#### 1411964

https://www.phoenixcontact.com/us/products/1411964

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Contact carrier, Ethernet, 8-position, Socket, straight, M12, coding: X , PCB mounting, SMD reflow, Item is lead-free in accordance with RoHS II without Exemption 6c (Pb <0.1%)

### Your advantages

- · Reduced mounting costs thanks to two-piece device connector
- · Packaging available for automated pick and place assembly
- · All common pin assignments and codings available
- Easy device integration thanks to mechanical port screw connections with threaded attachment, press-in contour or direct integration in the front plate

### Commercial data

Item number	1411964
Packing unit	1 pc
Minimum order quantity	60 pc
Sales key	AB23
Product key	ABQBGG
GTIN	4046356991612
Weight per piece (including packing)	4.786 g
Weight per piece (excluding packing)	4.456 g
Customs tariff number	85366990
Country of origin	DE

1411964

https://www.phoenixcontact.com/us/products/1411964

### **DPHŒNIX** CONTACT

### Technical data

### Notes

General	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration.
Product properties	
Product type	Contact insert
Sensor type	Ethernet
Number of positions	8
Application	Data
Seal present	no
Shielded	yes
Coding	X
Thread type	M12
Insulation characteristics	
Overvoltage category	
Degree of pollution	3
Electrical properties	
Rated surge voltage	1.5 kV
Contact resistance	≤ 3 mΩ

Contact resistance	≤ 3 mΩ
Insulation resistance	> 100 MΩ
Nominal voltage U <sub>N</sub>	50 V AC
	60 V DC
Nominal current I <sub>N</sub>	0.5 A (Data)
Transmission characteristics (category)	CAT6 <sub>A</sub>

### Interfaces

Signal type/category	Ethernet
----------------------	----------

### Material specifications

Material	Zinc die-cast, nickel-plated
Flammability rating according to UL 94	V0
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA

