

# Amphenol®



## SurLok Plus™ Series

## Company Profile



Endicott, NY

### Amphenol Industrial Operations

Amphenol Industrial Operations, headquartered in a 30,000 square foot facility in Endicott, N.Y., provides a full range of high reliability power/signal connectors and interconnection systems specifically for the industrial markets including rail/mass transit, process control, automotive manufacturing, heavy equipment, wireless base stations and petrochemical/power generation.

Products include ruggedized-for-industry cylindrical, rectangular, fiber optic, signal and power, RADSOK power and power-to-board solutions, cable and harness assemblies, as well as industrialized versions of Amphenol's MIL-DTL-5015 cylindrical, MIL-DTL-26482 miniature cylindrical and GT reverse bayonet cylindrical connectors. Amphenol Industrial Operations employs more than 1,400 people globally and is ISO9001, TS96949 and MIL-STD-790 certified.



### Amphenol Technology (Zhuhai) Co., Ltd

Established in 2007, Amphenol Technology (Zhuhai) Co., Ltd. is a manufacturing facility for Amphenol Industrial Operations, which serves a number of industrial markets. Included but not limited to Factory Automation, Transportation, Heavy Equipment, Alternative Energy, Energy Storage, Server/Data Comm and Power Distribution.

Amphenol Technology (Zhuhai) Co., Ltd. covers an area of 276,000 ft<sup>2</sup> and is equipped with CNC, plating, injection molding and assembly workshops. This plant specializes in the design and manufacturing of industrial connectors featuring high power, high density, medium to high voltage electrical properties, and harsh environment applications.

With industry leading engineering, design and manufacturing expertise, Amphenol Technology(Zhuhai) Co., Ltd. has earned more than 60 utility patents on its innovative interconnects. Many of the products produced have been certified by independent standards including UL, IEC/TUV, ATEX, IECEx and MA. The facility is also certified to ISO 9001, ISO 14001 and IATF 16949.

## Overview



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## What is SurLok Plus™?



### The SurLok Plus™ compression lug is a field installable, highly reliable alternative to common compression lugs

Using industry standard crimp, screw, and busbar termination options, thus eliminating the need to purchase special torque tools.

SurLok Plus™ is an environmentally sealed version of our original SurLok® but available in smaller sizes, and features a quick lock and press-to-release design. Incorporating the latest R4 RADSOK® Technology. SurLok Plus™ is a compact, quick mating, and robust product line.

The RADSOK® high amperage contact technology utilizes high tensile strength properties of a stamped and formed, high conductivity alloy grid to produce low insertion forces while maintaining a large conductive surface area. The R4 version of the RADSOK® represents the culmination of three years of research and development in laser welding copper based alloys.

## Markets

The markets and applications for the SurLok Plus™ Series include but are not limited to the following:



Energy Storage



EV/HEV\*



Process Control/Automation



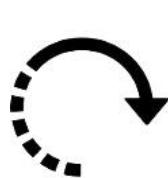
Heavy Equipment

\*Note: 1500V SurLok Plus™ option only

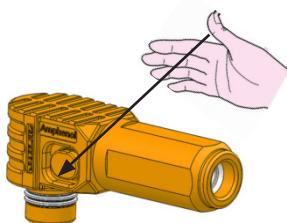
## Features and Benefits

<b>Keyway</b>	Multiple keyways
<b>Lock</b>	Quick lock and press-to-release design
<b>Plug</b>	360°rotating plug optional
<b>Receptacle</b>	Various termination options ( Threaded, Crimp, Busbar)
<b>Voltage</b>	1000V / 1500V optional
<b>Protection</b>	Touch Proof
<b>Design</b>	Compact robust design

- The connector's design incorporates an integral latching system that ensures a definitive electrical and mechanical connection.
- Connector housings are manufactured with a thermoplastic material that is not only durable, but also with excellent dielectric, mechanical properties and meet environmentally RoHS compliant.
- Contacts are derived from quality copper alloy to ensure an electrically-reliable connection.
- UL1977/4128 and TUV 2PfG2740 certified



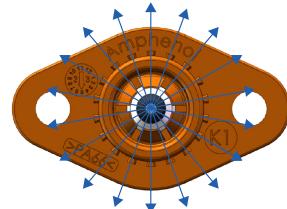
Rotation



Quick lock and press-to-release design



1000/1500 VDC



Multi-Directional Mating Positions

## Technical Information

Description	RADSOOK® Size						
	3.6mm	5.7mm	8.0mm	8.0mm EMI	10.3mm	12.0mm	14mm EMI
<b>Current Rating</b>	50A~70A	100A~120A	120A~250A	150A~250A	250A~320A	300A~360A	300A~500A
<b>Operating Temperature</b>	-40°C~125°C (1500V DC)	-40°C~105°C (1000V DC)	-40°C~105°C (1000V DC)	-40°C~125°C (1000V DC)	-40°C~105°C (1000V DC)	-40°C~125°C (1500V DC)	-40°C~140°C (1500V DC)
		-40°C~125°C (1500V DC)	-40°C~125°C (1500V DC)		-40°C~125°C (1500V DC)		
<b>IP Sealing(Mated)</b>	IP67/ IP6K9K (1500V DC)	IP67 (1000V DC)	IP67 (1000V DC)	IP67	IP67 (1000V DC)	IP67/IP6K9K	IP67/IP6K9K
		IP67/IP6K9K (1500V DC)	IP67/IP6K9K (1500V DC)		IP67/IP6K9K (1500V DC)		
<b>Flammability</b>	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
<b>Locking</b>	Spring Locking	Spring Locking	Spring Locking	Secondary Lock	Spring Locking	Spring Locking	CPA
<b>RoHS Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>EMI Shielding</b>	No	No	No	Yes	No	No	Optional
<b>HVIL Function</b>	No	No	No	Yes	No	No	Optional
<b>Durability</b>	≥100 cycles	≥100 cycles	≥100 cycles	≥100 cycles	≥100 cycles	≥100 cycles	≥100 cycles
<b>IPXXB</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes

