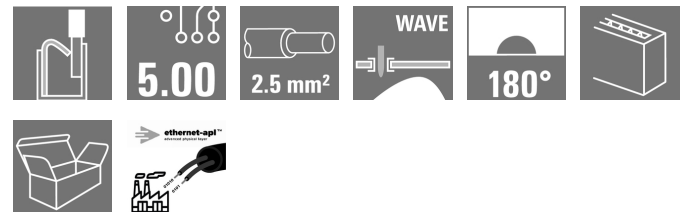


**LMF APL 5.00/03/180 3.5SN BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Features and benefits:**

- Ethernet-APL compliant
- Space and weight saving design
- Cost-effective alternative to RJ45 and M12 connections
- Available with PUSH IN, SNAP IN, clamping yoke or tension spring connection
- Suitable for THT and THR soldering processes
- 10 Mbit/s communication for long ranges (1000m) according to IEEE 802.3cg-2019
- PoDL remote power supply according to IEEE 802.3bu
- Ethernet-APL is suitable for all IIoT devices and tailored for the process industry

**General ordering data**

Version	Printed circuit board terminals, 5.00 mm, Number of poles: 3, 180°, Solder pin length (l): 3.5 mm, tinned, orange, coloured, PUSH IN with actuator, Clamping range, max.: 2.5 mm², Box
Order No.	<a href="#">2873470000</a>
Type	LMF APL 5.00/03/180 3.5SN BX
GTIN (EAN)	4064675644507
Qty.	90 pc(s).
Product data	IEC: 400 V / 24 A / 0.5 - 2.5 mm² UL: 300 V / 20 A / AWG 24 - AWG 12
Packaging	Box

Creation date May 23, 2024 8:34:52 AM CEST

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## Technical data

## Dimensions and weights

Depth	14.8 mm	Depth (inches)	0.583 inch
Height	22.7 mm	Height (inches)	0.894 inch
Height of lowest version	19.2 mm	Width	17.7 mm
Width (inches)	0.697 inch	Net weight	0.062 g

## System specifications

Mounting onto the PCB	THT solder connection	Number of poles	3
Number of solder pins per pole	2	Pitch in inches (P)	0.197 "
Pitch in mm (P)	5 mm	Product family	OMNIMATE Signal - series LMF
Protection degree	IP20	Side termination, characteristic	closed side
Solder eyelet hole diameter (D)	1.1 mm	Solder eyelet hole diameter tolerance (D)+	0,1 mm
Solder pin dimensions	d = 0.8 mm	Solder pin length (l)	3.5 mm
Soldering process	Manual soldering, Wave soldering	Tolerance of solder pin position	± 0.1 mm

## Material data

Insulating material	Wemid (PA)	Colour	orange, coloured
Colour chart (similar)	RAL 2000, -	Comparative Tracking Index (CTI)	≥ 600
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Coating	4-6 µm SN
Tinning type	matt	Layer structure of solder connection	4...6 µm Sn matt
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	120 °C

## Packing

Packaging	Box	VPE length	349 mm
VPE width	141 mm	VPE height	33 mm

## Type tests

Test: Durability of markings	Test	mark of origin, type identification, pitch, approval marking UL, durability
	Evaluation	available

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## Technical data

Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02	
	Conductor type	Type of conductor and solid 0.14 mm <sup>2</sup> conductor cross-section	
		Type of conductor and stranded 0.14 mm <sup>2</sup> conductor cross-section	
		Type of conductor and solid 1.5 mm <sup>2</sup> conductor cross-section	
		Type of conductor and stranded 1.5 mm <sup>2</sup> conductor cross-section	
		Type of conductor and AWG 24/1 conductor cross-section	
		Type of conductor and AWG 24/19 conductor cross-section	
		Type of conductor and AWG 16/1 conductor cross-section	
		Type of conductor and AWG 16/19 conductor cross-section	
	Evaluation	passed	
Test for damage to and accidental loosening of conductors	Standard	DIN EN 60999-1 section 9.4 / 12.00	
	Requirement	0.2 kg	
	Conductor type	Type of conductor and AWG 24/1 conductor cross-section	
		Type of conductor and AWG 24/19 conductor cross-section	
	Evaluation	passed	
	Requirement	0.3 kg	
	Conductor type	Type of conductor and stranded 0.25 mm <sup>2</sup> conductor cross-section	
		Type of conductor and solid 0.5 mm <sup>2</sup> conductor cross-section	
	Evaluation	passed	
	Requirement	0.4 kg	
	Conductor type	Type of conductor and solid 1.5 mm <sup>2</sup> conductor cross-section	
		Type of conductor and stranded 1.5 mm <sup>2</sup> conductor cross-section	
		Type of conductor and AWG 16/1 conductor cross-section	
		Type of conductor and AWG 16/19 conductor cross-section	
	Evaluation	passed	

