

Ex Plug Connector miniCLIX Series 8591/2



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03843E00

- > 6+1 poles; up to 16 A
- > Compact design
- > Safe, fast disconnection under load
- > Simple assembly
- > Suitable for rough industrial conditions
 - IP66 / IP68
- > Available as
 - Flange socket
 - Device plug
 - Plug / coupler
- > Material
 - Polyamide, nickel-plated brass, stainless steel AISI 316L
- > Connection type
 - Crimp / cable



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Series 8591/2 miniCLIX plug connectors in a 7-pole version, 6+PE version for AC signals, are designed for rated voltage of up to 400 V AC as well as rated current of up to 16 A which is perfect for all applications using high power values. The plug connectors are designed for isolation of non-intrinsically safe signals in the hazardous areas. All devices and systems can be installed, serviced or replaced during operation in Zone 1 without switching off or any special approval required. Ex d field devices can be retrofitted to Plug & Play-devices using a plug connector. The plug connectors can be used, for example in three-phase motors with monitoring of windings or servo-signals for speed control. The connectors have the degree of protection up to IP66 / IP68. The enclosures are optionally available in plastic, nickel-plated brass or stainless steel.

Zone	ATEX / IECEx					
	0	1	2	20	21	22
For use in		x	x		x ^{*)}	x ^{*)}




^{*)} IECEx

WebCode 8591B

Ex Plug Connector miniCLIX Series 8591/2






Selection Table

Design	Enclosure material	Connection type	Number of poles	Voltage	Coding	Order number
 Coupler, plastic 04338E00	Plastic	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/23.-06-0.0.
			7 P	24 V DC	8 h	8591/23.-08-0.0.
			6 P + PE	400 V AC	10 h	8591/23.-10-0.0.
 Coupler, metal 04339E00	Stainless steel	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/23.-06-1.0.
			7 P	24 V DC	8 h	8591/23.-08-1.0.
			6 P + PE	400 V AC	10 h	8591/23.-10-1.0.
	Brass, nickel-plated	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/23.-06-3.0.
			7 P	24 V DC	8 h	8591/23.-08-3.0.
			6 P + PE	400 V AC	10 h	8591/23.-10-3.0.
 Coupler, metal for armoured cables 04848E00	Brass, nickel-plated for armoured cables	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/23.-06-4.05
			6 P + PE	400 V AC	10 h	8591/23.-10-4.05
			7 P	24 V DC	8 h	8591/23.-08-4.05
	Stainless steel for armoured cables	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/23.-06-2.05
			6 P + PE	400 V AC	10 h	8591/23.-10-2.05
			7 P	24 V DC	8 h	8591/23.-08-2.05
Order Number Supplement						
Connection type	crimp respectively cable 1.5 mm ²					8591/. .1-
	crimp respectively cable 2.5 mm ²					8591/. .2-
Accessories	without locking device (standard)					8591/.0..
	with locking device					8591/.9..
Cable entry plug / coupler	Ø 7 ... 11 mm					8591/.03
	Ø 11 ... 15 mm					8591/.04
	Ø 16 ... 26 mm armoured cable					8591/.05
Note	More information about the coding can be found in the table „Recommended Coding of Connections“. Please see the R. STAHL condensed catalogue for in stock items.					

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Selection Table

Design	Enclosure material	Connection type	Number of poles	Voltage	Coding	Order number
 Plug, plastic 04405E00	Plastic	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/27.-06-0.0.
			7 P	24 V DC	8 h	8591/27.-08-0.0.
			6 P + PE	400 V AC	10 h	8591/27.-10-0.0.
 Plug, metal 04352E00	Stainless steel	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/27.-06-1.0.
			7 P	24 V DC	8 h	8591/27.-08-1.0.
			6 P + PE	400 V AC	10 h	8591/27.-10-1.0.
	Brass, nickel-plated	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/27.-06-3.0.
			7 P	24 V DC	8 h	8591/27.-08-3.0.
			6 P + PE	400 V AC	10 h	8591/27.-10-3.0.
 Plug, metal for armoured cables 04849E00	Stainless steel for armoured cables	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/27.-06-2.05
			6 P + PE	400 V AC	10 h	8591/27.-10-2.05
			7 P	24 V DC	8 h	8591/27.-08-2.05
	Brass, nickel-plated for armoured cables	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/27.-06-4.05
			6 P + PE	400 V AC	10 h	8591/27.-10-4.05
			7 P	24 V DC	8 h	8591/27.-08-4.05