## Gen 1.0 | 1000V DC Product Dimensions - Receptacle

Item	Screw Termination				Crimp Termination				Busbar Termination				Inline Crimp Termination		
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C
Size															
5.7mm	16.5	36.7	1.0	27	16.5	40.7	1.0	27	16.5	46.7	1.0	27	20	53.7	8.8
8.0mm	19.0	46.2	1.0	30	19.0	52.7	1.0	30	19.0	61.2	1.0	30	24.3	56.7	12
10.3mm	25.8	55.5	0.3	35	25.8	50mm <sup>2</sup> : 65.8 70mm <sup>2</sup> : 68.8 85mm <sup>2</sup> : 71.8 95mm <sup>2</sup> : 71.8	0.3	35	25.8	68.8	0.3	35	/	/	/

Note: All dimensions for reference only

## Ordering Information - Gen 1.0 | 1000V DC Receptacle

Product Series	Type	RADSOK® Size	Termination Style				Panel Mount	Sealing		Color		Keyway***					
SLP	R	Receptacle W/O Keyway	A	5.7mm 120A	B	Busbar		P	W/ Flange	O	Orange	NO KEYWAY					
					T	Threaded											
					16C	16mm <sup>2</sup> Crimp (100A max.)											
					25C	25mm <sup>2</sup> Crimp (120A max.)											
			B	8.0mm 200A	B	Busbar		N	W/O Flange**	B	Black	90°					
					T	Threaded											
					25C	25mm <sup>2</sup> Crimp (120A max.)											
					35C	35mm <sup>2</sup> Crimp (150A max.)											
					50C	50mm <sup>2</sup> Crimp (200A max.)											
	IR	Receptacle W/ Keyway	C	10.3mm 300A	B	Busbar		N	W/ Back shells***	R	Red	180°					
					T	Threaded											
					50C	50mm <sup>2</sup> Crimp (200A max.)											
					70C	70mm <sup>2</sup> Crimp (250A max.)											
					85C	85mm <sup>2</sup> & 95mm <sup>2</sup> (300A max.)											
	CR	*Inline Receptacle	A	5.7mm 120A	16	16mm <sup>2</sup> (100A max.)		B	Non-Sealed	R	Red	120°					
					25	25mm <sup>2</sup> (120A max.)											
			B	8.0mm 200A	25	25mm <sup>2</sup> (120A max.)											
					35	35mm <sup>2</sup> (150A max.)											
					50	50mm <sup>2</sup> (200A max.)											

\*Inline receptacle, 90° and 120° keyways only \*\* Not available for 10.3mm \*\*\*Only available for inline type \*\*\*\* 10.3mm requires Keyway selection

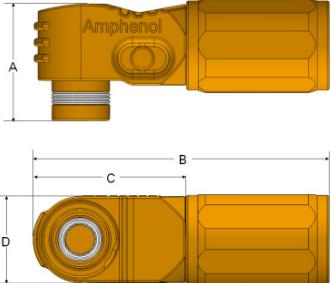
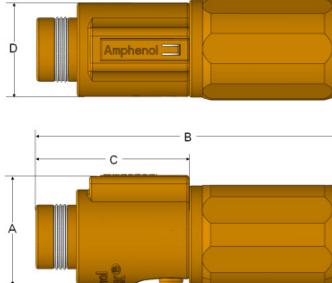
### Example:

1	2	3	4	5	6	7	8
Product Series	Type	RADSOK® Size	Cable Size	Back shells	Sealing	Color	Keyway
SLP	IR	A	25	B	S	O	3
SLP	CR	B	50	B	N	B	0

**SLPIRA25BSO3:** 5.7mm SurLok Plus™ Receptacle without shielding and no HVIL, orange, 25mm<sup>2</sup> cable crimp, waterproof: sealed, keyway: 120°

**SLPCRB50BNB0:** 8.0mm SurLok Plus™ Inline receptacle without shielding and no HVIL, black, 50mm<sup>2</sup> cable crimp, waterproof: non-sealed, keyway: 90°

## Gen 1.0 | 1000V DC Product Dimensions - Plug

Item	Right Angle Plug				Straight Plug			
Size								
	A	B	C	D	A	B	C	D
5.7mm	22.6	55.1	30	18	22.5	63	30.5	20
8.0mm	29	74.5	38.4	21.6	24.45	72.4	34.8	21.4
10.3mm	41.2	83.5	42.5	28	/	/	/	/

Note: All dimensions for reference only

## Ordering Information - Gen 1.0 | 1000V DC Plug

Product Series	Type	RADSOK® Size	Cable Size		Back Shells	Sealing	Color	Keyway***
SLP	P	Right Angle 90°	A	5.7mm 120A	16	16mm²(100A max.)	O	NO KEYWAY
					25	25mm²(120A max.)		
			B	8.0mm 200A	25	25mm²(120A max.)	S	Orange
					35	35mm²(150A max.)		
					50	50mm²(200A max.)		
			C	10.3mm 300A	50	50mm²(200A max.)	B	90°
					70	70mm²(250A max.)		
					85	85mm² & 95mm²(300A max.)		
	IP	Straight Type	A	5.7mm 120A	16	16mm²(100A max.)	N	180°
					25	25mm²(120A max.)		
			B	8.0mm 200A	25	25mm²(120A max.)		
					35	35mm²(150A max.)		
					50	50mm²(200A max.)		

\*Inline receptacle, 90° and 120° keyways only \*\* Not available for 10.3mm \*\*\*Only available for inline type \*\*\*\* 10.3mm requires Keyway selection

### Example:

1	2	3	4	5	6	7	8
Product Series	Type	RADSOK® Size	Cable Size	Back shells	Sealing	Color	Keyway
SLP	P	A	25	B	S	O	
SLP	IP	A	25	B	S	O	3

**SLPPA25BSO:** 5.7mm SurLok Plus™ Right Angle Plug without shielding and no HVIL, orange, 25mm² cable, waterproof: sealed, keyway: NO KEYWAY

**SLPIPA25BSO3:** 5.7mm SurLok Plus™ Straight Plug without shielding and no HVIL, orange, 25mm² cable crimp, waterproof: sealed, keyway: 120°

## Gen 1.0 | 1000V DC EMI Product Dimensions

Item	Right Angle Plug				Straight Plug			Receptacle				
Size												
	A	B	C	D	A	B	C	A	B	C	D	E
8.0mm	26.2	41.2	86.2	25.8	82.5	34.3	30	25.15	22.85	2.5	23.5	31

