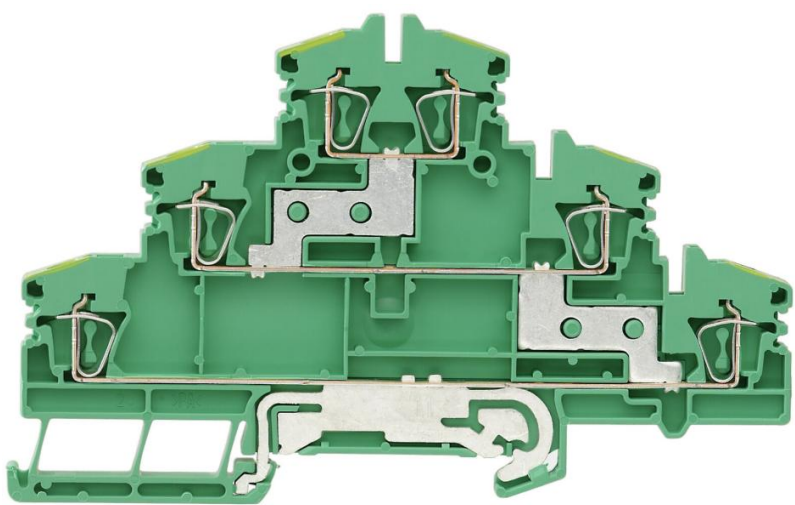


ZDLD 2.5-2N PE

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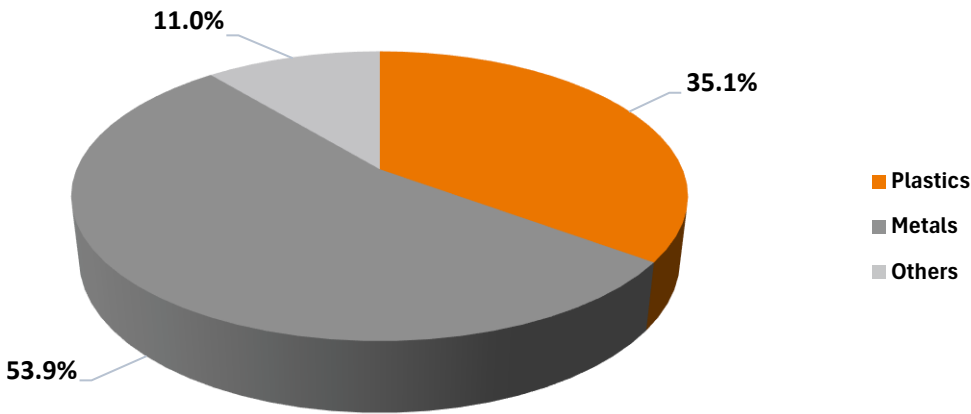


General data

Reference product	1131740000 ZDLD 2.5-2N PE
Description of the product	Weidmüller ZDLD-PE series comprises multi-level protective earth terminal blocks designed for the connection and distribution of protective earth conductors in low-voltage electrical installations. The multi-tier design combines space-saving wiring with reliable grounding functionality. The terminals establish a permanent electrical and mechanical connection to the protective earth system, ensuring fault current dissipation and electrical safety for equipment and personnel within control cabinet and automation applications.
Functional unit	Connect 2 clamping units between 2 or more wires for a rated cross-section 2.5 mm² with rated voltage 630 V, a short time withstand current 288 A and a voltage drop 3.707 mV, according to the appropriate use scenario, and for the reference service life of the product of 20 years.

Constituent Materials

The total weight of the reference product is 27,84 g (including packaging material). The constituent materials are distributed as follows:



Categorisation according to the material classes of IEC 62474:

Plastics			Metals			Other		
M-208	Polyamide (PA)	35,1 %	M-121	Copper and its alloys	48,4 %	M-341	Paper	11 %
			M-100	Stainless steel	5,5 %			
Plastics in total		35,1 %	Metals in total		53,9 %	Others in total		11 %

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/1131740000>

Additional Environmental Information

Manufacture	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 China. Transport packaging, used in addition to product packaging when required for delivery, is excluded from the system boundaries.
Distribution	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. Transport was modelled using an ecoinvent dataset reflecting average European load rates. The load rate is not explicitly specified in the dataset.
Installation	Only the disposal of the packaging is considered in this phase, as the installation is carried out manually with non-electrical tools.
Use	No maintenance or utilities are required during use.
End of Life	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.

