



PRODUCT ENVIRONMENTAL DECLARATION

VVS type B

GENERAL PRODUCT INFORMATION

Product name GALVANIC ISOLATOR / TRANSDUCER	Designation (item/version/model) ISO 10
Product GALVANIC ISOLATOR / TRANSDUCER	RSK-number
Internal designation	

THIS PRODUCT DECLARATION HAS BEEN COMPLETED BY

Issued by (company, organisation) : PRODUAL OY	Issued by (environmental manager; telephone) Jari Tommiska
Company registration number: 412.272	Place and date Karhula, 25 August 2000

COMPANY INFORMATION (MANUFACTURER/SELLER)

Manufacturer (company name, address, telephone, fax, E-mail) Produal Oy Keltakalliontie 18 FIN-48770 KARHULA FINLAND Fax: +358-5-2309210, e-mail: info@produal.fi Contact person; telephone Jari Tommiska ; +358-5-230 9200	Supplier/seller (if not the same as former) Contact person; telephone
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COMPANY INFORMATION (ABOUT THE MANUFACTURER)

Quality assurance system adopted	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Quality assurance system based on <input type="checkbox"/> ISO 9000 certification	<input checked="" type="checkbox"/> Other system: like ISO	
Environmental system adopted	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
The company participates in the ICC Business Charter for Sustainable Development	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Environmental management system adopted	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Environmental management system based on <input type="checkbox"/> ISO 14000 certification	<input type="checkbox"/> Other system:	
The company applies life-cycle inventories/analyses LCI/LCA	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Other information on the company's environmental work (max 225 characters):		

COMPANY INFORMATION (ABOUT THE SUPPLIER/SELLER)

Quality assurance system adopted	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Quality assurance system based on <input type="checkbox"/> ISO 9000 certification	<input type="checkbox"/> Other system:	
Environmental policy adopted	<input type="checkbox"/> Yes	<input type="checkbox"/> No
The company participates in the ICC Business Charter for Sustainable Development	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Environmental management system adopted	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Environmental system based on <input type="checkbox"/> ISO 14000 certification	<input type="checkbox"/> Other system:	
The company applies life-cycle inventories/analyses LCI/LCA	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Other information on the company's environmental work (max 225 characters):		

PRODUCT INFORMATION, AREA OF APPLICATION, LABELLING, ETC.

Recommended area of application shown in technical documentation	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Recommended area of application if not shown in technical documentation:		
Product manufactured according to standard <input type="checkbox"/> ISO/SIS or corresponding: <input type="checkbox"/> Industry standard:	Product environmentally labelled <input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If Yes, state type of labelling and license number		
The product has a clear and durable labelling (manufacturer, product name, number etc.)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
The labelling is referred to technical documentation so the product clearly can be identified	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

PRODUCT INFORMATION DECLARATION

The company has determined the product content clearly by way of studies				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
All known information about the product content is shown below				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Substance	CAS-number	% by weight	Comment		
STEEL		4			
COPPER		4			
TIN		4			
PLASTICS (PC, NORYL, PBT)		40			
ELECTRONIC COMPONENTS		48			

PRODUCT INFORMATION, PRODUCT CONTENT OF LISTED SUBSTANCES (SWEDISH CHEMICALS INSPECTORATE'S OBSERVATION LIST AND RESTRICTED SUBSTANCES LIST)

The product contains listed substances (acc. To Swedish Inspectorate's <i>Observation list and/or Restricted substances list</i> .				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not known
List all such substances known to exist in the product > 0.2 % by weight: (amounts below this limit should also be listed if relevant to the outside environment)						
Substance	CAS-number	amount (% of finished product by weight)				
The product is defined as a chemical product pursuant to <i>The Swedish Chemical Products Act</i>				<input type="checkbox"/> Yes	<input type="checkbox"/> No	
If Yes, the product contains listed substances (acc. to Swedish Chemical Inspectorate's <i>List of Dangerous substances</i>)				<input type="checkbox"/> Yes	<input type="checkbox"/> No	
a product information sheet according to ISO 110141 has been drawn up for the product				<input type="checkbox"/> Yes	<input type="checkbox"/> No	