Note: All dimensions for reference only

## Ordering Information - Gen 1.0 | 1000V DC EMI

Product Series	Type		RADSOK® Size	Cable Size		Back Shells		Sealing		Color		Keyway	EMI	HVIL	
SLP	P	Right Angle 90°	B 8.0mm 250A	35	35mm <sup>2</sup> (150A max.)	B	W/ Back shells	S	Sealed	O	Orange	0	90°	E EMI	NON HVIL
	50	50mm <sup>2</sup> (200A max.)		B	Black				1	270°					
	70	70mm <sup>2</sup> (250A max.)		N	Non-Sealed			R	Red	2	60°				
	IP	Straight Type										3	120°		
Product Series	Type		RADSOK® Size	Termination Style		Panel Mount		Sealing		Color		Keyway	EMI	HVIL	
SLP	IR	Receptacle Keyway can rotate 360°	B 8.0mm 250A	B Busbar	P Panel Mount W/ Flange	S Sealed	N Non-Sealed	O	Orange	0	90°	E EMI	NON HVIL		
									1	270°					
								B	Black	2	60°				
								R	Red	3	120°				
										4	150°				

### Example:

1	2	3	4	5	6	7	8	9	10
Product Series	Type	RADSOK® Size	Cable Size	Back shells	Sealing	Color	Keyway	EMI	HVIL
SLP	P	B	50	B	S	O	3	E	
Product Series	Type	RADSOK® Size	Termination Style	Panel Mount	Sealing	Color	Keyway	EMI	HVIL
SLP	IR	B	B	P	S	O	1	E	H

**SLPPB50BSO3E:** 8.0mm SurLok Plus™ Right Angle Plug with shielding and no HVIL, orange, 50mm<sup>2</sup> cable, waterproof: sealed, keyway: 120°

**SLPIRBPSO1EH:** 8.0mm SurLok Plus™ Receptacle with EMI and HVIL, orange, busbar panel, keyway: 270°, waterproof: sealed

## Gen 2.0 | 1500V DC EMI Product Dimensions

Item	Right Angle Plug			Receptacle				
Size	A	B	C	A	B	C	D	E
14mm	70	176	71	59.5	5	22.7	20	60

Note: All dimensions for reference only

## Ordering Information - Gen 2.0 | 1500V DC EMI

Product Series	Type	RADSOK® Size	Cable Size		Back Shells	Sealing	Color	Keyway	EMI	HVIL				
SLP	HP	Right Angle 90°	E	14mm 450A	S095	95mm <sup>2</sup> (Shielded) (300A max.)	S	Sealed	O	Orange	A	Keyway A	N	NON HVIL
					S120	120mm <sup>2</sup> (Shielded) (300A max.)			B	Black	B	Keyway B		
					S150	150mm <sup>2</sup> (Shielded) (450A max.)			C	Keyway C	H	HVIL		
					U095	95mm <sup>2</sup> (Unshielded) (300A max.)	N	Non-Sealed	D	Red	Keyway D			
					U120	120mm <sup>2</sup> (Unshielded) (300A max.)			E	Keyway E				
					U150	150mm <sup>2</sup> (Unshielded) (450A max.)								
Product Series	Type	RADSOK® Size	Termination Style		Panel Mount	Sealing	Color	Keyway	EMI	HVIL				
SLP	HR	Recept.	E	14mm 450A	B	Busbar	P	Panel Mount W/ Flange	S	IP6K9K	A	Keyway A	N	NON HVIL
					T	Threaded			G	Gray	B	Keyway B		
									C	Keyway C	D	Keyway D		
									E	Keyway E			H	HVIL

### Example:

1	2	3	4	5	6	7	8	9	10
Product Series	Type	RADSOK® Size	Cable Size	Back shells	Sealing	Color	Keyway	EMI	HVIL
SLP	HP	E	S150	B	S	O	C	E	N
Product Series	Type	RADSOK® Size	Termination Style	Panel Mount	Sealing	Color	Keyway	EMI	HVIL
SLP	HR	E	B	P	S	G	B	E	H

**SLPHPES150BSOCEN:** 14.0mm SurLok Plus™ Right Angle Plug with shielding and no HVIL, orange, 150mm<sup>2</sup> shielding cable, waterproof: sealed, keyway: C

**SLPHREBPSGBEH:** 14.0mm SurLok Plus™ Receptacle with EMI and HVIL, Gray, busbar panel, keyway: B, waterproof: sealed

## Gen 2.0 | 1500V DC Product Dimensions - Receptacle

Item	3.6mm Receptacle - Face				Screw Termination				Busbar Termination				
	A	B	C	D	A	B	C	D	A	B	C	D	E
Size	21.2	48.6	23.1	16	16.3	39	0.5	20	16.3	41	0.5	20	34
3.6mm	27.5	66.2	30.5	20	19.3	47.3	0.25	27	19.3	48.3	0.25	27	-
5.7mm	34	82.2	38.4	24.3	22	57.1	0.35	30	22	60	0.35	30	-
8.0mm	43	97.5	40.5	30	27	70	0.25	38	27	69	0.25	38	-
10.3mm	43.5	109.5	45.5	35	30.5	77.5	0.3	44	30.5	79.5	0.3	44	-
12.0mm													

Note: All dimensions for reference only

## Ordering Information - Gen 2.0 | 1500V DC Receptacle

Product Series	Type	RADSOK® Size	Cable Size		Back Shells		Sealing		Color		Keyway*	
SLP	HIR	Receptacle W/ Keyway	M	3.6mm 70A	B	Busbar	S	Sealed	O	Orange	1	20°
			A	5.7mm 120A								
			B	8.0mm 200A	T	Panel Mount W/ Flange	N	Non-Sealed	B	Black	2	30°
			C	10.3mm 300A								
			D	12.0mm 360A								

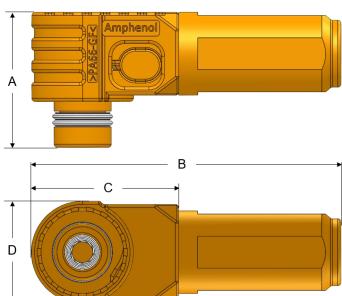
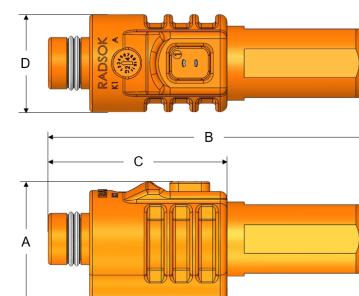
\* 45° Keyway available for 10.3mm only, contact [tech@amphenol-aio.com](mailto:tech@amphenol-aio.com) for additional keyways

