

PCB terminal series LSF-SMT SPE

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmüller.com



General data

Reference product	3077550000 LSF-SMT SPE 3.50/02/135 3.5SN BK TU
Description of the product	The Weidmüller OMNIMATE® Data LSF-SMT SPE series are Single Pair Ethernet PCB terminals with PUSH IN technology for data transmission at 10 Mbit/s up to 1,000 meters. Thanks to the “Power over Data Line” (PoDL) function, up to 50 W can be transmitted in accordance with IEEE 802.3bu.
Functional unit	Connection of printed circuit boards and electrical devices, according to the appropriate use scenario, and during the reference service life of the product of 20 years.

Other products covered

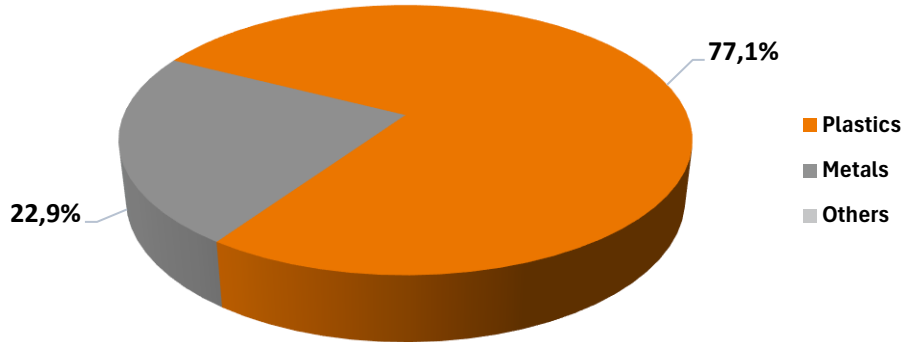
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Constituent Materials

The total weight of the reference product is 3,494 g (including packaging material). The constituent materials are distributed as follows:



Categorisation according to the material classes of IEC 62474:

Plastics			Metals		Other
M-299	Other filled thermoplastics	41,6 %	M-100	Stainless steel	< 0,1 %
M-200	Polyvinyl chloride (PVC)	29,4 %	M-121	Copper and its alloys	37,8 %
M-268	Polyphthalamide (PPA)	6 %			
Plastics in total		77,1 %	Metals in total		22,9 %
			Others in total		0 %

The products are in compliance with RoHS (EU Directive 2011/65/EU).

According to the REACH Regulation 1907/2006, the ECHA publishes on its website which substances are to be classified as so-called substances of very high concern (SVHC). As soon as an article contains SVHC above the respective threshold values for the declaration obligation according to Article 33, the affected articles and the SVHC they contain are published in the online product catalogue at each product.

The online product catalogue site of the reference product can be accessed via the link:

<https://eshop.weidmueller.com/p/3077550000>

Additional Environmental Information

Manufacture	<p>This stage includes the manufacturing of the product and its packaging as well as the transport to the manufacturer's last logistics platform located in Hörselbach-Hainich (Germany). The final assembly site is located in Germany and has an ISO 14001 and ISO 50.001 certified environmental management system. Transport packaging, used in addition to product packaging when required for delivery, is excluded from the system boundaries.</p>
Distribution	<p>The shipment is made from the distribution centre to the customer by truck. The transport route to the customer was assumed to be 3500 km by lorry.</p>
Installation	<p>Only the disposal of the packaging is considered in this phase, as the installation is carried out manually with non-electrical tools.</p>
Use	<p>No maintenance or utilities are required during use. The power consumption was calculated according to the use scenario below.</p>
End of Life	<p>The end-of-life stage is modelled based on the data from Eurostat. The transport route to the disposal company was assumed to be 1000 km by lorry.</p>

Environmental Impacts

Reference Service Lifetime	20 years			
Product category	Electrical switchgear and control gear solutions			
Installation elements	No special installation elements required.			
Use scenario	<p>During the use phase, the product dissipates some electricity due to power losses. The average power loss was calculated using the following assumptions:</p> <ul style="list-style-type: none"> - RSL of 20 years; - Load rate: 50 % of the short time withstand current - Use rate: 50 % RSL. 			
Geographical representativeness	Europe			
Software	Sphera LCA for Experts, v10.9.1.19			
Database	Sphera MLC Databases 2025.2			
Energy model	Manufacture*	Installation	Use	End of Life
	Germany	-	Europe	Europe

*Energy model of the final assembly site.

