

I/O System IP20 U-Remote Field Bus Coupler

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General data

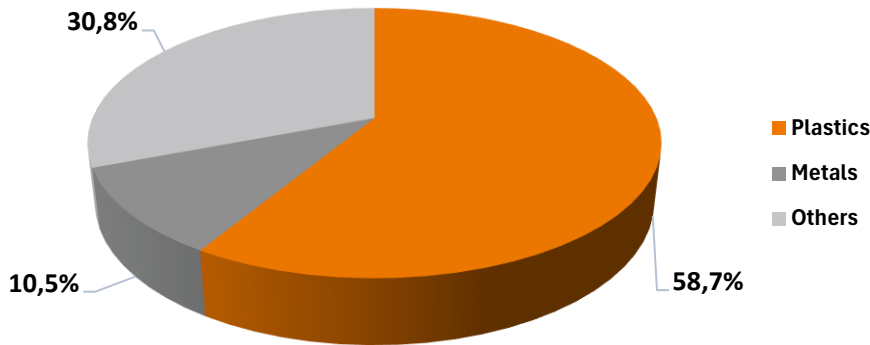
Reference product	2659700000 UR20-FBC-MOD-TCP-ECO
Description of the product	A fieldbus coupler is used to connect the station I/O modules to the fieldbus. All of the data traffic with the programmable logic controller including the diagnostic messages is exchanged via the coupler. The integrated power supply provides the coupler and all connected modules with power.
Functional unit	The fieldbus coupler connects the station I/O modules to the fieldbus for 55,34% within 10 years.

Other products covered

1334900000	1334910000	1334920000	1334940000	2476450000
2566380000	2614380000	2625010000	2659680000	2659690000
2661310000	2680260000	2799510000	1334890000	1550550000

Constituent Materials

The total weight of the reference product is 287 g (including packaging material). The constituent materials are distributed as follows:



Categorisation according to the material classes of IEC 62474:

Plastics			Metals			Other		
M-258	Polyamide (PA)	32,9 %	M-119	Other ferrous alloys, non-stainless steels	6,9 %	M-341	Paper	5,1 %
M-204	Polycarbonate (PC)	22,7 %	M-121	Copper and its alloys	3,4 %		Miscellaneous	25,7 %
M-208	Polyamide (PA)	1,7 %	M-100	Stainless steel	0,2 %			
M-261	Polybutylene terephthalate (PBT)	1,5 %						
Plastics in total		58,7 %	Metals in total		10,5 %	Others in total		30,8 %

