

Data sheet | Item number: 231-144/040-000

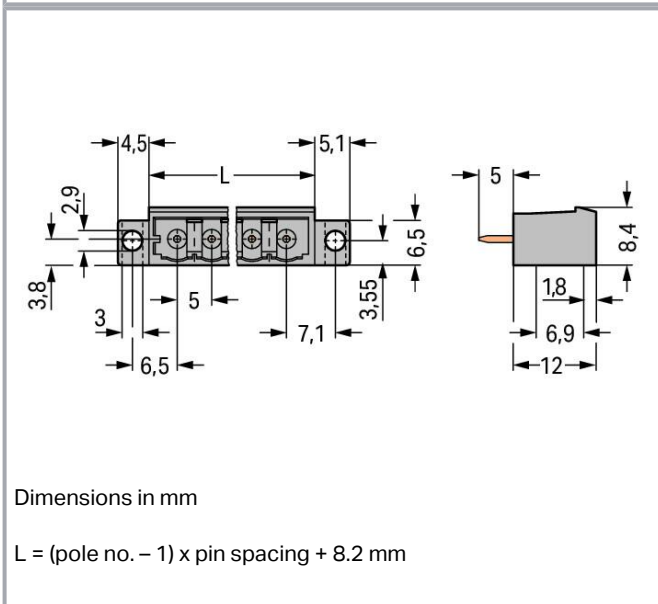
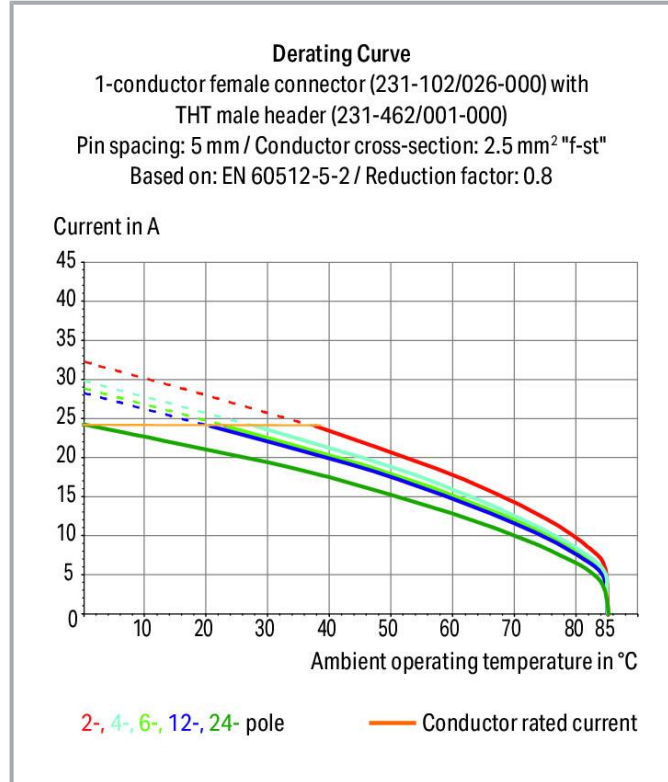
THT male header; 1.0 x 1.0 mm solder pin; straight; clamping collar; Pin spacing 5 mm; 14-pole; gray



[www.wago.com/231-144/040-000](http://www.wago.com/231-144/040-000)



Color:



Subject to changes. Please also observe the further product documentation!

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## Item description

- Horizontal or vertical PCB mounting via straight or angled solder pins
- Pin cross-section: 1 x 1 mm
- With coding fingers

## Data

### Notes

#### Safety information

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected /disconnected when live or under load. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

#### Variants:

Other pole numbers  
3.8 mm pin projection for male headers with straight solder pins  
Gold-plated or partially gold-plated contact surfaces  
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

## Electrical data

### Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	320 V
Rated impulse voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated impulse voltage (III/2)	4 kV
Nominal voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
Rated current	12 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

### Ratings per UL 1059

Approvals per	UL 1059
Rated voltage UL (Use Group B)	300 V
Rated current UL (Use Group B)	10 A

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Rated voltage UL (Use Group D)	300 V
Rated current UL (Use Group D)	10 A

### Ratings per UL 1977

Rated voltage (UL 1977)	600 V
Rated current UL 1977	10 A

### Ratings per CSA

Approvals per	CSA
Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	10 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 A

### Connection data

Total number of potentials	14
Number of connection types	1
Number of levels	1

### Connection 1

Pole number	14
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### Physical data

Pin spacing	5 mm / 0.197 inches
Width	82.8 mm / 3.26 inches
Height	17 mm / 0.669 inches
Height from the surface	12 mm / 0.472 inches
Depth	8.4 mm / 0.331 inches
Solder pin length	5 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 <sup>(+0.1)</sup> mm

### Mechanical Data

Variable coding	Yes
Mounting type	Mounting flange

Subject to changes. Please also observe the further product documentation!