Order Number Supplement

Connection type	crimp respectively cable 1.5 mm ²	8591/..1-... ..
	crimp respectively cable 2.5 mm ²	8591/..2-... ..
Accessories	without locking device (standard)	8591/...-...-0..
	with locking device	8591/...-...-9..
Cable entry plug / coupler	∅ 7 ... 11 mm	8591/...-...-03
	∅ 11 ... 15 mm	8591/...-...-04
	∅ 16 ... 26 mm armoured cable	8591/...-...-05
Note	More information about the coding can be found in the table „Recommended Coding of Connections“. Please see the R. STAHL condensed catalogue for in stock items.	

Selection Table

Design	Enclosure material	Connection type	Number of poles	Voltage	Coding	Order number
 Flange socket, plastic 04419E00	Plastic	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/28.-06-0.00
				400 V AC	10 h	8591/28.-10-0.00
			7 P	24 V DC	8 h	8591/28.-08-0.00
 Flange socket, metal 04321E00	Stainless steel	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/28.-06-1.00
				400 V AC	10 h	8591/28.-10-1.00
			7 P	24 V DC	8 h	8591/28.-08-1.00
	Brass, nickel-plated	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/28.-06-3.00
				400 V AC	10 h	8591/28.-10-3.00
			7 P	24 V DC	8 h	8591/28.-08-3.00
	Stainless steel with 3/4" NPT thread	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/28.-06-5.00
				400 V AC	10 h	8591/28.-10-5.00
			7 P	24 V DC	8 h	8591/28.-08-5.00
	Brass, nickel-plated with 3/4" NPT thread	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/28.-06-6.00
				400 V AC	10 h	8591/28.-10-6.00
			7 P	24 V DC	8 h	8591/28.-08-6.00

Order Number Supplement


Connection type	crimp respectively cable 1.5 mm ²	8591/..1-... ..
	crimp respectively cable 2.5 mm ²	8591/..2-... ..
Accessories	without locking device (standard)	8591/...-...-0..
	with locking device	8591/...-...-9..
Note	More information about the coding can be found in the table „Recommended Coding of Connections“. Please see the R. STAHL condensed catalogue for in stock items.	

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Selection Table

Design	Enclosure material	Connection type	Number of poles	Voltage	Coding	Order number
 <p>04320E00 Device plug, metal. Suitable also for Ex d applications without limited enclosure volume.</p>	Stainless steel	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/26.-06-1.00
			6 P + PE	400 V AC	10 h	8591/26.-10-1.00
			7 P	24 V DC	8 h	8591/26.-08-1.00
	Brass, nickel-plated	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/26.-06-3.00
			6 P + PE	400 V AC	10 h	8591/26.-10-3.00
			7 P	24 V DC	8 h	8591/26.-08-3.00
	Stainless steel with 3/4" NPT thread	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/26.-06-5.00
			6 P + PE	400 V AC	10 h	8591/26.-10-5.00
			7 P	24 V DC	8 h	8591/26.-08-5.00
	Brass, nickel-plated with 3/4" NPT thread	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/26.-06-6.00
			6 P + PE	400 V AC	10 h	8591/26.-10-6.00
			7 P	24 V DC	8 h	8591/26.-08-6.00

Order Number Supplement

Connection type	crimp respectively cable 1.5 mm ²	8591/. .1-
	crimp respectively cable 2.5 mm ²	8591/. .2-
Accessories	without locking device (standard)	8591/.0..
	with locking device	8591/.9..
Note	More information about the coding can be found in the table „Recommended Coding of Connections“. Please see the R. STAHL condensed catalogue for in stock items.	