1. USE OF RESOURCES

Manufacturer requires environmental declaration or corresponding from suppliers				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Manufacturer requires product information sheets according to ISO 110141 from suppliers concerned				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Manufacturer requires that suppliers of chemical products participate in the system Responsible Care				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Raw materials (including additives, etc.) and origin of such materials:		Supplier provides environmental declaration and data	Origin (country and approx. % of distribution):		
Raw material/substance	Spec. Raw mater. Req. (g/kg finished product)				
STEEL	10g	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
COPPER	10g	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
TIN	10g	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
PLASTICS	90g	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
ELECTRONIC COMPONENTS	105g	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		<input type="checkbox"/> Yes <input type="checkbox"/> No			
		<input type="checkbox"/> Yes <input type="checkbox"/> No			
Amount of product arising from recovered material:		%			

2. PRODUCTION

If product is manufactured outside of Sweden. Manufacture in accordance with national environmental regulations.				<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Information on emissions to air, water and soil provided to authorities on annual basis.				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If product manufactured in Sweden. Facilities where product is manufactured require permit or reporting to <i>The Swedish Environmental Protection Act</i>				<input type="checkbox"/> Yes	<input type="checkbox"/> No
If Yes, environmental report according to <i>The Swedish Environmental Protection Act</i> is submitted annually				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Environmental accounts shown in latest year-end accounts				<input type="checkbox"/> Yes	<input type="checkbox"/> No
Facilities where product manufactured accredited in accordance with EMAS (in US PERI)				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Environmental management system adopted for operations at facilities where product is manufactured				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Environmental management system based on <input type="checkbox"/> ISO 14000 certification <input type="checkbox"/> Other system:					
Other information on environmental measures at facility:					
Information on use of energy, emissions to air, water and soil available				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Substances listed by Swedish Chemicals Inspectorate's <i>Observation list or Restricted substances list</i> are used in production				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Information available on amounts of such substances				<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

3. DISTRIBUTION OF FINISHED PRODUCT

3.1 State where the product is manufactured: FINLAND	
3.2 Mode of transport used	<input checked="" type="checkbox"/> Ship <input type="checkbox"/> Rail <input checked="" type="checkbox"/> Car <input type="checkbox"/> Air <input type="checkbox"/> Other
3.3 Distribution method	
Goods distributed directly from production facilities to construction site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Goods distributed via warehouse/wholesaler	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental logistics used in distribution	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Method used for environmental logistics:	
3.4 Packaging method used	<input type="checkbox"/> Plastic <input type="checkbox"/> Wood <input checked="" type="checkbox"/> Cardboard/ paper <input type="checkbox"/> Steel <input type="checkbox"/> Other metal
The company has re-usable packaging system	<input type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The company recovers packaging from users	<input type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The company participates in the Swedish register of producer responsibility REPA	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

4. CONSTRUCTION PHASE

Assembly and installation instructions available for product	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Instructions include requirements and recommendations concerning:	
■ Safeguards in conjunction with assembly	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
■ Handling of product at workplace and conjunction	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
■ Instructions for minimising waste	<input checked="" type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input type="checkbox"/> No
■ Information about conditions under which producer will take care of waste	<input checked="" type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input type="checkbox"/> No

