>†</sup>	extremelife-55 UL 1309 approved 2-wire Analog x 4	5. YE 6. BN 7. GY 8. GN	1 7 6

<sup>\*</sup> Length in meters. Standard cable lengths are 2, 4, 6, 8 and 10 meters. Consult factory for other lengths. For male connectors: change part number (P-RKV... to P-RSV). See page 6 for extensions. Standard coupling nut material is 316 stainless steel "P-RK(S)V .."; "P-RK(S)M .." indicates nickel plated brass.

<sup>&</sup>lt;sup>†</sup> See pages 19-20 for *reelfast* <sup>®</sup> bulk cable information and *extremelife* Cable Selection Guide.



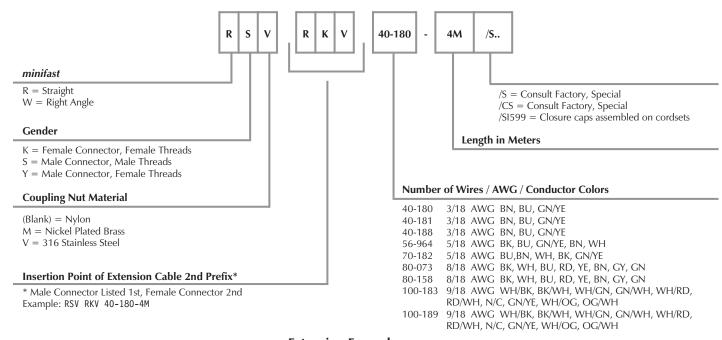
#### 9-Wire *minifast*® Control Cordsets

Housing	Part Number	Cable	Features	Pinout
P-RKV	P-RKV 100-183-*M	PVC Black 9x18 AWG, 4 STP with GND Foil/Drain 90°C, 300 V, 7 A 13.2 mm OD Cable #RF51183-*M <sup>†</sup>	extremelife™-25 UL 1309 approved 2-wire Analog x 4	1. WH/BK 2. BK/WH 3. WH/GN 4. GN/WH 5. WH/RD 2
	P-RKV 100-189-*M	TPE Black 9x18 AWG, 4 STP with GND Foil/Drain 90°C, 300 V, 7 A 15.1 mm OD Cable #RF51189-*M <sup>†</sup>	extremelife-55 UL 1309 approved 2-wire Analog x 4	6. RD/WH 7. N/C 8. GN/YE 9. WH/OG 10. OG/WH

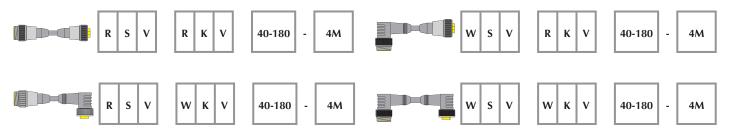
<sup>\*</sup> Length in meters. Standard cable lengths are 2, 4, 6, 8 and 10 meters. Consult factory for other lengths. For male connectors: change part number (P-RKV... to P-RSV). See below for extensions.

#### minifast Extension Cordset Part Number Key - Control Cable

Part Number Keys are to assist in IDENTIFICATION ONLY. Consult Factory for catalog items not identified.



#### **Extension Examples:**



Standard coupling nut material is 316 stainless steel "P-RK(S)V .."; "P-RK(S)M .." indicates nickel plated brass.

<sup>&</sup>lt;sup>†</sup> See pages 19-20 for *reelfast* <sup>®</sup> bulk cable information and *extremelife* Cable Selection Guide.

# **Process Connectivity Products**

#### 4 and 5-Wire minifast® Control Receptacles, Front Mount, 1/2-14NPT Threads

- Male and Female Receptacles
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection



Housing	Part Number	<b>Lead Specs</b>	Features		Pinout
P-RSFV	P-RSFV 40-*/14.5/NPT	UL, CSA 3x18 AWG		1. BU 2. BN	3 1 2 Female
.669 [17.0] - 1.319 [33.5] - 0.988 [25.1] - 1.000 [25.4]	P-RKFV 40-*/14.5/NPT	105°C 600 V, 9 A	1/2-14NPT Threads	3. N/C 4. GN/YE	1 3 4 Male
P-RKFV  .650 [16.5] 1/2-14NPT 7/8-16UN  01.142 [29.0]	P-RSFV 56-*/14.5/NPT	UL, CSA 5x18 AWG		1. BK 2. BU 3. GN/YE	2 3 4 5 Female
1,000 [25.4]	P-RKFV 56-*/14.5/NPT	105°C 600 V, 9 A		4. BN 5. WH	4 2 2 5 Male

<sup>\*</sup> Length in meters. Standard lead length is 0.3 meters. Consult factory for other lengths. 1/2-14NPT Thread receptacles recommend 13/16" (21.0 mm) hole for panel mounting. Standard housing material is 316 stainless steel.."P-RS(K)FV.."; "P-RS(K)F.." indicates nickel plated cast zinc.



