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

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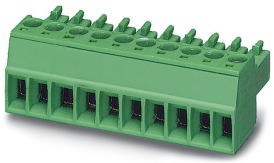

The figure shows a 10-position version of the product

PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MC 1,5/..-ST, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors

Key Commercial Data

Packing unit	1 pc
GTIN	4 017918 052102
GTIN	4017918052102
Weight per Piece (excluding packing)	3.010 g
Custom tariff number	85366990
Country of origin	United States

Technical data

Item properties

Brief article description	PCB connector
Plug-in system	MINI COMBICON
Type of contact	Female connector
Range of articles	MC 1,5/..-ST
Pitch	3.5 mm

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Technical data

Item properties

Number of positions	4
Drive form screw head	Slotted (L)
Screw thread	M2
Locking	without
Number of levels	1
Number of connections	4
Number of potentials	4
Side guide rails	yes

Electrical parameters

Nominal current	8 A
Nom. voltage	160 V
Rated voltage (III/3)	160 V
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

Connection capacity

Connection method	Screw connection with tension sleeve
pluggable	Yes
Conductor cross section solid	0.14 mm² ... 1.5 mm²
Conductor cross section flexible	0.14 mm² ... 1.5 mm²
Conductor cross section AWG / kcmil	28 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 0.5 mm²
2 conductors with same cross section, solid	0.08 mm² ... 0.5 mm²
2 conductors with same cross section, flexible	0.08 mm² ... 0.75 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² ... 0.34 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 0.5 mm²
Cylindrical gauge a x b / diameter	2.4 mm x 1.5 mm / 1.6 mm
Stripping length	7 mm
Torque	0.22 Nm ... 0.25 Nm

Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201

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Technical data

Material data - contact

Contact material	Cu alloy
Surface characteristics	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

Material data - housing

Housing color	green (6021)
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

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [l]	16.1 mm
Width [w]	14 mm
Height [h]	11.1 mm
Pitch	3.5 mm
Height (without solder pin)	11.1 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	250
Denomination packing units	Pcs.

Ambient conditions

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

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
Conductor cross section / conductor type / tensile force	0.14 mm² / solid / > 10 N

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Technical data

Pull-out test

	0.14 mm² / flexible / > 10 N
	1.5 mm² / solid / > 40 N
	1.5 mm² / flexible / > 40 N

Mechanical tests according to standard

Test specification	IEC 61984
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.	6 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.	24.5 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)	2 mm
Minimum creepage distance value (III/2)	1.5 mm
Minimum creepage distance value (II/2)	1.6 mm

Current carrying capacity / derating curves

Caption	Type: MC 1,5/...-ST-3,5 with MC 1,5/...-G-3,5

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	6 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	1.3 mΩ

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Technical data

Durability tests (B)

Insertion/withdrawal cycles	25
Contact resistance R_2	1.4 mΩ
Impulse withstand voltage at sea level	2.95 kV

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	20
Upper limiting temperature requirements <100 °C	Test passed

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)

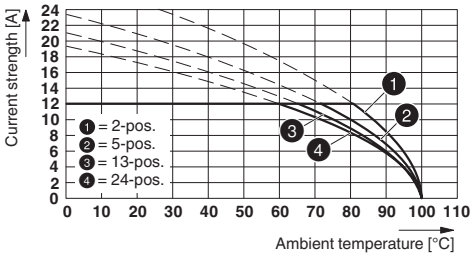
Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