Environmental Impacts

Reference Service Lifetime	20 years			
Product category	Electrical switchgear and control gear solutions			
Installation elements	No special installation elements required.			
Use scenario	During the use phase, the product dissipates some electricity due to power losses. The average power loss was calculated using the following assumptions according PSR: - RSL of 20 years; - Load rate: 100 % of the short time withstand current - Use time: 3 seconds			
Geographical representativeness	Europe			
Software	GreenDelta openLCA 2.6.1			
Database	ecoinvent 3.12, EN15804 add-on (ecoinvent 3.12), carbon minds plastics technology 2024			
Energy model	Manufacture*	Installation	Use	End of Life
	China	-	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.	3,70E-01	2,70E-01	1,92E-02	1,60E-03	5,28E-02	2,66E-02	-2,20E-01
Climate change - fossil	kg CO ₂ eq.	3,67E-01	2,67E-01	1,92E-02	1,56E-03	5,26E-02	2,64E-02	-2,19E-01
Climate change - biogenic	kg CO ₂ eq.	2,87E-03	2,58E-03	4,04E-06	3,13E-05	1,10E-04	1,40E-04	-4,90E-04
Climate change - land use and land use change	kg CO ₂ eq.	6,50E-04	4,20E-04	6,27E-06	1,45E-05	1,50E-04	5,93E-05	-2,80E-04
Ozone depletion	kg CFC 11 eq.	5,85E-09	4,25E-09	4,35E-10	5,78E-11	8,48E-10	2,61E-10	-2,03E-09
Acidification	mol H ⁺ eq.	1,54E-02	1,50E-02	3,98E-05	5,76E-06	2,50E-04	6,15E-05	-1,25E-02
Eutrophication - freshwater	kg P eq.	7,36E-05	6,75E-05	1,45E-07	3,80E-08	5,33E-06	5,61E-07	-5,67E-05
Eutrophication - marine aquatic	kg N eq.	9,08E-04	8,50E-04	9,94E-06	1,44E-06	3,45E-05	1,24E-05	-6,90E-04
Eutrophication - terrestrial	mol N- eq.	1,25E-02	1,19E-02	1,10E-04	1,47E-05	3,90E-04	1,30E-04	-9,00E-03
Photochemical ozone formation	kg NMVOC	3,58E-03	3,34E-03	6,72E-05	5,65E-06	1,20E-04	5,21E-05	-2,54E-03
Resource use, mineral and metals	kg Sb eq.	2,00E-04	2,00E-04	6,81E-08	1,26E-08	1,13E-07	9,66E-08	-1,60E-04
Resource use, fossils	MJ	5,12E+00	3,46E+00	2,71E-01	2,92E-02	1,13E+00	2,23E-01	-2,93E+00
Water use	m ³	2,12E-01	1,75E-01	1,43E-03	2,23E-03	2,92E-02	4,35E-03	-1,99E-01

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	4,08E-08	3,78E-08	1,43E-09	1,80E-10	7,51E-10	6,78E-10	-3,14E-08
Ionising radiation, human health	kBq U235 eq.	2,19E-02	1,07E-02	1,20E-04	2,20E-04	9,85E-03	9,70E-04	-6,57E-03
Ecotoxicity, freshwater	CTU _e	1,68E+01	1,65E+01	4,06E-02	6,78E-03	1,24E-01	5,88E-02	-1,37E+01
Human toxicity, cancer	CTU _h	1,57E-09	1,52E-09	3,03E-12	8,53E-13	8,57E-12	4,43E-11	-1,26E-09
Human toxicity, non-cancer	CTU _h	1,53E-07	1,52E-07	1,66E-10	1,56E-11	3,99E-10	3,48E-10	-1,28E-07
Land Use	-	5,48E+00	5,03E+00	1,64E-01	2,64E-02	1,69E-01	9,54E-02	-3,93E+00

Resource 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	1,07E+00	7,49E-01	4,51E-03	1,29E-02	2,66E-01	3,46E-02	-5,59E-01
Total use of renewable primary energy resources	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 primary energy	MJ	1,07E+00	7,49E-01	4,51E-03	1,29E-02	2,66E-01	3,46E-02	-5,59E-01
Total use of non-renewable primary energy resources	MJ	5,12E+00	3,46E+00	2,71E-01	2,92E-02	1,13E+00	2,23E-01	-2,93E+00
Input of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels (RSF)	MJ	5,12E+00	3,46E+00	2,71E-01	2,92E-02	1,13E+00	2,23E-01	-2,93E+00
Use of non-renewable secondary fuels (NRSF)	MJ	2,70E-02	1,00E-02	2,30E-04	1,44E-05	1,60E-02	7,80E-04	-6,09E-03
Use of net fresh water	m³	1,38E-02	3,95E-03	6,24E-05	5,14E-06	9,36E-03	4,30E-04	-1,52E-03

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	5,21E+00	5,19E+00	1,68E-03	3,80E-04	5,78E-03	1,23E-02	-4,37E+00
Non-hazardous waste disposed	kg	5,30E+00	4,98E+00	2,21E-02	3,87E-03	2,50E-01	4,22E-02	-3,81E+00
Radioactive waste disposed	kg	1,49E-05	6,82E-06	7,60E-08	3,87E-09	7,55E-06	4,20E-07	-3,97E-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'.

Date of issue: 16.10.2026

Validity period: 5 Years

Document in compliance with ISO 14021

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

The content of this PEP cannot be compared with content based on another program