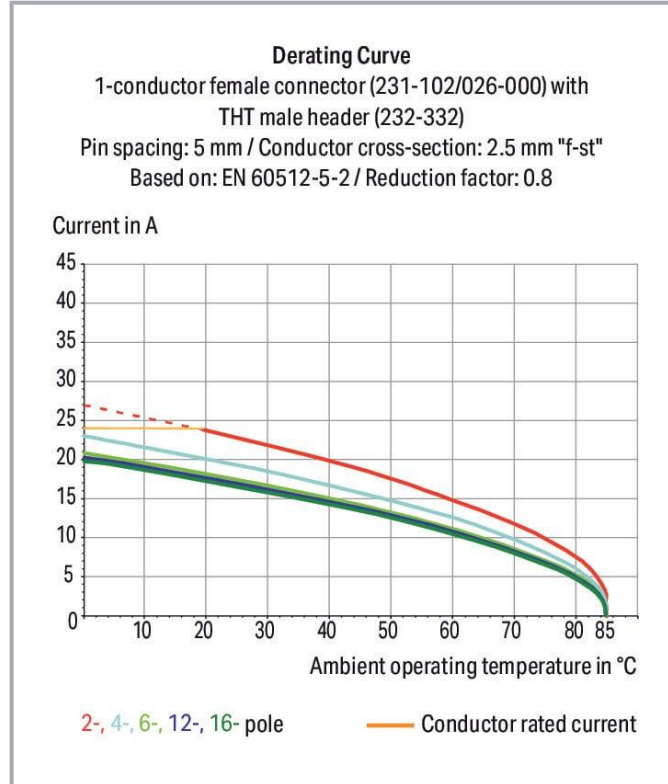
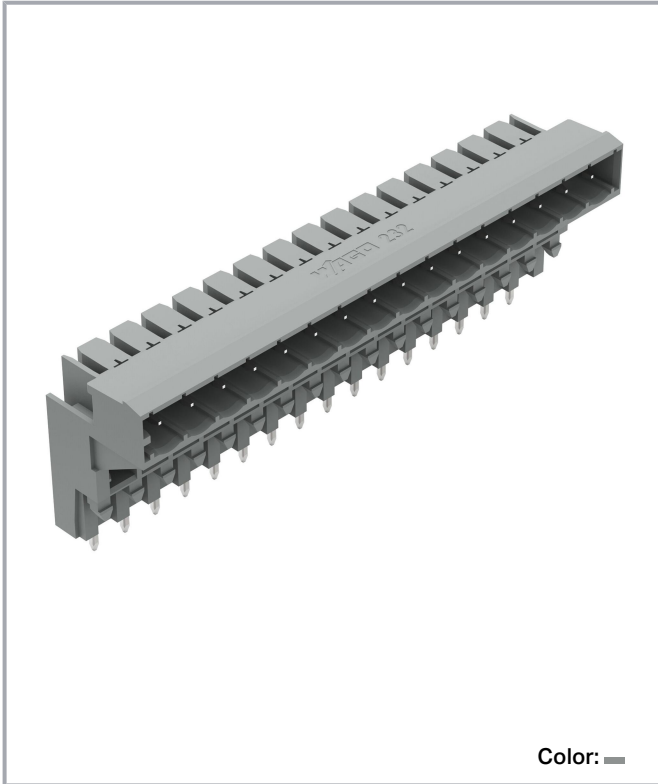


Data sheet | Item number: 232-346

THT male header for double-deck assembly; 1.0 x 1.0 mm solder pin; angled;
Pin spacing 5 mm; 16-pole; gray



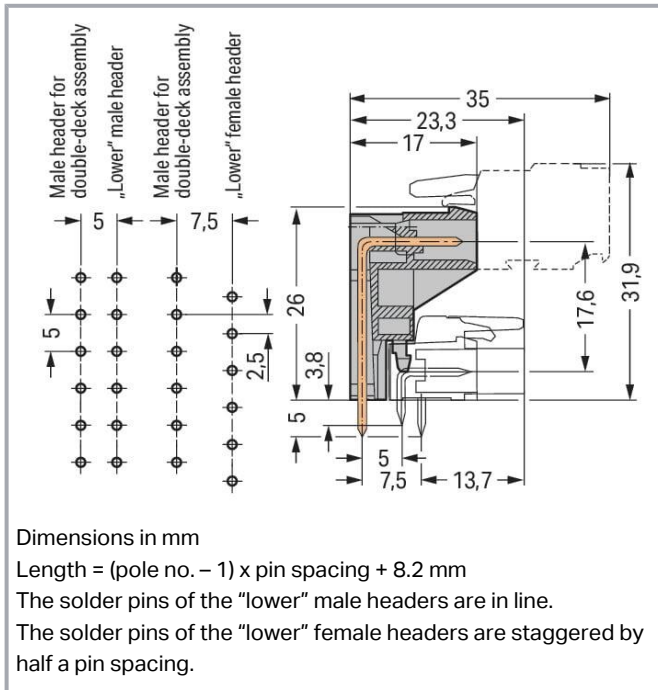
www.wago.com/232-346



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

WAGO GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



Item description

- Male headers for double-deck assembly provide high-density wiring for wire-to-board connections
- Horizontal PCB mounting
- Double-deck design allows male or female headers with angled solder pins to be placed on the lower deck
- Coding option available

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
 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

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

WAGO GmbH & Co. KG
 Hansastr. 27
 32423 Minden
 Phone: +49571 887-0 | Fax: +49571 887-169
 Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
 We are always happy to take your call at +49 (571) 887-44222.