Mounting type	Feed-through mounting Panel mounting
Anti-rotation protection	Yes

### Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB
Mismating protection	No
Plugging without loss of pin spacing	No
Mating direction to the PCB	90 °
Locking of plug-in connection	none

### PCB contact

PCB contact	THT
Solder pin arrangement	over the entire male connector (in-line)
Number of solder pins per potential	1

### Material Data

Note (material data)	Information on material specifications can be found here
Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	Tin
Fire load	0.104 MJ
Weight	4.7 g

### Environmental requirements

Limit temperature range	-60 ... +100 °C
Processing temperature	-35 ... +60 °C

### Commercial data

Product Group	3 (Multi Conn. System)
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Subject to changes. Please also observe the further product documentation!





eCl@ss 10.0	27-44-04-02
eCl@ss 9.0	27-44-04-02
ETIM 8.0	EC002637
ETIM 7.0	EC002637
PU (SPU)	50 pcs
Packaging type	box
Country of origin	PL
GTIN	4044918863742
Customs tariff number	85366990990

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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### Approvals / Certificates

#### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>CB</b> DEKRA Certification B.V.	IEC 61984	NL-39756 /A1
	<b>CSA</b> DEKRA Certification B.V.	C22.2	LR 18677-25
	<b>KEMA/KEUR</b> DEKRA Certification B.V.	EN 61984	71-121453
	<b>UL</b> Underwriters Laboratories Inc.	UL 1059	E45172
	<b>UL</b> Underwriters Laboratories Inc.	UL 1977	E45171




#### Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	<b>Railway</b> WAGO GmbH & Co. KG	-	Railway Ready

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### Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	19- HG1869876- PDA
	<b>BV</b> Bureau Veritas S.A.	IEC 60998	11915/D0 BV
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z

### Counterpart



Item no.231-114/026-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 14-pole; 2,50 mm<sup>2</sup>; gray

[www.wago.com/231-114/026-000](http://www.wago.com/231-114/026-000)

### Optional accessories

#### Mounting

##### Mounting accessories



Item no.: 209-147  
Self-tapping screw

[www.wago.com/209-147](http://www.wago.com/209-147)



Item no.: 231-194  
Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø

[www.wago.com/231-194](http://www.wago.com/231-194)



Item no.: 231-295  
Screw with nut

[www.wago.com/231-295](http://www.wago.com/231-295)

#### Coding

##### Intermediate plate



Item no.: 231-500  
Spacer; for formation of groups; light gray

[www.wago.com/231-500](http://www.wago.com/231-500)

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Coding



Item no.: 231-129

Coding key; snap-on type; light gray

[www.wago.com/231-129](http://www.wago.com/231-129)

**Downloads**

**Documentation**

**Additional Information**

Technical Section	2019 Apr 3	pdf	Download
Technical explanations		2.0 MB	

**CAD/CAE-Data**

**CAD data**

2D/3D Models 231-144/040-000	URL	Download
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**CAE data**

EPLAN Data Portal 231-144/040-000	URL	Download
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EPLAN Data Portal 231-144/040-000	URL	Download
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ZUKEN Portal 231-144/040-000	URL	Download
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**PCB Design**

Symbol and Footprint 231-144/040-000	URL	Download
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CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

**Supported formats:**

- Accel EDA 14 & 15
- Altium 6 to current version
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics BoardStation
- Mentor Graphics Design Architect

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- Mentor Graphics Design Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 231-144/040-000

[URL](#)

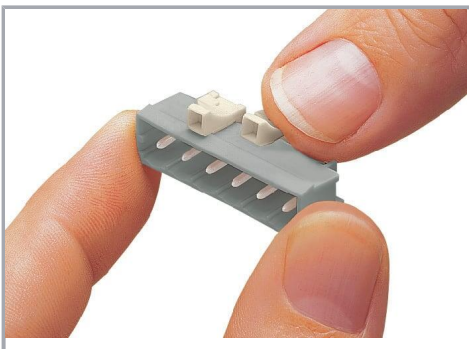
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THT male header; 1.0 x 1.0 mm solder pin; straight; clamping collar; Pin spacing 5 mm; 14-pole; gray

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## Installation Notes

### Coding



Coding a male header – fitting coding key(s).

## Product family

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**MCS MIDI Classic**

[Show all products from the family](#)

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