The following tables represent the impact values of the reference product according to DIN EN 15804:2022-03 except for the environmental indicators of output flows and information on the biogenic carbon content of the product and the associated packaging.

Environmental impact indicators

Indicator	Unit	Total*	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End of Life C1-C4	Benefits and Loads D
Climate change - total	kg CO ₂ eq.	2,60E+00	2,15E-02	4,50E-04	4,59E-04	2,58E+00	1,18E-04	7,86E-03
Climate change - fossil	kg CO ₂ eq.	2,56E+00	2,14E-02	4,55E-04	4,59E-04	2,54E+00	9,95E-05	7,50E-03
Climate change - biogenic	kg CO ₂ eq.	2,61E-02	2,99E-06	-1,01E-05	-7,13E-08	2,61E-02	1,75E-05	6,50E-05
Climate change - land use and land use change	kg CO ₂ eq.	8,44E-03	4,65E-05	4,69E-06	8,11E-08	8,39E-03	9,48E-07	2,89E-04
Ozone depletion	kg CFC 11 eq.	5,90E-11	1,06E-12	7,57E-17	1,09E-16	5,79E-11	1,84E-17	4,45E-14
Acidification	mol H ⁺ eq.	5,75E-03	1,86E-04	7,05E-07	8,39E-08	5,57E-03	1,51E-07	1,97E-04
Eutrophication - freshwater	kg P eq.	5,49E-06	4,94E-08	1,23E-09	1,86E-09	5,44E-06	7,09E-10	9,00E-08
Eutrophication - marine aquatic	kg N eq.	1,35E-03	1,51E-05	2,87E-07	2,28E-08	1,34E-03	6,45E-08	2,56E-05
Eutrophication - terrestrial	mol N- eq.	1,51E-02	1,64E-04	3,05E-06	3,41E-07	1,50E-02	6,50E-07	2,76E-04
Photochemical ozone formation	kg NMVOC	3,37E-03	5,11E-05	6,29E-07	6,48E-08	3,31E-03	1,43E-07	7,47E-05
Resource use, mineral and metals	kg Sb eq.	7,33E-06	6,81E-06	3,03E-11	1,54E-12	5,28E-07	6,17E-12	9,56E-06
Resource use, fossils	MJ	5,22E+01	3,01E-01	5,84E-03	3,05E-04	5,19E+01	1,20E-03	5,43E-02
Water use	m ³	6,45E-01	7,47E-03	2,08E-06	4,33E-05	6,37E-01	1,16E-06	1,17E-02

Additional environmental impact indicators

Indicator	Unit	Total*	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End of Life C1-C4	Benefits and Loads D
Particulate matter	Disease incidences	4,76E-08	1,59E-09	6,29E-12	9,62E-13	4,60E-08	1,35E-12	1,47E-09
Ionising radiation, human health	kBq U235 eq.	1,35E+00	8,85E-04	1,58E-06	1,03E-06	1,35E+00	3,64E-07	3,41E-04
Ecotoxicity, freshwater	CTUe	9,47E+00	7,09E-01	7,60E-03	3,23E-04	8,75E+00	1,56E-03	-4,78E-01
Human toxicity, cancer	CTUh	8,38E-10	1,21E-11	1,02E-13	8,94E-15	8,26E-10	2,11E-14	3,52E-11
Human toxicity, non-cancer	CTUh	1,80E-08	6,49E-10	5,73E-12	5,90E-13	1,74E-08	1,19E-12	6,69E-10
Land Use	-	2,10E+01	1,72E-01	2,58E-03	7,72E-05	2,08E+01	5,23E-04	3,96E-02