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) $\hat{=}$ Overvoltage category III / Pollution degree 2

Ratings per UL

Approvals per	UL 1059
Rated voltage UL (Use Group B)	300 V
Rated current UL (Use Group B)	10 A
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	16
Number of connection types	1
Number of levels	1

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



Connection 1

Pole number	16
-------------	----

Physical data

Pin spacing	5 mm / 0.197 inches
Width	83.2 mm / 3.276 inches
Height	31 mm / 1.22 inches
Height from the surface	26 mm / 1.024 inches
Depth	17 mm / 0.669 inches
Solder pin length	5 mm
Solder pin dimensions	1 x 1 mm
Drilled hole diameter with tolerance	1.4 ^(+0.1) mm

Mechanical Data

Variable coding	No
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	0°
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

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

Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Contact material	Electrolytic copper (E _{Cu})
Contact plating	Tin
Fire load	0.495 MJ
Weight	16.4 g

Environmental requirements

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

Commercial data


Product Group	3 (Multi Conn. System)
eCl@ss 10.0	27-44-04-02
eCl@ss 9.0	27-44-04-02
ETIM 8.0	EC002637
ETIM 7.0	EC002637
ECCN	NO DATA
PU (SPU)	25 pcs
Packaging type	box
Country of origin	PL
GTIN	4044918685528
Customs tariff number	85366930000

Environmental Product Compliance





RoHS Compliance Status	Compliant, No Exemption
------------------------	-------------------------

Approvals / Certificates




General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CB DEKRA Certification B.V.	IEC 61984	NL-39756/A1
	CCC CQC	GB/T 13140.1	CQC03003003013

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

	CSA DEKRA Certification B.V.	C22.2	1466354
	KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-121453
	UL Underwriters Laboratories Inc.	UL 1059	E45172
	UR Underwriters Laboratories Inc.	UL 1977	E45171

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG15869876- PDA
	DNV DNV GL SE	-	TAE000016Z
	LR Lloyds Register	IEC 61984	96/20035 (E5)

Counterpart



Item no.231-116/026-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 2,50 mm²; graywww.wago.com/231-116/026-000

Optional accessories

Coding

Coding

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

WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.



Item no.: 231-160

Coding pin; for coding lower male headers; push-in type; light gray

www.wago.com/231-160



Item no.: 231-129

Coding key; snap-on type; light gray

www.wago.com/231-129

Downloads

Documentation

Additional Information

Technical Section	2019 Apr 3	pdf	Download
Technical explanations		2.1 MB	

CAD/CAE-Data

CAD data

2D/3D Models 232-346	URL	Download
----------------------	-----	----------

CAE data

EPLAN Data Portal 232-346	URL	Download
---------------------------	-----	----------

ZUKEN Portal 232-346	URL	Download
----------------------	-----	----------

PCB Design

Symbol and Footprint via Ultra Librarian 232-346	URL	Download
--	-----	----------

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
- Altair
- Altium 6 to current version
- Autodesk Fusion 360
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics

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



- BoardStation
- Mentor Graphics Design Architect
- 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
- Zuken eCADSTAR 2020 and 2021Zuken CR-5000 and CR-8000

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

Symbol and Footprint via SamacSys 232-346

URL

Download

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:

- 3D (stp)
- Altium
- CADSTAR
- Capture
- CircuitStudio
- CR-5000
- CR-8000
- DEHDL
- DesignSpark PCB
- DesignSpark PCB PRO
- DipTrace
- EAGLE
- Easy-PC

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

WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.



- EasyEDA
- eCADSTAR
- KiCad
- OrCAD_Allegro16
- PADS
- Proteus
- Pulsonix
- Quadcept
- SOLIDWORKS PCB
- TARGET 3001!
- xDX Designer
- Xpedition

PCB Component Libraries (EDA), PCB CAD Library SamacSys Electronic Component Search Engine

Asset Administration Shell

Asset Administration Shell 232-346	URL	Download
------------------------------------	-----	----------

Environmental Product Compliance

Compliance Search

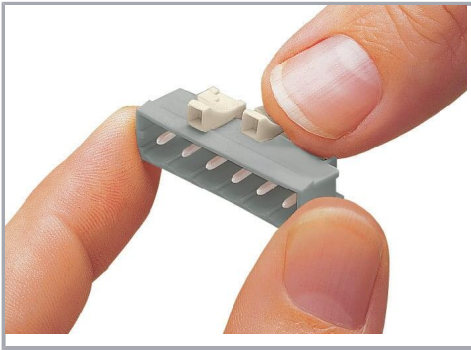
Environmental Product Compliance 232-346	URL	Download
--	-----	----------

THT male header for double-deck assembly; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5 mm; 16-pole; gray

Installation Notes

Coding

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



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

Product family

MCS MIDI Classic

[Show all products from the family](#)

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