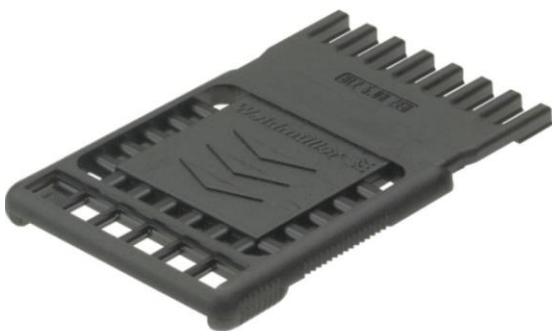


PCB connector series BLZ_ZE

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

www.weidmüller.com



General data

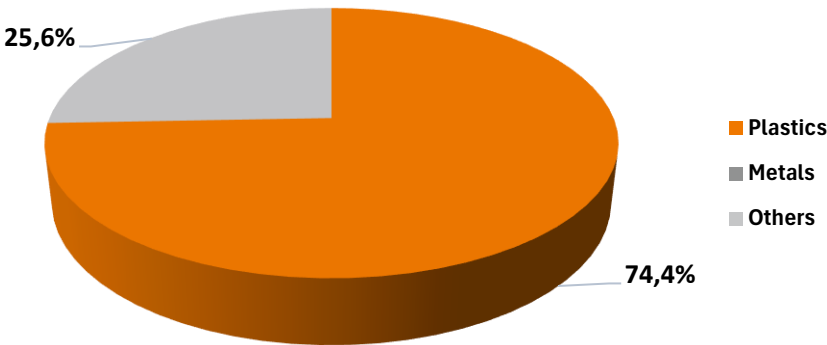
Reference product	1652100000 BLZ 5.00 ZE04 OR BX
Description of the product	The Weidmueller strain relief is an accessory for industrial connectors, designed to bundle conductors, guide cables, and reduce mechanical stress to ensure reliable operation in demanding environments.
Functional unit	The strain relief ensures secure cable retention by stabilizing conductors under mechanical load and supporting consistent connector performance throughout the product's service life.

Other products covered

1652060000	1652040000	1652130000	1652110000	1652070000
1652050000	1652140000	1652150000	1652170000	1652210000

Constituent Materials

The total weight of the reference product is 2,36 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)	74,4 %				M-341	Paper	25,6 %
Plastics in total		74,4 %	Metals in total		0 %	Others in total		25,6 %

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/1652100000>

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 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.
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.
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	/			
Installation elements	No special installation elements required.			
Use scenario	No energy is consumed during the products reference service lifetime.			
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

*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.	1,09E-02	-5,50E-04	5,92E-03	4,84E-03	0,00E+00	6,78E-04	3,98E-03
Climate change - fossil	kg CO ₂ eq.	4,23E-02	3,53E-02	5,99E-03	3,47E-04	0,00E+00	6,80E-04	-2,60E-02
Climate change - biogenic	kg CO ₂ eq.	-3,17E-02	-3,60E-02	-1,33E-04	4,50E-03	0,00E+00	-3,09E-06	3,01E-02
Climate change - land use and land use change	kg CO ₂ eq.	2,19E-04	1,54E-04	6,17E-05	1,86E-06	0,00E+00	1,52E-06	-1,15E-04
Ozone depletion	kg CFC 11 eq.	1,26E-13	1,25E-13	9,95E-16	6,14E-16	0,00E+00	1,31E-16	-7,41E-14
Acidification	mol H ⁺ eq.	9,39E-05	8,26E-05	9,28E-06	1,56E-06	0,00E+00	5,21E-07	-6,35E-05
Eutrophication - freshwater	kg P eq.	4,25E-07	3,91E-07	1,62E-08	1,53E-08	0,00E+00	2,00E-09	-3,17E-07
Eutrophication - marine aquatic	kg N eq.	4,25E-05	3,78E-05	3,78E-06	7,34E-07	0,00E+00	2,04E-07	-2,97E-05
Eutrophication - terrestrial	mol N- eq.	4,05E-04	3,57E-04	4,01E-05	6,44E-06	0,00E+00	2,25E-06	-2,78E-04
Photochemical ozone formation	kg NMVOC	9,66E-05	8,56E-05	8,27E-06	2,26E-06	0,00E+00	4,97E-07	-6,57E-05
Resource use, mineral and metals	kg Sb eq.	1,17E-08	1,13E-08	3,99E-10	1,98E-11	0,00E+00	1,09E-11	-8,93E-09
Resource use, fossils	MJ	6,36E-01	5,52E-01	7,69E-02	4,66E-03	0,00E+00	2,12E-03	-4,08E-01
Water use	m ³	3,16E-03	2,77E-03	2,74E-05	2,98E-04	0,00E+00	6,78E-05	-2,14E-03

