

# Amphenol

Amphenol-Tuchel Electronics GmbH

## Circular Connector eco|mate<sup>m</sup> Series



*easier & quicker*

|mate by Amphenol

## Serie C16-1

A successful connector program now available in a new design with new technology.

3 + PE Screw termination

6 + PE Solder termination

6 + PE Crimp termination

### New design



### Improved technology



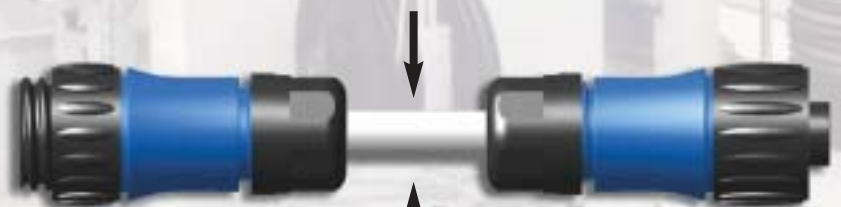
Male Cable Connector  
with Clamping Ring



Male Cable Connector  
right angled with  
Clamping Ring

### Easier and quicker assembly

- New screw connection with clamping ring
- Strain relief and seal in a single element
- Ergonomically shaped handle for a better grip and safer handling
- Possibility of fastening the protective cover to the housing
- **Less logistics.** One type of housing for all cable sizes (6 to 12,5 mm)



Ø 6- 12,5 mm

The new product design is fully compatible and interchangeable with the existing C16-1 product design.

## Serie C16-1

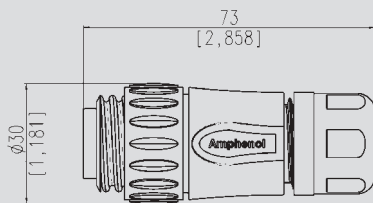


Male Cable Connector

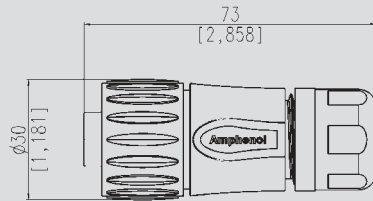


Female Cable Connector

### Male Cable Connector



### Female Cable Connector



Description	No. of Cont.	Part Number	
		Cable retention with clamping ring	Cable retention with additional Cable clamp
Screw Termination	3 + PE	C016 20H003 100 10	C016 20H003 110 10
Solder Termination	6 + PE	C016 30H006 100 10	C016 30H006 110 10
Crimp Termination	6 + PE	C016 10H006 000 10	C016 10H006 010 10

Screw Termination	3 + PE	C016 20D003 100 10	C016 20D003 110 10
Solder Termination	6 + PE	C016 30D006 100 10	C016 30D006 110 10
Crimp Termination	6 + PE	C016 10D006 000 10	C016 10D006 010 10

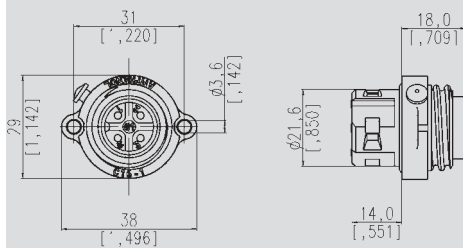


Male Receptacle

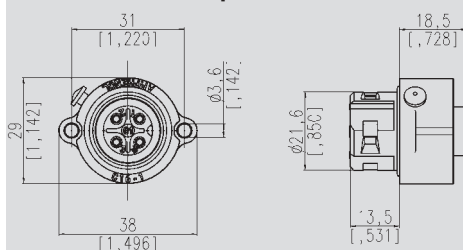


Female Receptacle

### Male Receptacle



### Female Receptacle



Description	No. of Cont.	Part Number
Screw Termination	3 + PE	C016 20C003 100 12
Solder Termination	6 + PE	C016 30C006 100 12
Crimp Termination	6 + PE	C016 10C006 000 12

Screw Termination	3 + PE	C016 20G003 100 12
Solder Termination	6 + PE	C016 30G006 100 12
Crimp Termination	6 + PE	C016 10G006 000 12

