

# PTQ 0,3/ 2-2,5 THR R32 - PCB terminal block



1702610

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Printed circuit board terminal, nominal current: 4 A, rated voltage (III/2): 160 V, nominal cross section: 0.34 mm<sup>2</sup>, number of potentials: 2, number of rows: 1, number of positions per row: 2, product range: PTQ 0,3/..-THR, pitch: 2.5 mm, connection method: Displacement connection, mounting: THR soldering / wave soldering, conductor/PCB connection direction: 0 °, color: black, Pin layout: Zigzag pinning W, Solder pin [P]: 2 mm, number of solder pins per potential: 1, type of packaging: 32 mm wide tape. Suitable for CAT5

## Your advantages

- Connection without conductor pretreatment for huge time savings
- Finger-operated QUICKON insulation displacement connection enables repeated conductor connection
- Designed for integration into the SMT soldering process
- Supplied in tape-on-reel packing according to IEC 60286-3 for automated mounting
- Anti-rotation pins reduce the mechanical strain on the soldering spots
- Satisfies CAT5 requirements in accordance with EN 50173 and ISO/IEC 11801

## Commercial data

Item number	1702610
Packing unit	250 pc
Minimum order quantity	250 pc
Sales key	AA11
Product key	AAKKA
Catalog page	Page 63 (C-1-2013)
GTIN	4046356599498
Weight per piece (including packing)	2.556 g
Weight per piece (excluding packing)	2.556 g
Customs tariff number	85369010
Country of origin	PL

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## Technical data

### Product properties

Product type	Printed circuit board terminal
Product family	PTQ 0,3/...-THR
Product line	COMBICON Terminals XS
Type	PC termination block
Sensor type	Ethernet
Number of positions	2
Pitch	2.5 mm
Number of connections	2
Number of rows	1
Number of potentials	2
Pin layout	Zigzag pinning W
Solder pins per potential	1

### Electrical properties

Nominal current $I_N$	4 A
Nominal voltage $U_N$	160 V
Rated voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	200 V
Rated surge voltage (II/2)	2.5 kV

### Connection data

#### Connection technology

Type	PC termination block
Nominal cross section	0.34 mm <sup>2</sup>

#### Conductor connection

Connection method	Displacement connection
Conductor cross section rigid	0.14 mm <sup>2</sup> ... 0.34 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 0.34 mm <sup>2</sup>
Conductor cross section AWG	26 ... 22

### Mounting

Mounting type	THR soldering / wave soldering
Pin layout	Zigzag pinning W

#### Processing notes

Process	Reflow/wave soldering
Moisture Sensitive Level	MSL 1

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Classification temperature $T_c$	260 °C
Solder cycles in the reflow	3

## Material specifications

### 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	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (3 - 5 $\mu\text{m}$ Sn)
Metal surface terminal point (middle layer)	Nickel (1.3 - 3 $\mu\text{m}$ Ni)
Metal surface soldering area (top layer)	Tin (3 - 5 $\mu\text{m}$ Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 $\mu\text{m}$ Ni)

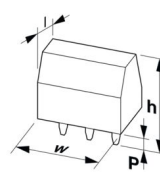
### Material data - housing

Color (Housing)	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
Flammability rating according to UL 94	V0

## Notes

Note on application	The item is qualified for CAT5 Ethernet applications. For this reason, it is suited for use in IoT devices.
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## Dimensions

Dimensional drawing	
Pitch	2.5 mm
Width [w]	7 mm
Height [h]	10 mm
Length [l]	17.55 mm
Installed height	8 mm
Solder pin length [P]	2 mm
Pin dimensions	0.9 x 0.4 mm

### PCB design

Pin spacing	2.5 mm
Hole diameter	1.1 mm

## Mechanical tests

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## Connection test

Specification	IEC 60998-2-3:2002-12
Result	Test passed

## Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm <sup>2</sup> / solid / > 10 N
	0.2 mm <sup>2</sup> / flexible / > 10 N

## Electrical tests

### Temperature-rise test

Specification	IEC 60998-1:2002-12
Requirement temperature-rise test	Increase in temperature ≤ 45 K

### Short-time withstand current

Specification	IEC 60998-2-3:2002-12
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### Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

### Temperature cycles

Specification	IEC 60998-2-3:2002-12
Result	Test passed

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 175
Rated insulation voltage (III/3)	160 V
Rated surge voltage (III/3)	2.5 kV
minimum clearance value - non-homogenous field (III/3)	1.5 mm
minimum creepage distance (III/3)	2.5 mm
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	1.6 mm
Rated insulation voltage (II/2)	200 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	2 mm

## Environmental and real-life conditions

### Glow-wire test

Specification	IEC 60998-1:2002-12
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Time of exposure	5 s
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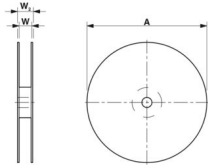
## Shocks

Specification	IEC 60068-2-27:2008-02
Pulse shape	Half-sine
Acceleration	15g
Shock duration	11 ms
Test directions	X-, Y- and Z-axis

## Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °C (Depending on the current carrying capacity/derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