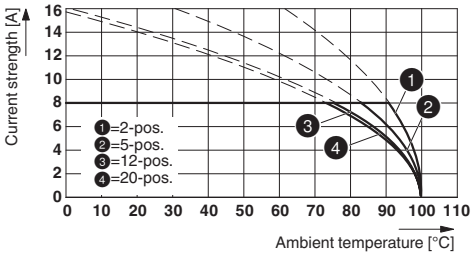
Drawings

Diagram



Type: MC 1,5/...-ST(F)-3,5 with MC 1,5/...-G(F)-3,5 P... THR

Diagram



Type: MC 1,5/...-ST-3,5 with MCV 1,5/...-G-3,5

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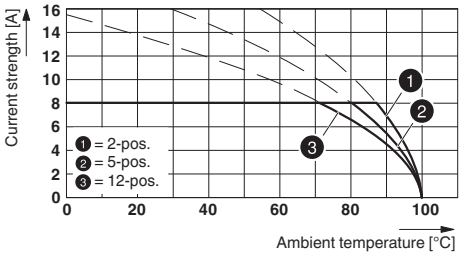
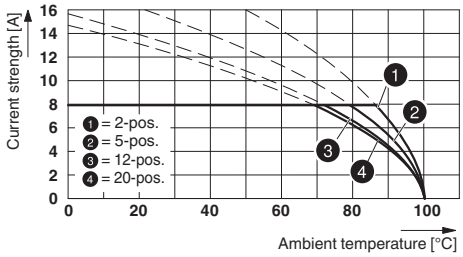
Diagram



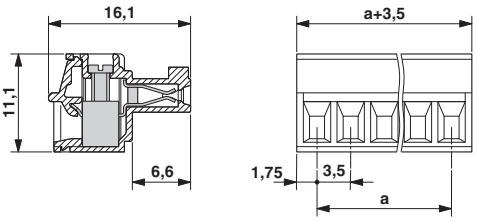
Type: MC 1,5/...-ST(F)-3,5 with MCV 1,5/...-G(F)-3,5 P... THR

Diagram



Type: MC 1,5/...-ST-3,5 with MC 1,5/...-G-3,5

Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27440309
eCl@ss 11.0	27460202
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	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002638
ETIM 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

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Classifications

UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals

Approvals

Approvals

CSA / IECEE CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / cULus Recognized

Ex Approvals

Approval details

CSA http://www.csagroup.org/services-industries/product-listing/ 13631

	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	8 A	8 A
mm²/AWG/kcmil	28-16	28-16

IECEE CB Scheme http://www.iecee.org/ DE1-60987-B1B2

Nominal voltage UN	160 V
Nominal current IN	8 A
mm²/AWG/kcmil	0.2-1.5

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Approvals

VDE Gutachten mit Fertigungsüberwachung	VDE	http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40011723

Nominal voltage UN	160 V
Nominal current IN	8 A
mm²/AWG/kcmil	0.2-1.5

EAC	EAC	B.01687

cULus Recognized	cULus	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20110128

	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	8 A	8 A
mm²/AWG/kcmil	30-14	30-14

Accessories

Accessories

Labeled terminal marker

Marker card - SK 3,5/2,8:FORTL.ZAHLEN - 0804073

Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 99, mounting type: adhesive, for terminal block width: 3.5 mm, lettering field size: 3.5 x 2.8 mm

Screwdriver tools

Screwdriver - SZS 0,4X2,5 VDE - 1205037

Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

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Accessories

Additional products

Printed-circuit board connector - MCV 1,5/ 4-G-3,5 P20 THRR32 - 1780927

PCB header, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MCV 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: 32 mm wide tape, User information and design recommendations for through hole reflow technology can be found under: Downloads

Printed-circuit board connector - MC 1,5/ 4-G-3,5 P26 THR - 1788547

PCB header, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MC 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard

Printed-circuit board connector - MC 1,5/ 4-G-3,5 P26 THRR32 - 1788550

PCB header, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MC 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: 32 mm wide tape

Printed-circuit board connector - MC 1,5/ 4-G-3,5 P20 THRR32 - 1788770

PCB header, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MC 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: 32 mm wide tape, User information and design recommendations for through hole reflow technology can be found under: Downloads

Printed-circuit board connector - MC 1,5/ 4-G-3,5 P14 THR - 1788987

PCB header, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MC 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 1.4 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard

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Accessories

Printed-circuit board connector - MC 1,5/ 4-G-3,5 P14 THRR32 - 1788990

PCB header, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MC 1,5/..-G-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 1.4 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: 32 mm wide tape, User information and design recommendations for through hole reflow technology can be found under: Downloads

Printed-circuit board connector - MCV 1,5/ 4-G-3,5 - 1843622

PCB header, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MCV 1,5/..-G, pitch: 3.5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.4 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard

Feed-through header - MC 1,5/ 4-G-3,5 - 1844236

PCB header, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MC 1,5/..-G, pitch: 3.5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.4 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard

Feed-through header - EMC 1,5/ 4-G-3,5 - 1897115

PCB header, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: EMC 1,5/..-G, pitch: 3.5 mm, mounting: Press-in technology, pin layout: Linear pinning, solder pin [P]: 3.5 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard

Feed-through header - EMCV 1,5/ 4-G-3,5 - 1911033

PCB header, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: EMCV 1,5/..-G, pitch: 3.5 mm, mounting: Press-in technology, pin layout: Linear pinning, solder pin [P]: 3.8 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard

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

Accessories

Feed-through header - MC 1,5/ 4-G-3,5 THT - 1937512

PCB headers, color: black, contact surface: Tin, Number of positions per row: 4, product range: MC 1,5/..-G-THT, pitch: 3.5 mm, pin layout: Linear pinning, solder pin [P]: 3.4 mm, type of packaging: packed in cardboard, User information and design recommendations for through hole reflow technology can be found under: Downloads

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Feed-through header - MCV 1,5/ 4-G-3,5 THT - 1937622

PCB headers, color: black, contact surface: Tin, Number of positions per row: 4, product range: MCV 1,5/..-G-THT, pitch: 3.5 mm, pin layout: Linear pinning, User information and design recommendations for through hole reflow technology can be found under: Downloads

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Printed-circuit board connector - MCDNV 1,5/ 4-G1-3,5 P26THR - 1952801

PCB header, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 8, Number of rows: 2, Number of positions per row: 4, number of connections: 8, product range: MCDNV 1,5/..-G1-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard, The pin length is 26 mm. User information and design recommendations on Through Hole Reflow Technology can be found at: http: "Downloads".

Printed-circuit board connector - MCDNV 1,5/ 4-G1-3,5 P14THR - 1952995

PCB header, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 8, Number of rows: 2, Number of positions per row: 4, number of connections: 8, product range: MCDNV 1,5/..-G1-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 1.4 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard, The pin length is 1.4 mm. User information and design recommendations on Through Hole Reflow Technology can be found at: Downloads".

Feed-through header - MCDN 1,5/ 4-G1-3,5 P26THR - 1953732

PCB header, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 8, Number of rows: 2, Number of positions per row: 4, number of connections: 8, product range: MCDN 1,5/..-G1-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 2.6 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard, The pin length is 2.6 mm. User information and design recommendations on Through Hole Reflow Technology can be found at: "Downloads"

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Accessories

Feed-through header - MCDN 1,5/ 4-G1-3,5 P14THR - 1953936

PCB header, nominal cross section: 1.5 mm², color: black, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 8, Number of rows: 2, Number of positions per row: 4, number of connections: 8, product range: MCDN 1,5/..-G1-THR, pitch: 3.5 mm, mounting: THR soldering, pin layout: Linear pinning, solder pin [P]: 1.4 mm, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard, The pin length is 1.4 mm. User information and design recommendations on Through Hole Reflow Technology can be found at: Downloads".

Feed-through header - MC 1,5/ 4-G-3,5 THT-R32 - 1996702

PCB headers, color: black, contact surface: Tin, Number of positions per row: 4, product range: MC 1,5/..-G-THT, pitch: 3.5 mm, pin layout: Linear pinning, solder pin [P]: 3.4 mm, User information and design recommendations for through hole reflow technology can be found under: Downloads

Feed-through header - MCV 1,5/ 4-GF-3,5 THT-R56 - 1996812

PCB headers, color: black, contact surface: Tin, Number of positions per row: 4, product range: MCV 1,5/..-GF-THT, pitch: 3.5 mm, pin layout: Linear pinning, User information and design recommendations for through hole reflow technology can be found under: Downloads

Feed-through header - MCO 1,5/ 4-G1L-3,5 KMGY - 2278364

PCB header, nominal cross section: 1.5 mm², color: light gray, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MCO 1,5/..-G1L, pitch: 3.5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 2.75 mm, Locking: without, type of packaging: packed in cardboard, Product with pin output on left side

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

PCB header, nominal cross section: 1.5 mm², color: light gray, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Male connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MCO 1,5/..-G1R, pitch: 3.5 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 2.75 mm, Locking: without, Product with pin output on right side