### Example:

1	2	3	4	5	6	7	8
Product Series	Type	RADSOK® Size	Cable Size	Back shells	Sealing	Color	Keyway
SLP	HIR	M	B	P	S	R	2

**SLPHIRMBPSR2:** 3.6mm SurLok Plus™ 1500V Receptacle without shielding and no HVIL, red, busbar, waterproof: sealed, keyway: 30°

## Gen 2.0 | 1500V DC Product Dimensions - Plug

Item	Right Angle Plug				Straight Plug			
	A	B	C	D	A	B	C	D
Size								
3.6mm	21.2	48.6	23.1	16	21	56.7	31.2	17
5.7mm	27.5	66.2	30.5	20	-	-	-	-
8.0mm	34	82.2	38.4	24.3	-	-	-	-
10.3mm	43	97.5	40.5	30	33.5	113	56	30
12.0mm	43.5	109.5	45.5	35	-	-	-	-

## Ordering Information - Gen 2.0 | 1500V DC Plug

Note: All dimensions for reference only

Product Series	Type	RADSOK® Size	Cable Size		Back Shells	Sealing	Color	Keyway
SLP	HP Right Angle 90°	M 3.6mm 70A	06	6 mm <sup>2</sup> (50A max.)	B W/ Back Shells	S Sealed	O Orange	1 20°
			10	10mm <sup>2</sup> (70A max.)				
		A 5.7mm 120A	16	16mm <sup>2</sup> (100A max.)				
			25	25mm <sup>2</sup> (120A max.)				
		B 8.0mm 200A	35	35mm <sup>2</sup> (150A max.)				
			50	50mm <sup>2</sup> (200A max.)				
	C 10.3mm 300A		70	70mm <sup>2</sup> (250A max.)			B Black	2 30°
			95	95mm <sup>2</sup> (300A max.)				
		D 12.0mm 360A	95	95mm <sup>2</sup> (300A max.)				
			120	120mm <sup>2</sup> (360A max.)				
	HIP Straight Type	M 3.6mm 70A	06	6 mm <sup>2</sup> (50A max.)	N W/O Back Shells	N Non-Sealed	R Red	2 30°
			10	10mm <sup>2</sup> (70A max.)				
		C 10.3mm 300A	95	95mm <sup>2</sup> (300A max.)				
			120	120mm <sup>2</sup> (360A max.)				

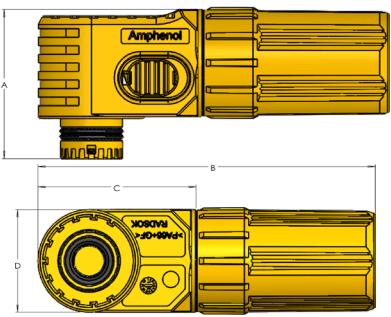
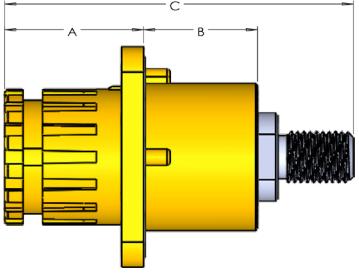
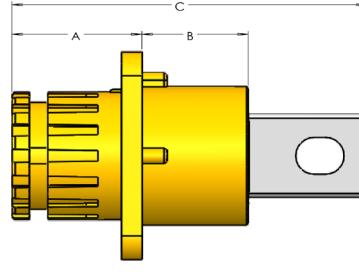
### Example:

1	2	3	4	5	6	7	8
Product Series	Type	RADSOK® Size	Cable Size	Back shells	Sealing	Color	Keyway
SLP	HP	M	10	B	S	B	1
SLP	HIP	C	95	B	S	O	2

**SLPHPM10BS01:** 3.6mm SurLok Plus™ 1500V Right Angle Plug , without shielding and no HVIL, black, 10mm<sup>2</sup> cable crimp, waterproof: sealed, keyway: 20°

**SLHIPC95BS02:** 10.3mm SurLok Plus™ 1500V Straight Plug without shielding and no HVIL, orange, 95mm<sup>2</sup> cable crimp, waterproof: sealed, keyway: 30°

## Gen 2.5 Product Dimensions

Item	Right Angle Plug				Screw Termination			Busbar Termination		
	A	B	C	D	A	B	C	A	B	C
Size										
	27.0	62.5	30.5	20.0	19.5	14.1	46.6 Ref	19.5	14.1	47.6 Ref
5.7mm	35.0	82.5	38.7	25.0	22.0	18.0	55.1 Ref	22.0	18.0	60.0 Ref
8.0mm	43.3	98.0	41.0	30.0	33.0	22.0	76.0 Ref	33.0	22.0	75.0 Ref
10.3mm										

Note: All dimensions for reference only

## Ordering Information - Gen 2.5

Product Series	Type	RADSOK® Size	Cable Size		Back Shells	Sealing	Color	Keyway
SLP	RP	Right Angle 90°	A	5.7mm 120A (1000V DC)	16 25	16mm <sup>2</sup> (100A max.) 25mm <sup>2</sup> (120A max.)	B W/ Back Shells	S IP67 O Orange 0 24°
			B	8.0mm 250A (1500V DC)	35 50 70	35mm <sup>2</sup> (150A max.) 50mm <sup>2</sup> (200A max.) 70mm <sup>2</sup> (250A max.)		N Non-Sealed B Black 2 30°
			C	10.3mm 320A (1500V DC)	70 95	70mm <sup>2</sup> (250A max.) 95mm <sup>2</sup> (320A max.)		
			A	5.7mm 120A (1000V DC)	B Busbar	P Panel Mount W/ Flange	S IP67 O Orange 0 24°	
			B	8.0mm 200A (1500V DC)				
			C	10.3mm 320A (1500V DC)				
Product Series	Type	RADSOK® Size	Termination Style		Back Shells	Sealing	Color	Keyway
SLP	RIR	Receptacle W/ Keyway	A	5.7mm 120A (1000V DC)	T Threaded	P Panel Mount W/ Flange	S IP67 O Orange 0 24°	
			B	8.0mm 200A (1500V DC)				
			C	10.3mm 320A (1500V DC)				