## Packaging specifications

Dimensional drawing	
Type of packaging	32 mm wide tape
[W] tape width	32 mm
[W2] coil overall dimension	38.4 mm
[A] coil diameter	330 mm
Outer packaging type	Transparent-Bag
ESD level	(D) electrostatically conductive
Specification	DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07

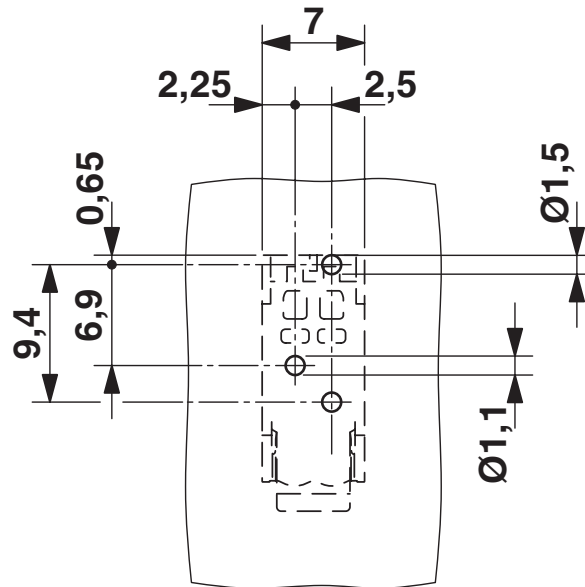
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## Drawings

Drilling plan/solder pad geometry



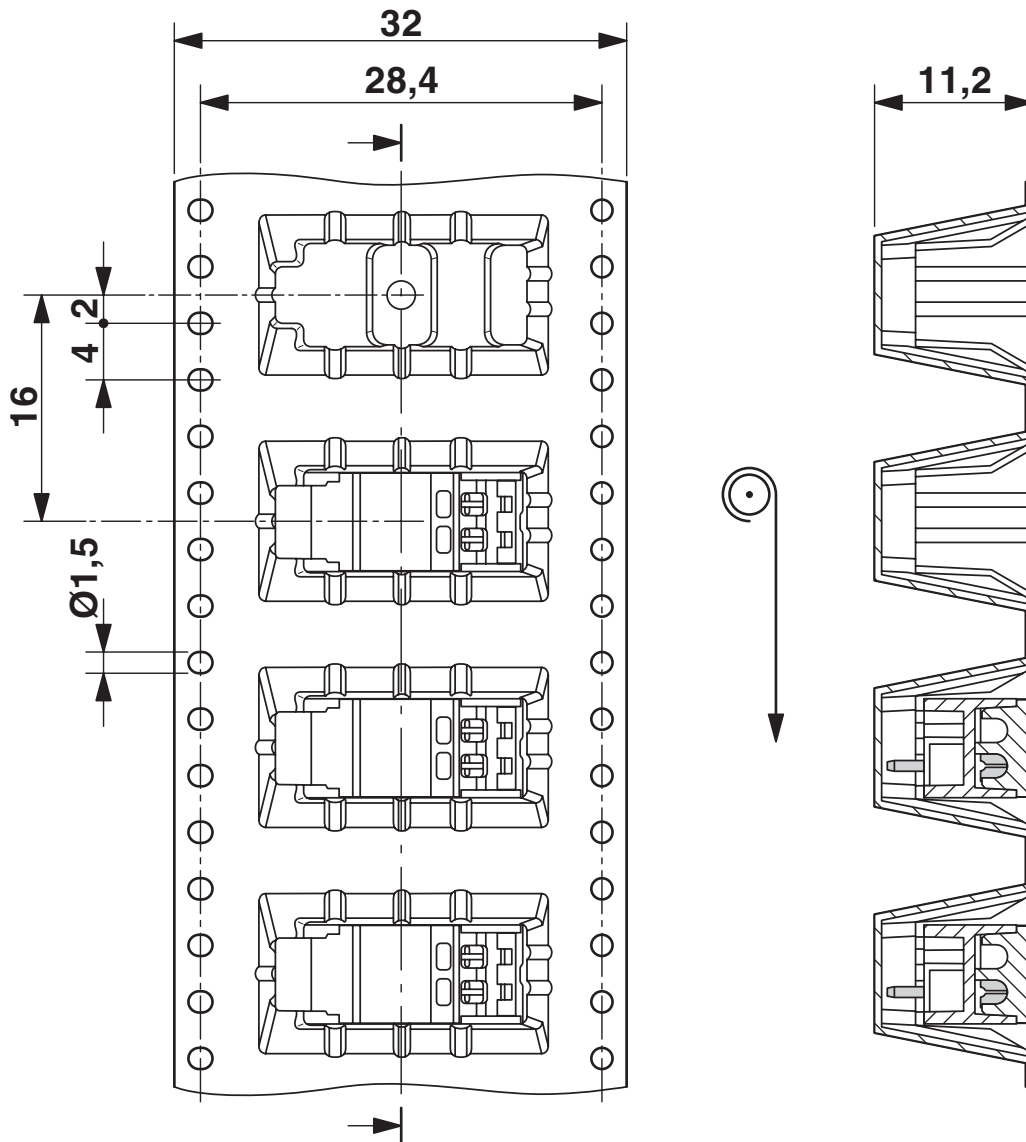
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Dimensional drawing

