













Shell size 1				
No. of contacts	8 + PE	14 + PE	17 + PE	
Termination	crimp	crimp	crimp	
Wire gauge mm <sup>2</sup> / AWG	0,14 - 2,5 / 26 - 14	0,14 - 2,5 / 26 - 14	0,14 - 1,0 / 26 - 18	
Rated insulation voltage	400 V	100 V	100 V	
Current carrying cap.	12 A	11 x 6 A; 4 x 18 A	6 A	
Pollution degree	3	3	3	
Installation category	III	III	III	
Protection class	IP 65	IP 65	IP 65	
Shell size 2				
No. of contacts	5 + PE	12 + PE	14 + PE	19 + PE
Termination	screw	crimp	crimp	crimp
Wire gauge mm <sup>2</sup> / AWG	4 / 10	0,14 - 2,5 / 26 - 14	0,14 - 2,5 / 26 - 14	0,14 - 1,0 / 26 - 18
Rated insulation voltage	400 V	3 x 500 V; 9 x 300 V	400 V	250 V
Current carrying cap.	21 A	3 x 21 A; 9 x 11 A	4 x 6 A; 11 x 12 A	6 A
Pollution degree	3	3	3	3
Installation category	III	III	III	III
Protection class	IP 65	IP 65	IP 65	IP 65

## C 16-3

Product description  
Order information  
Approvals

Product description	Order information	
<p>The circular connector series C 16-3 has two housing sizes. The connectors are designed to meet the high requirements of industrial applications under harsh environmental conditions. The range includes versions with screw and crimp terminations. A selection of crimp contacts for hand crimp tools and crimp machines enables a reliable termination resulting in qualitative, technical and economical advantages. A broad selection of housing styles are available.</p> <p><b>Main features and advantages:</b></p> <ul style="list-style-type: none"> <li>• Circular connectors for power and signal applications with following contact arrangements: Shell size 1: 8 + PE, 14 + PE, 17 + PE Shell size 2: 5 + PE, 12 + PE, 14 + PE, 19 + PE</li> <li>• For applications in machine tools, measurement and control, process technology and medical equipment</li> <li>• Housing are made from high grade plastic material.</li> <li>• Vibration safe connection by solid bayonet coupling with lock in position.</li> <li>• Cable housing straight and right-angled with various cable outlets</li> <li>• Protection degree IP 65 per IEC 60529 in mated condition.</li> <li>• Internal strain relief with screw clamp or concentric strain relief provides a safe cable restrain.</li> </ul>	<p><b>Color coding</b> Upon request the coupling ring of the plugs and the housings of the receptacles can be delivered in the color red, green, blue, yellow and grey.</p> <p><b>Polarization</b> Depending on the contact arrangements the polarization of this connector series can be varied. The contact inserts can be mounted in alternate positions. The order number in the catalog refers always to position 1. The position of the contact inserts can also be changed by the customer using a disassembly tool (see page 26 and 29) to remove the insert and remount it in the required position (see page 19).</p> <p><b>Crimp version</b> Order numbers do not include crimp contacts. Please order separately (page 30/31). Crimp contacts for higher currents (up to 16A) are available upon request.</p> <p><b>Crimp tooling</b> Ask for our crimp tooling catalogs.</p>	
Testhouse	Approvals	Approval No.
VDE		3964
UL		E 63093
CSA		49932-9