5. USER PHASE

The product requires additional energy (electricity, fuel, etc.) for intended application	<input type="checkbox"/> Not relevant <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
The product requires chemical products in conjunction with intended operation (refrigerants, lubricant, etc.)	<input type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Type of chemical product	
The product involves environmental harmful emissions to the air/water (outside environment) when used as intended	<input type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The product requires goods for normal maintenance (gaskets, filters, etc.)	
Type of goods	
The product requires chemical products for normal maintenance (cleaning agents, etc.)	<input type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Type of chemical product	
Normal maintenance of the product involves environmentally harmful emissions to the air/water (outer environment).	<input type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
It is possible to estimate the service life of the product in advance	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Documented industry standard concerning expected service life in different conditions available	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Documented operation and maintenance instructions available for product	
Instruction include information on:	
■ How to maximise service life in conjunction with normal ware and intended use	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
■ Requirements concerning immediate environment of product	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
■ Energy use, power requirements and water consumption during normal use	<input type="checkbox"/> Not relevant <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
■ Methods for replacement and repairs	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
■ How the use of consumables is minimised in conjunction with operation and maintenance	<input checked="" type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input type="checkbox"/> No
■ How the use of chemical products is minimised in conjunction with operation and maintenance	<input checked="" type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input type="checkbox"/> No
■ How the product can be dismantled/removed from the building/installation in other respects	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

6. DEMOLITION

Provision has been made for environmental demolition (dismantling)	<input type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
State how the goods are to be dismantled:	

7. RESIDUALS

The product can be recycled	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
State how the goods and the packaging can be recycled	
Recovery of materials is possible	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
State how the materials in the goods can be recovered	
Energy recycling is possible	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Energy recycling is recommended	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Specify any risks concerning toxic emissions in conjunction with incineration:	
Describe management of residual products after combustion:	

8. WASTE PRODUCTS

Are there any parts of the product that cannot be recycled	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If Yes, give general recommendations for handling such waste:	
The product or parts of the product may be classed as hazardous waste:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Risks for environmental harmful leaching or emission in conjunction with disposal on landfill	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Restrictions and recommendations in conjunction with disposal on landfill:	

A declaration regarding the indoor environment is attached

Yes No

9 INDOOR ENVIRONMENT

THIS SECTION SHOULD ONLY BE COMPLETED FOR PRODUCTS WHICH MAY BE EXPECTED TO AFFECT THE INDOOR ENVIRONMENT

9.1 CONTENT OF ALLERGENIC SUBSTANCES

The product contains class 5 substances in accordance with the Swedish Chemicals Inspectorate's <i>Observation list</i> or listed in the brochure <i>Allergies and chemical products</i>			<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not known	
List all such substances known to exist in the product > 1 by weight: (This applies if it might be expected that the emissions will be released to the indoor air or if there is any risk of contact allergy)						
Substance	CAS-number	amount (% of finished product by weight)				
Are there any other substances in the product that are known to affect human health?					<input type="checkbox"/> Yes	<input type="checkbox"/> No
Does the product contain any substances with an unpleasant odour					<input type="checkbox"/> Yes	<input type="checkbox"/> No

9.2 CONSTRUCTION PROCESS

The assembly instructions include storage requirements, working procedures, etc., intended to minimise impact on the indoor environment	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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9.3 EMISSIONS FROM PRODUCT

Have any measures of TVOC emissions from the product been carried out? Specify TVOC (> 10 µg/m ² h) and measurement method used	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Have any measurements of VOC emissions been carried out? Specify at least five of the highest VOC (> 5 µg/m ² h) and measurement method used	<input type="checkbox"/> Yes	<input type="checkbox"/> No

9.4 SURROUNDING MATERIALS

Do the assembly instructions include requirements and recommendations concerning the composition (content, temperature, pH, RH, etc.) in order to minimise impact on the indoor environment.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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9.5 DOCUMENTATION ACC. TO 9.4

Recommendations in accordance with 9.4 are based on:

9.6 OPERATION AND MAINTENANCE

Operation and maintenance of the product involves class 5 substances in accordance with the Swedish Chemicals Inspectorate's <i>Observation list</i> or as listed in the brochure <i>Allergies and chemical products</i>			<input type="checkbox"/> Yes	<input type="checkbox"/> No
Specify all such substances:				
Substance	CAS-number	amount (% of finished product by weight)		

9.7 NOISE LEVELS

Technical documentation include noise levels	<input type="checkbox"/> Not relevant	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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9.8 ELECTRICAL AND MAGNETIC FIELDS

Documented data available from measurements of electrical and magnetic fields	<input type="checkbox"/> Not relevant	<input type="checkbox"/> Yes	<input type="checkbox"/> No
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