

# FRONT-FMC 1,5/D28-FF-6,35-R - PCB connector



1714761

<https://www.phoenixcontact.com/us/products/1714761>

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.



PCB connector, nominal cross section: 1.5 mm<sup>2</sup>, color: light gray, nominal current: 6 A, rated voltage (III/2): 320 V, contact surface: Sn, contact connection type: Socket, number of potentials: 56, number of rows: 2, number of positions: 28, number of connections: 56, product range: FRONT-FMC 1,5/..-FF, pitch: 6.35 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, pin layout: Linear pinning, locking clip: - without locking clip, plug-in system: IEC 60603 Connectors - Type D, locking: Screw locking mechanism, mounting method: Screw flange, type of packaging: packed in cardboard

## Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Intuitive operation due to color-coded actuating push button
- Operation and conductor connection from one direction enable integration into front of device
- Screwable flange for superior mechanical stability

## Commercial data

Item number	1714761
Packing unit	20 pc
Minimum order quantity	500 pc
Note	Made to order (non-returnable)
Product key	AABFKA
GTIN	4055626387758
Weight per piece (including packing)	42.5 g
Weight per piece (excluding packing)	42.5 g
Country of origin	CN

# FRONT-FMC 1,5/D28-FF-6,35-R - PCB connector



1714761

<https://www.phoenixcontact.com/us/products/1714761>

## Technical data

### Product properties

Product type	PCB connector
Product family	FRONT-FMC 1,5/..-FF
Product line	COMBICON Connectors S
Number of positions	28
Pitch	6.35 mm
Number of connections	56
Number of rows	2
Number of potentials	56
Mounting type	Screw flange
Pin layout	Linear pinning

### Electrical properties

#### Properties

Nominal current $I_N$	6 A
Nominal voltage $U_N$	320 V
Contact resistance	1.7 mΩ
Rated voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV

### Connection data

#### Connection technology

Connector system	IEC 60603 Connectors - Type D
Nominal cross section	1.5 mm <sup>2</sup>
Contact connection type	Socket

#### Interlock

Locking type	Screw locking mechanism
Mounting type	Screw flange

#### Conductor connection

Connection method	Push-in spring connection
Conductor/PCB connection direction	0 °
Conductor cross-section rigid	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section flexible	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section AWG	20 ... 16
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	- / 1.8 mm

# FRONT-FMC 1,5/D28-FF-6,35-R - PCB connector



1714761

<https://www.phoenixcontact.com/us/products/1714761>

Stripping length	12 mm
------------------	-------

## Material specifications

### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 µm - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 µm - 8 µm Sn)

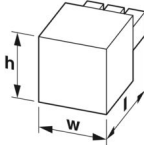
### Material data - housing

Color (Housing)	light gray (7035)
Insulating material	PA GF
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

### Material data – actuating element

Color (Actuating element)	orange (2003)
Insulating material	PA GF
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

## Dimensions

Dimensional drawing	
Pitch	6.35 mm
Width [w]	117.23 mm
Height [h]	31 mm
Length [l]	17.27 mm

## Mounting

Pin layout	Linear pinning
------------	----------------

## Notes

Notes on operation	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load.
--------------------	--

## Mechanical tests

# FRONT-FMC 1,5/D28-FF-6,35-R - PCB connector



1714761

<https://www.phoenixcontact.com/us/products/1714761>

## Conductor connection

Specification	IEC 60999-1:1999-11
Result	Test passed

## Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

## Repeated connection and disconnection

Specification	IEC 60999-1:1999-11
Result	Test passed

## Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross-section/conductor type/tractive force setpoint/actual value	0.5 mm <sup>2</sup> / solid / > 20 N
	0.5 mm <sup>2</sup> / flexible / > 20 N
	1.5 mm <sup>2</sup> / solid / > 40 N
	1.5 mm <sup>2</sup> / flexible / > 40 N

## Insertion and withdrawal forces

Specification	IEC 60512-13-2:2006-02
Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	3.5 N

## Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

## Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

## Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

## Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

## Environmental and real-life conditions

### Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R <sub>1</sub>	1.7 mΩ

# FRONT-FMC 1,5/D28-FF-6,35-R - PCB connector



1714761

<https://www.phoenixcontact.com/us/products/1714761>

Contact resistance $R_2$	1.8 m $\Omega$
Insertion/withdrawal cycles	50

## Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Thermal stress	105 °C/168 h
Power-frequency withstand voltage	2.21 kV

## Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Acceleration	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

## Shocks

Specification	IEC 60068-2-27:2008-02
Pulse shape	Semi-sinusoidal
Acceleration	5g
Shock duration	11 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

## Railway application: Shocks

Acceleration	5g
Shock duration	11 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

## Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the derating curve)

## Electrical tests

### Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	32

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	320 V

# FRONT-FMC 1,5/D28-FF-6,35-R - PCB connector



1714761

<https://www.phoenixcontact.com/us/products/1714761>

Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	4 mm
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 mm

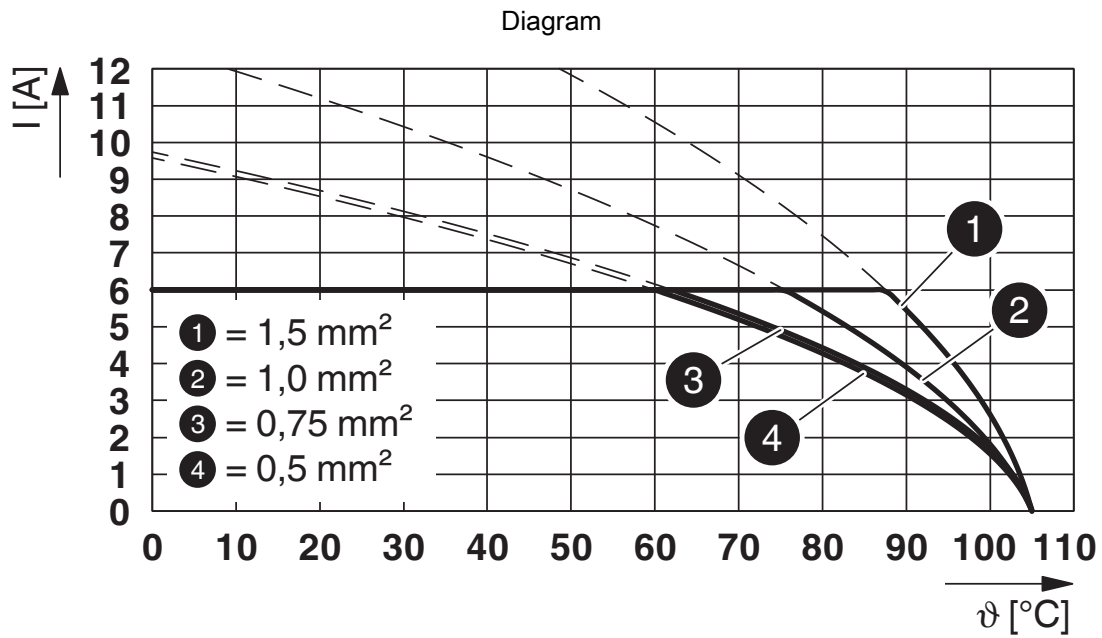
## Packaging specifications

Type of packaging	packed in cardboard
-------------------	---------------------

1714761

<https://www.phoenixcontact.com/us/products/1714761>

## Drawings



Type: FRONT-FMC 1,5/D...-FF-6,35-R with FRONT-FMC 1,5/D...-MF-6,35

# FRONT-FMC 1,5/D28-FF-6,35-R - PCB connector



1714761

<https://www.phoenixcontact.com/us/products/1714761>

## Classifications

### ECLASS

ECLASS-13.0	27460202
ECLASS-15.0	27460202

### ETIM

ETIM 10.0	EC002638
-----------	----------

### UNSPSC

UNSPSC 21.0	39121400
-------------	----------

# FRONT-FMC 1,5/D28-FF-6,35-R - PCB connector



1714761

<https://www.phoenixcontact.com/us/products/1714761>

## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - 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](mailto:info@phoenixcon.com)