

# EPIC® Circular Connectors

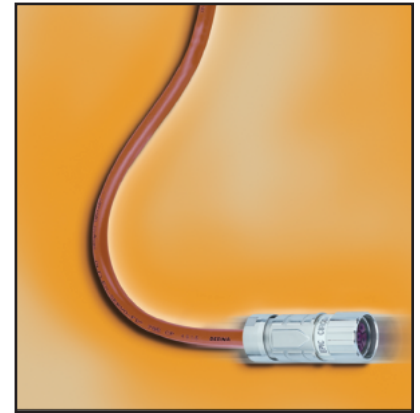
CIRCON LS1 Series



The EPIC® LS1 connectors have many inherent features which offer application advantages and provide significant benefits. These features make it one of the most application friendly connectors available, and insure quick and easy assembly, high reliability, and long, uninterrupted service life in tough industrial environments.

### Key features include:

- Rugged nickel-plated, die-cast zinc body
- Positive vibration protection for use with motor drives and moving assemblies
- Integral EMC cable gland provides strain-relief, IP67/68 protection, and 360° shielding
- Identification marking field and optional color marking clips can be used to provide positive identification and visual differentiation in multiple connector installations.



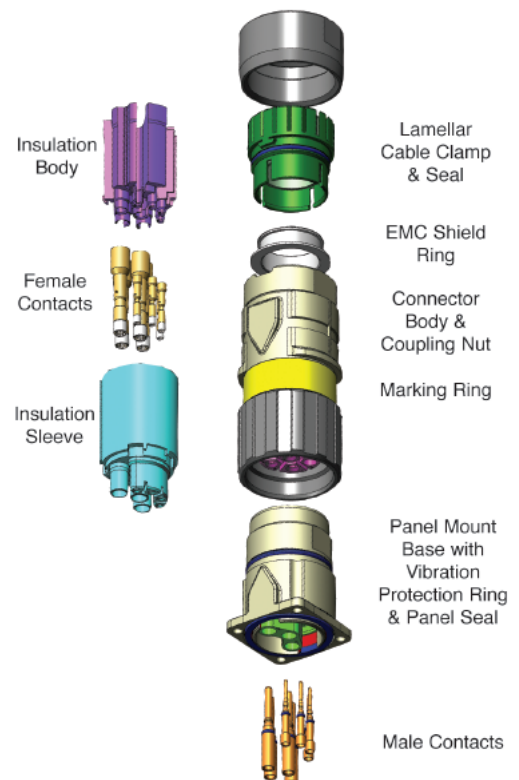
### Equipment Description

EPIC® LS1 Connectors are available in five housing arrangements and two contact configurations. Common to all arrangements are a rugged nickel plated zinc body, plastic contact insulation body and sleeve, and gold plated electrical contacts (included with the connector part number). Cable mounted arrangements also include an integral EMC shield ring and cable clamp and seal. The figure to the right shows the general construction of these connectors.

These connectors are offered with a 5+PE contact configuration for power distribution (5 contacts plus ground rated at 630 volts and 22 amps), and a 3+PE+4 contact configuration for mixed power and signal requirements for servo motor with brake and feedback applications (3 contacts plus ground rated 630 volts and 22 amps and 4 contacts rated 250 volts and 7 amps). Used in combination, they connect one flexible cable with another (cable coupler) or one flexible cable to fixed wiring on a machine (appliance coupler).

## TECHNICAL DATA

<b># of Contacts:</b>	5+PE, 3+PE+4
<b>Rated Voltage:</b>	VDE: 630V (2mm contacts) 250V (1mm contacts) UL: 600V
<b>Rated Current:</b>	22 amps (2mm contacts) 7 amps (1mm contacts)
<b>Impulse Voltage:</b>	6kV (2mm contacts) 4kV (1mm contacts)
<b>Contact Resistance:</b>	<5m Ohms
<b>Mating Cycles:</b>	500
<b>Temperature Range:</b>	-25°C to +125°C
<b>Protection Class:</b>	IP67/68 (10h/1m)
<b>Wire Gauge (Crimp):</b>	<u>2 mm contacts:</u> 0.5 to 2.5 mm <sup>2</sup> (20-14 AWG) <u>1 mm contacts:</u> 0.14 to 1.0 mm <sup>2</sup> (24-18 AWG)
<b>Cable Diameter:</b>	7.5 to 15.5 mm
<b>Materials:</b>	Housing: Nickel Plated Zinc (Die Cast) Insulation Body: PA, PBT, UL94 V-0 Contacts: Gold plated copper alloy Gaskets & Seals: FPM
<b>Standards:</b>	DIN EN 61984
<b>Approvals:</b>	