#### 7, 8 and 10-Wire minifast® Control Receptacles, Front Mount, 1/2-14NPT Threads

- Male and Female Receptacles
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection



Housing	Part Number	<b>Lead Specs</b>	Features		Pinout
P-RSFV	P-RSFV 70*-0.5/14.5/NPT	UL, CSA 7x18 AWG		1. BU 2. BN 3. GY 4. WH	2 7 4 5 5 Female
5.79 [14.7] - 1.614 [41.0] - 91.102 [28.0] - 1.125 [28.6] - 1.125	P-RKFV 70*-0.5/14.5/NPT	100 C		5. BK 6. GY 7. GN/YE	5 7 3 6 Male
P-RKFV  .579 [14.7]	P-RSFV 80*-0.3/14.5/NPT			1. BK 2. WH 3. BU 4. RD 5. YE 6. BN 7. GY 8. GN	2 - 5 1 7 Female
	P-RKFV 80*-0.3/14.5/NPT		1/2-14NPT Threads		5 6 7 Male
P-RSFV  .579 [14.7]	P-RSFV 100*-0.3/14.5/NPT	UL, CSA 10x18 AWG 105°C 600 V, 8 A	WG	1. WH/BK 2. BK/WH 3. WH/GN 4. GN/WH 5. WH/RD	3 4 5 9 50 6 2 6 6 1 8 7 Female
P-RKFV  .579 [14.7]	P-RKFV 100*-0.3/14.5/NPT			6. RD/WH 7. GY 8. GN/YE 9. WH/OG 10. OG/WH	5 4 3 10 5 9 6 6 0 0 2 7 8 1

<sup>\*</sup> Length in meters. Standard lead length is 0.3 meters. Consult factory for other lengths. 1/2-14NPT Thread receptacles recommend 13/16" (21.0 mm) hole for panel mounting. Standard housing material is 316 stainless steel.."P-RS(K)FV.."; "P-RS(K)F.." indicates nickel plated cast zinc.

# **Process Connectivity Products**

#### 4, 5 and 7-Wire minifast® Control Receptacles, Front Mount, 3/4-14NPT Threads

- Male and Female Receptacles
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection





Housing	Part Number	Cable	Features		Pinout	
P-RSFV  .709 [18.0]	P-RSFV 40-*/14.75/NPT	UL, CSA 3x18 AWG		1. BU 2. BN	3 1 2 Female	
7/8-16UN 01.409 [35.8]	P-RKFV 40-*/14.75/NPT	105°C 600 V, 9 A		3. N/C 4. GN/YE	1 3 4 Male	
P-RKFV  .709 [18.0]	P-RSFV 56-*/14.75/NPT	105 C	3/4-14NPT Threads	1. BK 2. BU 3. GN/YE 4. BN 5. WH	2 1 5 Female	
	P-RKFV 56-*/14.75/NPT				3 4 5 1 Male	
P-RSFV  .709 [18.0]	P-RSFV 70-*/14.75/NPT	UL, CSA		1. BU 2. BN	2 7 4 5 6	
P-RKFV  709 [18.0] 3/4-14NPT	P-RKFV 70-*/14.75/NPT	UL, CSA 7x18 AWG 105°C 600 V, 8 A	7x18 AWG 105°C	wg	3. GY 4. WH 5. BK 6. GY 7. GN/YE	Female  7 5 6 Male

<sup>\*</sup> Length in meters. Standard lead length is 0.3 meters. Consult factory for other lengths. 3/4-14NPT Thread receptacles recommend 1-1/16" (27.0 mm) hole for panel mounting. Standard housing material is 316 stainless steel.."P-RS(K)FV.."; "P-RS(K)F.." indicates nickel plated cast zinc.



## 4-Wire minifast® Explosion Proof Feed Through Receptacle, 1/2-14NPT Thread

- Male and Female Receptacles
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection





FM approved as an explosion proof feed-thru when installed per **TURCK** Control drawing. QCF-00147 (www.turck.com/fmcd/) using specified accessory equipment.

Housing	Part Number	<b>Lead Specs</b>	Features		Pinout
P-RSFV	P-RSFV 40D EX-*/14.5/NPT	UL, CSA	Explosion Proof	1. BU	3 1 2 Female
7/8-16 01.142 [29.0] 1/2-14 NPT - 1.000 [25.4]	P-RKFV 40D EX-*/14.5/NPT Consult factory for Availability	4x18 AWG 105°C 600 V, 9 A	Receptacle, 1/2-14NPT Threads	2. BN 3. GY 4. GN/YE	1 3 4 Male

<sup>\*</sup> Length in meters. Standard lead length is 0.3 meters. Consult factory for other lengths. 1/2-14NPT Thread receptacles recommend 13/16" (21.0 mm) hole for panel mounting. Standard housing material is 316 stainless steel.."P-RS(K)FV.."; "P-RS(K)F.." indicates nickel plated cast zinc.

# **Process Connectivity Products**

#### 4 and 5-Wire minifast® Control Receptacles, Front Mount, M20 Threads

- Male and Female Receptacles
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection





Housing	Part Number	<b>Lead Specs</b>	Features		Pinout
P-RSFV	P-RSFV 40-*/M20	UL, CSA 3x18 AWG		1. BU 2. BN	3 1 2 Female
.374 [9.5]	105°C 600 V, 9 A P-RKFV 40-*/M20	M20x1.5	3. N/C 4. GN/YE	1 3 3 4 Male	
P-RKFV  .374 [9.5]	P-RSFV 56-*/M20	UL, CSA 5x18 AWG	Threads	1. BK 2. BU 3. GN/YE 4. BN 5. WH	2 4 5 5 Female
O-RING 1.000 [25.4]	P-RKFV 56-*/M20	105°C 600 V, 9 A			4 2 2 1 Male

<sup>\*</sup> Length in meters. Standard lead length is 0.3 meters. Consult factory for other lengths. M20 Thread receptacles recommend 13/16" (21.0 mm) hole for panel mounting. Standard housing material is 316 stainless steel.."P-RS(K)FV.."; "P-RS(K)F.." indicates nickel plated cast zinc.



