

## Feed-through header - MCO 1,5/ 4-G1R-3,5 KMGY - 2278377

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PCB headers, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of positions: 4, pitch: 3.5 mm, color: light gray, contact surface: Tin, mounting: Soldering, pin layout: Linear pinning, solder pin [P]: 2.75 mm, Article with lateral pin exit

### Your advantages

- ✓ Headers for ME and ME MAX electronics housing
- ✓ Plug-in direction orthogonal to the PCB
- ✓ Pitch: 3.5 mm



### Key Commercial Data

Packing unit	50 pc
GTIN	
GTIN	4046356292986

### Technical data

#### Item properties

Brief article description	Feed-through header
Type of contact	Male connector
Range of articles	MCO 1,5/...-G1
Pitch	3.5 mm
Number of positions	4
Mounting type	Soldering
Pin layout	Linear pinning
Locking	without
Number of levels	1

#### Electrical parameters

Nominal current	8 A
Nom. voltage	300 V
Rated voltage	160 V

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## Technical data

### Electrical parameters

Rated voltage (III/2)	160 V
Rated voltage (II/2)	320 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 - housing

Housing color	light gray (7035)
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 ]	14.55 mm
Width [ w ]	14.95 mm
Height [ h ]	15.3 mm
Pitch	3.5 mm
Solder pin [P]	2.75 mm
Pin dimensions	0.8 x 0.8 mm

### Dimensions for PCB design

Hole diameter	1.2 mm
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### Packaging information

Pieces per package	50
Denomination packing units	Pcs.

### Termination and connection method

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	0.14 mm <sup>2</sup> / solid / > 10 N
	0.14 mm <sup>2</sup> / flexible / > 10 N
	1.5 mm <sup>2</sup> / solid / > 40 N
	1.5 mm <sup>2</sup> / flexible / > 40 N

### Mechanical tests according to standard

Test specification	IEC 61984
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### Mechanical tests according to standard

Visual inspection	IEC 60512-1-1:2002-02
Dimension check	IEC 60512-1-2:2002-02
Resistance of inscriptions	IEC 60068-2-70:1995-12
Insertion and withdrawal force	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	4 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	23 N

### Current carrying capacity / derating curves

Caption	Type: MC 1,5/...-ST-3,5 with MCO 1,5/...-G1L(R)-3,5 KMGY
Specification	IEC 61984:2008-10
Reduction factor	0.8
Note	Representation based on IEC 60512-5-2:2002-02
	For number of positions, see diagram

### Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	8 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 <sub>1</sub>	1.6 mΩ
Insertion/withdrawal cycles	25
Contact resistance R <sub>2</sub>	1.6 mΩ
Impulse withstand voltage at sea level	2.95 kV
Power-frequency withstand voltage	1.39 kV
Insulation resistance, neighboring positions	> 54 GΩ

### Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	5
Conductor cross section	1.5 mm <sup>2</sup>
Test current	8 A
Upper limiting temperature requirements <100 °C	Test passed

### Climatic tests (D)

Specification	ISO 6988:1985-02
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### Technical data

#### Climatic tests (D)

Cold stress	-40 °C/2 h
Thermal stress	105 °C/168 h
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /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	No contact safety (IP00) in acc. with IEC 60529:1989-11 + AMD 1:1999-11 + AMD 2:2013-08