# EPIC® Circular Connectors

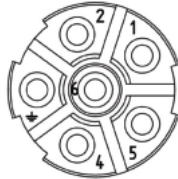
CIRCON LS1 Series



## 5+PE

Male Insert

Female Insert

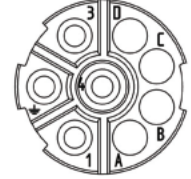


View from contact side

## 3+PE+4

Male Insert

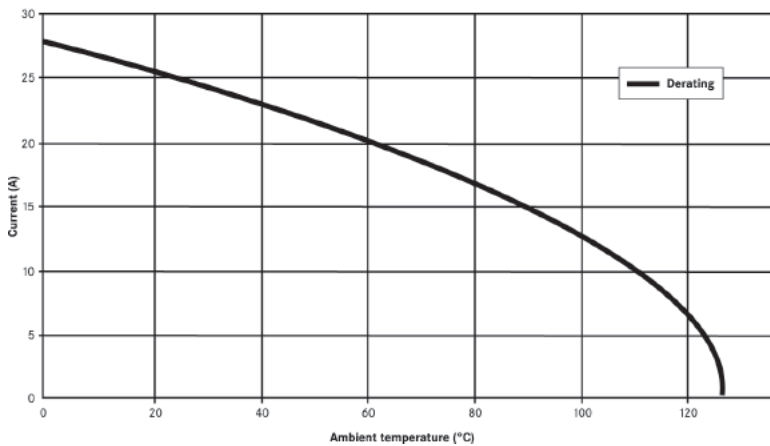
Female Insert



View from contact side

## Derating Curve

Basic and derating curve LS-1. 5+PE, 2,5 mm<sup>2</sup>  
Female hyper boloid

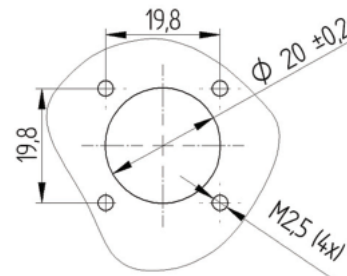
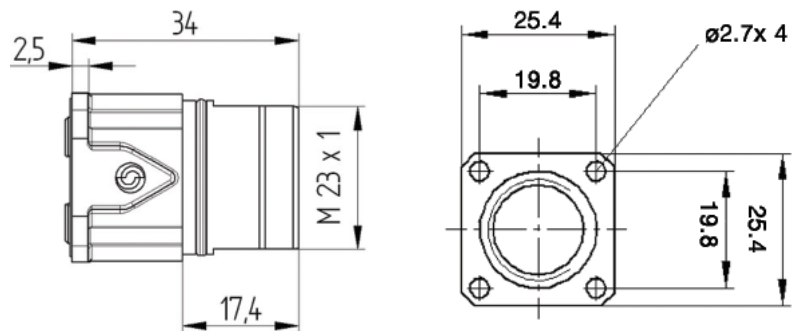


Wire Gauge	Max. Current (A) According to UL	
	5+PE	3+PE+4
<b>2mm Contacts</b>		
AWG 14	22	22
AWG 18	13	13
AWG 20	9	9
AWG 22	5	5
<b>1mm Contacts</b>		
AWG 18	-	7
up to AWG 26	-	1

## STRAIGHT PANEL MOUNT INLET WITH MALE CONTACTS (STYLE A1)

5+PE

3+PE+4



Part Number  
76003000

Part Number  
76004000

### Male Contacts (Spare Parts)

Part #	Description	Pack Size
74033001	0.14 - 1.0 mm <sup>2</sup>	10
74033000	0.14 - 1.0 mm <sup>2</sup>	100
74033101	0.50 - 2.5 mm <sup>2</sup>	10
74033100	0.50 - 2.5 mm <sup>2</sup>	100

