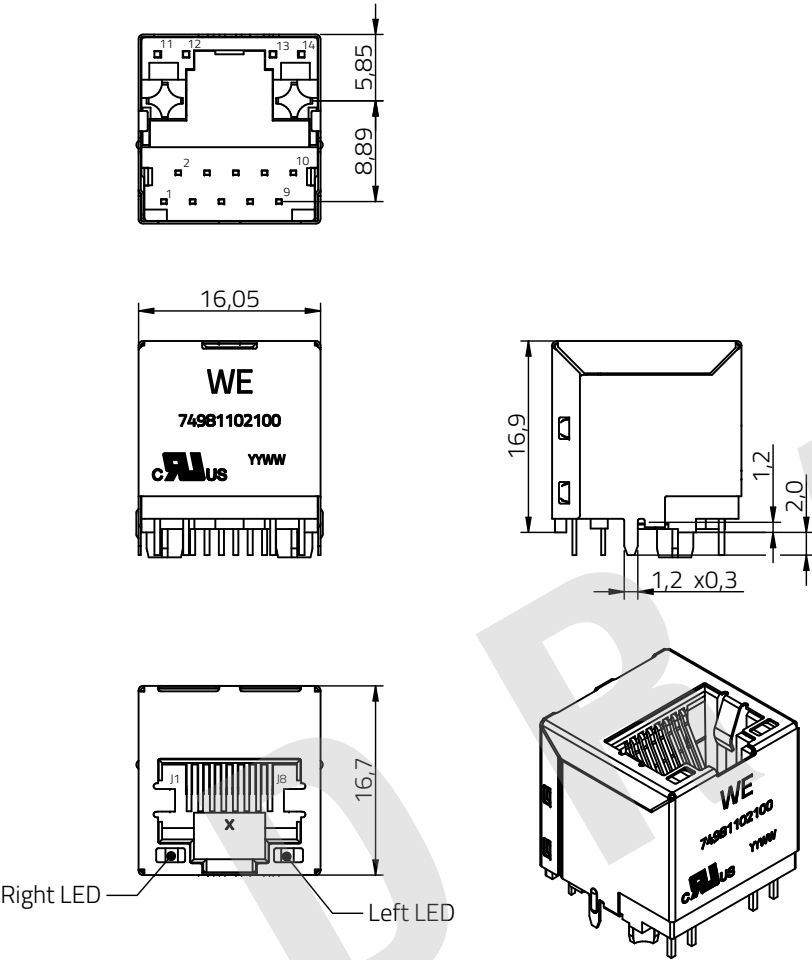
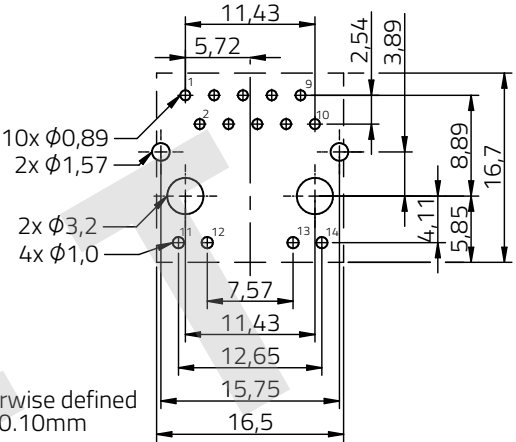


Dimensions: [mm]



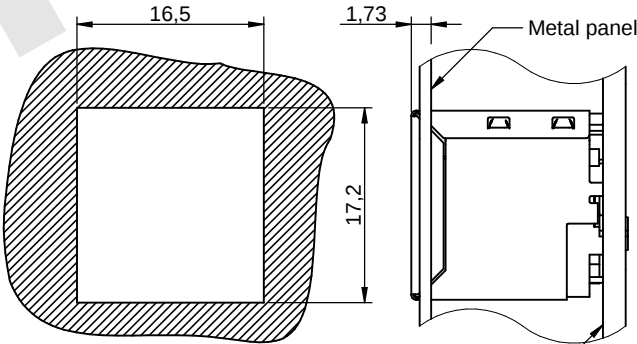
Unless otherwise defined tolerance: $\pm 0.25\text{mm}$