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/2659700000>

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.</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	10 years								
Product category	Electrical switchgear and control gear solutions								
Installation elements	No special installation elements required.								
Use scenario	The reference product is operated over the reference period of 10 years with a power loss of 1,92W at 55,34% in active mode and 44,66% in off mode.								
Geographical representativeness	Europe								
Software	Sphera LCA for Experts, v10.9.4.13								
Database	Sphera MLC Databases 2025.2								
Energy model	<table border="1"> <thead> <tr> <th>Manufacture*</th> <th>Installation</th> <th>Use</th> <th>End of Life</th> </tr> </thead> <tbody> <tr> <td>Germany</td> <td>-</td> <td>Europe</td> <td>Europe</td> </tr> </tbody> </table>	Manufacture*	Installation	Use	End of Life	Germany	-	Europe	Europe
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.	4,79E+01	1,79E+01	8,98E-02	4,60E-03	2,98E+01	9,80E-02	-9,20E-01
Climate change - fossil	kg CO ₂ eq.	4,73E+01	1,78E+01	9,08E-02	3,29E-04	2,94E+01	3,40E-02	-9,55E-01
Climate change - biogenic	kg CO ₂ eq.	4,05E-01	3,68E-02	-2,01E-03	4,27E-03	3,02E-01	6,38E-02	3,92E-02
Climate change - land use and land use change	kg CO ₂ eq.	1,42E-01	4,33E-02	9,36E-04	1,77E-06	9,70E-02	2,58E-04	-3,68E-03
Ozone depletion	kg CFC 11 eq.	8,63E-10	1,94E-10	1,51E-14	5,83E-16	6,70E-10	1,17E-14	-4,44E-12
Acidification	mol H ⁺ eq.	2,19E-01	1,54E-01	1,44E-04	1,48E-06	6,44E-02	5,84E-05	-4,34E-03
Eutrophication - freshwater	kg P eq.	1,50E-04	8,54E-05	2,45E-07	1,45E-08	6,29E-05	1,58E-06	-2,53E-06
Eutrophication - marine aquatic	kg N eq.	3,15E-02	1,60E-02	5,90E-05	6,98E-07	1,54E-02	3,39E-05	-7,45E-04
Eutrophication - terrestrial	mol N- eq.	3,48E-01	1,74E-01	6,27E-04	6,11E-06	1,73E-01	2,41E-04	-8,03E-03
Photochemical ozone formation	kg NMVOC	8,97E-02	5,12E-02	1,28E-04	2,15E-06	3,83E-02	7,81E-05	-2,66E-03
Resource use, mineral and metals	kg Sb eq.	2,43E-03	2,43E-03	6,05E-09	1,88E-11	6,11E-06	1,79E-09	-1,06E-04
Resource use, fossils	MJ	8,41E+02	2,40E+02	1,17E+00	4,43E-03	6,00E+02	3,67E-01	-1,88E+01
Water use	m ³	1,13E+01	3,97E+00	4,16E-04	2,83E-04	7,37E+00	5,49E-04	-1,77E-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	2,04E-06	1,51E-06	1,27E-09	1,15E-11	5,32E-07	5,42E-10	-4,11E-08
Ionising radiation, human health	kBq U235 eq.	1,66E+01	1,00E+00	3,16E-04	9,32E-06	1,56E+01	1,87E-04	-2,31E-02
Ecotoxicity, freshwater	CTUe	2,27E+02	1,24E+02	1,52E+00	4,21E-03	1,01E+02	4,86E-01	-6,89E+00
Human toxicity, cancer	CTUh	1,46E-08	5,00E-09	2,04E-11	7,88E-14	9,55E-09	6,81E-12	-1,11E-09
Human toxicity, non-cancer	CTUh	3,89E-07	1,87E-07	1,14E-09	5,34E-12	2,01E-07	4,15E-10	-1,11E-08
Land Use	-	2,88E+02	4,73E+01	5,15E-01	1,21E-03	2,40E+02	1,45E-01	-2,75E+00

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	4,78E+02	6,75E+01	8,78E-02	5,20E-04	4,10E+02	2,97E-02	-2,63E+00
Total use of renewable primary energy resources	MJ	4,78E+02	6,75E+01	8,78E-02	5,20E-04	4,10E+02	2,97E-02	-2,63E+00
Use of non-renewable primary energy	MJ	8,41E+02	2,40E+02	1,17E+00	4,43E-03	6,00E+02	3,67E-01	-1,88E+01
Total use of non-renewable primary energy resources	MJ	8,41E+02	2,40E+02	1,17E+00	4,43E-03	6,00E+02	3,67E-01	-1,88E+01
Input of secondary material	kg	1,53E-03	1,53E-03	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	4,60E-01	1,42E-01	4,34E-05	6,78E-06	3,18E-01	2,36E-05	-6,09E-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	9,22E-07	1,38E-07	4,67E-11	7,24E-13	7,84E-07	2,14E-11	-2,81E-06
Non-hazardous waste disposed	kg	1,30E+00	7,81E-01	1,63E-04	1,37E-03	4,65E-01	5,24E-02	-2,56E-02
Radioactive waste disposed	kg	1,04E-01	9,26E-03	2,20E-06	6,11E-08	9,47E-02	1,28E-06	-2,12E-04