### Connector

Connection 1



1411964

https://www.phoenixcontact.com/us/products/1411964

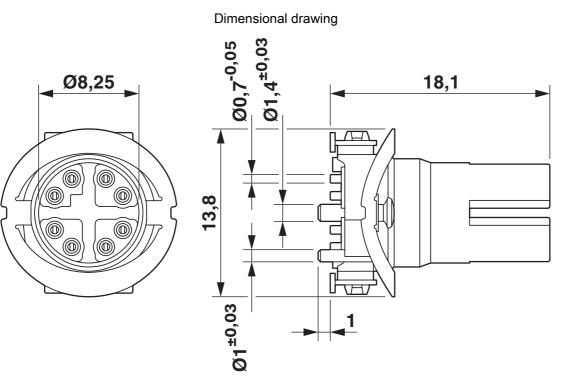
Head coole outlet         straight           Head thread type         M12           Coding         X           Cable/line           Ethermet           Bignal type/category           Ethermet           Mechanical properties           Mechanical data         -           Insertion/withdrawal cycles         > 100           Ethermet           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)           Degree of protection         -25 °C 105 °C (Plug / socket)           Ambient temperature (operation)         -25 °C 105 °C (Plug / socket)           Ambient temperature (operation)         -25 °C 105 °C (Plug / socket)           Standard segueditions         IEC 6 6 1076 -2 -109           Note         In line with           Mechanical actuation)           Standard designation           Mounting type         PCB mounting           Connection method         SMD reflow           Standard segnedifications <td< th=""><th>Head design</th><th>Socket</th></td<>	Head design	Socket
Coding         X           Coding         Signal type/category         Ethemet           Signal type/category         Ethemet           Mechanical properties         Mechanical data           Insertion/withdrawal cycles         > 100           Environmental and real-life conditions         Pagree of protection (when plugged in)         IP67 (correctly plugged in and locked)           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)         IP67 (correctly plugged in and locked)           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)         IP67 (correctly plugged in and locked)           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)         IP67 (correctly plugged in and locked)           Mution temperature (operation)         -25 °C … 105 °C (Without mechanical actuation)         -25 °C … 105 °C (Without mechanical actuation)           Standards and regulations         IEC 61076-2-109         IEC 61076-2-109         IEC 61076-2-109           Note         In line with         IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Head cable outlet	straight
Cable/line         Signal type/category       Ethernet         Mechanical properties         Mechanical data         Insertion/withdrawal cycles       > 100         Environmental and real-life conditions         Ambient conditions         Degree of protection (when plugged in)       IP67 (correctly plugged in and locked)         IP67 correctly plugged in and locked)       IP67 (correctly plugged in and locked)         Degree of protection (when plugged in)       IP67 (correctly plugged in and locked)         IP67 (when plugged in)       IP67 (correctly plugged in and locked)         IP67 (when plugged in)       IP67 (correctly plugged in and locked)         IP67 (when plugged in)       IP67 (correctly plugged in and locked)         IP67 (when plugged in)       -26 °C 105 °C (Plug / socket)         -55 °C 105 °C (without mechanical actuation)       -26 °C 105 °C (without mechanical actuation)         Standard designation       M12 connector         Standard designations       IEC 6 1076-2:109         Note       In line with         Mounting type       PCB mounting         Connection method       SMD reflow         Parting specifications       SMD reflow	Head thread type	M12
Signal type/category       Ethernet         Signal type/category       Ethernet         Mechanical properties       Mechanical data         Mechanical data       > 100         Environmental and real-life conditions       Signal type/category         Ambient conditions       IP67 (correctly plugged in and locked)         Degree of protection (when plugged in)       IP67 (correctly plugged in and locked)         Degree of protection (when plugged in)       IP67 (correctly plugged in and locked)         Pegree of protection (when plugged in)       IP67 (correctly plugged in and locked)         Mutient temperature (operation)       -25 °C 105 °C (Plug / socket)         Ambient temperature (operation)       -25 °C 105 °C (Plug / socket)         Ambient temperature (operation)       -25 °C 105 °C (Without mechanical actuation)         Standard designation       M12 connector         Standard designation       IEC 61076-2-109         Note       In line with         Mounting type       PCB mounting         Connection method       SMD reflow         Packaging specifications       SMD reflow	Coding	X
Mechanical properties           Mechanical data           Insertion/withdrawal cycles         > 100           Environmental and real-life conditions           Ambient conditions         P67 (correctly plugged in and locked)           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)           Degree of protection         IP67 (correctly plugged in and locked)           Muther temperature (operation)         -25 °C 105 °C (Plug / socket)           -55 °C 105 °C (without mechanical actuation)         -55 °C 105 °C (without mechanical actuation)           Standard designation           Muther         M12 connector           Standards/specifications         IEC 61076-2-109           Note         In line with           Mounting type           Connection method         SMD reflow           Standards/specifications           Mounting type         PCB mounting           Connection method         SMD reflow	Cable/line	
Mechanical data         Insertion/withdrawal cycles         > 100           Insertion/withdrawal cycles         > 100           Environmental and real-life conditions           Ambient conditions           Implicit conditions           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)           Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)           Ambient temperature (operation)         -25 °C 105 °C (Plug / socket)           Ambient temperature (operation)         -25 °C 105 °C (Without mechanical actuation)           Standards and regulations           Mult           Standard designation         M12 connector           Inter with           Oct method           Mult           Mult           Mult           Mult           Mult	Signal type/category	Ethernet
