

Feed-through header - HSCH 1,5-2U/12 9005 - 2202233

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



PCB headers, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², number of positions: 12, pitch: 3.45 mm, color: black, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.8 mm

Your advantages

- For front connection plugs with tool-free, time saving Push-in connection
- Suitable for reflow soldering processes
- All headers support variable coding



Key Commercial Data

Packing unit	1 pc
Minimum order quantity	50 pc
GTIN	 4 055626 023083
GTIN	4055626023083
Weight per Piece (excluding packing)	3.600 g
Custom tariff number	85366930
Country of origin	Poland

Technical data

Item properties

Brief article description	Feed-through header
Plug-in system	HSC 1,5
Type of contact	Male connector
Range of articles	HSCH 1,5/..-G
Pitch	3.45 mm
Number of positions	12

Feed-through header - HSCH 1,5-2U/12 9005 - 2202233

Technical data

Item properties

Mounting type	Wave soldering
Pin layout	Linear pinning
Number of levels	2
Number of connections	12
Number of potentials	12

Electrical parameters

Nominal current	8 A
Nom. voltage	160 V
Rated voltage	63 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV

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	Tin-plated
Metal surface terminal point (top layer)	Tin (2 - 4 µm Sn)
Metal surface terminal point (middle layer)	Nickel (1.3 - 3 µm Ni)
Metal surface contact area (top layer)	Tin (2 - 4 µm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 - 3 µm Ni),
Metal surface soldering area (top layer)	Tin (2 - 4 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 µm Ni)

Material data - housing

Housing color	black (9005)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

Dimensions for the product

Length [l]	16.05 mm
--------------	----------

Feed-through header - HSCH 1,5-2U/12 9005 - 2202233

Technical data

Dimensions for the product

Width [w]	21.9 mm
Height [h]	17.45 mm
Pitch	3.45 mm
Height (without solder pin)	13.6 mm
Solder pin [P]	3.8 mm
Pin spacing	5.30 mm

Dimensions for PCB design

Hole diameter	1.3 mm
Pin spacing	5.30 mm

Packaging information

Type of packaging	Box packaging
Pieces per package	50
Denomination packing units	Pcs.
Outer packaging type	Carton

General product information

Type of note	Assembly instruction:
Note	Refer to the data sheet for the range in the download area.

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 55 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the derating curve)

Termination and connection method

Conductor connection test	The stripped-off ends of the largest conductor can be completely inserted in the opening of the terminal point without using excessive force.
Test result	Test passed
Test – repeated connection and release	IEC 60999-1:1999-11
	Test passed
Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N
	1.5 mm ² / solid / > 40 N

Feed-through header - HSCH 1,5-2U/12 9005 - 2202233

Technical data

Pull-out test

	1.5 mm ² / flexible / > 40 N
--	---

Mechanical tests according to standard

Test specification	IEC 61984
Visual examination	Test passed IEC 60512-1-1:2002-02
Dimensional test	Test passed IEC 60512-1-2:2002-02
Resistance of marking	Test passed IEC 60068-2-70:1995-12
Result	Test passed
Specification	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	4 N
Polarization and coding	Test passed IEC 60512-13-5:2006-02
Result	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	20 N

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	1.5 mm
Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	1.6 mm
Minimum creepage distance value (III/2)	1.6 mm
Minimum creepage distance value (II/2)	1.6 mm

Current carrying capacity / derating curves

Specification	IEC 61984
---------------	-----------

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	5 N
Withdraw strength per pos. approx.	4 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	2.1 mΩ

Feed-through header - HSCH 1,5-2U/12 9005 - 2202233

Technical data

Durability tests (B)

Insertion/withdrawal cycles	25
Contact resistance R_2	2.2 m Ω
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV
Insulation resistance, neighboring positions	> 0,4 T Ω

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	6
Conductor cross section	1.5 mm ²

Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Standards and Regulations

Flammability rating according to UL 94	V0
Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	• WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
	• WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
	• The item is intended to be an unencapsulated plug for installation in a housing.
	• Operate the connector only when it is fully plugged in.