*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
1334900000	Total*	5,92E+01	5,85E+01	5,16E-01	1,74E-01	1,06E-09	3,90E-01	1,66E-04	4,06E-02	4,48E-01	1,22E-01	3,16E-03	1,04E+03	1,41E+01
	Manufacturing	2,17E+01	2,16E+01	5,94E-02	5,11E-02	2,22E-10	3,09E-01	8,57E-05	2,12E-02	2,31E-01	7,43E-02	3,15E-03	2,90E+02	4,84E+00
	Distribution	9,94E-02	1,01E-01	-2,23E-03	1,04E-03	1,67E-14	1,59E-04	2,71E-07	6,51E-05	6,92E-04	1,42E-04	6,69E-09	1,29E+00	4,60E-04
	Installation	4,60E-03	3,29E-04	4,27E-03	1,77E-06	5,83E-16	1,48E-06	1,45E-08	6,98E-07	6,11E-06	2,15E-06	1,88E-11	4,43E-03	2,83E-04
	Use	3,72E+01	3,67E+01	3,78E-01	1,21E-01	8,37E-10	8,05E-02	7,86E-05	1,93E-02	2,16E-01	4,79E-02	7,64E-06	7,50E+02	9,21E+00
	End of Life	1,15E-01	3,85E-02	7,63E-02	2,88E-04	1,36E-14	6,66E-05	1,88E-06	3,92E-05	2,75E-04	9,05E-05	2,01E-09	4,13E-01	6,33E-04
	Module D	1,03E+00	1,07E+00	4,01E-02	-4,87E-03	-4,78E-12	-5,32E-03	-3,03E-06	-8,90E-04	-9,59E-03	-3,11E-03	-1,42E-04	2,03E+01	-2,27E-01
1334910000 1334920000 1550550000 2476450000 2566380000 2661310000	Total*	5,91E+01	5,84E+01	5,15E-01	1,74E-01	1,06E-09	3,89E-01	1,66E-04	4,05E-02	4,48E-01	1,22E-01	3,16E-03	1,04E+03	1,40E+01
	Manufacturing	2,16E+01	2,15E+01	5,87E-02	5,10E-02	2,20E-10	3,09E-01	8,55E-05	2,11E-02	2,30E-01	7,41E-02	3,15E-03	2,89E+02	4,83E+00
	Distribution	9,58E-02	9,70E-02	-2,15E-03	9,99E-04	1,61E-14	1,53E-04	2,62E-07	6,29E-05	6,68E-04	1,37E-04	6,46E-09	1,24E+00	4,44E-04
	Installation	4,60E-03	3,29E-04	4,27E-03	1,77E-06	5,83E-16	1,48E-06	1,45E-08	6,98E-07	6,11E-06	2,15E-06	1,88E-11	4,43E-03	2,83E-04
	Use	3,72E+01	3,67E+01	3,78E-01	1,21E-01	8,37E-10	8,05E-02	7,86E-05	1,93E-02	2,16E-01	4,79E-02	7,64E-06	7,50E+02	9,21E+00
	End of Life	1,14E-01	3,73E-02	7,61E-02	2,77E-04	1,34E-14	6,50E-05	1,88E-06	3,85E-05	2,67E-04	8,89E-05	1,94E-09	4,00E-01	6,20E-04
	Module D	-9,83E-01	1,02E+00	3,96E-02	-4,81E-03	-4,59E-12	-5,19E-03	-2,97E-06	-8,61E-04	-9,28E-03	-3,01E-03	-1,41E-04	1,96E+01	-2,24E-01
1334940000	Total*	5,91E+01	5,84E+01	5,15E-01	1,74E-01	1,06E-09	3,89E-01	1,66E-04	4,05E-02	4,48E-01	1,22E-01	3,16E-03	1,04E+03	1,40E+01
	Manufacturing	2,16E+01	2,15E+01	5,87E-02	5,10E-02	2,21E-10	3,09E-01	8,55E-05	2,11E-02	2,30E-01	7,41E-02	3,15E-03	2,89E+02	4,83E+00
	Distribution	9,59E-02	9,71E-02	-2,15E-03	1,00E-03	1,61E-14	1,53E-04	2,62E-07	6,29E-05	6,68E-04	1,37E-04	6,46E-09	1,25E+00	4,44E-04
	Installation	4,60E-03	3,29E-04	4,27E-03	1,77E-06	5,83E-16	1,48E-06	1,45E-08	6,98E-07	6,11E-06	2,15E-06	1,88E-11	4,43E-03	2,83E-04
	Use	3,72E+01	3,67E+01	3,78E-01	1,21E-01	8,37E-10	8,05E-02	7,86E-05	1,93E-02	2,16E-01	4,79E-02	7,64E-06	7,50E+02	9,21E+00
	End of Life	1,14E-01	3,74E-02	7,61E-02	2,78E-04	1,34E-14	6,50E-05	1,88E-06	3,85E-05	2,68E-04	8,89E-05	1,94E-09	4,00E-01	6,20E-04
	Module D	-9,84E-01	1,02E+00	3,96E-02	-4,81E-03	-4,59E-12	-5,19E-03	-2,98E-06	-8,62E-04	-9,29E-03	-3,01E-03	-1,41E-04	1,97E+01	-2,24E-01
2614380000	Total*	5,91E+01	5,84E+01	5,15E-01	1,74E-01	1,06E-09	3,89E-01	1,66E-04	4,06E-02	4,48E-01	1,22E-01	3,16E-03	1,04E+03	1,40E+01
	Manufacturing	2,17E+01	2,16E+01	5,87E-02	5,10E-02	2,21E-10	3,09E-01	8,56E-05	2,12E-02	2,31E-01	7,42E-02	3,15E-03	2,90E+02	4,84E+00
	Distribution	9,78E-02	9,89E-02	-2,19E-03	1,02E-03	1,64E-14	1,56E-04	2,67E-07	6,41E-05	6,81E-04	1,40E-04	6,59E-09	1,27E+00	4,53E-04
	Installation	4,60E-03	3,29E-04	4,27E-03	1,77E-06	5,83E-16	1,48E-06	1,45E-08	6,98E-07	6,11E-06	2,15E-06	1,88E-11	4,43E-03	2,83E-04
	Use	3,72E+01	3,67E+01	3,78E-01	1,21E-01	8,37E-10	8,05E-02	7,86E-05	1,93E-02	2,16E-01	4,79E-02	7,64E-06	7,50E+02	9,21E+00
	End of Life	1,14E-01	3,79E-02	7,62E-02	2,83E-04	1,35E-14	6,59E-05	1,88E-06	3,89E-05	2,71E-04	8,98E-05	1,98E-09	4,07E-01	6,27E-04