Insertion/withdrawal cycles       > 100         Environmental and real-life conditions         Ambient conditions         Degree of protection (when plugged in)       IP67 (correctly plugged in and locked)         Degree of protection       IP67 (correctly plugged in and locked)         Pegree of protection       IP67 (correctly plugged in and locked)         Ambient temperature (operation)       -25 °C 105 °C (Plug / socket)         -55 °C 105 °C (without mechanical actuation)    Standards and regulations          M12         Standard designation       M12 connector         Standard/s/specifications       IEC 61076-2-109         Note       In line with    Mounting type          Mounting type       PCB mounting         Connection method       SMD reflow	Mechanical properties	
Environmental and real-life conditions         Ambient conditions         Degree of protection (when plugged in)       IP67 (correctly plugged in and locked)         Degree of protection       IP67, when plugged in         Ambient temperature (operation)       -25 °C 105 °C (Plug / socket)         -25 °C 105 °C (Without mechanical actuation)         Standards and regulations         M12         Standard designation       M12 connector         Istandard designations       IEC 61076-2-109         Note       In line with         Mounting type       PCB mounting         Connection method       SMD reflow	Mechanical data	
Ambient conditions       IP67 (correctly plugged in and locked)         Degree of protection (when plugged in)       IP67 (correctly plugged in and locked)         Degree of protection       IP67 (correctly plugged in and locked)         IP67, when plugged in       IP67, when plugged in         Ambient temperature (operation)       -25 °C 105 °C (Plug / socket)         -55 °C 105 °C (without mechanical actuation)       -55 °C 105 °C (without mechanical actuation)	Insertion/withdrawal cycles	> 100
Degree of protection (when plugged in)         IP67 (correctly plugged in and locked)           Degree of protection         IP67, ownen plugged in and locked)           IP67, when plugged in         IP67, when plugged in           Ambient temperature (operation)         -25 °C 105 °C (Plug / socket)           -55 °C 105 °C (without mechanical actuation)         -55 °C 105 °C (without mechanical actuation)           Standards and regulations         M12           Standard designation         M12 connector           Standards/specifications         IEC 61076-2-109           Note         In line with           Mounting type         PCB mounting           Connection method         SMD reflow           Packaging specifications         SMD reflow		
Degree of protection         IP67 (correctly plugged in and locked)           IP67, when plugged in           Ambient temperature (operation)         -25 °C 105 °C (Plug / socket)           -55 °C 105 °C (without mechanical actuation)           Standards and regulations           M12           Standard designation         M12 connector           Standards/specifications         IEC 61076-2-109           Note         In line with           Tote         PCB mounting           Mounting type         PCB mounting           Connection method         SMD reflow		
IP67, when plugged in         Ambient temperature (operation)       -25 °C 105 °C (Plug / socket)         -55 °C 105 °C (without mechanical actuation)    Standards and regulations          M12         Standard designation       M12 connector         Standards/specifications       IEC 61076-2-109         Note       In line with             Mounting type       PCB mounting         Connection method       SMD reflow		
Ambient temperature (operation)       -25 °C 105 °C (Plug / socket)         -55 °C 105 °C (without mechanical actuation)    Standards and regulations          M12         Standard designation       M12 connector         Standards/specifications       IEC 61076-2-109         Note       In line with    Functional standards (Specifications)          Mounting type       PCB mounting         Connection method       SMD reflow	Degree of protection	
-55 °C 105 °C (without mechanical actuation)         Standards and regulations         M12         Standard designation       M12 connector         Standards/specifications       IEC 61076-2-109         Note       In line with         OCB mounting type         Mounting type       PCB mounting         Connection method       SMD reflow         Pre-kaging specifications         Type of packaging       Tray		
Standards and regulations         M12         Standard designation       M12 connector         Standards/specifications       IEC 61076-2-109         Note       In line with         Outling type       PCB mounting         Connection method       SMD reflow		
M12         Standard designation       M12 connector         Standards/specifications       IEC 61076-2-109         Note       In line with             Mounting type       PCB mounting         Connection method       SMD reflow		-55 C 105 C (without mechanical actuation)
Standard designationM12 connectorStandards/specificationsIEC 61076-2-109NoteIn line withMounting typeMounting typePCB mountingConnection methodSMD reflowPackaging specificationsType of packagingTray	Standards and regulations	
Standards/specificationsIEC 61076-2-109NoteIn line withMounting typePCB mountingConnection methodSMD reflowPerkaging specificationsType of packagingTray	M12	
Note     In line with       Mounting     PCB mounting       Mounting type     PCB mounting       Connection method     SMD reflow	Standard designation	M12 connector
Mounting       Mounting type       Connection method       PCB mounting       SMD reflow         Percentions         Type of packaging     Tray	Standards/specifications	IEC 61076-2-109
Mounting type     PCB mounting       Connection method     SMD reflow       Packaging specifications     Type of packaging	Note	In line with
Connection method     SMD reflow       Packaging specifications       Type of packaging     Tray	Mounting	
Packaging specifications       Type of packaging       Tray	Mounting type	PCB mounting
Type of packaging Tray	Connection method	SMD reflow
	Packaging specifications	
Delivery state with assembly pad	Type of packaging	Тгау
	Delivery state	with assembly pad