Selection Table

Design	Enclosure material	Connection type	Number of poles	Voltage	Coding	Order number
 <p>04406E00 Device plug, plastic</p>	Plastic	Crimp 1.5 mm ² / 2.5 mm ²	6 P + PE	230 ... 250 V AC	6 h	8591/29.-06-0.00
				400 V AC	10 h	8591/29.-10-0.00
			7 P	24 V DC	8 h	8591/29.-08-0.00
 <p>04320E00 Device plug, metal. Suitable also for Ex d applications < 2 dm³.</p>	Stainless steel	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/29.-06-1.00
				400 V AC	10 h	8591/29.-10-1.00
			7 P	24 V DC	8 h	8591/29.-08-1.00
	Brass, nickel-plated	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/29.-06-3.00
				400 V AC	10 h	8591/29.-10-3.00
			7 P	24 V DC	8 h	8591/29.-08-3.00
	Stainless steel with 3/4" NPT thread	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/29.-06-5.00
				400 V AC	10 h	8591/29.-10-5.00
			7 P	24 V DC	8 h	8591/29.-08-5.00
	Brass, nickel-plated with 3/4" NPT thread	with cable 1.5 mm ² / 2.5 mm ² , cable length 30 cm	6 P + PE	230 ... 250 V AC	6 h	8591/29.-06-6.00
				400 V AC	10 h	8591/29.-10-6.00
			7 P	24 V DC	8 h	8591/29.-08-6.00

Order Number Supplement

Connection type	crimp respectively cable 1.5 mm ²	8591/. .1-
	crimp respectively cable 2.5 mm ²	8591/. .2-
Accessories	without locking device (standard)	8591/.0..
	with locking device	8591/.9..
Note	More information about the coding can be found in the table „Recommended Coding of Connections“. Please see the R. STAHL condensed catalogue for in stock items.	