#### 7, 8 and 10-Wire minifast® Control Receptacles, Front Mount, M20 Threads

- Male and Female Receptacles
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection





Housing	Part Number	<b>Lead Specs</b>	Features		Pinout
P-RSFV	P-RSFV 70-*/M20	UL, CSA 7x18 AWG		1. BU 2. BN 3. GY 4. WH	2 7 4 4 5 5 6 Female
.374 [9.5]	P-RKFV 70-*/M20	80-*/M20  UL, CSA 8x18 AWG 105°C 600 V, 8 A		5. BK 6. GY 7. GN/YE	5 4 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
P-RKFV  .374 [9.5]	P-RSFV 80-*/M20			1. BK 2. WH 3. BU 4. RD 5. YE 6. BN 7. GY 8. GN	2 8 4 2 5 Female
1.125 [28.6]	P-RKFV 80-*/M20		M20x1.5 Threads		5 6 7 Male
P-RSFV  .374 [9.5]	P-RSFV 100-*/M20	UL, CSA 10x18 AWG 105°C 600 V, 8 A		1. WH/BK 2. BK/WH 3. WH/GN 4. GN/WH	3 4 5 9 60 6 1 8 7
	P-RKFV 100-*/M20 Consult factory for Availability			5. WH/RD 6. RD/WH 7. GY 8. GN/YE 9. WH/OG 10. OG/WH	Female  5

<sup>\*</sup> Length in meters. Standard lead length is 0.3 meters. Consult factory for other lengths. M20 Thread receptacles recommend 13/16" (21.0 mm) hole for panel mounting. Standard housing material is 316 stainless steel.."P-RS(K)FV.."; "P-RS(K)F.." indicates nickel plated cast zinc.

# **Process Connectivity Products**

#### 2, 4 and 5-Wire minifast® Network Cordsets

- Female Connectors
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection
- 300 V, 9 A



Housing	Part Number	Cable	Features	Pir	out
RKV 2.559 [65.0] 01.063 [27.0]	RKV 5728-*M  DeviceNet	Type 5728, TPE Black 2x16 AWG, PVC, Power 2x18 AWG, XLPE, Data Foil/Drain Braid 90°C 13.5 mm OD Cable #RB51107-*M <sup>†</sup>	extremelife™-55 UL 1309 approved Braided Shield	1. Drain 2. RD (+ Voltage) 3. BK (- Voltage) 4. WH (CAN-H) 5. BU (CAN-L)	2 3 4
RKV 2.559 [65.0] - \$1.063 [27.0]	RKV 4910-*M  FOUNDATION™ fieldbus	Type 4910, TPE Black 2x18 AWG, XLPE, Data 18 AWG, Device GND Foil/Drain 90°C 8.9 mm OD Cable #RB51047-*M <sup>†</sup>	extremelife-55 UL 1309 approved Foil Shield	1. BU (- Voltage) 2. BN (+ Voltage)	5 1
7/8-16UN	RKV 4911-*M Foundation™ fieldbus	Type 4911, TPE Black Braided Armor 2x18 AWG, XLPE, Data 18 AWG, Device GND Foil/Drain 90°C 13 mm OD Cable #RB51048-*M <sup>†</sup>	extremelife-55 Braided Armor Cable UL 1309 approved	3. Drain 4. GN/YE (Ground)	4 2
2.559 [65.0] - 01.063 [27.0] 7/8-16UN	RKV 258-*M	Type 258, TPE Yellow Braided Armor 2x16 AWG, Data 90°C 12.7 mm OD Cable #RB51246-*M <sup>†</sup>	extremelife-55 Braided Armor Cable UL 1309 approved	1. BN (+ Voltage) 2. N/C 3. BU (- Voltage) 4. N/C	3 1

<sup>\*</sup> Length in meters. Standard cable lengths are 0.3, 0.5, 1.0, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 6.0, 8.0, 10, 15....50 meters. Consult factory for other lengths. For male connectors: change part number (RKV... to RSV). See page 14 for extensions.

Standard coupling nut material is 316 stainless steel "RK(S)V .."; "RK(S)M .." indicates nickel plated brass.

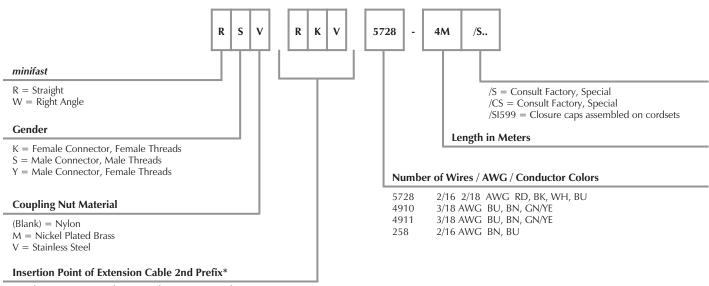
<sup>&</sup>lt;sup>†</sup> See pages 19-20 for *reelfast*® bulk cable information and *extremelife* Cable Selection Guide.