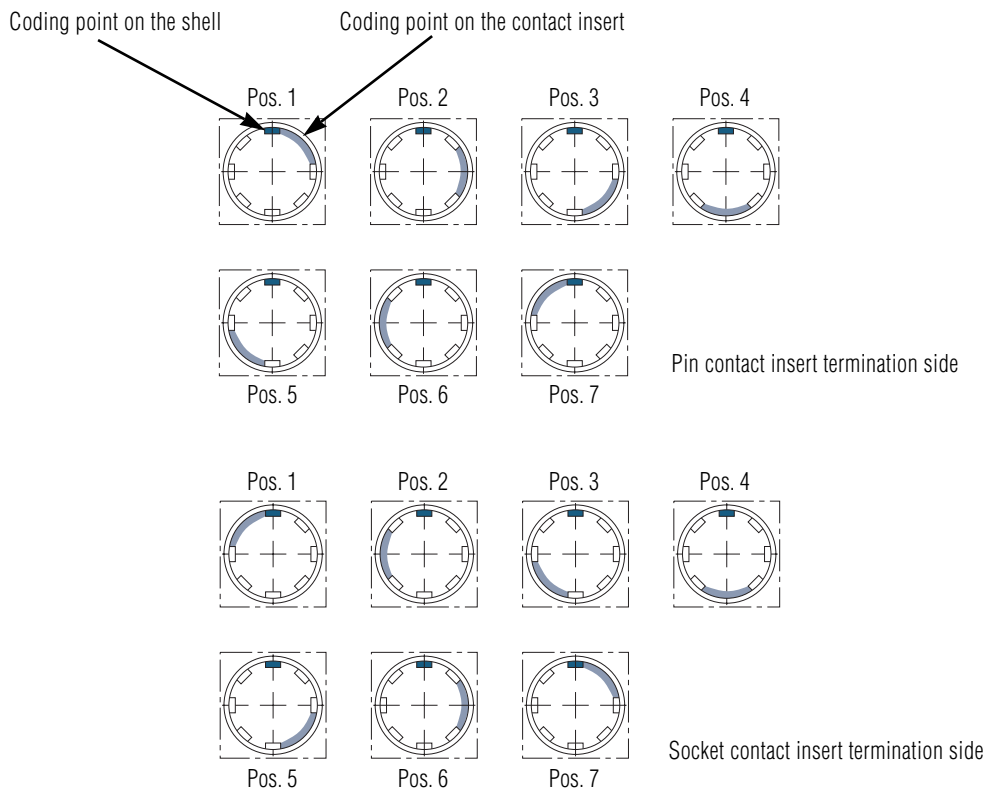
# C 16-3

## Coding system

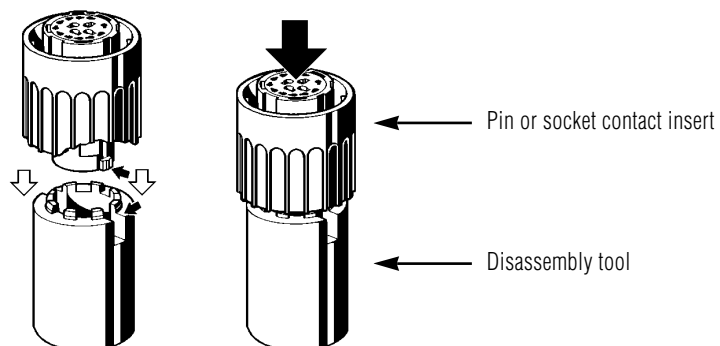
### Polarization

Depending on the contact arrangements the polarization of this connector series can be varied. Please take care of the housing and contact insert characteristics.

Shell size 1			Shell size 2		
No of contacts	No of coding possibil.	Position	No of contacts	No of coding possibil.	Position
8 + PE	4	1, 3, 5, 7	5 + PE	6	1, 2, 3, 4, 6, 7
14 + PE	7	1, 2, 3, 4, 5, 6, 7	14 + PE	7	1, 2, 3, 4, 5, 6, 7
17 + PE	6	1, 2, 3, 4, 5, 7	12 + PE	7	1, 2, 3, 4, 5, 6, 7
			19 + PE	6	1, 3, 4, 5, 6, 7