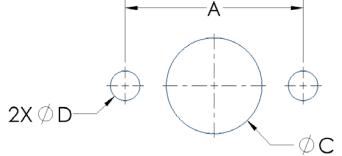
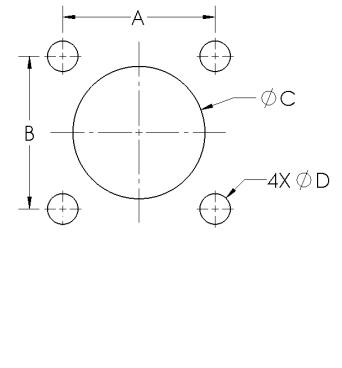
### Example:

1	2	3	4	5	6	7	8
Product Series	Type	RADSOK® Size	Cable Size	Back Shells	Sealing	Color	Keyway
SLP	RP	A	25	B	S	B	2
Product Series	Type	RADSOK® Size	Termination Style	Back Shells	Sealing	Color	Keyway
SLP	RIR	A	B	P	S	B	2

**SLPRPA25BSB2:** 5.7mm SurLok Plus 2.5gen 1000V Right Angle Plug , without shielding and non HVIL, black, 25mm<sup>2</sup> cable crimp, waterproof: IP67, keyway: 30°

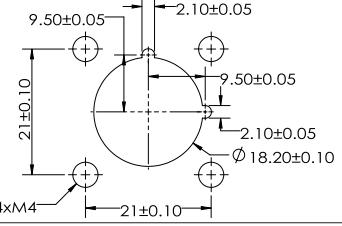
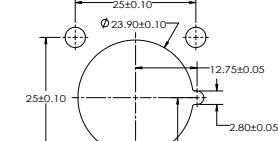
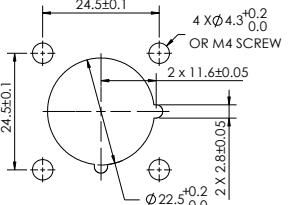
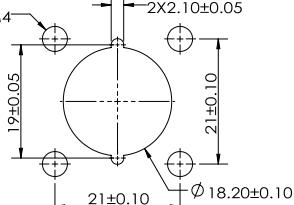
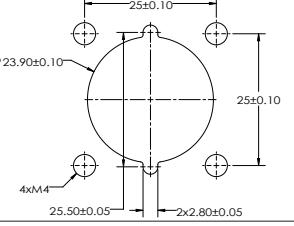
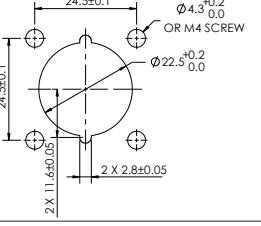
**SLPRIRABPSB2:** 5.7mm SurLok Plus 2.5gen 1000V Receptacle without shielding and non HVIL, black, busbar, waterproof: IP67, keyway: 30°

## Layout Dimensions - Gen 1.0 | 1000V DC • Gen 2.0 | 1500V DC

RADSOK® Size	A	ØC	D	Layout Torque	Receptacle Contact Torque		Figure	
					Busbar Torque	Screw Torque		
3.6mm	24 ± 0.1	12.9 ± 0.1	M4 Screw	M5 Bolts: 0.4 ~ 0.7 N.m	M4 Bolts: 1.2 ~ 1.5 N.m	M6 Nut: 1.5 ~ 2.0 N.m		
RADSOK® Size	A	B	ØC	D	Layout Torque	Busbar Torque	Screw Torque	Figure
5.7mm	18 ± 0.1	18 ± 0.1	14.3 ± 0.1	M4 Screw	M4 Bolts: 0.8 ± 0.1 N.m	M5 Bolts: 3 ± 0.1 N.m	M6 Nut: 3 ± 0.1 N.m	
8.0mm	21 ± 0.1	21 ± 0.1	18.2 ± 0.1	M4 Screw	M4 Bolts: 0.8 ± 0.1 N.m	M6 Bolts: 6.5 ± 0.1 N.m	M8 Nut: 7 ~ 8 N.m for 1000V 8.5 ± 0.1 N.m for 1500V	
8.0mm EMI	23 ± 0.1	23 ± 0.1	23.3 ± 0.1	M3 Screw	M3 Bolts: 0.8 ± 10% N.m	M6 Bolts: 4.8 ± 10% N.m	N/A	
10.3mm	24.5 ± 0.1	24.5 ± 0.1	22.6 ± 0.1	M4 Screw	M4 Bolts: 0.8 ~ 1.0 N.m	M6 Bolts: 8 ± 0.1 N.m	M10 Nut: 7.0 ~ 8.0 N.m for 1000V 13.5 ± 0.5 N.m for 1500V	
12.0mm	30 ± 0.1	30 ± 0.1	28.3 ± 0.1	M5 Screw	M5 Bolts: 1.4 ~ 1.6 N.m	M8 Bolts: 8 ~ 9 N.m	M10 Nut: 13 ~ 14 N.m	
14mm EMI	45 ± 0.1	45 ± 0.1	42 ± 0.1	M6 Screw	M6 Bolts: 10 ± 1.0 N.m	M12 Bolts: 15 ± 1.5 N.m	M10 Nut: 10 ± 1.0 N.m M12 Nut: 15 ± 1.5 N.m	

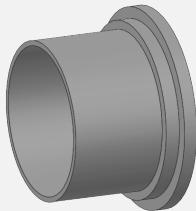
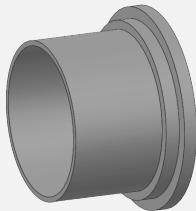
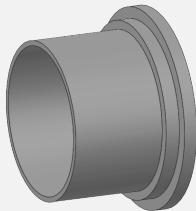
Note: All torque values are for reference only. For complete details refer to our Assembly Instructions document AI-9.