#### Standards and Regulations

Connection in acc. with standard	CUL
Flammability rating according to UL 94	V0

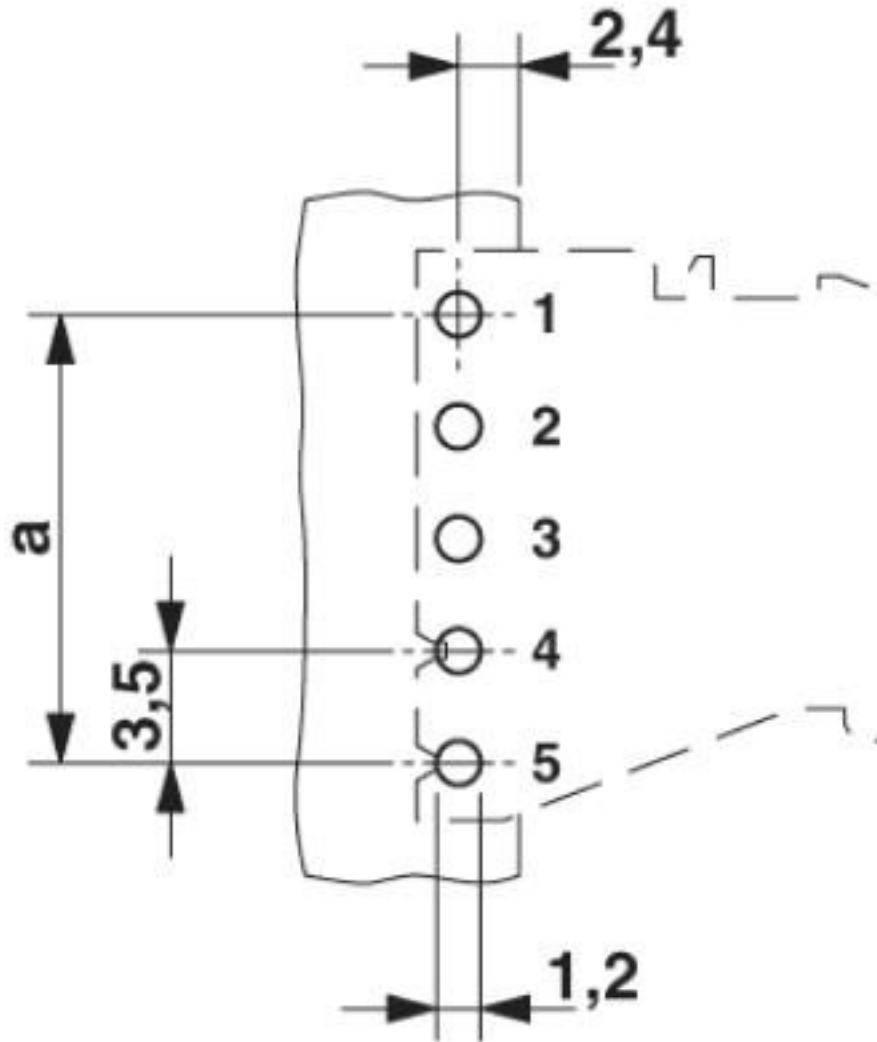
#### Environmental Product Compliance

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

### Drawings

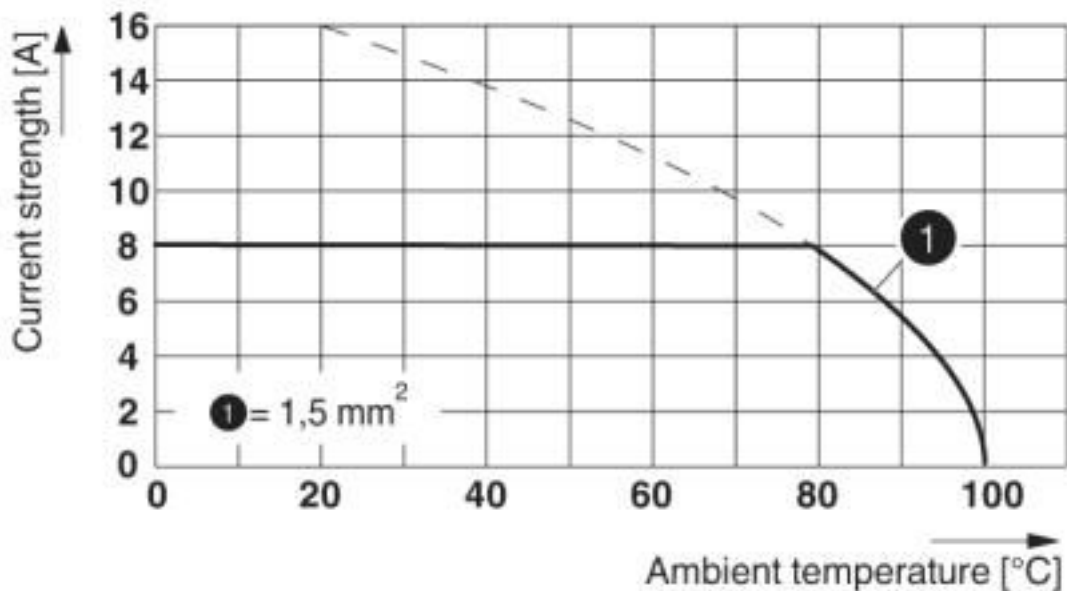
# Feed-through header - MCO 1,5/ 4-G1R-3,5 KMGY - 2278377