## Process Automation



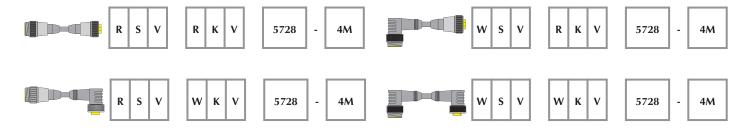
#### minifast® Extension Cordset Part Number Key - Network Cable

Part Number Keys are to assist in IDENTIFICATION ONLY. Consult Factory for catalog items not identified.



<sup>\*</sup> Male Connector Listed 1st, Female Connector 2nd Example: RSV RKV 5728-2M

#### **Extension Examples:**



# **Process Connectivity Products**

#### 2, 4 and 5-Wire minifast® Network Receptacles, Front Mount, 1/2-14NPT Threads

- Male and Female Receptacles
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection



Housing	Part Number	<b>Lead Specs</b>	Features	Pi	nout
RSFV  1.319 [33.5]  0.988 [25.1]  7/8-16UN  01.142 [29.0]	RSFV 57-*M/14.5  DeviceNet  RKFV 57-*M/14.5	UL, CSA 5x22 AWG 105°C 600 V, 9 A		1. GY 2. RD (+ Voltage) 3. BK (- Voltage) 4. WH (CAN_H) 5. BU (CAN_L)	Female  3 4 Male
RKFV  .648 [16.5] 1.180 [30.0] 9.988 [25.1]  7/8-16UN 01.142 [29.0] 1.000 [25.4]	RSFV 49-*M/14.5  FOUNDATION™ fieldbus  RKFV 49-*M/14.5  FOUNDATION™ fieldbus	UL, CSA 4x18 AWG 105°C 600 V, 9 A	1/2-14NPT Threads	1. BU (- Voltage) 2. BN (+ Voltage) 3. GY (Drain - RKFV only) 4. GN/YE (Ground)	3 1 2 Female
	RSFV 25-*M/14.5  RKFV 25-*M/14.5	UL, CSA 2x18 AWG 105°C 600 V, 9 A		1. BN (+ Voltage) 2. N/C 3. BU (- Voltage) 4. N/C	1 3 4 Male

<sup>\*</sup> Length in meters. Standard lead length is 0.3 meters. Consult factory for other lengths. 1/2-14NPT Thread receptacles recommend 13/16" (21.0 mm) hole for panel mounting. Standard housing material is 316 stainless steel.."RS(K)FV.."; "RS(K)F.." indicates nickel plated cast zinc.



#### 2, 4 and 5-Wire minifast® Network Receptacles, Front Mount, 3/4-14NPT Threads

- Male and Female Receptacles
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection



Housing	Part Number	<b>Lead Specs</b>	Features	Pi	nout
RSFV  3/4-14NPT 1.402 [35.6] 7/8-16 01.409 [35.8] 1.250 [31.7]	RSFV 57-*M/14.75  **DeviceNet***  RKFV 57-*M/14.75  **DeviceNet***  **DeviceNet**  **DeviceNet***  **DeviceNet**  **Dev	UL, CSA 5x22 AWG 105°C 600 V, 9 A		1. GY 2. RD (+ Voltage) 3. BK (- Voltage) 4. WH (CAN_H) 5. BU (CAN_L)	Female  3 4 Male
RKFV  709 [18.0] 1.268 [32.2] - 0.988 [25.1] - 0.988 [25.1] - 0.988 [25.1]	RSFV 49-*M/14.75  FOUNDATION™ fieldbus  RKFV 49-*M/14.75  FOUNDATION™ fieldbus	UL, CSA 4x18 AWG 105°C 600 V, 9 A	3/4-14NPT Threads	1. BU (- Voltage) 2. BN (+ Voltage) 3. GY (Drain - RKFV only) 4. GN/YE (Ground)	3 1 2 Female
-=  1.250 [31.7]	RSFV 25-*M/14.75  RKFV 25-*M/14.75	UL, CSA 2x18 AWG 105°C 600 V, 9 A		1. BN (+ Voltage) 2. N/C 3. BU (- Voltage) 4. N/C	1 3 4 Male

<sup>\*</sup> Length in meters. Standard lead length is 0.3 meters. Consult factory for other lengths. 3/4-14NPT Thread receptacles recommend 1-1/16" (27.0 mm) hole for panel mounting. Standard housing material is 316 stainless steel.."RS(K)FV.."; "RS(K)F.." indicates nickel plated cast zinc.