## Layout Dimensions - Gen 2.5

RADSOK® Size	5.7mm	8.0mm	10.3mm
Layout Torque	0.8 ± 0.1 N.m	0.8 ± 0.1 N.m	0.8 ± 0.1 N.m
Busbar Torque	M5: 3.5 ± 0.1 N.m	M6: 5.5 ± 0.1 N.m	M6: 8.0 ± 0.1 N.m
Screw Torque	M6: 4.0 ± 0.1 N.m	M8: 8.5 ± 0.1 N.m	M10: 13.5 ± 0.5 N.m
Dimensions Positive Side			
Dimensions Negative Side			

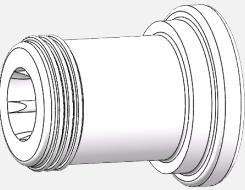
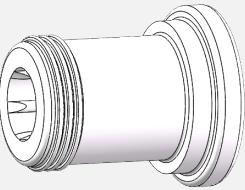
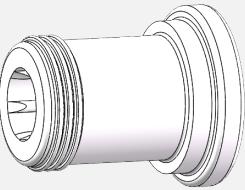
## Optional Accessories

### Dust Cap

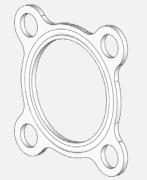
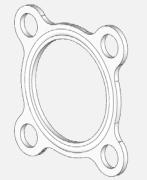
Voltage	Description	P/N	Figure
Gen 1.0 1000V DC	SL+ 5.7mm Receptacle Dust CAP	C10-070500-010	
	SL+ 8.0mm Receptacle Dust CAP	C10-070500-012	
	SL+ 8.0mm EMI Plug Dust CAP	C10-070506-10S	
	SL+ 8.0mm EMI Receptacle Dust CAP	C10-686511-016	
	SL+ 10.3mm Receptacle Dust CAP	C10-070500-016	
Gen 2.0 1500V DC	SL+ 3.6mm Receptacle Dust CAP	C10-070500-009	
	SL+ 5.7mm Receptacle Dust CAP	C10-792372-000	
	SL+ 8.0mm Receptacle Dust CAP	C10-070506-014	
	SL+ 10.3mm Receptacle Dust CAP	C10-070506-016	
	SL+ 12.0mm Receptacle Dust CAP	C10-792372-001	
Gen 2.5	SL+ 5.7mm Receptacle Dust CAP	C10-792372-000	
	SL+ 8.0mm Receptacle Dust CAP	10-070500-014	
	SL+ 10.3mm Receptacle Dust CAP	10-070500-016	

Note: Generic cap image, actual shape and color may vary.

### Sealing Cap

Voltage Rating	Sealing Cap	P/N	Figure
Gen 1.0 1000V DC	SL+ 5.7mm Receptacle Sealing CAP	C10-752804-000	
	SL+ 8.0mm Receptacle Sealing CAP	C10-737307-000	
	SL+ 10.3mm Receptacle Sealing CAP	C10-781989-000	
Gen 2.0 1500V DC	SL+ 3.6mm Receptacle Sealing CAP	C10-766844-000	
	SL+ 5.7mm Receptacle Sealing CAP	C10-752804-000	
	SL+ 8.0mm Receptacle Sealing CAP	C10-795133-000	
	SL+ 10.3mm Receptacle Sealing CAP	C10-781989-000	
Gen 2.5	SL+ 5.7mm Receptacle Sealing CAP	C10-752804-000	
	SL+ 8.0mm Receptacle Sealing CAP	C10-795133-000	

### Gasket

Voltage Rating	Gasket	P/N	Figure
Gen 1.0 1000V DC	SL+ 5.7mm Gasket	C10-730656-000	
	SL+ 8.0mm Gasket	C10-731812-000	
	SL+ 10.3mm Gasket	C10-731012-000	
	SL+ 8.0mm EMI Gasket	C10-738625-000	
Gen 2.0 1500V DC	SL+ 3.6mm Gasket	C10-753284-000	
	SL+ 5.7mm Gasket	C10-766105-000	
	SL+ 8.0mm Gasket	C10-765562-000	
	SL+ 10.3mm Gasket	C10-765504-000	
	SL+ 12.0mm Gasket	C10-779229-000	
	SL+ 14.0mm Gasket	C10-765569-000	
Gen 2.5 1500V DC	SL+ 5.7mm Gasket	C10-765562-001	
	SL+ 8.0mm Gasket	C10-791990-000	
	SL+ 10.3mm Gasket	C10-792060-000	