# EPIC® Circular Connectors

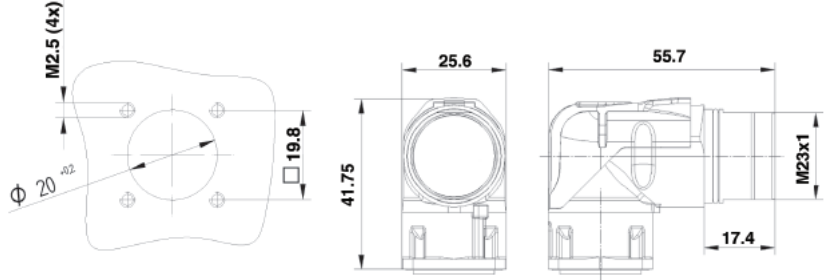
CIRCON LS1 Series



## ANGLED ROTATABLE PANEL MOUNT INLET WITH MALE CONTACTS (STYLE A3)

5+PE

3+PE+4



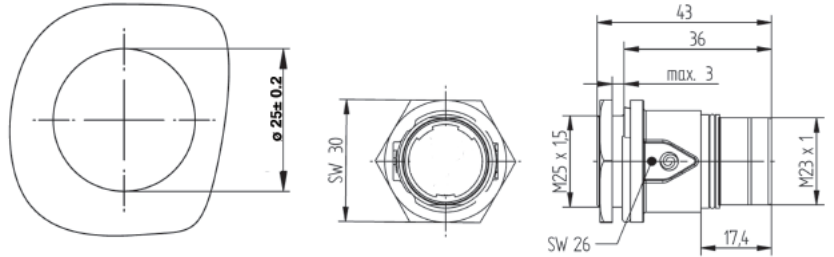
Part Number  
44420058

Part Number  
44420056

## STRAIGHT PANEL MOUNT SOCKET WITH MALE CONTACTS & LOCKNUT (STYLE G5)

5+PE

3+PE+4



Part Number  
76153000

Part Number  
76154000

## CABLE CONNECTOR WITH FEMALE CONTACTS (STYLE D6)

Short Body

Standard Body

5+PE

3+PE+4

5+PE

3+PE+4

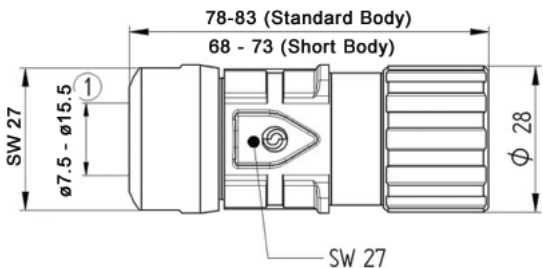


Part Number  
76123100

Part Number  
76124100

Part Number  
76123000

Part Number  
76124000



### Female Contacts (Spare Parts)

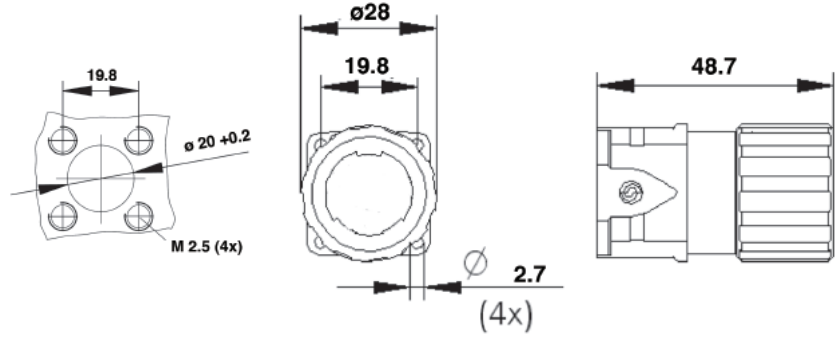
Part #	Description	Style	Pack Size
74034501	0.14 - 1.0 mm <sup>2</sup>	Hyper boloid	10
74034500	0.14 - 1.0 mm <sup>2</sup>	Hyper boloid	100
74034601	0.50 - 2.5 mm <sup>2</sup>	Hyper boloid	10
74034600	0.50 - 2.5 mm <sup>2</sup>	Hyper boloid	100

### PANEL MOUNT SOCKET WITH FEMALE CONTACTS (STYLE A6)

5+PE



3+PE+4



Part  
Number

76083000

Part  
Number

76084000

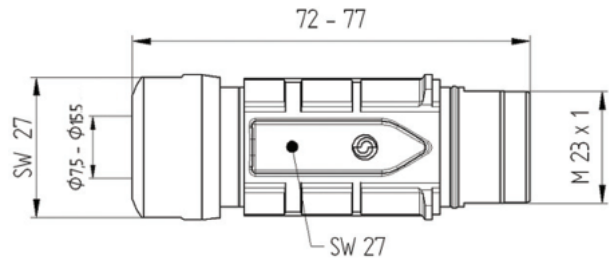
### CABLE COUPLER WITH MALE CONTACTS (STYLE F6 & F7)

Style F6

5+PE



3+PE+4



Part  
Number

76133000

Part  
Number

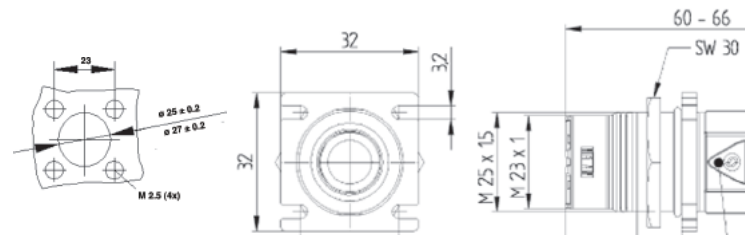
76134000

Style F7

5+PE



3+PE+4



Part  
Number

76143000

Part  
Number

76144000

### Male Contacts (Spare Parts)

Part #	Description	Pack Size
74034001	0.14 - 1.0 mm <sup>2</sup>	10
74034000	0.14 - 1.0 mm <sup>2</sup>	100
74034101	0.50 - 2.5 mm <sup>2</sup>	10
74034100	0.50 - 2.5 mm <sup>2</sup>	100