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	9,46E-10	8,47E-10	8,28E-11	1,21E-11	0,00E+00	4,11E-12	-6,60E-10
Ionising radiation, human health	kBq U235 eq.	1,58E-03	1,54E-03	2,08E-05	9,81E-06	0,00E+00	2,18E-06	-1,27E-03
Ecotoxicity, freshwater	CTUe	3,70E-01	2,63E-01	9,99E-02	4,43E-03	0,00E+00	2,60E-03	-1,88E-01
Human toxicity, cancer	CTUh	8,83E-12	7,36E-12	1,35E-12	8,29E-14	0,00E+00	4,22E-14	-5,33E-12
Human toxicity, non-cancer	CTUh	4,17E-10	3,33E-10	7,54E-11	5,62E-12	0,00E+00	2,50E-12	-2,57E-10
Land Use	-	9,51E-01	9,15E-01	3,40E-02	1,27E-03	0,00E+00	8,79E-04	-7,28E-01

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	5,21E-01	5,15E-01	5,79E-03	5,48E-04	0,00E+00	2,06E-04	-4,10E-01
Total use of renewable primary energy resources	MJ	5,21E-01	5,15E-01	5,79E-03	5,48E-04	0,00E+00	2,06E-04	-4,10E-01
Use of non-renewable primary energy	MJ	6,36E-01	5,52E-01	7,69E-02	4,66E-03	0,00E+00	2,12E-03	-4,08E-01
Total use of non-renewable primary energy resources	MJ	6,36E-01	5,52E-01	7,69E-02	4,66E-03	0,00E+00	2,12E-03	-4,08E-01
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	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	1,95E-04	1,83E-04	2,86E-06	7,14E-06	0,00E+00	1,66E-06	-1,42E-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	3,48E-09	3,48E-09	3,08E-12	7,62E-13	0,00E+00	2,04E-13	-2,84E-09
Non-hazardous waste disposed	kg	2,39E-03	7,64E-04	1,07E-05	1,44E-03	0,00E+00	1,66E-04	-5,84E-04
Radioactive waste disposed	kg	1,00E-05	9,81E-06	1,45E-07	6,43E-08	0,00E+00	1,47E-08	-8,01E-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
1652060000 1652070000	Total*	4,62E-02	4,69E-02	-7,58E-04	3,63E-05	1,71E-13	5,75E-05	7,91E-08	1,97E-05	2,03E-04	7,54E-05	3,82E-09	7,91E-01	7,00E-04
	Manufacturing	4,28E-02	4,36E-02	-8,38E-04	1,71E-05	1,71E-13	5,38E-05	6,94E-08	1,82E-05	1,87E-04	7,20E-05	3,69E-09	7,67E-01	5,05E-04
	Distribution	1,45E-03	1,47E-03	-3,25E-05	1,51E-05	2,44E-16	2,27E-06	3,96E-09	9,26E-07	9,83E-06	2,03E-06	9,77E-11	1,88E-02	6,72E-06
	Installation	1,31E-04	9,36E-06	1,21E-04	5,02E-08	1,66E-17	4,21E-08	4,13E-10	1,98E-08	1,74E-07	6,11E-08	5,35E-13	1,26E-04	8,06E-06
	Use	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	End of Life	1,81E-03	1,81E-03	-8,23E-06	4,05E-06	3,49E-16	1,39E-06	5,32E-09	5,44E-07	6,01E-06	1,33E-06	2,90E-11	5,65E-03	1,81E-04
	Module D	-2,78E-02	-2,86E-02	8,42E-04	-7,01E-06	-4,65E-14	-3,41E-05	-4,27E-08	-1,16E-05	-1,19E-04	-4,78E-05	-2,08E-09	-5,16E-01	-3,15E-04