## Serie C16-1

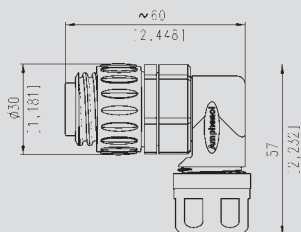


Male Cable Connector, right-angled

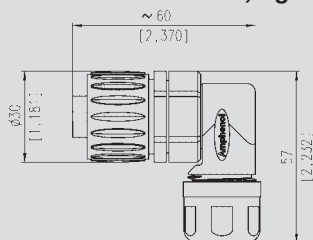


Female Cable Connector, right-angled

### Male Cable Connector, right-angled



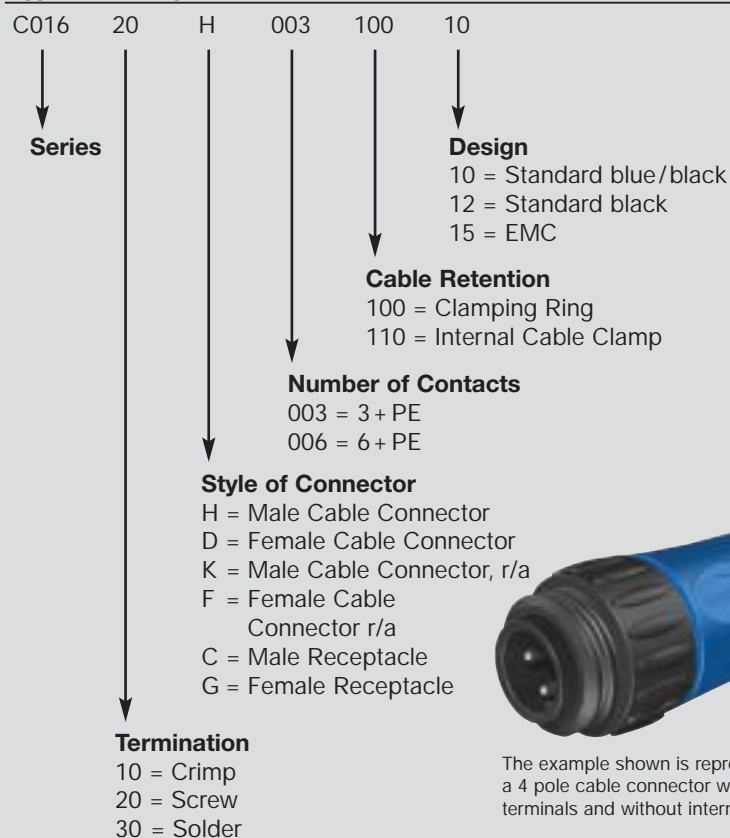
### Female Cable Connector, right-angled



Description	No. of Cont.	Part Number
Screw Termination	3 + PE	C016 20K003 100 10
Solder Termination	6 + PE	C016 30K006 100 10
Crimp Termination	6 + PE	C016 10K006 000 10



Screw Termination	3 + PE	C016 20F003 100 10
Solder Termination	6 + PE	C016 30F006 100 10
Crimp Termination	6 + PE	C016 10F006 000 10

### Typ Number System



The example shown is representative of a 4 pole cable connector with screw terminals and without internal strain relief.

## Serie C16-1

General Characteristics		Standard			Characteristics		
Number of contacts		3 + PE		6 + PE			
							
<b>Electrical Characteristics</b>		Screw		Solder	Crimp		
Rated insulation voltage	IEC 60664-1 <sup>1)</sup>	400 V		250 V	200 V		
Rated impulse withstand voltage	IEC 60664-1 <sup>1)</sup>	6000 V		4000 V			
Pollution degree	IEC 60664-1 <sup>1)</sup>	3		3			
Installation (overvoltage) category	IEC 60664-1 <sup>1)</sup>	III		III			
Material group	IEC 60664-1 <sup>1)</sup>	II		II			
Current carrying capacity	IEC 60512-5-2, Test 5b	16 A / + 55 °C		10 A / + 55 °C	13 A / + 55 °C		
Insulation resistance	IEC 60512-3-1	≥ 10 <sup>8</sup> Ω		≥ 10 <sup>8</sup> Ω			
Contact resistance	IEC 60512-2-1	≤ 5 m Ω		≤ 5 m Ω			
<b>Climatical Characteristics</b>							
Climatic category	DIN EN 60068-1	40 / 100 / 56		40 / 125 / 56			
Operating temperature		-40°C ... +100°C					
<b>Mechanical Characteristics</b>							
IP-degree of protection	DIN EN 60529	IP 65 / IP 67					
Insertion and withdrawal force	DIN EN 60512-13-2, Test 13b	≤ 15 N		≤ 30 N			
Mechanical operation	DIN EN 60512-9-1, Test 9a	≥ 500 Steckzyklen					
<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		screw	solder	crimp			
Wire gauge mm <sup>2</sup> / AWG		max. 2,5 mm <sup>2</sup>	0,75 mm <sup>2</sup>	0,14 - 1,5 mm <sup>2</sup>			
Flammability	UL 94	VO					
Locking system		round thread DIN 405					
Fire protection	DIN 5510 Part 2 DIN 53438 Part 1-3	S1					

<sup>1)</sup> IEC 60664-1 ≙ VDE 0110-1 ≙ DIN EN 60664-1



The stated technical values refer to the use as connector without breaking capacity (COC). If these components are used connectors with breaking capacity (CBC) a reduced current carrying capacity has to be considered.

### General information

We reserve the right to change the design due to improvement in quality, development or production requirements.