### Disassembly of contact inserts with disassembly tool (see page 26 und 29)



# C 16-3

## Characteristics

General Characteristics	Standard	Characteristics						
		Shell size 1			Shell size 2			
Number of contacts		8 + PE	14 + PE	17 + PE	5 + PE	12 + PE	14 + PE	19 + PE
<b>Electrical Characteristics</b>								
Rated insulation voltage	IEC 60664-1	400 V	100 V	100 V	400 V	3 x 500 V 9 x 300 V	400 V	250 V
Rated impulse withstand voltage	IEC 60664-1	6000 V	3000 V	3000 V	6000 V	3 x 6000 V 9 x 4000 V	3110 V	4000 V
Pollution degree	IEC 60664-1	3	3	3	3	3	3	3
Installation (overvoltage) category	IEC 60664-1	III	III	III	III	III	III	III
Material group	IEC 60664-1	II	II	II	II	II	II	II
Test voltage	IEC 60664-1	3110 V	1680 V	1680 V	2900 V	3 x 2900 V 9 x 1960 V	3110 V	1960 V
Current carrying capacity	IEC 60512-3, Test 5b	12 A	11 x 6 A 4 x 16 A	6 A	21 A	3 x 21 A 9 x 11 A	4 x 6 A 11 x 12 A	6 A
Insulation resistance	IEC 60512-2, Test 3a	≥ 10 <sup>8</sup> Ω						
Contact resistance	IEC 60512-2, Test 2a	≤ 5 mΩ						
<b>Climatical Characteristics</b>								
Climatic category	IEC 6068-1	40 / 125 / 56			40 / 100 / 56	40 / 125 / 56		
Operating temperature		-40°C ... +125°C (5+PE: +100°C) / -40°F ... +265°F (5+PE: +212°F)						
<b>Mechanical Characteristics</b>								
IP-degree of protection	IEC 60529	IP 65						
Insertion and withdrawal force	IEC 60512-7, Test 13b	≤ 25 N	≤ 30 N	≤ 22 N	≤ 15 N	≤ 25 N	≤ 30 N	≤ 25 N
Mechanical operation	IEC 60512-5, Test 9a	≥ 500 mating cycles						
<b>Materials</b>								
Housing material		Polyamid 6.6						
Dielectric material		Polyamid 6.6						
Gasket material		Neoprene						
Contact plating		silver plated / gold plated						
<b>Other Characteristics</b>								
Termination technique		crimp			screw	crimp		
Wire range mm <sup>2</sup> / AWG		0,14 - 1,5 / 26 - 16	0,14 - 2,5 / 26 - 14	0,14 - 1,0 / 26 - 18	4 / 10	0,14 - 2,5 / 26 - 14	0,14 - 2,5 / 26 - 14	0,14 - 1,0 / 26 - 18
Flammability		UL 94 V0						
Locking system		bayonet						



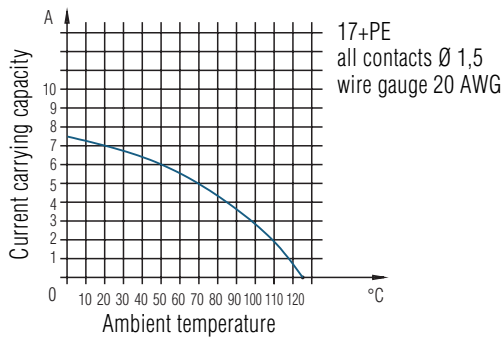
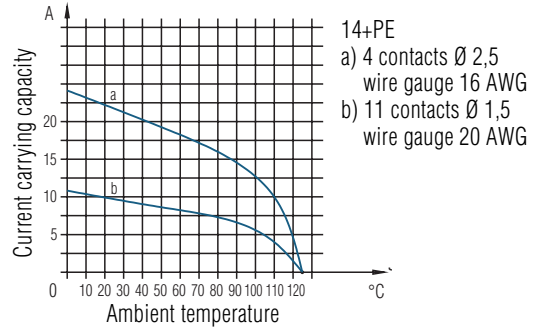
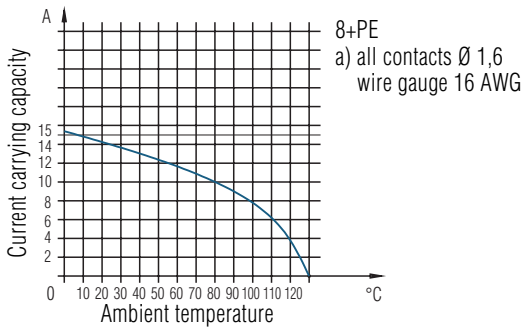
The stated technical values refer to the use as connector.