# **Process Connectivity Products**

#### 2, 4 and 5-Wire minifast® Network Receptacles, Front Mount, M20 Threads

- Male and Female Receptacles
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection



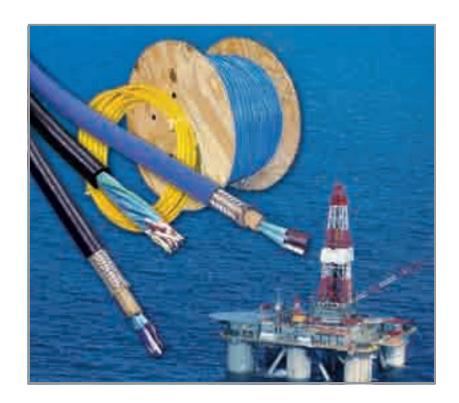


Housing	Part Number	<b>Lead Specs</b>	Features	Pi	nout
RSFV  374 [9.5]	RSFV 57-*M/M20  DeviceNet  RKFV 57-*M/M20  DeviceNet	UL, CSA 5x22 AWG 105°C 600 V, 9 A		1. GY 2. RD (+ Voltage) 3. BK (- Voltage) 4. WH (CAN_H) 5. BU (CAN_L)	Female  3 4 Male
RKFV  .374 [9.5]  .374 [9.5	RSFV 49-*M/M20  FOUNDATION™ fieldbus  RKFV 49-*M/M20  FOUNDATION™ fieldbus	UL, CSA 4x18 AWG 105°C 600 V, 9 A	M20x1.5 Threads	1. BU (- Voltage) 2. BN (+ Voltage) 3. GY (Drain - RKFV only) 4. GN/YE (Ground)	3 1 2 Female
	RSFV 25-*M/M20  RKFV 25-*M/M20	UL, CSA 2x18 AWG 105°C 600 V, 9 A		1. BN (+ Voltage) 2. N/C 3. BU (- Voltage) 4. N/C	1

<sup>\*</sup> Length in meters. Standard lead length is 0.3 meters. Consult factory for other lengths. M20 Thread receptacles recommend 13/16" (21.0 mm) hole for panel mounting. Standard housing material is 316 stainless steel.."RS(K)FV.."; "RS(K)F.." indicates nickel plated cast zinc.







# **CABLE SELECTION GUIDE**

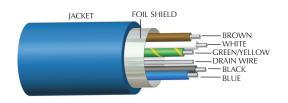
#### **Process Connectivity Products**

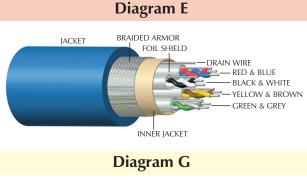
#### Control and Network extremelife Cable Selection Guide

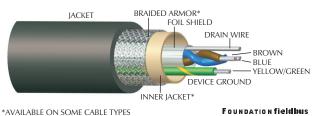
• UL Marine 1309 Approved

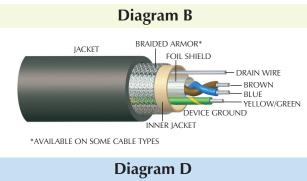
ABS Approved

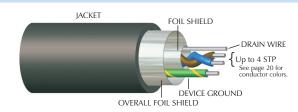
# Diagram A JACKET FOIL SHIELD DRAIN WIRE BROWN BLUE YELLOW/GREEN Diagram C

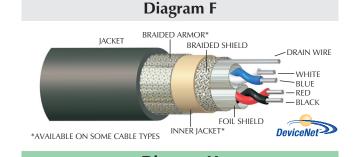


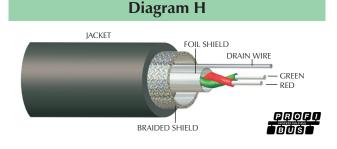


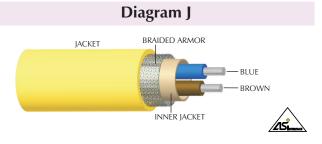












STP = Shielded Twisted Pair

Note: See page 20 for corresponding bulk cable specifications.