Recommended Hole Pattern: [mm] (Top View)



Unless otherwise defined tolerance: $\pm 0.10\text{mm}$

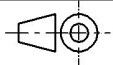
Recommended Panel Cutout: [mm]



Unless otherwise defined tolerance: $\pm 0.10\text{mm}$

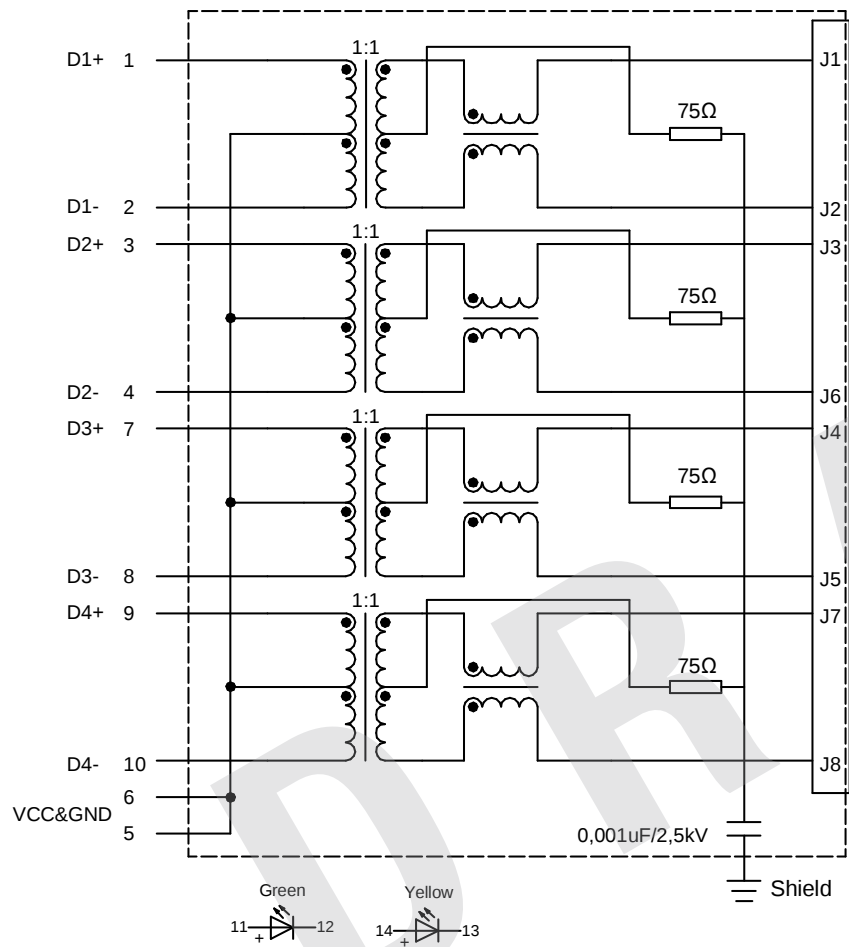
Product Marking:

PN-Code	74981102100
Date-Code	YYWW

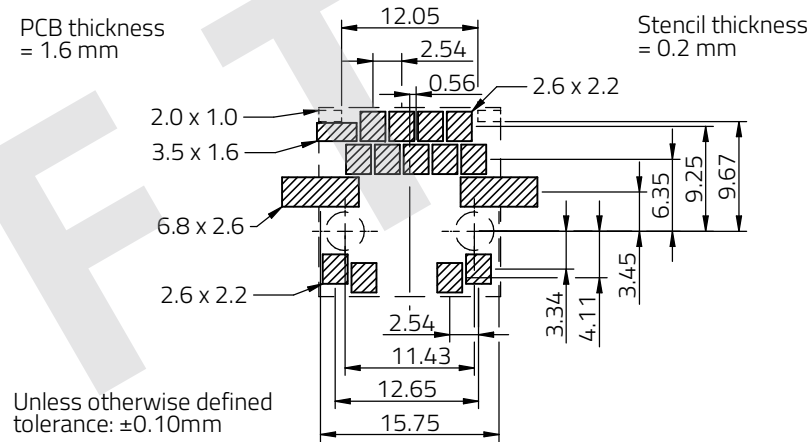
  WÜRTH ELEKTRONIK MORE THAN YOU EXPECT	CHECKED FeE		REVISION 001.005	DATE (YYYY-MM-DD) 2095-01-04	GENERAL TOLERANCE DIN ISO 2768-1m	PROJECTION METHOD 
	DESCRIPTION WE-RJ45LAN Through Hole Reflow					ORDER CODE 74981102100
	BUSINESS UNIT eiSos		STATUS Draft		PAGE 1/7	

This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Würth Elektronik eiSos Group products are neither designed nor intended for use in areas such as military, aerospace, aviation, nuclear control, submarine, transportation, transportation signal, disaster prevention, medical, public information network etc.. Würth Elektronik eiSos Group must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in electrical circuits that require high safety and reliability functions or performance.

Schematic:



Recommended Stencil Design: [mm]



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Electrical Properties:

Properties		Test conditions	Value	Unit	Tol.
Inductance	L	100 kHz / 100 mV @ 8 mA	350	µH	min.
Insulation Test Voltage	V _T	1 min	2250	V (DC)	min.
Insertion Loss	IL	1-100 MHz	-1.2	dB	max.
Return Loss	RL	1-30 MHz @ 100 Ω	-16	dB	min.
Return Loss	RL	30-60 MHz @ 100 Ω	-14	dB	min.
Return Loss	RL	60-80 MHz @ 100 Ω	-12	dB	min.
Return Loss	RL	80-100 MHz @ 100 Ω	-10	dB	min.
Crosstalk	CT	1-60 MHz	-33	dB	min.
Crosstalk	CT	60-100 MHz	-30	dB	min.
Common Mode Rejection Ratio	CMRR	1-30 MHz	-36	dB	min.
Common Mode Rejection Ratio	CMRR	30-60 MHz	-33	dB	min.
Common Mode Rejection Ratio	CMRR	60-100 MHz	-30	dB	min.
Turns Ratio	n		1:1		±2%
Data rate	1000 Base-T				

LED Electrical & Optical Properties:

Properties		Test conditions	Value		Unit	Tol.
			min.	max.		
Forward Voltage	V _F	20 mA	1.8	2.4	V	max.
LED (Left-Right)	green-yellow					

General Information:

Properties	Value	Unit	Tol.
Operating Temperature	-40 °C up to +85 °C		
Storage Conditions (in original packaging)	5 °C up to 40 °C; < 75 % rH		
Moisture Sensitivity Level (MSL)	1		
Mating Cycle	750	Cycles	min.

General Information:

Properties	Value	Unit	Tol.
Compliant with IEEE 802.3ab			
It is recommended that the temperature of the component does not exceed +85°C under worst case conditions			
Test conditions of electrical properties: +20 °C, 35 % rH if not specified differently			

Certification:

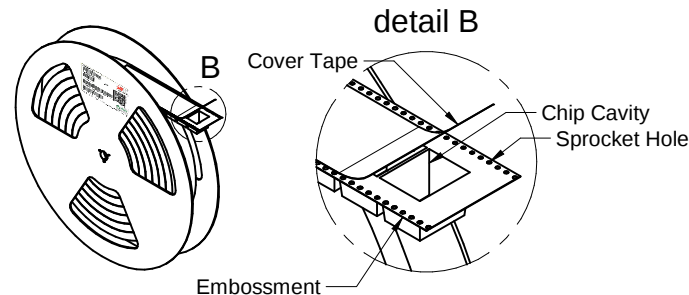
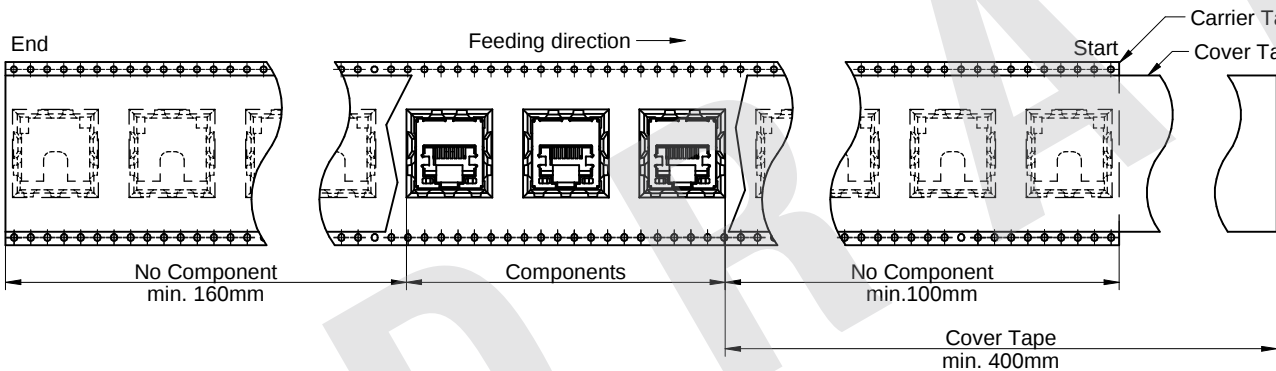
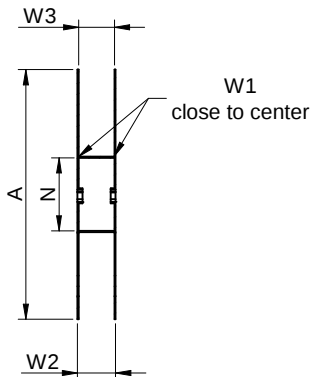
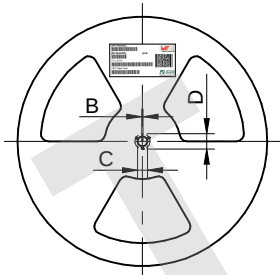
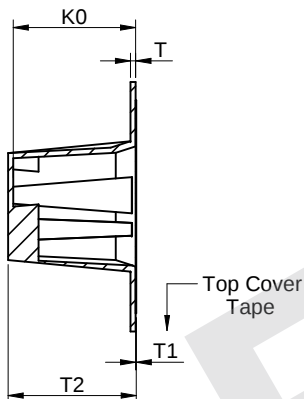
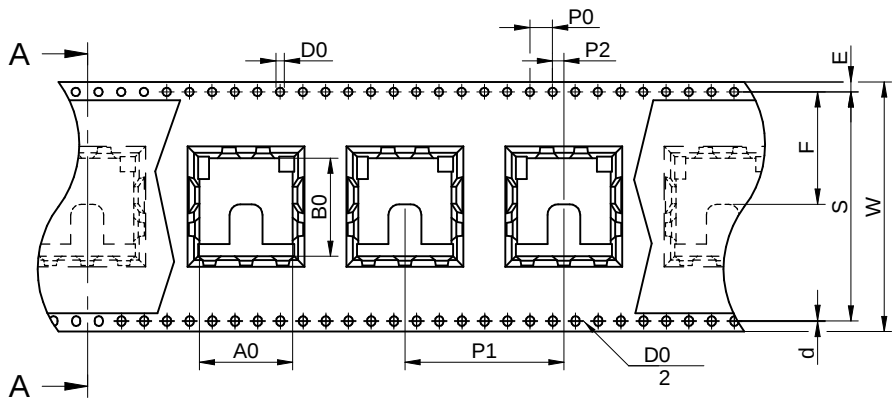
RoHS Approval	Compliant [2011/65/EU&2015/863]
REACH Approval	Conform or declared [(EC)1907/2006]
cURus Approval	E472316 [UL 62368-1]