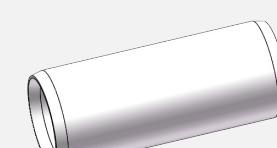
## Optional Accessories

### Cable Grommet

Voltage Rating	Gasket	P/N (Cable Size)	Recommended Cable OD (mm)	Figure
Gen 1.0 1000V DC	SL+ 5.7mm Cable Grommet	C10-730653-030 (16 mm <sup>2</sup> )	Ø8.10 ± 0.2	 Cable Grommet
		C10-730653-040(25 mm <sup>2</sup> )	Ø10.2 ± 0.2	
	SL+ 8.0mm Cable Grommet	C10-731821-020 (25 mm <sup>2</sup> )	Ø10.2 ± 0.2	
		C10-731821-030 (35 mm <sup>2</sup> )	Ø11.5 ± 0.3	
		C10-731821-050(50 mm <sup>2</sup> )	Ø13.6 ± 0.3	
	SL+ 8.0mm EMI Cable Grommet	C10-738617-003 (35 mm <sup>2</sup> )	Ø14.5 ± 0.5	
		C10-738617-002 (50 mm <sup>2</sup> )	Ø17.0 ± 0.5	
		C10-738617-001 (70 mm <sup>2</sup> )	Ø19.5 ± 0.5	
	SL+ 10.3mm Cable Grommet	C10-762115-050 (50 mm <sup>2</sup> )	Ø13.6 ± 0.3	
		C10-762115-070 (70 mm <sup>2</sup> )	Ø15.5 ± 0.3	
		C10-762115-090 (85/95 mm <sup>2</sup> )	Ø18.2 ± 0.3	
Gen 2.0 1500V DC	SL+ 5.7mm Inline Receptacle Cable Grommet	C10-766102-100: Support Piece (16 mm <sup>2</sup> and 25 mm <sup>2</sup> )		 Support Piece
		C10-766101-016 (16 mm <sup>2</sup> )	Ø8.10 ± 0.2	
		C10-766101-025 (25 mm <sup>2</sup> )	Ø10.2 ± 0.2	
	SL+ 8.0mm Inline Receptacle Cable Grommet	C10-762841-025 (25 mm <sup>2</sup> )	Ø10.2 ± 0.2	
		C10-762841-035 (35 mm <sup>2</sup> )	Ø11.5 ± 0.3	
		C10-762841-050 (50 mm <sup>2</sup> )	Ø13.6 ± 0.3	
	SL+ 3.6mm Cable Grommet	C10-754739-006(6 mm <sup>2</sup> )	Ø4.8 ± 0.2	
		C10-754739-010(10 mm <sup>2</sup> )	Ø6.25 ± 0.2	
	SL+ 5.7mm Cable Grommet	C10-766102-100: Support Piece (16 mm <sup>2</sup> and 25 mm <sup>2</sup> )		
		C10-766623-016 (16 mm <sup>2</sup> )	Ø8.10 ± 0.2	
		C10-766623-025 (25 mm <sup>2</sup> )	Ø10.2 ± 0.2	
Gen 2.5 1500V DC	SL+ 8.0mm Cable Grommet	C10-766102-100: Support Piece (35 mm <sup>2</sup> and 50 mm <sup>2</sup> )		 Cable Grommet
		C10-766624-035 (35 mm <sup>2</sup> )	Ø11.5 ± 0.3	
		C10-766624-050 (50 mm <sup>2</sup> )	Ø13.6 ± 0.3	
	SL+ 10.3mm Cable Grommet	C10-765499-100: Support Piece (70 mm <sup>2</sup> and 95mm <sup>2</sup> )		
		C10-765498-070 (70 mm <sup>2</sup> )	Ø15.5 ± 0.3	
		C10-765498-090 (95 mm <sup>2</sup> )	Ø18.2 ± 0.3	
	SL+ 5.7mm Cable Grommet	C10-779540-016 (16 mm <sup>2</sup> )	Ø8.1±0.2	
		C10-779540-025 (25 mm <sup>2</sup> )	Ø10.2±0.2	
	SL+ 8.0mm Cable Grommet	C10-781527-035 (35 mm <sup>2</sup> )	Ø11.5±0.3	
		C10-781527-050 (50 mm <sup>2</sup> )	Ø13.6±0.3	
	SL+ 10.3mm Cable Grommet	C10-781527-070 (70 mm <sup>2</sup> )	Ø15.5±0.3	
		C10-765498-070 (70 mm <sup>2</sup> )	Ø15.5±0.3	
		C10-765498-090 (95 mm <sup>2</sup> )	Ø18.2±0.3	
	C10-792057-100: Support Piece (70 mm <sup>2</sup> and 95mm <sup>2</sup> )			

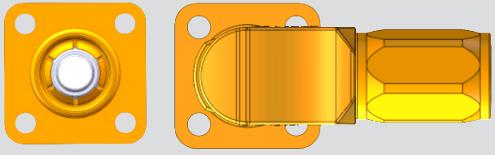
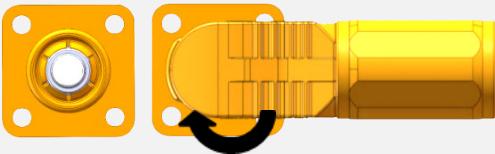
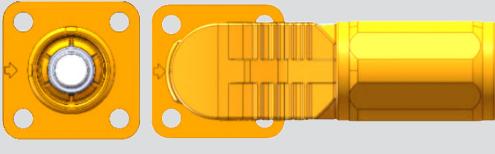
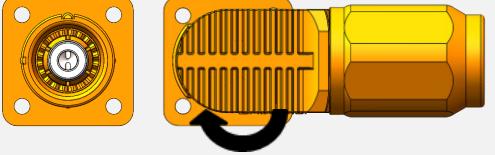
Note: If customer's cable range is not commensurate with the recommended cable diameter, they should consult tech@amphenol-aio.com

### Crimp Sleeve Reducer

Voltage Rating	Sleeve Reducer	P/N	Figure
Gen 1.0 1000V DC	SL+ 5.7mm Crimp Sleeve Reducer	C10-737238-003 (16mm <sup>2</sup> )	
	SL+ 8.0mm Crimp Sleeve Reducer	C10-737127-253 (25mm <sup>2</sup> )	
		C10-737127-003 (35mm <sup>2</sup> )	
	SL+ 8.0mm EMI Crimp Sleeve Reducer	C10-738626-002 (35mm <sup>2</sup> )	
		C10-738626-001 (50mm <sup>2</sup> )	
	SL+ 10.3mm Crimp Sleeve Reducer	C10-737887-053 (50mm <sup>2</sup> )	
		C10-737887-073 (70mm <sup>2</sup> )	
	SL+ 3.6mm Crimp Sleeve Reducer	C10-754843-063 (6mm <sup>2</sup> )	

## Keyway Reference

### Gen 1.0 | 1000V DC Connector:

RADSOK® Size	P/N				Description
	Type	RA Plug	Straight Plug	Receptacle	
5.7mm W/O Keyway	Coded Number	SLPPA( )B( )( )	SLPIPA( )B( )( )	SLPRA( )P( )( )	 360° Rotation
5.7mm W/ Keyway	Coded Number	SLPPA( )B( )( )( )	SLPIPA( )B( )( )( )	SLPIRA( )P( )( )( )	 Non-Rotatable
8.0mm W/O Keyway	Coded Number	SLPPB( )B( )( )	SLPIP(B( )B( )( )	SLPRB( )P( )( )	 360° Rotation
8.0mm W/ Keyway	Coded Number	SLPPB( )B( )( )( )	SLPIP(B( )B( )( )( )	SLPIRB( )P( )( )( )	 Non-Rotatable
10.3mm Keyway	Coded Number	SLPPC( )B( )( )( )	/	SLPIRC( )P( )( )( )	 360° Rotation

## Keyway Reference

### Gen 2.0 | 1500V DC Connector: Multi-Directional Outgoing

RADSO® Size	P/N				Description
	Type	RA Plug	Straight Plug	Receptacle	
3.6mm Keyway	Coded Number	SLPHPM( )B( )( )( )	/	SLPHIRM( )P( )( )( )	
5.7mm Keyway	Coded Number	SLPHPA( )B( )( )( )	/	SLPHIRA( )P( )( )( )	
8.0mm Keyway	Coded Number	SLPHPB( )B( )( )( )	/	SLPHIRB( )P( )( )( )	
10.3mm Keyway	Coded Number	SLPHPC( )B( )( )( )	Coming Q2 2024	SLPHIRC( )P( )( )( )	
12.0mm Keyway	Coded Number	SLPHPD( )B( )( )( )	/	SLPHIRD( )P( )( )( )	

**Master Keyway:** Orientation of the receptacle is highlighted in the connector images above. From this orientation, the cable exit direction will clock at degree intervals indicated by the specific keyway in the table to the right.