Diag	No. of	4W. Cond.	lacket Characteristics	<sup>ID Number</sup>	Ship I	Conductor Colors	Shield	///	ن الم	<sup>7</sup> /ne	remp.
Α	3	18	8.4 mm OD, PVC, BK, 300 V, extremelife™-25	RF51180-30M RF51180-100M RF51180-200M	7 21 42	1 pair = (BU, BN), GN/YE, Drain (20)	STP Foil/Drain	*	*		90°C -40°C
В	3	18	12.5 mm OD, PVC, ARMOR, BK, 300 V, <b>extremelife-25</b>	RF51181-30M RF51181-100M RF51181-200M	17 57 114	1 pair = (BU, BN), GN/YE, Drain (20)	STP Foil/Drain	*	*		90°C -40°C
Α	3	18	8.4 mm OD, TPE, BK, 300 V, extremelife-55	RF51188-30M RF51188-100M RF51188-200M	6 20 40	1 pair = (BU, BN), GN/YE, Drain (20)	STP Foil/Drain	*	*		90°C -55°C
С	5	18	10.4 mm OD, PVC, BU, 300 V, extremelife-25	RF50964-30M RF50964-100M RF50964-200M	10 33 66	BN, WH, BK, BU, GN/YE, Drain (20)	Foil/Drain	*	*		90°C -40°C
D	5	18	10.4 mm OD, PVC, BK, 300 V, extremelife-25	RF51182-30M RF51182-100M RF51182-200M	10 32 64	2 pair = (BN, BU), (BK, WH), GN/YE, Drain (20)	STP Foil/Drain	*	*		90°C -40°C
Е	8	18	17.8 mm OD, PVC, ARMOR, BU, 300 V, <b>extremelife-25</b>	RF51073-30M RF51073-100M RF51073-200M	31 103 206	4 pair = (BK, WH), (BU, RD), (YE, BN), (GY, GN), Drain (20)	STP Foil/Drain	*	*		90°C -40°C
D	8	18	15.1 mm OD, TPE, BK, 300 V, extremelife-55	RF51158-30M RF51158-100M RF51158-200M	18 60 120	4 pair = (BK, WH), (BU, RD), (YE, BN), (GY, GN), Drain (20)	STP Foil/Drain	*	*	UL1309 IEEE 1202/FT4 IEEE 45-1998 IEEE 1580-	90°C -55°C
D	9	18	13.2 mm OD, PVC, BK, 300 V, extremelife-25	RF51183-30M RF51183-100M RF51183-200M	16 52 104	4 pair = (WH/BK, BK/WH), (WH/GN, GN/WH), (WH/RD, RD/WH), (WH/OG, OG/WH), GN/YE, Drain (20)	STP Foil/Drain	*	*	2001 CSA LL54185 ABS App. No. 03-HS400-763-	90°C -40°C
D	9	18	15.1 mm OD, TPE, BK, 300 V, extremelife-55	RF51189-30M RF51189-100M RF51189-200M	19 60 120	4 pair = (WH/BK, BK/WH), (WH/GN, GN/WH), (WH/RD, RD/WH), (WH/OG, OG/WH), GN/YE, Drain (20)	STP Foil/Drain	*	*	PDA	90°C -55°C
F	4	16 18	13.5 mm OD,TPE, BK, 300 V Type 5728 extremelife-55	RB51107-30M <sup>†</sup> RB51107-150M RB51107-300M	17 83 165	Power Pair: 2x16 AWG = BU, WH DCR (/1000ft) Insulation=4.1 Ω PVC Data Pair: 2x18 AWG = BK, RD DCR (/1000ft) Insulation=6.0 Ω XL PE Drain (18)	Foil/Drain Braid	*	*		90°C -55°C
G	3	18	8.9 mm OD,TPE, BK, 300 V <i>Type</i> <b>4910</b> <i>extremelife-55</i>	RB51047-30M <sup>†</sup> RB51047-150M RB51047-300M	7 33 66	Data Pair: BU, BN DCR (/1000ft) Insulation=6.5 Ω XL PE Ground: GN/YE Drain (20) FOUNDATION **fieldbus	Foil/Drain	*	*		90°C -55°C
Н	2	22	11.3 mm OD,TPE, VT, 300 V <i>Type 4512</i> <i>extremelife-55</i>	RB51072-30M <sup>†</sup> RB51072-150M RB51072-300M	10 48 96	Data Pair: RD, GN DCR (/1000ft) Insulation=16.5 Ω XL PE Drain (22)	Foil/Drain Braid	*	*		90°C -55°C
J	2	16	12.7 mm OD,TPE, ARMOR, YE, 300 V Type 258 extremelife-55	RB51246-30M <sup>†</sup> RB51246-150M RB51246-300M	18 90 180	Data Pair: BN, BU DCR (/1000ft) Insulation=4.1.5 Ω PVC		*	*		90°C -55°C

 $<sup>^{\</sup>dagger}$  Network cable also available in 75 and 225 meter spools. STP = Shielded Twisted Pair

# **Process Connectivity Products**

#### 4 and 5-Pin *minifast*® Field Wireables

- Stainless Steel Coupling Nuts
- Male and Female Connectors
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection



Housing	Part Number	Specs	Application	Pin	out	
BV 41  ### ### ### ### ### ### ### ### ###	BV 4148-0/9	Glass filled nylon, Stainless steel coupling nut PG 9 cable gland, accepts 6-8 mm cable diameter Screw terminals, accepts up to 16 AWG conductors 90°C 600 V, 9 A	Mates with all male 4-pin cordsets and receptacles	1. BN (+ Voltage)		
	BSV 4148-0/9		Glass filled nylon,  Stainless steel coupling nut PG 9 cable gland, accepts 6-8 mm cable  Mates only with female 4-pin PROFIBUS® cordsets and receptacles (pin 4		2. N/C 3. BU (- Voltage) 4. Drain	
	BV 4149-0/9		Mates with all male 4-pin cordsets and receptacles	1. BU (- Voltage) 2. BN (+ Voltage) 3. Drain 4. GN/YE (Ground)	Female  1  A  Male	
	BSV 4149-0/9		Mates only with female 4-pin PROFIBUS cordsets and receptacles (pin 4 is long pin)			
	BV 4149-0/16	Glass filled nylon, Stainless steel coupling nut PG 16 cable gland, accepts 12-14 mm cable	Mates with all male 4-pin cordsets and receptacles			
	BSV 4149-0/16	diameter Screw terminals, accepts up to 16 AWG conductors 90°C 600 V, 9 A	Mates only with female 4-pin Foundation™ feildbus cordsets and receptacles (pin 4 is long pin)			
	BV 4157-0/13.5	Glass filled nylon, Stainless steel coupling nut PG 13.5 cable gland, accepts 10-12 mm cable diameter	Mates with all male 5-pin cordsets and receptacles	1. Drain 2. RD (+ Voltage)	2 1 1 Female	
	BSV 4157-0/13.5	Screw terminals, accepts up to 16 AWG conductors 90°C 600 V, 9 A	Mates only with female 5-pin DeviceNet™ cordsets and receptacles (pin 3 is long pin)	3. BK (- Voltage) 4. WH (CAN_H) 5. BU (CAN_L)	3 4 5 Male	