	Module D	1,00E+00	1,04E+00	3,97E-02	-4,82E-03	-4,68E-12	-5,23E-03	-3,00E-06	-8,72E-04	-9,40E-03	-3,06E-03	-1,41E-04	2,02E+01	-2,25E-01
2625010000	Total*	7,23E+01	7,14E+01	6,48E-01	2,16E-01	1,35E-09	4,17E-01	1,94E-04	4,74E-02	5,24E-01	1,39E-01	3,13E-03	1,31E+03	1,73E+01
	Manufacturing	2,16E+01	2,15E+01	5,85E-02	5,09E-02	2,17E-10	3,08E-01	8,54E-05	2,11E-02	2,30E-01	7,41E-02	3,12E-03	2,89E+02	4,81E+00
	Distribution	9,71E-02	9,82E-02	-2,18E-03	1,01E-03	1,63E-14	1,54E-04	2,65E-07	6,32E-05	6,72E-04	1,38E-04	6,54E-09	1,26E+00	4,50E-04
	Installation	4,60E-03	3,29E-04	4,27E-03	1,77E-06	5,83E-16	1,48E-06	1,45E-08	6,98E-07	6,11E-06	2,15E-06	1,88E-11	4,43E-03	2,83E-04
	Use	5,04E+01	4,98E+01	5,12E-01	1,64E-01	1,13E-09	1,09E-01	1,06E-04	2,61E-02	2,93E-01	6,49E-02	1,03E-05	1,02E+03	1,25E+01
	End of Life	1,14E-01	3,77E-02	7,62E-02	2,81E-04	1,34E-14	6,55E-05	1,88E-06	3,88E-05	2,70E-04	8,94E-05	1,96E-09	4,04E-01	6,24E-04
	Module D	-9,63E-01	-9,99E-01	3,94E-02	-4,01E-03	-4,51E-12	-4,59E-03	-2,68E-06	-7,90E-04	-8,52E-03	-2,81E-03	-1,15E-04	1,93E+01	-1,86E-01
1334890000	Total*	5,86E+01	5,79E+01	5,13E-01	1,73E-01	1,05E-09	3,88E-01	1,66E-04	4,02E-02	4,45E-01	1,21E-01	3,12E-03	1,03E+03	1,40E+01
	Manufacturing	2,12E+01	2,11E+01	5,75E-02	5,06E-02	2,14E-10	3,07E-01	8,48E-05	2,08E-02	2,27E-01	7,31E-02	3,11E-03	2,82E+02	4,80E+00
	Distribution	8,25E-02	8,35E-02	-1,85E-03	8,60E-04	1,39E-14	1,32E-04	2,25E-07	5,39E-05	5,73E-04	1,17E-04	5,56E-09	1,07E+00	3,82E-04
	Installation	4,60E-03	3,29E-04	4,27E-03	1,77E-06	5,83E-16	1,48E-06	1,45E-08	6,98E-07	6,11E-06	2,15E-06	1,88E-11	4,43E-03	2,83E-04
	Use	3,72E+01	3,67E+01	3,78E-01	1,21E-01	8,37E-10	8,05E-02	7,86E-05	1,93E-02	2,16E-01	4,79E-02	7,64E-06	7,50E+02	9,21E+00
	End of Life	1,09E-01	3,31E-02	7,54E-02	2,37E-04	1,26E-14	5,86E-05	1,85E-06	3,58E-05	2,40E-04	8,28E-05	1,68E-09	3,49E-01	5,71E-04
	Module D	-7,92E-01	-8,26E-01	3,81E-02	-3,92E-03	-3,74E-12	-4,18E-03	-2,46E-06	-7,02E-04	-7,56E-03	-2,43E-03	-1,14E-04	1,56E+01	-1,78E-01