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Explosion protection																																															
Global (IECEX)																																															
Gas and dust	IECEX BK1 07.0001X Ex de IIC T6 or Ex ia/ib IIC T6 Ex tD A21 IP66 T52°C																																														
Europe (ATEX)																																															
Gas	PTB 07 ATEX 1028 X ⊕ II 2 G Ex de IIC T6																																														
Certifications and certificates																																															
Certificates	IECEX, ATEX, Kazakhstan (GOST K), Serbia (SRPS), Belarus (operating authorisation)																																														
Technical data																																															
Electrical data																																															
Rated operational voltage	400 V AC ^{***}), 50 ... 60 Hz, or 250 V AC acc. to IECEx 60 V DC																																														
Rated operational current	max. 16 A AC ^{***} , or 10 A AC acc. to IECEx, 1 A DC, or 2.5 A DC acc. to IECEx																																														
Switching capacity	IEC/EN 60947 AC-1: 400 V / 16 A DC-1: 400 V / 1 A DC-3: 60 V / 0.5 A																																														
Back-up fuse without thermal protection with thermal protection	max. 16 A gG max. 20 A gG																																														
Ambient conditions																																															
Ambient temperature	- 20 ... + 40 °C Plastic version - 20 ... + 75 °C Plastic version I _{th} max. 1 A - 55 ... + 40 °C Metal version - 55 ... + 75 °C Metal version I _{th} max. 1 A																																														
Storage temperature	- 55 ... + 80 °C (in original packaging)																																														
Mechanical data																																															
Degree of protection	IP66 / IP68 (2 m water column, 1 hour) acc. to IEC/EN 60529 (with protective caps closed and secured as well as properly fitted and secured components)																																														
Enclosure material	Plug, coupler, device plug, flange socket Plastic (polyamide), nickel-plated brass or stainless steel AISI 316L Device plug < 2 dm ³ / > 2 dm ³ plug / coupler for armoured cables Nickel-plated brass or stainless steel AISI 316L																																														
Connection cross-section	Coupler / plug Crimp 1.5 mm ² *) 0.75 ... 1.5 mm ² Crimp 2.5 mm ² *) 1.5 ... 2.5 mm ² Flange socket / device plug Crimp 1.5 mm ² *) 0.75 ... 1.5 mm ² Crimp 2.5 mm ² *) 1.5 ... 2.5 mm ² Metal versions: Flange socket / device plug with cable (30 cm)**) 1.5 mm ² ; 2.5 mm ²																																														
Dimensions	Plastic version (LxD) Metal version (LxD) Plug ~ 105 x ø 37 mm ~ 105 x ø 36 mm Coupler ~ 111 x ø 36 mm ~ 111 x ø 36 mm Flange socket ~ 67+8 x ø 36 mm ~ 67+12.5 x ø 36 mm Device plug ~ 70+8 x ø 37 mm ~ 66+12.5 x ø 36 mm (enclosure volume < 2 dm ³) ~ 76+12.5 x ø 36 mm (enclosure volume > 2 dm ³)																																														
Mating cycles	under load: approx. 100 under mechanical load: approx. 500																																														
Tightening torque	<table border="1"> <thead> <tr> <th></th> <th>Plastic</th> <th>Metal (Ex e)</th> <th>Metall (Ex d)</th> </tr> </thead> <tbody> <tr> <td>Screw-in thread (M25)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Angled adaptor</td> <td>2.5 Nm</td> <td>2.5 Nm</td> <td>3.5 Nm</td> </tr> <tr> <td>Flange socket</td> <td>2.5 Nm</td> <td>2.5 Nm</td> <td>3.5 Nm</td> </tr> <tr> <td>Device plug</td> <td>2.5 Nm</td> <td>2.5 Nm</td> <td>3.5 Nm</td> </tr> <tr> <td>Cap nut</td> <td>2.5 Nm</td> <td>2.5 Nm</td> <td>2.5 Nm</td> </tr> <tr> <td>Protective cap</td> <td>2.5 Nm</td> <td>2.5 Nm</td> <td>2.5 Nm</td> </tr> <tr> <td>Pressure piece</td> <td>4.0 Nm</td> <td>4.0 Nm</td> <td>4.0 Nm</td> </tr> <tr> <td>Outer cap nut for armoured cables</td> <td>2.5 Nm</td> <td>2.5 Nm</td> <td>2.5 Nm</td> </tr> <tr> <td>Inner cap nut for armoured cables</td> <td>2.5 Nm</td> <td>2.5 Nm</td> <td>2.5 Nm</td> </tr> <tr> <td>Locking screw</td> <td>1.0 Nm</td> <td>--</td> <td>--</td> </tr> </tbody> </table>				Plastic	Metal (Ex e)	Metall (Ex d)	Screw-in thread (M25)				Angled adaptor	2.5 Nm	2.5 Nm	3.5 Nm	Flange socket	2.5 Nm	2.5 Nm	3.5 Nm	Device plug	2.5 Nm	2.5 Nm	3.5 Nm	Cap nut	2.5 Nm	2.5 Nm	2.5 Nm	Protective cap	2.5 Nm	2.5 Nm	2.5 Nm	Pressure piece	4.0 Nm	4.0 Nm	4.0 Nm	Outer cap nut for armoured cables	2.5 Nm	2.5 Nm	2.5 Nm	Inner cap nut for armoured cables	2.5 Nm	2.5 Nm	2.5 Nm	Locking screw	1.0 Nm	--	--
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Technical data

Weight		Plastic	Metal	Metal, for armoured cables
Coupler	8591/23.-.-.-.....	approx. 97g	approx. 205 g	approx. 420 g
Plug (without protective cap)	8591/27.-.-.-.....	approx. 92 g	approx. 244 g	approx. 420 g
Flange socket	8591/28.-.-.-.....	approx. 64 g	approx. 210 g	--
Device plug	8591/29.-.-.-.....	approx. 75 g	approx. 260 g	--
Device plug > 2 dm ³	8591/26.-.-.-.....	--	--	approx. 303 g
Angled adaptor	8591/210-00-000	approx. 40 g	approx. 191 g	--
Protective cap:				
for plug / device plug		approx. 10 g	approx. 44 g	
for coupler / flange socket		approx. 13 g	approx. 80 g	