# 4 and 5-Pin *minifast®* Field Wireables

- Nylon Coupling Nuts
- Male and Female Connectors
- NEMA 1, 3, 4, 6P and IEC IP 67 Protection



Housing	Part Number	Specs	Application	Pinout	
	B 4141-0/9	Glass filled nylon PG 9 cable gland, accepts 6-8 mm cable diameter Screw terminals,	Mates with all 4-pin cordsets and	3 1	
	BS 4141-0/9	accepts up to 16 AWG conductors 85°C 250 V, 9 A	receptacles	4 Pemale	
B 41  ### ### ### ### ### ### ### ### ###	B 4141-0/13.5	Glass filled nylon PG 13.5 cable gland, accepts 10-12 mm cable diameter Screw terminals,	Mates with all 4-pin	1 3	
7/8-16UN Female	B 4141-0/13.5	accepts up to 16 AWG conductors 85°C 250 V, 9 A	receptacles	Male	
BS 41	B 4151-0/9	Glass filled nylon PG 9 cable gland, accepts 6-8 mm cable diameter Screw terminals,	Mates with all 5-pin cordsets and		
Ø1.065 [27.0] 3.465 [88.0] APPROX	BS 4151-0/9	accepts up to 16 AWG conductors 85°C 250 V, 9 A	receptacles	2 3	
Male	B 4151-0/13.5	Glass filled nylon PG 13.5 cable gland, accepts 10-12 mm cable diameter Screw terminals,	Mates with all 5-pin cordsets and	Female	
	BS 4151-0/13.5	accepts up to 16 AWG conductors 85°C 250 V, 9 A	receptacles	4 2	
	B 4151-0/16	Glass filled nylon PG 16 cable gland, accepts 12-14 mm cable diameter Screw terminals,	Mates with all 5-pin cordsets and	Male	
	BS 4151-0/16	accepts up to 16 AWG conductors 85°C 250 V, 9 A	receptacles		

# **Process Connectivity Products**

#### *minifast*<sup>®</sup> *lokfast*<sup>™</sup> Guards

- Straight and Right Angle *minifast* Style Connectors
- Nylon 66



Part Number	Cable
LOCK-MINI	Locking guard for straight <i>minifast</i> standard body connectors
LOCK-MINI (10/BAG)	(RKM, RKV, RSM and RSV) in Class I, Division 2 installations*
LOCK-MINI-ANGLE	Locking guard for right angle <i>minifast</i> standard body connectors
LOCK-MINI-ANGLE (10/BAG)	(WKM, WKV, WSM and WSV) in Class I, Division 2 installations*
LOCK-MINI-FW	Locking guard for straight <i>minifast</i> field wireable connectors
LOCK-MINI-FW (10/BAG)	(BS 41, and B 41) in Class I, Division 2 installations*
LOCK-MINI-B&C Consult Factory for Availability	Locking guard for straight <i>minifast</i> "B" Style and "C" Style connectors
LOCK-MINI-B&C (10/BAG)  Consult Factory for Availability	(RKM, RKV, RSM and RSV) in Class I, Division 2 installations*
LOCK-MINI-B&C-ANGLE  Consult Factory for Availability	Locking guard for right angle <i>minifast</i> "B" Style and "C" Style connectors
LOCK-MINI-B&C-ANGLE (10/BAG)  Consult Factory for Availability	(WKM, WKV, WSM and WSV) in Class I, Division 2 installations*

<sup>\*</sup> See TURCK Control Drawing QCF-00147 (www.TURCK.com/fmcd/) for guidance on installation in hazardous locations.







**lokfast** Closed



# minifast® Closure Caps, Standard

- 7/8-16UN Thread
- Nickel Plated Brass and Stainless Steel
- Male and Female Caps



Housing	Part Number	Specs	Application
1.075/ 1.205" 1.200"	RKM-CC	Nickel plated brass 7/8-16UN threads 6" stainless steel lanyard	Closure cap, mates to male cordsets,
.856 [21.7] REF654 [16.6]	RKMV-CC	Stainless steel 7/8-16UN threads 6" stainless steel lanyard	receptacles
.967 [24.6] 1.075/ 1.205" LOOP REF764 [19.4] .965 [24.5] .78 - 16UN	RSM-CC	Nickel plated brass 7/8-16UN threads 6" stainless steel lanyard	Closure cap, mates to female
	RSMV-CC	Stainless steel 7/8-16UN threads 6" stainless steel lanyard	cordsets, receptacles
.856 [21.7] REF654 [16.6] #10 EYE-LET	RKF-CC	Nickel plated brass 7/8-16UN threads 6" stainless steel lanyard	Closure cap, mates to male
	RKFV-CC	Stainless steel 7/8-16UN threads 6" stainless steel lanyard	receptacles
.967 [24.6]	RSF-CC	Nickel plated brass 7/8-16UN threads 6" stainless steel lanyard	Closure cap, mates to female
.764 [19.4] #10 EYE-LET	RSFV-CC	Stainless steel 7/8-16UN threads 6" stainless steel lanyard	receptacles
.772 [19.6]	RKF-MC	Nickel plated brass 7/8-16UN threads BUNA-N gasket	Closure cap, mates to male
REF654 [16.6]	RKFV-MC	Stainless steel 7/8-16UN threads BUNA-N gasket	receptacles
.882 [22.4] REF764 [19.4] .965 [24.5] .7/8-16UN	RSF-MC	Nickel plated brass 7/8-16UN threads BUNA-N gasket and O-ring	Closure cap, mates to female
	RSFV-MC	Stainless steel 7/8-16UN threads BUNA-N gasket and O-ring	cordsets, receptacles

Note: Add "/S1599" to the end of Part Number for closure caps assembled on cordsets.