KEYWAY (Y°)	K1	20°	18 Positions
	K2	30°	12 Positions

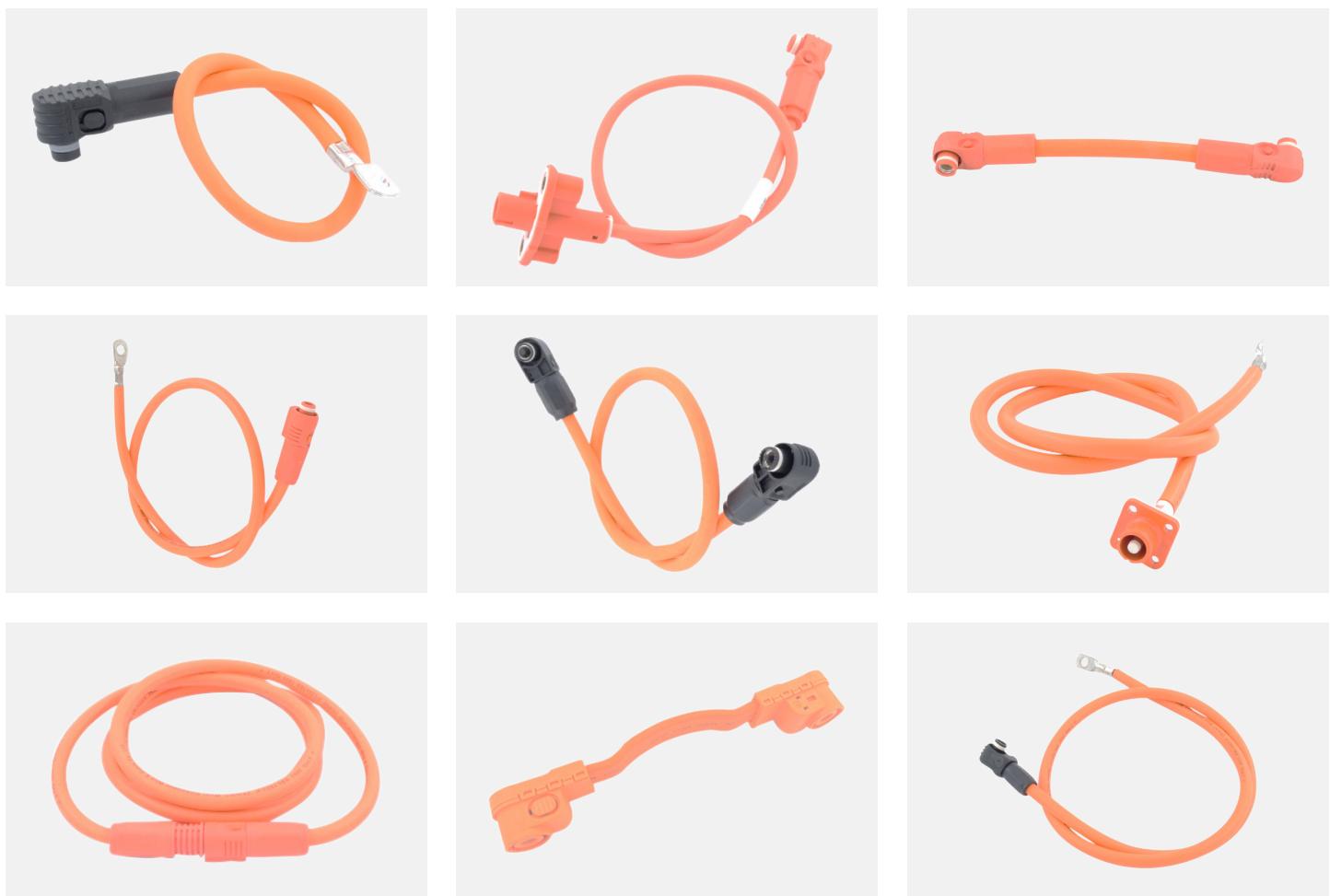
## Tools

Product Series	Part Number	Description	Photo
SurLok™ Plus EMI	FX3-0001-001	Shielding assembly	
SurLok™ Plus EMI	FX3-0006-001	Assembly HVIL Contact	
SurLok™ Plus	FX3-0026-001	SL+ 5.7mm screw type receptacle wrench	
SurLok™ Plus	FX3-0036-001	8.0mm SL+ M6 receptacle wrench	
SurLok™ Plus	FX3-0024-001	10.3mm SL+ wrench	
SurLok™ Plus	FX3-0042-002	SurLok™ Plus 3.6mm threading cable tool	
SurLok™ Plus Fixture for Pin Assemblies	FX3-0191-004	3.6mm SL+ Gen 2.0	
	FX3-0190-001	5.7mm SL+ Gen 1.0   2.0   2.5	
	FX3-0189-001	8.0mm SL+ Gen 1.0   2.0   2.5	
	FX3-0188-001	10.3mm SL+ Gen 1.0   2.0   2.5	
	FX3-0187-017	12.0mm SL+ Gen 2.0	
SurLok™ Plus	FX3-0067-001	10.3mm SL+ Gen 2.0 fixture for grommet assemblies	

## Patents



## Customized Cable Assemblies





**AMPHENOL CORPORATION**  
**Amphenol Industrial**  
**Operations**  
Phone: 888-364-9011  
20 Valley Street  
Endicott, NY 13760-3600  
[www.amphenol-industrial.com](http://www.amphenol-industrial.com)

**Amphenol Tuchel Industrial GmbH**  
August-Haeusser-Str. 10, 74080  
Heilbronn, Germany  
Tel.: +49 7131 929 0  
[www.amphenol-industrial.de](http://www.amphenol-industrial.de)  
Email: [rfq@amphenol.de](mailto:rfq@amphenol.de)