Material Properties:

Plastic Housing Material	Thermoplastic LCP black
Plastic Housing Flammability Rating	UL94 V-0
Shielding Material	Brass
Shielding Plating	30µ" Nickel
Contact Material	Phosphor Bronze
Contact Plating	30µ" Gold over 50µ" Nickel

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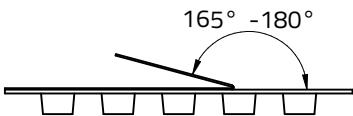
Packaging Specification - Tape and Reel: [mm]



Packaging is referred to the international standard IEC 60286-3:2019

Tape Type	A0 (mm)	B0 (mm)	W (mm)	T (mm)	T1 (mm)	T2 (mm)	K0 (mm)	P0 (mm)	P1 (mm)	P2 (mm)	D0 (mm)	D0 / 2 (mm)	D1 (mm)	d (mm)	E (mm)	S (mm)	F (mm)	Material	Qty. (pcs.)
3	±0,1	±0,1	±0,3	05±0,3	ref.	±0,2	±0,2	±0,1	±0,1	±0,15	+0,1/-0,0	+0,05/-0,0	min.	±0,05	±0,1	±0,1	±0,1	Polystyrene	
	16,45	17,05	44,00	0,5	0,10	21,9	21,60	4,00	28,00	2,00	1,50	0,75	2,00	0,20	1,75	40,40	20,20	Polystyrene	

A (mm)	B (mm)	C (mm)	D (mm)	N (mm)	W1 (mm)	W2 (mm)	W3 (mm)	W3 (mm)	Material
± 2,0	min.	min.	min.	min.	+ 2,0	max.	min.	max.	Polystyrene
330,00	1,50	12,80	20,20	100,00	44,40	50,40	43,90	47,40	Polystyrene



Pull-off force		
Tape width	44 mm	0.1 N - 1.3 N

WURTH ELEKTRONIK
MORE THAN YOU EXPECT

Würth Elektronik eiSos GmbH & Co. KG
EMC & Inductive Solutions
Max-Eyth-Str. 1
74638 Waldenburg
Germany
Tel. +49 (0) 79 42 945 - 0
www.we-online.com
eiSos@we-online.com

CHECKED FeE	REVISION 001.005	DATE (YYYY-MM-DD) 2095-01-04	GENERAL TOLERANCE DIN ISO 2768-1m	PROJECTION METHOD
DESCRIPTION WE-RJ45LAN Through Hole Reflow				ORDER CODE 74981102100
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Classification Reflow Profile for SMT components:



Classification Reflow Soldering Profile:

Profile Feature		Value
Preheat Temperature Min	$T_{s\ min}$	150 °C
Preheat Temperature Max	$T_{s\ max}$	200 °C
Preheat Time t_s from $T_{s\ min}$ to $T_{s\ max}$	t_s	60 - 120 seconds
Ramp-up Rate (T_L to T_p)		3 °C/ second max.
Liquidous Temperature	T_L	217 °C
Time t_L maintained above T_L	t_L	60 - 150 seconds
Peak package body temperature	T_p	$T_p \leq T_c$, see Table below
Time within 5°C of actual peak temperature	t_p	20 - 30 seconds
Ramp-down Rate (T_p to T_L)		6 °C/ second max.
Time 25°C to peak temperature		8 minutes max.

refer to IPC/ JEDEC J-STD-020E

Package Classification Reflow Temperature (T_c):

Properties	Volume mm ³ <350	Volume mm ³ 350-2000	Volume mm ³ >2000
PB-Free Assembly Package Thickness < 1.6 mm	260 °C	260 °C	260 °C
PB-Free Assembly Package Thickness 1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
PB-Free Assembly Package Thickness > 2.5 mm	250 °C	245 °C	245 °C
Applied cycles	2 cycles max.		