1411964

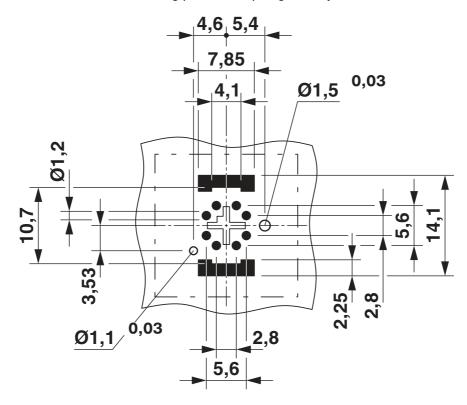
https://www.phoenixcontact.com/us/products/1411964

### Drawings



Dimensional drawing

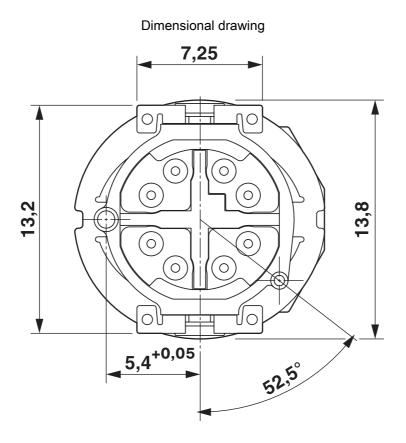
### Drilling plan/solder pad geometry



Soldering pad geometry



https://www.phoenixcontact.com/us/products/1411964



View of solder side

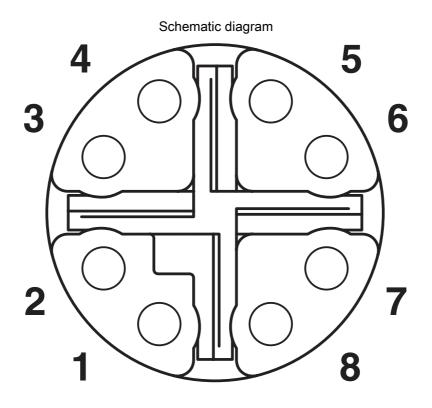
Dimensional drawing 22,5 23,5  $\bigcirc$  $\bigcirc$ <u>NHAMANAR</u>  $\bigcirc$ C C  $\bigcirc$  $\bigcirc$ O  $\bigcirc$ 

SMD tray packaging



1411964

https://www.phoenixcontact.com/us/products/1411964



Pin assignment M12 connector, 8-pos., view socket side



1411964

https://www.phoenixcontact.com/us/products/1411964

### Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1411964

.91	<b>cUL Recognized</b> Approval ID: E335024-2	20120308			
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		60 V	0.5 A	-	-
<b>7/</b>	UL Recognized Approval ID: E335024-2	0120308			
		New Sector Reveal	Naminal assumed t	Cross section AWG	Cross section mm <sup>2</sup>
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section min
		60 V	0.5 A	-	-