2680260000	Total*	6,98E+01	6,90E+01	6,20E-01	2,10E-01	1,32E-09	3,85E-01	1,78E-04	4,51E-02	5,00E-01	1,31E-01	2,80E-03	1,28E+03	1,67E+01
	Manufacturing	1,92E+01	1,91E+01	4,83E-02	4,43E-02	1,81E-10	2,76E-01	7,01E-05	1,89E-02	2,06E-01	6,62E-02	2,79E-03	2,59E+02	4,23E+00
	Distribution	8,42E-02	8,53E-02	-1,89E-03	8,78E-04	1,42E-14	1,34E-04	2,30E-07	5,50E-05	5,85E-04	1,20E-04	5,68E-09	1,09E+00	3,90E-04
	Installation	4,60E-03	3,29E-04	4,27E-03	1,77E-06	5,83E-16	1,48E-06	1,45E-08	6,98E-07	6,11E-06	2,15E-06	1,88E-11	4,43E-03	2,83E-04
	Use	5,04E+01	4,98E+01	5,12E-01	1,64E-01	1,13E-09	1,09E-01	1,06E-04	2,61E-02	2,93E-01	6,49E-02	1,03E-05	1,02E+03	1,25E+01
	End of Life	8,97E-02	3,15E-02	5,80E-02	2,41E-04	1,07E-14	5,41E-05	1,44E-06	3,12E-05	2,24E-04	7,18E-05	1,67E-09	3,42E-01	5,06E-04
	Module D	-8,37E-01	-8,73E-01	3,79E-02	-2,86E-03	-3,90E-12	-3,59E-03	-2,16E-06	-6,41E-04	-6,90E-03	-2,33E-03	-7,92E-05	1,74E+01	-1,36E-01
2659680000 2659690000 2799510000	Total*	4,79E+01	4,73E+01	4,05E-01	1,42E-01	8,63E-10	2,19E-01	1,50E-04	3,15E-02	3,48E-01	8,97E-02	2,43E-03	8,41E+02	1,13E+01
	Manufacturing	1,79E+01	1,78E+01	3,68E-02	4,33E-02	1,94E-10	1,54E-01	8,54E-05	1,60E-02	1,74E-01	5,12E-02	2,43E-03	2,40E+02	3,97E+00
	Distribution	8,98E-02	9,08E-02	-2,01E-03	9,36E-04	1,51E-14	1,44E-04	2,45E-07	5,90E-05	6,27E-04	1,28E-04	6,05E-09	1,17E+00	4,16E-04
	Installation	4,60E-03	3,29E-04	4,27E-03	1,77E-06	5,83E-16	1,48E-06	1,45E-08	6,98E-07	6,11E-06	2,15E-06	1,88E-11	4,43E-03	2,83E-04
	Use	2,98E+01	2,94E+01	3,02E-01	9,70E-02	6,70E-10	6,44E-02	6,29E-05	1,54E-02	1,73E-01	3,83E-02	6,11E-06	6,00E+02	7,37E+00
	End of Life	9,80E-02	3,40E-02	6,38E-02	2,58E-04	1,17E-14	5,84E-05	1,58E-06	3,39E-05	2,41E-04	7,81E-05	1,79E-09	3,67E-01	5,49E-04
	Module D	-9,20E-01	-9,55E-01	3,92E-02	-3,68E-03	-4,44E-12	-4,34E-03	-2,53E-06	-7,45E-04	-8,03E-03	-2,66E-03	-1,06E-04	1,88E+01	-1,77E-01

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) »