1652040000 1652050000 1652170000	Total*	4,61E-02	4,68E-02	-7,57E-04	3,50E-05	1,71E-13	5,74E-05	7,90E-08	1,96E-05	2,03E-04	7,53E-05	3,81E-09	7,91E-01	7,00E-04
	Manufacturing	4,27E-02	4,35E-02	-8,37E-04	1,58E-05	1,71E-13	5,37E-05	6,93E-08	1,81E-05	1,87E-04	7,19E-05	3,69E-09	7,66E-01	5,04E-04
	Distribution	1,45E-03	1,47E-03	-3,25E-05	1,51E-05	2,44E-16	2,27E-06	3,96E-09	9,26E-07	9,83E-06	2,03E-06	9,77E-11	1,88E-02	6,72E-06
	Installation	1,31E-04	9,36E-06	1,21E-04	5,02E-08	1,66E-17	4,21E-08	4,13E-10	1,98E-08	1,74E-07	6,11E-08	5,35E-13	1,26E-04	8,06E-06
	Use	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	End of Life	1,81E-03	1,81E-03	-8,23E-06	4,05E-06	3,49E-16	1,39E-06	5,32E-09	5,44E-07	6,01E-06	1,33E-06	2,90E-11	5,65E-03	1,81E-04
	Module D	-2,78E-02	-2,86E-02	8,42E-04	-7,01E-06	-4,65E-14	-3,41E-05	-4,27E-08	-1,16E-05	-1,19E-04	-4,78E-05	-2,08E-09	-5,16E-01	-3,15E-04
1652130000	Total*	1,09E-02	4,24E-02	-3,17E-02	2,19E-04	1,26E-13	9,39E-05	4,25E-07	4,25E-05	4,05E-04	9,66E-05	1,17E-08	6,36E-01	3,16E-03
	Manufacturing	-5,30E-04	3,53E-02	-3,60E-02	1,54E-04	1,25E-13	8,26E-05	3,91E-07	3,78E-05	3,57E-04	8,56E-05	1,13E-08	5,53E-01	2,77E-03
	Distribution	5,92E-03	5,99E-03	-1,33E-04	6,17E-05	9,95E-16	9,28E-06	1,62E-08	3,78E-06	4,01E-05	8,27E-06	3,99E-10	7,69E-02	2,74E-05
	Installation	4,84E-03	3,47E-04	4,50E-03	1,86E-06	6,14E-16	1,56E-06	1,53E-08	7,34E-07	6,44E-06	2,26E-06	1,98E-11	4,66E-03	2,98E-04
	Use	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	End of Life	6,78E-04	6,80E-04	-3,09E-06	1,52E-06	1,31E-16	5,21E-07	2,00E-09	2,04E-07	2,25E-06	4,97E-07	1,09E-11	2,12E-03	6,78E-05
	Module D	3,98E-03	-2,60E-02	3,01E-02	-1,15E-04	-7,41E-14	-6,35E-05	-3,17E-07	-2,97E-05	-2,78E-04	-6,57E-05	-8,93E-09	-4,08E-01	-2,14E-03
1652110000 1652140000	Total*	1,09E-02	4,23E-02	-3,17E-02	2,19E-04	1,26E-13	9,39E-05	4,25E-07	4,25E-05	4,05E-04	9,66E-05	1,17E-08	6,36E-01	3,16E-03
	Manufacturing	-5,50E-04	3,53E-02	-3,60E-02	1,54E-04	1,25E-13	8,26E-05	3,91E-07	3,78E-05	3,57E-04	8,56E-05	1,13E-08	5,52E-01	2,77E-03
	Distribution	5,92E-03	5,99E-03	-1,33E-04	6,17E-05	9,95E-16	9,28E-06	1,62E-08	3,78E-06	4,01E-05	8,27E-06	3,99E-10	7,69E-02	2,74E-05
	Installation	4,84E-03	3,47E-04	4,50E-03	1,86E-06	6,14E-16	1,56E-06	1,53E-08	7,34E-07	6,44E-06	2,26E-06	1,98E-11	4,66E-03	2,98E-04
	Use	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	End of Life	6,78E-04	6,80E-04	-3,09E-06	1,52E-06	1,31E-16	5,21E-07	2,00E-09	2,04E-07	2,25E-06	4,97E-07	1,09E-11	2,12E-03	6,78E-05