Resources use indicators

Indicator	Unit	Total*	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End of Life C1-C4	Benefits and Loads D
Use of renewable primary energy	MJ	3,56E+01	1,12E-01	4,40E-04	6,17E-05	3,55E+01	9,11E-05	3,45E-02
Total use of renewable primary energy resources	MJ	3,56E+01	1,12E-01	4,40E-04	6,17E-05	3,55E+01	9,11E-05	3,45E-02
Use of non-renewable primary energy	MJ	5,22E+01	3,01E-01	5,84E-03	3,05E-04	5,19E+01	1,20E-03	5,43E-02
Total use of non-renewable primary energy resources	MJ	5,22E+01	3,01E-01	5,84E-03	3,05E-04	5,19E+01	1,20E-03	5,43E-02
Input of secondary material	kg	2,38E-04	2,38E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels (RSF)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels (NRSF)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m³	2,77E-02	1,88E-04	2,18E-07	1,03E-06	2,75E-02	6,17E-08	1,66E-04

Waste category indicators

Indicator	Unit	Total*	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End of Life C1-C4	Benefits and Loads D
Hazardous waste disposed	kg	6,80E-08	2,45E-10	2,34E-13	1,14E-13	6,78E-08	5,10E-14	-3,98E-07
Non-hazardous waste disposed	kg	4,56E-02	5,23E-03	8,16E-07	1,49E-04	4,02E-02	1,67E-05	5,26E-04
Radioactive waste disposed	kg	8,19E-03	6,13E-06	1,10E-08	7,65E-09	8,19E-03	2,53E-09	3,33E-06

*In accordance with the current Product Category Rules (PCR), the values presented in the 'Total' column do not include the benefits and loads beyond the system boundaries as represented in 'Module D'.

The following table represents the environmental impact indicators for products other than the reference product covered by this Environmental Product Declaration (EPD).