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CIRCON LS1 Series

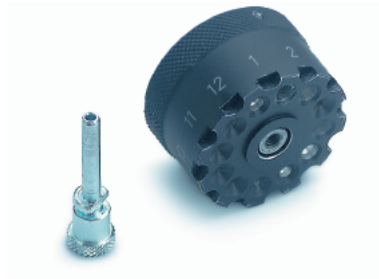


## TOOLS & ACCESSORIES



**Crimp Tool**  
0.14 - 6.0 mm<sup>2</sup>

Part Number
11148000



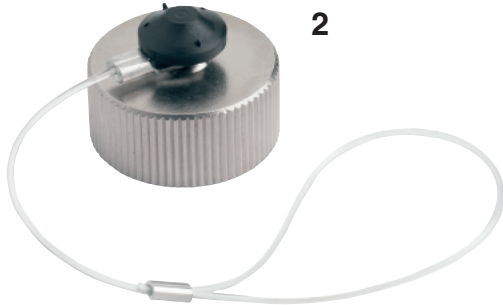
**Locator**

Part Number
11148300



**Removal Tool**  
Style A1, G5

Part #	Description
75017400	1 mm Contacts
75017500	2 mm Contacts



**Metal Screw Cap**

Style	Part #	For Housing
2	75018310	Style A1, A3, D6, F6, F7, G5



**Plastic Protection Cap**

Part #	Description
75007710	Style D6
75007810	Style A1, A6, F6, F7, G5



**Yellow Marking Rings**

Part Number
75013410



**Red Marking Rings**

Part Number
75013110



**Blue Marking Rings**

Part Number
75013210



**Green Marking Rings**

Part Number
75013310



**Transparent Marking Rings**

Part Number
75013010

## Application with OLFLEX® Servo Cables



### Stationary Applications

Cable Series	Use with LS1 (5+PE)		Use with LS1 (3+PE+4)	
	Part Number	Conductor Configuration	Part Number	Conductor Configuration
OLFLEX® SERVO 709 CY UL/CSA/CE	0038010	16 AWG/4c	0038021	16 AWG/4c + 2pr 19
	0038011	14 AWG/4c	0038022	14 AWG/4c + 2pr 18
OLFLEX® SERVO 700 CE	-	-	0036145	16 AWG/4c + 2pr 19
	-	-	0036150	14 AWG/4c + 2pr 19
OLFLEX® SERVO 700 CY CE	-	-	0036157	16 AWG/4c + 2pr 19
	-	-	0036158	14 AWG/4c + 2pr 19
OLFLEX® SERVO FD LK-SMS-FX5 UL/CSA/VDE/CE	0025700	16 AWG/4c	0025715	16 AWG/4c + 1pr 16
	0025701	14 AWG/4c	0025716	14 AWG/4c + 1 pr16

### Continuous Flex Applications

Cable Series	Use with LS1 (5+PE)		Use with LS1 (3+PE+4)	
	Part Number	Conductor Configuration	Part Number	Conductor Configuration
OLFLEX® SERVO FD 750 P CE	-	-	36245	16 AWG/4c + 2pr 18
	-	-	36250	14 AWG/4c + 2pr 18
OLFLEX® SERVO FD 750 CP UL/CSA/CE	-	-	32322UL	16 AWG/4c + 2pr 17
OLFLEX® SERVO FD 755 P CE	-	-	36350	16 AWG/4c + 2pr 18
	-	-	36351	14 AWG/4c + 2pr 18
OLFLEX® SERVO FD 755 CP CE	-	-	36370	16 AWG/4c + 1pr 17
	-	-	36371	14 AWG/4c + 1pr 17
	-	-	36360	16 AWG/4c + 2pr 18
OLFLEX® SERVO FD LK-SMS-FX8 UL/CSA/VDE/CE	0027724	16 AWG/4c	0027718	16 AWG/4c + 1pr 16
	0027725	14 AWG/4c	0027719	14 AWG/4c + 1pr 16
OLFLEX® SERVO FD LK-INX UL/CSA/CE	-	-	7072404	16 AWG/4c + 2pr 19
	-	-	7072405	14 AWG/4c + 2pr 18