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## International

### Argentina

Amphenol Argentina  
Av. Callao 930  
2nd Floor Office B "Plaza"  
C1023 AAP Buenos Aires  
Phone +54 / 11 / 4815 6886  
Fax +54 / 11 / 4814 5779

### Australia

Amphenol Australia Ltd.  
2 Fiveways Blvd  
Keysborough  
Victoria 31 73  
Phone +61 / 3 / 8796 / 8888  
Fax +61 / 3 / 8796 / 8801

### Belgium

Amphenol-Tuchel Belgium  
Brusselbaan 524b  
B 1600 Sint-Pieters-Leeuw  
Phone +32 / 2377 / 25 49  
Fax +32 / 2377 / 5303

### Brasil

Amphenol do Brasil Ltda.  
Rua Diogo Moreira 132, 20th Floor  
CEP 05423-010 Sao Paulo SP  
Phone +55 / 11 / 3815.1003  
Fax +55 / 11 / 3815.1629

### China

Amphenol-Tuchel Electronics GmbH  
China Branch  
210-1 Taishan Road  
Changzhou 213022  
Phone +86 / 0519 / 5110301  
Fax +86 / 0519 / 5110299

### Germany

Amphenol-Tuchel Electronics GmbH  
August-Haeusser-Str. 10  
74980 Heilbronn  
Phone +49 / 71 31 / 929-0  
Fax +49 / 71 31 / 929-486

### Great Britain

Amphenol-Tuchel Great Britain  
39 Rowlands Castle Road  
Horndean  
Waterlooville, Hants P08 0DF  
Phone +44 / 23 92 / 57 17 91  
Fax +44 / 23 92 / 57 17 91

### Hong Kong

Amphenol East Asia Limited  
Units 2201-02, Railway Plaza  
39 Chatham Road South  
Tsimshatsui, Kowloon  
Phone +852 / 26 99 / 26 63  
Fax +852 / 26 88 / 09 74

### India

Amphetronix Limited  
Plot No.105 Bhosari Industrial Area  
Pune - 411 026  
Phone +91 / 20 / 27121418  
Fax +91 / 20 / 27120581

### Italy

Amphenol Italia S.p.A.  
Via Barbaiana n. 5  
I-20020 Lainate (MI)  
Phone +39 / 2 / 9325 41  
Fax +39 / 2 / 9325 4444

### Japan

Amphenol Japan, K.K.  
2-3-27, Kudan Minami  
Chiyoda-Ku  
Tokyo 102  
Phone +81 / 3 / 32 63 / 56 11  
Fax +81 / 3 / 52 76 / 70 59

### Korea

Amphenol DaeShin Limited  
#802 Joong-Dong 1131-5  
Wonmi-Ku  
Bucheon-City  
Kyunggi-Do  
Korea 420-020  
Phone +82 / 2 / 785 / 15 88  
Fax +82 / 2 / 589 / 15 14

### Mexico

Amphenol Mexico  
Prolongacion Reforma 61 - 6 B2  
Col. Paseo de las Lomas  
C.P. 01330 Mexico D.F.  
Phone +52 / 55 / 52 58.99 84  
Fax +52 / 55 / 50 81.68 90

### Sweden

Amphenol-Tuchel Scandinavia  
Skogsvägen 42  
SE 195 42 Märsta  
Phone +46 / 85 91 / 1 75 76  
Fax +46 / 85 91 / 1 75 76

### Singapur

Amphenol East Asia Limited  
Asia Pacific Sales Operation  
Singapore Branch  
300 Beach Road  
#25-07 The Concourse  
Singapore 199555  
Phone +27 / 11 / 305-95 74  
Fax +27 / 11 / 305-95 76

### South Africa

Amphenol International Ltd  
Chislehurst  
30 Impala Road  
Chislehurst  
Sandton, 2146  
Phone +27 / 11 / 7 83 95 17  
Fax +27 / 11 / 7 83 95 19

### Taiwan

Amphenol East Asia Ltd.  
Taiwan Branch (H.K.)  
116 Zhong Shan Road  
Lane 956 Taoyuan City  
Taiwan R.O.C. 330  
Phone +886 / 3 / 370 / 78 55  
Fax +886 / 3 / 360 72 59

### Turkey

Amphenol Turkiye  
Ayazaga Mah. Meydan Sk. No. 28  
Beybi Giz Plaza, Kat. 26  
34396 Maslak/Istanbul  
Phone +90 / 0212 / 3 35 25 01  
Fax +90 / 0212 / 3 35 25 00

### USA

Amphenol-Tuchel Electronics  
Representative Office  
6900 Haggerty Road  
Suite 200  
Canton, Michigan 48187  
Phone +1 / 734 / 451 6400  
Fax +1 / 734 / 451 71 97

Amphenol Corporation  
Corporate Headquarters  
358 Hall Avenue  
Wallingford, CT 06492  
Phone +1 / 203 / 2 65 / 8900  
Fax +1 / 203 / 2 65 / 86 28

Their responsible sales engineer:



# Amphenol

Amphenol-Tuchel Electronics GmbH

August-Haeusser-Str. 10 · D-74080 Heilbronn · Germany · Phone. +49 (0)7131/929-0 · Fax +49 (0)7131/929-486 · [www.amphenol.de](http://www.amphenol.de)

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