Product number	Life Cycle Phase	Climate change - total	Climate change - fossil	Climate change - biogenic	Climate change -land use and land use change	Ozone depletion	Acidification	Eutrophication - freshwater	Eutrophication - marine	Eutrophication - terrestrial	Photochemical ozone formation	Resource use, mineral and metals	Resource use, fossils	Water use
3077560000	Total*	3,90E+00	3,84E+00	3,92E-02	1,27E-02	8,84E-11	8,63E-03	8,23E-06	2,03E-03	2,27E-02	5,05E-03	1,10E-05	7,82E+01	9,66E-01
	Manufacturing	3,06E-02	3,05E-02	5,73E-07	6,87E-05	1,58E-12	2,75E-04	7,00E-08	2,15E-05	2,34E-04	7,37E-05	1,02E-05	4,25E-01	1,03E-02
	Distribution	6,54E-04	6,62E-04	-1,47E-05	6,82E-06	1,10E-16	1,03E-06	1,79E-09	4,18E-07	4,44E-06	9,14E-07	4,41E-11	8,49E-03	3,03E-06
	Installation	6,64E-04	6,64E-04	-1,03E-07	1,17E-07	1,58E-16	1,21E-07	2,69E-09	3,30E-08	4,93E-07	9,37E-08	2,23E-12	4,42E-04	6,27E-05
	Use	3,86E+00	3,81E+00	3,92E-02	1,26E-02	8,69E-11	8,35E-03	8,15E-06	2,00E-03	2,24E-02	4,97E-03	7,93E-07	7,78E+01	9,56E-01
	End of Life	1,72E-04	1,45E-04	2,56E-05	1,38E-06	2,69E-17	2,20E-07	1,03E-09	9,41E-08	9,47E-07	2,08E-07	8,99E-12	1,74E-03	1,69E-06
	Module D	1,24E-02	1,19E-02	9,39E-05	4,40E-04	7,09E-14	3,02E-04	1,39E-07	3,93E-05	4,24E-04	1,15E-04	1,46E-05	9,12E-02	1,78E-02
3077570000	Total*	3,63E+00	3,58E+00	3,66E-02	1,18E-02	8,22E-11	7,99E-03	7,67E-06	1,89E-03	2,11E-02	4,69E-03	7,55E-06	7,30E+01	9,00E-01
	Manufacturing	2,31E-02	2,30E-02	1,38E-05	4,77E-05	1,08E-12	1,90E-04	5,69E-08	1,59E-05	1,73E-04	5,40E-05	6,81E-06	3,32E-01	7,53E-03
	Distribution	5,50E-04	5,57E-04	-1,23E-05	5,74E-06	9,25E-17	8,63E-07	1,50E-09	3,52E-07	3,73E-06	7,69E-07	3,71E-11	7,15E-03	2,55E-06
	Installation	5,44E-04	5,44E-04	-8,44E-08	9,60E-08	1,29E-16	9,94E-08	2,20E-09	2,70E-08	4,03E-07	7,67E-08	1,82E-12	3,61E-04	5,13E-05
	Use	3,61E+00	3,56E+00	3,66E-02	1,17E-02	8,11E-11	7,80E-03	7,61E-06	1,87E-03	2,10E-02	4,64E-03	7,40E-07	7,26E+01	8,92E-01
	End of Life	1,46E-04	1,23E-04	2,17E-05	1,18E-06	2,29E-17	1,87E-07	8,79E-10	8,00E-08	8,05E-07	1,77E-07	7,65E-12	1,48E-03	1,43E-06
	Module D	6,41E-03	6,06E-03	6,03E-05	2,88E-04	3,25E-14	1,93E-04	8,27E-08	2,49E-05	2,68E-04	7,21E-05	9,56E-06	2,44E-02	1,16E-02
3077630000	Total*	5,45E+00	5,37E+00	5,49E-02	1,77E-02	1,23E-10	1,20E-02	1,15E-05	2,83E-03	3,17E-02	7,04E-03	1,13E-05	1,09E+02	1,35E+00
	Manufacturing	3,31E-02	3,30E-02	1,64E-05	7,06E-05	1,61E-12	2,81E-04	8,12E-08	2,28E-05	2,48E-04	7,82E-05	1,02E-05	4,73E-01	1,04E-02
	Distribution	8,17E-04	8,27E-04	-1,83E-05	8,52E-06	1,37E-16	1,28E-06	2,23E-09	5,22E-07	5,54E-06	1,14E-06	5,51E-11	1,06E-02	3,79E-06
	Installation	8,33E-04	8,33E-04	-1,29E-07	1,47E-07	1,98E-16	1,52E-07	3,37E-09	4,14E-08	6,18E-07	1,18E-07	2,80E-12	5,54E-04	7,86E-05
	Use	5,41E+00	5,34E+00	5,49E-02	1,76E-02	1,22E-10	1,17E-02	1,14E-05	2,80E-03	3,14E-02	6,96E-03	1,11E-06	1,09E+02	1,34E+00
	End of Life	2,14E-04	1,81E-04	3,19E-05	1,72E-06	3,35E-17	2,74E-07	1,29E-09	1,17E-07	1,18E-06	2,59E-07	1,12E-11	2,17E-03	2,10E-06
	Module D	1,02E-02	9,64E-03	8,76E-05	4,39E-04	5,22E-14	2,95E-04	1,28E-07	3,81E-05	4,11E-04	1,11E-04	1,46E-05	4,49E-02	1,77E-02

Please obtain the units from the table of the reference article.

*In accordance with the current Product Category Rules (PCR), the values presented in the 'Total' column do not include the benefits and loads beyond the system boundaries as represented in 'Module D'.

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« Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) »