Drilling diagram



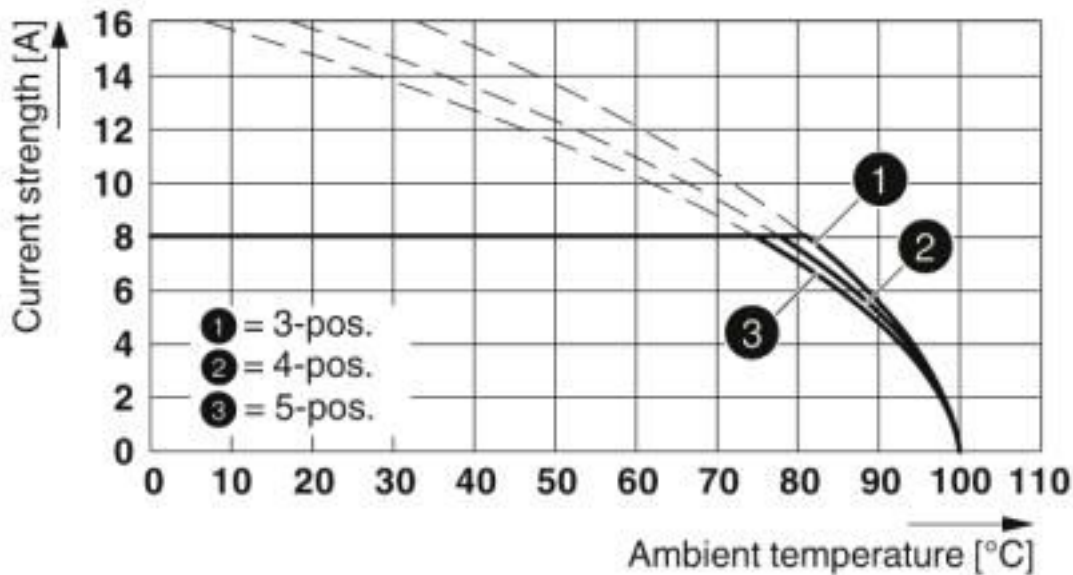
## Feed-through header - MCO 1,5/ 4-G1R-3,5 KMGY - 2278377

Diagram



Derating curve for: MC 1,5/...-ST-3,5 with MCO 1,5/...-G1L(R)-3,5 KMGY

Diagram



Type: FK-MCP 1,5/...-ST-3,5 with MCO 1,5/...-G1(L/R)-3,5 KMGY

### Classifications

eCl@ss

eCl@ss 10.0.1	27440402
eCl@ss 4.0	27260700

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## Classifications

### eCl@ss

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
eCl@ss 9.0	27440402

### ETIM

ETIM 2.0	EC001031
ETIM 3.0	EC001031
ETIM 4.0	EC002637
ETIM 5.0	EC002637
ETIM 6.0	EC002637
ETIM 7.0	EC002637

### UNSPSC

UNSPSC 6.01	31261501
UNSPSC 7.0901	31261501
UNSPSC 11	31261501
UNSPSC 12.01	31261501
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

## Approvals

### Approvals

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Approvals

EAC / cULus Recognized

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Ex Approvals

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### Approval details

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## Approvals

EAC		B.01687
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cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-20050718
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	8 A	8 A	

## Accessories

### Accessories

#### Coding element

Coding profile - CP-MSTB - 1734634



Coding profile, is inserted into the slot on the plug or inverted header, red insulating material

## Necessary add-on products

Printed-circuit board connector - MC 1,5/ 4-ST-3,5 GY7035 - 1769074



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of positions: 4, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, color: light gray, contact surface: Tin

Printed-circuit board connector - FMC 1,5/ 4-ST-3,5 GY7035 - 1773578



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of positions: 4, pitch: 3.5 mm, connection method: Push-in spring connection, color: light gray, contact surface: Tin



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### Accessories

Printed-circuit board connector - FK-MCP 1,5/ 4-ST-3,5 GY7035 - 1773594



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### Additional products

Printed-circuit board connector - MC 1,5/ 4-ST-3,5 GY7035 - 1769074



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of positions: 4, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, color: light gray, contact surface: Tin

Printed-circuit board connector - TFMC 1,5/ 4-ST-3,5 - 1772634



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of positions: 4, pitch: 3.5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin

Printed-circuit board connector - MC 1,5/ 4-ST-3,5 - 1840382



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of positions: 4, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Printed-circuit board connector - MCVW 1,5/ 4-ST-3,5 - 1862878



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of positions: 4, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

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### Accessories

Printed-circuit board connector - MCVR 1,5/ 4-ST-3,5 - 1863178



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of positions: 4, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin

Printed-circuit board connector - FK-MCP 1,5/ 4-ST-3,5 - 1939934



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of positions: 4, pitch: 3.5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin

Printed-circuit board connector - FMC 1,5/ 4-ST-3,5 - 1952283



PCB connector, nominal current: 8 A, rated voltage (III/2): 160 V, nominal cross section: 1.5 mm<sup>2</sup>, number of positions: 4, pitch: 3.5 mm, connection method: Push-in spring connection, color: green, contact surface: Tin

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