



## PRODUCT ENVIRONMENTAL DECLARATION

VVS type B

### GENERAL PRODUCT INFORMATION

Product name SIGNAL TRANSDUCER Product SIGNAL TRANSDUCER Internal designation	Designation (item/version/model) PMU 3 , UMP 3 RSK-number
---	---

### THIS PRODUCT DECLARATION HAS BEEN COMPLETED BY

Issued by (company, organisation) : PRODUAL OY Company registration number: 412.272	Issued by (environmental manager; telephone) Jari Tommiska Place and date Karhula, 21 August 2001
--	--

### 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: <a href="mailto:info@produal.fi">info@produal.fi</a> Contact person; telephone Jari Tommiska ; +358-5-230 9200	Supplier/seller (if not the same as former)       Contact person; telephone
---	--

### 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		5			
COPPER		5			
TIN		5			
PLASTICS (PC, NORYL, PBT)		65			
ELECTRONIC COMPONENTS		20			

**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	130g	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No		
ELECTRONIC COMPONENTS	40g	<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	<input type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The product requires chemical products for normal maintenance (cleaning agents, etc.)	
Type of chemical product	<input type="checkbox"/> Not relevant <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
■ 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
---	------------------------------	-----------------------------

**9.3 EMISSIONS FROM PRODUCT**

Have any measures of TVOC emissions from the product been carried out? Specify TVOC (> 10 µg/m <sup>2</sup> 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 <sup>2</sup> 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
--	------------------------------	-----------------------------

**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
--	---------------------------------------	------------------------------	-----------------------------

**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
---	---------------------------------------	------------------------------	-----------------------------