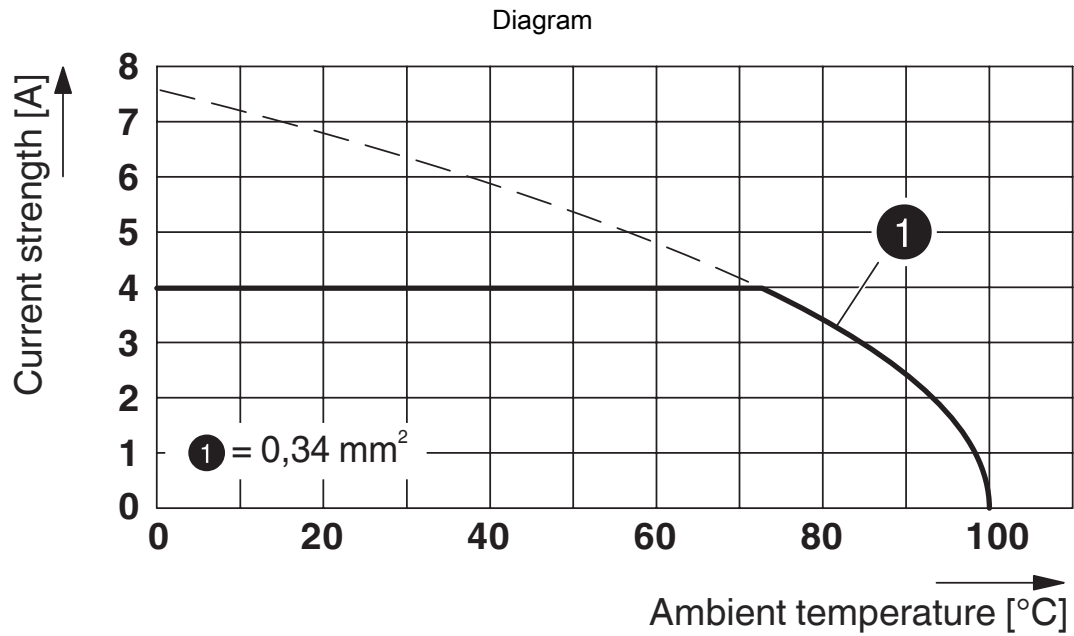


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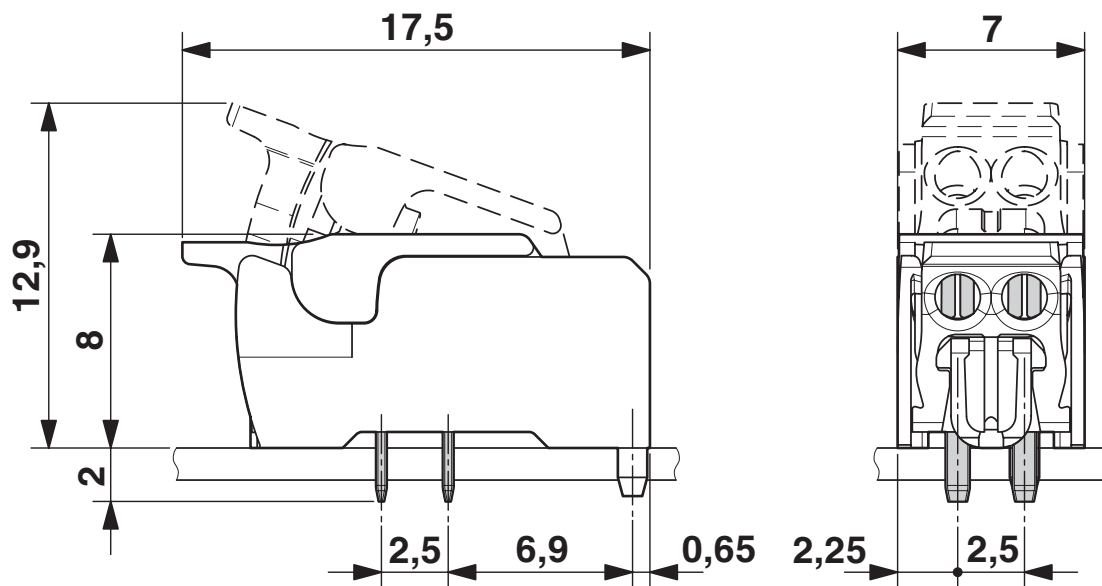
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Type: PTQ 0,3/..-2,5(-L) THR R32

Dimensional drawing





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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1702610>

 <b>cULus Recognized</b> Approval ID: E60425-20110108				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
Use group B				
	150 V	2 A	24	-

 <b>VDE report with production monitoring</b> Approval ID: 40034315				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
	130 V	4 A	-	- 0.2

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## Classifications

### ECLASS

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101

### ETIM

ETIM 9.0	EC002643
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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