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## Technical data

Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00
	Requirement	≥10 N
	Conductor type	Type of conductor and AWG 24/1 conductor cross-section
		Type of conductor and AWG 24/19 conductor cross-section
	Evaluation	passed
	Requirement	≥20 N
	Conductor type	Type of conductor and stranded 0.25 mm <sup>2</sup> conductor cross-section
		Type of conductor and H05V-K0.5 conductor cross-section
	Evaluation	passed
	Requirement	≥40 N
	Conductor type	Type of conductor and H07V-U1.5 conductor cross-section
		Type of conductor and H07V-K1.5 conductor cross-section
		Type of conductor and AWG 16/1 conductor cross-section
		Type of conductor and AWG 16/19 conductor cross-section
	Evaluation	passed

## Classifications

ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	EC002643	ETIM 9.0	EC002643
ECLASS 9.0	27-44-04-01	ECLASS 9.1	27-44-04-01
ECLASS 10.0	27-44-04-01	ECLASS 11.0	27-46-01-01
ECLASS 12.0	27-46-01-01	ECLASS 13.0	27-46-01-01

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Important note**

IPC conformity	Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.
Notes	<ul style="list-style-type: none"><li>• Additional variants on request</li><li>• Rated current related to rated cross-section &amp; min. No. of poles.</li><li>• Wire end ferrule without plastic collar to DIN 46228/1</li><li>• Wire end ferrule with plastic collar to DIN 46228/4</li><li>• P on drawing = pitch</li><li>• Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.</li><li>• The test point can only be used as potential-pickup point.</li><li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li></ul>

**Approvals**

Approvals



UL File Number Search	UL Website
Certificate No. (cURus)	E60693

**Downloads**

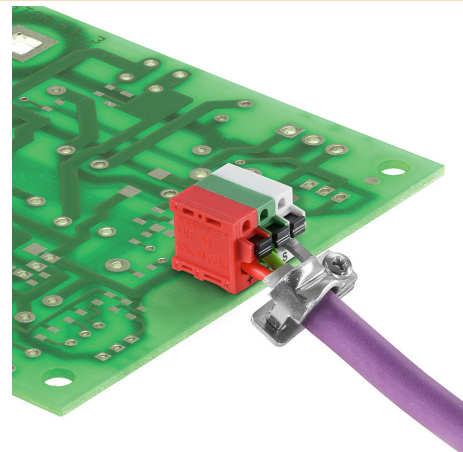
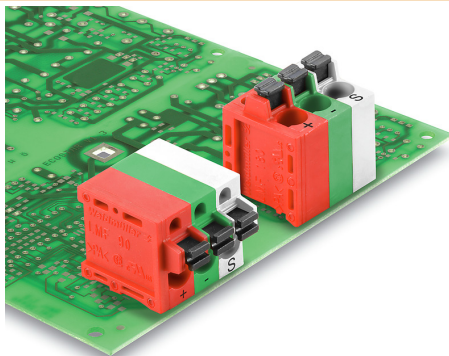
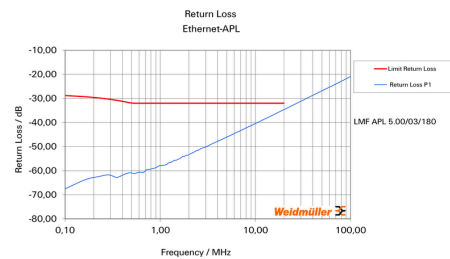
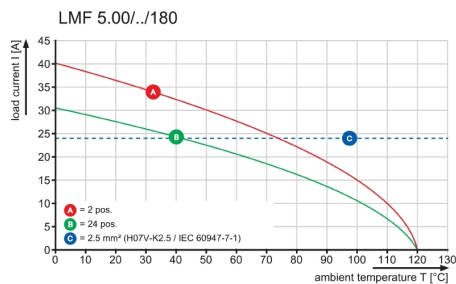
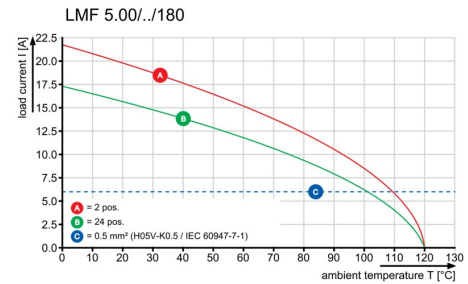
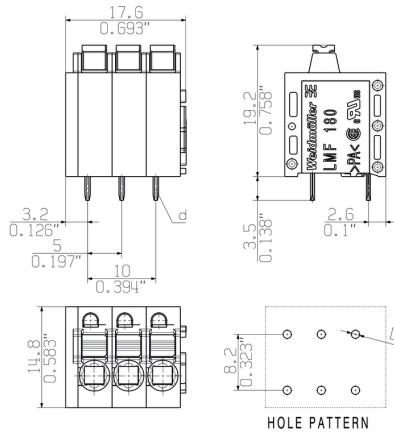
Engineering Data	<a href="#">CAD data – STEP</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