# **Process Connectivity Products**

#### minifast® Closure Caps, "B" Style

- 1-16UN Threads
- Nickel Plated Brass and Stainless Steel
- Male and Female Caps



Housing	Part Number	Specs	Application
1.260/1.360 INCH LOOP	RKMB-CC	Nickel plated brass 1-16UN threads 6" stainless steel lanyard	Closure cap, mates to male cordsets,
.892 [22.6] REF.622 [15.8] 1–16UN   – Ø1,106 [28.1]	RKMBV-CC	Stainless steel 1-16UN threads 6" stainless steel lanyard	receptacles
1.260/1.360	RSMB-CC	Nickel plated brass 1-16UN threads 6" stainless steel lanyard	Closure cap, mates to female
.864 [21.9] REF.661 [16.8] 01.102 [28.0]	RSMBV-CC	Stainless steel 1-16UN threads 6" stainless steel lanyard	cordsets, receptacles
.892 [22.6] REF.622 [15.8] #10 EYE-LET 1 1-16UN 01.106 [28.1]	RKFB-CC	Nickel plated brass 1-16UN threads 6" stainless steel lanyard	Closure cap, mates to male
	RKFBV-CC	Stainless steel 1-16UN threads 6" stainless steel lanyard	receptacles
864 [219]	RSFB-CC	Nickel plated brass 1-16UN threads 6" stainless steel lanyard	Closure cap, mates to female
.864 [21.9] REF.661 [16.8] #10 EYE-LET	RSFBV-CC	Stainless steel 1-16UN threads 6" stainless steel lanyard	receptacles
	RKFB-MC	Nickel plated brass 1-16UN threads BUNA-N gasket and O-ring	Closure cap, mates to male
.807 [20.5] REF.622 [15.8]	RKFBV-MC	Stainless steel 1-16UN threads BUNA-N gasket and O-ring	receptacles
.780 [19.8] REF .661 [16.8] 1–16UN 01.102 [28.0]	RSFB-MC	Nickel plated brass 1-16UN threads BUNA-N gasket and O-ring	Closure cap, mates to female
	RSFBV-MC	Stainless steel 1-16UN threads BUNA-N gasket and O-ring	cordsets, receptacles

Note: Add "/S1599" to the end of Part Number for closure caps assembled on cordsets.





#### minifast® Closure Caps, "C" Style

- 11/8-16UN Threads
- Nickel Plated Brass and Stainless Steel
- Male and Female Caps



Housing	/ Part Number	Specs	Application
.886 [22.5] REF.630 [16.0] 1.260/1.360 INCH LOOP 41.226 [31.1]	RKMC-CC	Nickel plated brass 1½-16UN threads 6" stainless steel lanyard	Closure cap, mates to male cordsets,
	RKMCV-CC	Stainless steel 1 <sup>1</sup> / <sub>8</sub> -16UN threads 6" stainless steel lanyard	receptacles
.872 [22.1] 1.260/1.360 INCH LOOP 1.181 [30.0]	RSMC-CC	Nickel plated brass 1 <sup>1</sup> / <sub>8</sub> -16UN threads 6" stainless steel lanyard	Closure cap, mates to female
	RSMCV-CC	Stainless steel 1 <sup>1</sup> / <sub>8</sub> -16UN threads 6" stainless steel lanyard	cordsets, receptacles
.886 [22.5] REF.630 [16.0] #10 EYE-LET  1 1/8-16UN - 01.226 [31.1]	RKFC-CC	Nickel plated brass 1 <sup>1</sup> / <sub>8</sub> -16UN threads 6" stainless steel lanyard	Closure cap, mates to male
	RKFCV-CC	Stainless steel 1½-16UN threads 6" stainless steel lanyard	receptacles
.872 [22.1] REF.669 [17.0] #10 EYE-LET	RSFC-CC	Nickel plated brass 1 <sup>1</sup> / <sub>8</sub> -16UN threads 6" stainless steel lanyard	Closure cap, mates to female
# # # # # # # # # # # # # # # # # # #	RSFCV-CC	Stainless steel 1½-16UN threads 6" stainless steel lanyard	receptacles
.801 [20.4] REF.630 [16.0]	RKFC-MC	Nickel plated brass 1 <sup>1</sup> / <sub>8</sub> -16UN threads BUNA-N gasket and O-ring	Closure cap, mates to male
1 1/8-16UN 01.226 [31.1]	RKFCV-MC	Stainless steel 1½-16UN threads BUNA-N gasket and O-ring	receptacles
.787 [20.0] REF .669 [17.0]	RSFC-MC	Nickel plated brass 1½-16UN threads BUNA-N gasket and O-ring	Closure cap, mates to female
	RSFCV-MC	Stainless steel 1½-16UN threads BUNA-N gasket and O-ring	cordsets, receptacles

Note: Add "/S1599" to the end of Part Number for closure caps assembled on cordsets.