#### cULus Recognized



https://www.phoenixcontact.com/us/products/1411964



### Classifications

### ECLASS

ECLASS-11.0	27440110
ECLASS-12.0	27440110
ECLASS-13.0	27440110

### ETIM

	ETIM 8.0	EC003568
UN	ISPSC	
	UNSPSC 21.0	39121400



1411964

https://www.phoenixcontact.com/us/products/1411964

### Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values



1411964

https://www.phoenixcontact.com/us/products/1411964



### Accessories

SACC-CI-M12FSX-8P SMD SH-SP - Sample set

1418637 https://www.phoenixcontact.com/us/products/1418637



Sample set, Ethernet, 8-position, Socket, straight, M12, coding: X , PCB mounting, SMD, Item is lead-free in accordance with RoHS II without Exemption 6c (Pb <0.1%)

### SACC-BP-F-M12/M15-6-SMD - Housing screw connection

#### 1414021

https://www.phoenixcontact.com/us/products/1414021



Housing screw connection, Socket, M12, Rear mounting, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1239058

1411964

https://www.phoenixcontact.com/us/products/1411964

### SACC-BP-F-M12/M15-6-SMD SCO - Housing screw connection

#### 1414023

https://www.phoenixcontact.com/us/products/1414023



Housing screw connection, Socket, M12-SPEEDCON, Rear mounting, M15 x 1, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1239059

### SACC-FP-F-M12/M14 SMD - Housing screw connection

1412079 https://www.phoenixcontact.com/us/products/1412079



M12 female connector, front mounting SMD with M14 screw fastening

HŒR

1411964

https://www.phoenixcontact.com/us/products/1411964

### SACC-FP-F-M12/PRESS SMD - Housing screw connection

#### 1412081

https://www.phoenixcontact.com/us/products/1412081



Housing screw connection, Socket, M12, Front mounting, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1238973

### SACC-BP-F-M12/SMD-0,9/1,6-9TIP - Housing screw connection

1419569

https://www.phoenixcontact.com/us/products/1419569



Housing screw connection, M12, Rear mounting, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1239268

HŒR

1411964

https://www.phoenixcontact.com/us/products/1411964

### SACC-BP-F-M12/SMD-1,6/2,3-9TIP - Housing screw connection

#### 1419570

https://www.phoenixcontact.com/us/products/1419570

Housing screw connection, M12, Rear mounting



### SACC-BP-F-M12/SMD-2,3/3,0-9TIP - Housing screw connection

1419571 https://www.phoenixcontact.com/us/products/1419571



Housing screw connection, M12, Rear mounting, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1239270



#### 1411964

https://www.phoenixcontact.com/us/products/1411964

# 

### SACC-BP-F-FIX/NUT-BK-SMD - Fixing sleeve

#### 1419568

https://www.phoenixcontact.com/us/products/1419568



Fixing sleeve for M12 housing screw connection with tolerance-compensating function, for SMD-solderable M12 socket contact inserts.

### SACC-BP-F-FIX/NUT-CY-SMD - Fixing sleeve

1419565

https://www.phoenixcontact.com/us/products/1419565



Fixing sleeve for M12 housing screw connection with tolerance-compensating function, for SMD-solderable M12 socket contact inserts.

1411964

https://www.phoenixcontact.com/us/products/1411964

### **PHŒNIX** CONTACT

### SACC-BP-F-FIX/NUT-GN-SMD - Fixing sleeve

#### 1419566

https://www.phoenixcontact.com/us/products/1419566



Fixing sleeve for M12 housing screw connection with tolerance-compensating function, for SMD-solderable M12 socket contact inserts.

### SACC-BP-F-FIX/NUT-VT-SMD - Fixing sleeve

1419567 https://www.phoenixcontact.com/us/products/1419567



Fixing sleeve for M12 housing screw connection with tolerance-compensating function, for SMD-solderable M12 socket contact inserts.

Phoenix Contact 2023 © - all rights reserved https://www.phoenixcontact.com

Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com