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
------------	---

Feed-through header - HSCH 1,5-2U/12 9005 - 2202233

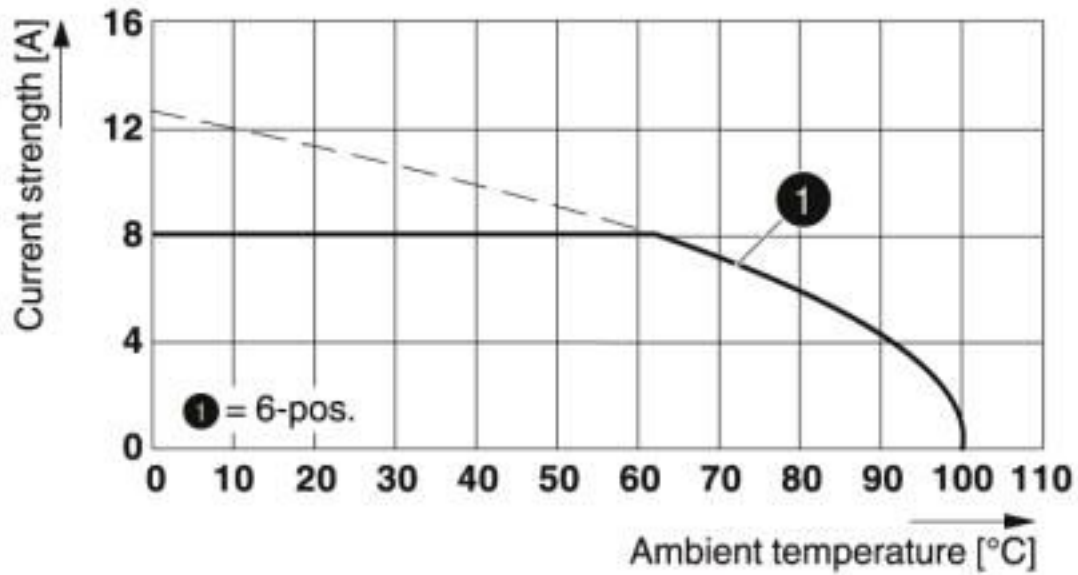
Technical data

Environmental Product Compliance

	No hazardous substances above threshold values
--	--

Drawings

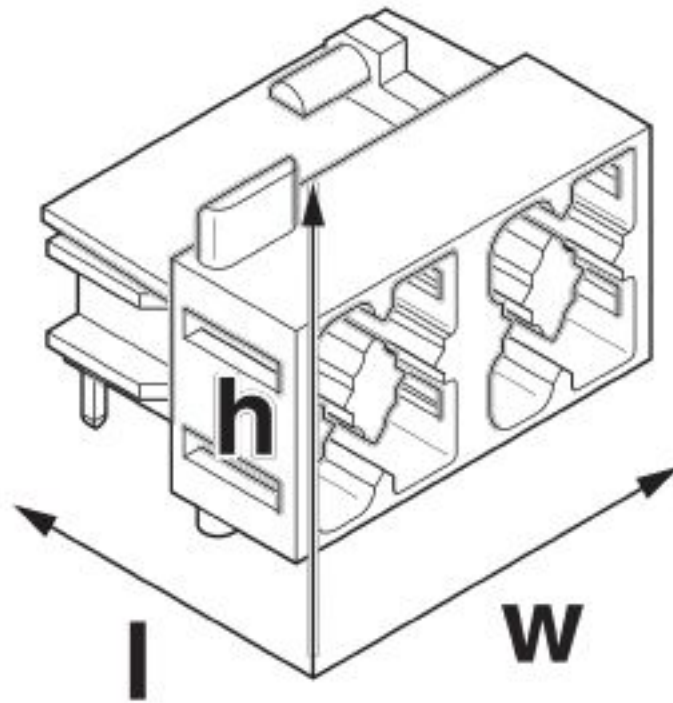
Diagram



Type: HSCP-SP 1,5-1U/ 6 7035 with HSCH 1,5-2U/12 9005

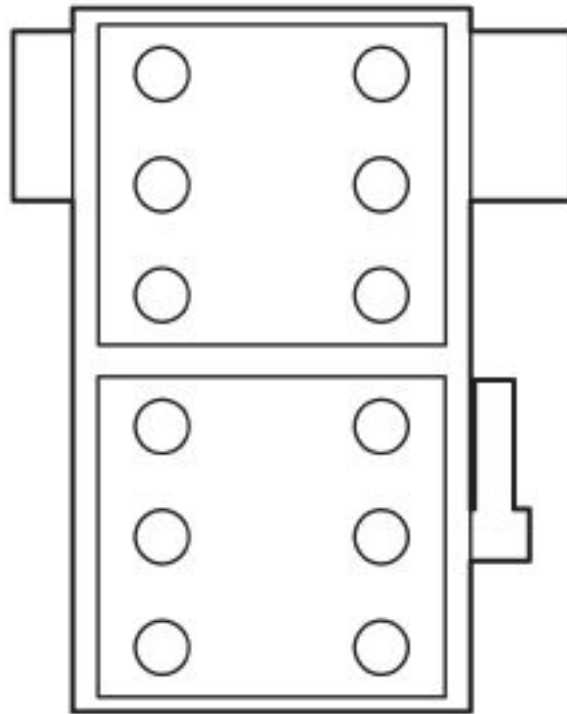
Feed-through header - HSCH 1,5-2U/12 9005 - 2202233

Dimensional drawing



Feed-through header - HSCH 1,5-2U/12 9005 - 2202233

Schematic diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700
eCl@ss 7.0	27440402
eCl@ss 8.0	27440402

Feed-through header - HSCH 1,5-2U/12 9005 - 2202233

Classifications

eCl@ss

eCl@ss 9.0	27440402
------------	----------

ETIM

ETIM 4.0	EC001031
ETIM 5.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

UNSPSC

UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals


Approvals

Approvals

IECEE CB Scheme / VDE Zeichengenehmigung / cULus Recognized / EAC

Ex Approvals

Approval details

IECEE CB Scheme		http://www.iecee.org/	DE1-58502
Nominal voltage UN	320 V		
Nominal current IN	8 A		

Feed-through header - HSCH 1,5-2U/12 9005 - 2202233

Approvals

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40045969
Nominal voltage UN	320 V		
Nominal current IN	8 A		

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20150613
		B	
Nominal voltage UN	150 V		
Nominal current IN	8 A		

EAC		B.01687	
-----	--	---------	--

Accessories

Accessories

Coding element

Coding profile - CP-DMC 1,5 NAT - 1790647



Coding profile, for insertion between the coding ribs of the connector and the header following the reflow soldering process, insulating material, color: natural

Necessary add-on products

Printed-circuit board connector - HSCP-SP 1,5-1U6-7035 - 2202234



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm², number of positions: 6, pitch: 3.45 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin, Color of the spring lever: orange