If these components are used as plug and socket device a reduced current carrying capacity has to be considered.

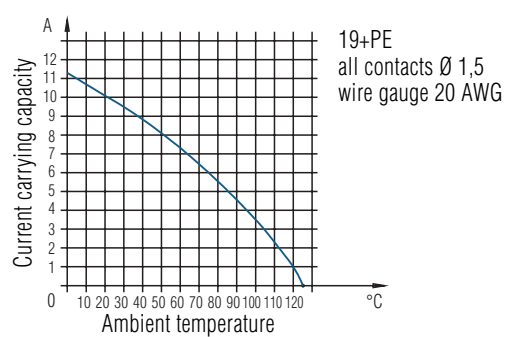
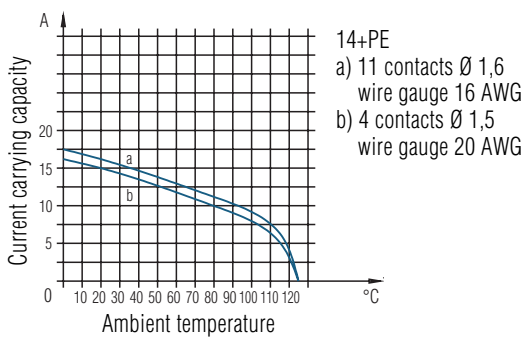
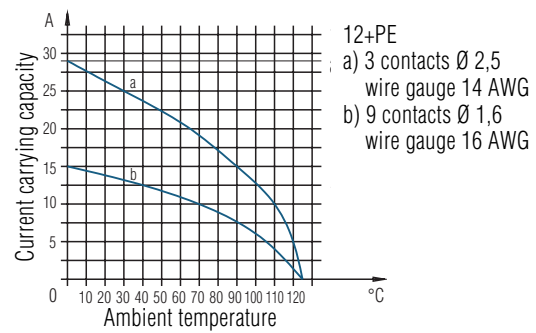
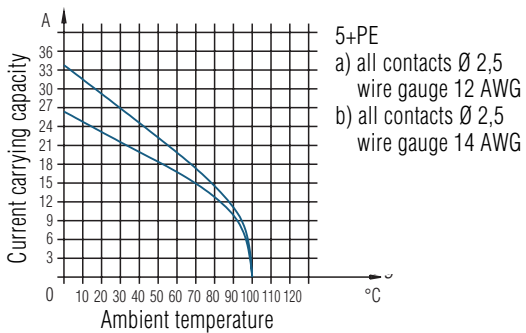
# C 16-3