refer to IPC/ JEDEC J-STD-020E

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Further information

Component Libraries:

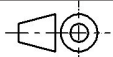
Altium	Altium_WE-RJ45 LAN (26a)
Cadence17-2	Downloads_CADENCE_WE-RJ45_LAN (25e)
Cadstar	Cadstar_WE-RJ45 LAN (21c)
Eagle	Eagle_WE-RJ45-LAN (26a)
IGS	Download_IGS_74981102100
KiCad	KiCad_WE-RJ45LAN (26b)
STP	Download_STP_74981102100

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 WÜRTH ELEKTRONIK MORE THAN YOU EXPECT Würth Elektronik eiSos GmbH & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com	DESCRIPTION WE-RJ45LAN Through Hole Reflow		ORDER CODE 74981102100		
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Important Notes

The following conditions apply to all goods within the product range of Würth Elektronik eiSos Group

1. General Customer Responsibility

Some goods within the product range of Würth Elektronik eiSos Group contain statements regarding general suitability for certain application areas. These statements about suitability are based on our knowledge and experience of typical requirements concerning the areas, serve as general guidance and cannot be estimated as binding statements about the suitability for a customer application. The responsibility for the applicability and use in a particular customer design is always solely within the authority of the customer. Due to this fact it is up to the customer to evaluate, where appropriate to investigate and decide whether the device with the specific product characteristics described in the product specification is valid and suitable for the respective customer application or not.

2. Customer Responsibility related to Specific, in particular Safety-Relevant Applications

It has to be clearly pointed out that the possibility of a malfunction of electronic components or failure before the end of the usual lifetime cannot be completely eliminated in the current state of the art, even if the products are operated within the range of the specifications. In certain customer applications requiring a very high level of safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health it must be ensured by most advanced technological aid of suitable design of the customer application that no injury or damage is caused to third parties in the event of malfunction or failure of an electronic component. Therefore, customer is cautioned to verify that data sheets are current before placing orders. The current data sheets can be downloaded at www.we-online.com.

3. Best Care and Attention

Any product-specific notes, cautions and warnings must be strictly observed. Any disregard will result in the loss of warranty.

4. Customer Support for Product Specifications

Some products within the product range may contain substances which are subject to restrictions in certain jurisdictions in order to serve specific technical requirements. Necessary information is available on request. In this case the field sales engineer or the internal sales person in charge should be contacted who will be happy to support in this matter.

5. Product R&D

Due to constant product improvement product specifications may change from time to time. As a standard reporting procedure of the Product Change Notification (PCN) according to the JEDEC-Standard inform about minor and major changes. In case of further queries regarding the PCN, the field sales engineer or the internal sales person in charge should be contacted. The basic responsibility of the customer as per Section 1 and 2 remains unaffected.

6. Product Life Cycle

Due to technical progress and economical evaluation we also reserve the right to discontinue production and delivery of products. As a standard reporting procedure of the Product Termination Notification (PTN) according to the JEDEC-Standard we will inform at an early stage about inevitable product discontinuance. According to this we cannot guarantee that all products within our product range will always be available. Therefore it needs to be verified with the field sales engineer or the internal sales person in charge about the current product availability expectancy before or when the product for application design-in disposal is considered. The approach named above does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.

7. Property Rights

All the rights for contractual products produced by Würth Elektronik eiSos Group on the basis of ideas, development contracts as well as models or templates that are subject to copyright, patent or commercial protection supplied to the customer will remain with Würth Elektronik eiSos Group. Würth Elektronik eiSos Group does not warrant or represent that any license, either expressed or implied, is granted under any patent right, copyright, mask work right, or other intellectual property right relating to any combination, application, or process in which Würth Elektronik eiSos Group components or services are used.

8. General Terms and Conditions

Unless otherwise agreed in individual contracts, all orders are subject to the current version of the “General Terms and Conditions of Würth Elektronik eiSos Group”, last version available at www.we-online.com.

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