Mounting / Installation

Cable entries			
Plug, coupler	8591/2.-.-.-.03 8591/2.-.-.-.04	Ø 7 ... 11 mm Ø 11 ... 15 mm	
Device plug, flange socket	M25 x 1.5 / 3/4" NPT		
Plug, coupler for armoured cables	M32 x 1.5		

*) crimp connection only with crimping tool, Order-No. 109116. Alternatively soldering: 0.34 ... 1.0 mm² (with heat-shrink tubing)

**) with cable: only possible for versions made of stainless steel or nickel-plated brass

***) connection and disconnection under load up to 250 V / 10 A permitted (acc. to IEC/EN 60079-0)

Recommended Coding of Connections





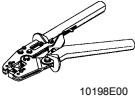



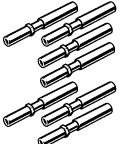
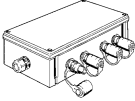
Rotate guide nose / guide downwards (6 h). All other codings are based on this position.

Voltage	No. of poles	Coding	Coupler / flange socket	Plug / device plug	Recommended colour coding
24 V AC 110 ... 130 V AC 230 ... 250 V AC	6 P + PE	6 h	 05035E00	 05113E00	red
24 V DC	7 P	8 h	 05045E00	 05121E00	grey
400 V AC	6 P + PE	10 h	 05052E00	 05123E00	blue

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Accessories and Spare Parts

Designation	Figure	Description	Art. no.
Angled adaptor	 10212E00	plastic (polyamide)	165670
	 10213E00	brass, nickel-plated	165671
Protective cap	 10211E00	for coupler, flange socket:	
		plastic (polyamide)	154569
	brass, nickel-plated	154577	
	 10210E00	for plug, device plug:	
plastic (polyamide)		154573	
brass, nickel-plated	154580		
Crimping tool	 10198E00	for all crimp connection versions up to 4 mm ²	109116
Anti-twist device	 10891E00	for flange socket and device plug	154587
Strain relief	 10892E00	∅ 7 ... 11 mm, with gasket / washer	154583
		∅ 7 ... 11 mm, with gasket / washer + PE connection	154585
		∅ 11 ... 15 mm, with gasket / washer	154584
		∅ 11 ... 15 mm, with gasket / washer + PE connection	154586
Plug pins	 05643E00	for plug:	
		7 x 0.5 mm ²	201445
		7 x 1.5 mm ²	154576
		7 x 1.5 mm ² (incl. leading PE pin)	154572
		7 x 2.5 mm ²	154582
7 x 2.5 mm ² (incl. leading PE pin)	154579		
Contact sockets	 05641E00	for coupler, flange socket:	
		7 x 0.5 mm ²	201442
		7 x 1.5 mm ²	154571
7 x 2.5 mm ²	154575		
Distribution box	 10261E00	With 1, 2, 4 or 6 outlets. Available in plastic or metal. Flange socket: Available in plastic or metal.	

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Dimensional Drawings (All Dimensions in mm) - Subject to Alterations

<p>8591/27-...-0. plug (plastic, metal)</p>	<p>8591/27-...-05 plug for armoured cables (metal)</p>	
<p>8591/23-...-0. coupler (plastic, metal)</p>	<p>8591/23-...-05 coupler for armoured cables (metal)</p>	<p>8591/28-...-000 flange socket (plastic)</p>
<p>8591/28-...-000 flange socket (metal)</p>	<p>8591/29-...-000 flange socket (plastic)</p>	<p>8591/29-...-000 device plug for Ex d enclosure with volume < 2 dm³ (metal)</p>
<p>8591/26-...-000 device plug for Ex d enclosure with volume > 2 dm³ (metal)</p>	<p>8591/210-00-0000 angled adaptor (plastic)</p>	<p>8591/210-00-000 angled adaptor (metal)</p>

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.