## Derating curves

### Shell size 1










### Shell size 2



## C 16-3

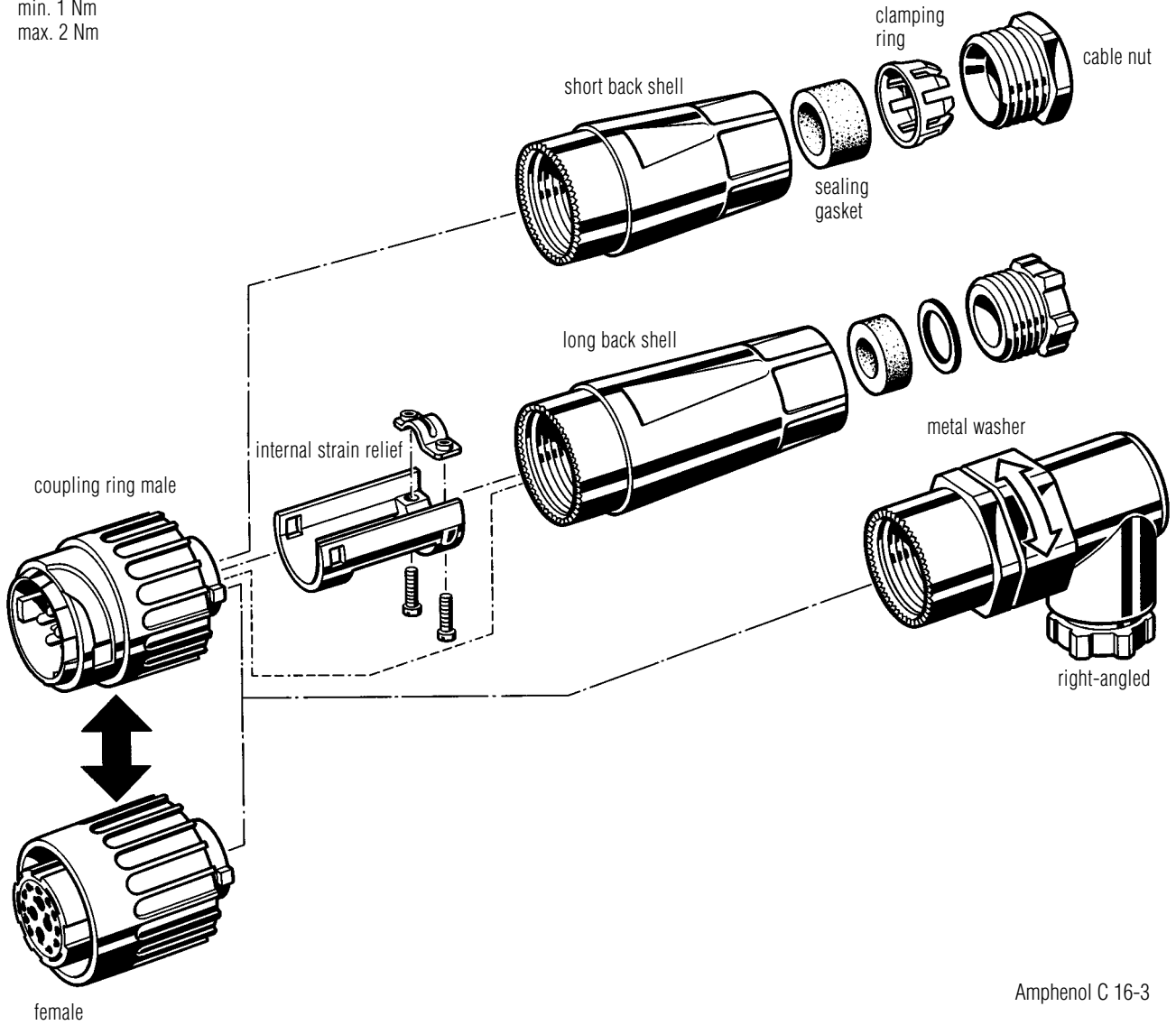
View of connector style,  
Shell size 1 and 2

Identification	Figure	Description	Conn. Style	Page	
				Size 1	Size 2
Male cable connector		Long version with internal strain relief	<b>I</b>	24	27
		Short version, with clamping ring	<b>H</b>	24	27
		Right-angled, with clamping ring	<b>K</b>	24	27
Female cable connector		Long version with internal strain relief	<b>E</b>	25	28
		Short version, with clamping ring	<b>D</b>	25	28
		Right-angled, with clamping ring	<b>F</b>	25	28
Female receptacle		Flange mounting, with mounted gasket	<b>G</b>	25	27
		Panel mounting with ring nut, with gasket	<b>N</b>	25	–
Male receptacle		Flange mounting, with mounted gasket	<b>C</b>	26	28

# C 16-3

## Mounting instruction

Torque  
min. 1 Nm  
max. 2 Nm



Amphenol C 16-3