	Module D	3,98E-03	-2,60E-02	3,01E-02	-1,15E-04	-7,41E-14	-6,35E-05	-3,17E-07	-2,97E-05	-2,78E-04	-6,57E-05	-8,93E-09	-4,08E-01	-2,14E-03
1652150000	Total*	1,72E-02	1,81E-02	-9,46E-04	1,74E-05	6,55E-14	2,31E-05	3,80E-08	8,10E-06	8,29E-05	2,97E-05	1,65E-09	3,04E-01	3,24E-04
	Manufacturing	1,57E-02	1,67E-02	-1,07E-03	8,97E-06	6,53E-14	2,15E-05	3,37E-08	7,45E-06	7,60E-05	2,82E-05	1,59E-09	2,93E-01	2,44E-04
	Distribution	6,57E-04	6,65E-04	-1,47E-05	6,85E-06	1,10E-16	1,03E-06	1,79E-09	4,20E-07	4,46E-06	9,18E-07	4,43E-11	8,53E-03	3,04E-06
	Installation	1,50E-04	1,07E-05	1,39E-04	5,77E-08	1,90E-17	4,83E-08	4,74E-10	2,28E-08	1,99E-07	7,02E-08	6,15E-13	1,44E-04	9,25E-06
	Use	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	End of Life	6,78E-04	6,80E-04	-3,09E-06	1,52E-06	1,31E-16	5,21E-07	2,00E-09	2,04E-07	2,25E-06	4,97E-07	1,09E-11	2,12E-03	6,78E-05
	Module D	-1,01E-02	-1,11E-02	9,44E-04	-4,99E-06	-1,87E-14	-1,39E-05	-2,24E-08	-4,90E-06	-4,95E-05	-1,89E-05	-9,50E-10	-1,98E-01	-1,61E-04
1652210000	Total*	1,72E-02	1,80E-02	-8,19E-04	1,72E-05	6,53E-14	2,28E-05	3,64E-08	7,97E-06	8,17E-05	2,94E-05	1,61E-09	3,03E-01	3,12E-04
	Manufacturing	1,58E-02	1,67E-02	-9,23E-04	9,04E-06	6,50E-14	2,12E-05	3,23E-08	7,34E-06	7,50E-05	2,80E-05	1,55E-09	2,92E-01	2,33E-04
	Distribution	6,36E-04	6,43E-04	-1,43E-05	6,63E-06	1,07E-16	9,96E-07	1,74E-09	4,06E-07	4,31E-06	8,88E-07	4,28E-11	8,25E-03	2,94E-06
	Installation	1,31E-04	9,36E-06	1,21E-04	5,02E-08	1,66E-17	4,21E-08	4,13E-10	1,98E-08	1,74E-07	6,11E-08	5,35E-13	1,26E-04	8,06E-06
	Use	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	End of Life	6,78E-04	6,80E-04	-3,09E-06	1,52E-06	1,31E-16	5,21E-07	2,00E-09	2,04E-07	2,25E-06	4,97E-07	1,09E-11	2,12E-03	6,78E-05
	Module D	-1,02E-02	-1,10E-02	8,24E-04	-4,54E-06	-1,84E-14	-1,37E-05	-2,12E-08	-4,80E-06	-4,85E-05	-1,87E-05	-9,17E-10	-1,97E-01	-1,52E-04

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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Document in compliance with ISO 14021

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