## LMF APL 5.00/03/180 3.5SN BX

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## Drawings



## LMF APL 5.00/03/180 3.5SN BX

Weidmüller Interface GmbH &amp; Co. KG

Klingenbergstraße 26

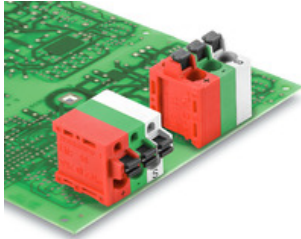
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## Accessories

## Ethernet-APL



## Features and benefits:

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- Space and weight saving design
- Cost-effective alternative to RJ45 and M12 connections
- Available with PUSH IN, SNAP IN, clamping yoke or tension spring connection
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- Ethernet-APL is suitable for all IIoT devices and tailored for the process industry

## General ordering data

Type	SH ETH U	Version	Packaging
Order No.	<a href="#">2903230000</a>	Shield clamp, Accessories, Screw flange, Number of poles: 1, zinc plated, Silver grey, Box	Box
GTIN (EAN)	4099986575172		
Qty.	25 pc(s).		

## Additional accessories



## No task is too small when creating the perfect solution.

Connections form just one part of the overall process. Small details are often the key to the perfect solution in applications where potentials are tested, grouped or even isolated.

A system is not a system without small but essential details:

- Test plugs ensure reliable pick-up from diagnostic sockets

In tandem with the manufacturing process and application.

## General ordering data

Type	PS 2.0 MC	Version	Product data	Packaging
Order No.	<a href="#">0310000000</a>	PCB plug-in connector, Accessories, Test plug, red, Number of poles: 1		Box
GTIN (EAN)	4008190000059			
Qty.	20 pc(s).			

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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Slotted screwdriver**

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

**General ordering data**

Type	SDIS 0.6X3.5X100	Version
Order No.	<a href="#">9008390000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248056354	
Qty.	1 pc(s).	

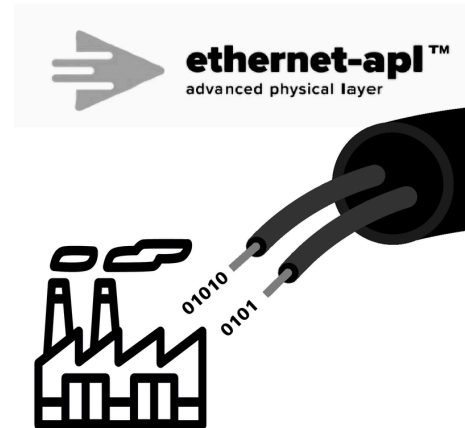


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## Drawings



## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
[www.weidmueller.com](http://www.weidmueller.com)

### Single Wave:



### Double Wave:



### Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of  $260\text{ °C}$ . In practice, the maximum soldering temperature is quite often well below the above maximum profile.

We reserve the right to make technical changes.