# Product Environmental Profile

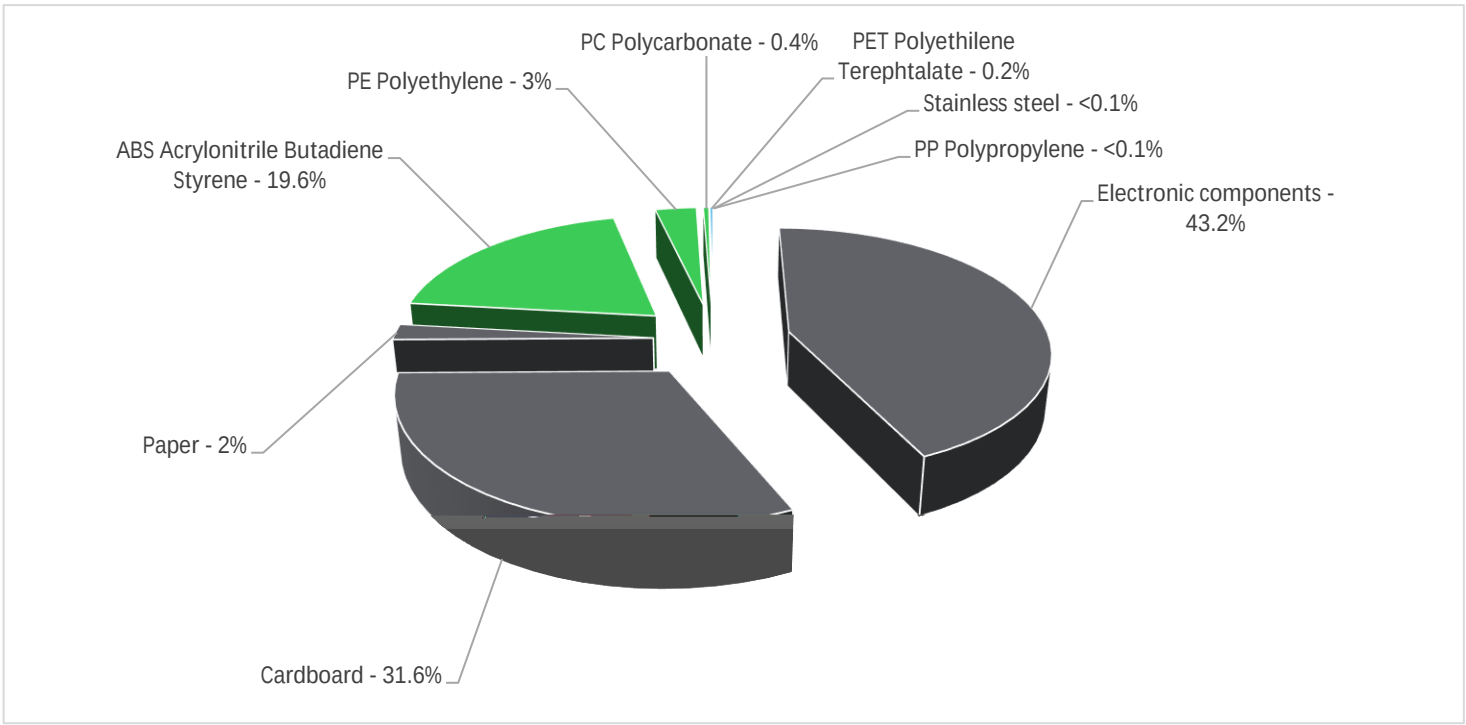
## KNX DALI - GATEWAY BASIC REG-K/2/16/64 (2 DALI CHANNELS)

# General information

| | |
|---|---|
| **Representative product** | KNX DALI - GATEWAY BASIC REG-K/2/16/64 (2 DALI CHANNELS) - MTN6725-0004 |
| **Description of the product** | The KNX DALI Gateway Basic REG-K/2/16/64 connects the KNX bus to the DALI bus. Lights with DALI electronic ballasts can therefore be integrated into a complete KNX system in the form of a subsystem and operated using the wide range of KNX devices available. The device converts switching and dimming commands of the connected KNX system into corresponding DALI telegrams or status information from the DALI bus into KNX telegrams. |
| **Functional unit** | To connects the KNX bus to 2 DALI (Digital Addressable Lighting Interface) outputs during 10 years in accordance with relevant standards. The gateway is a master device on the DALI bus to control lamps. It has an integrated DALI power supply for the ECGs (Electronic Control Gear, also called ballast). For each DALI output, it supports the switching and dimming of up to 64 ECGs. |

# Constituent materials

| | | |
|---|---|---|
| **Reference product mass** | 226 g | including the product, its packaging and additional elements and accessories |




| | | |
|---|---|---|
| | Plastics | 23,2% |
| | Metals | < 0,1% |
| | Others | 76,8% |

# Substance assessment

Products of this range are designed in conformity with the requirements of the RoHS directive (European Directive 2011/65/EU of 8 June 2011) and do not contain, or only contain in the authorised proportions, lead, mercury, cadmium, hexavalent chromium or flame retardants (polybrominated biphenyls - PBB, polybrominated diphenyl ethers - PBDE) as mentioned in the Directive

As the products of the range are designed in accordance with the RoHS Directive (European Directive 2002/95/EC of 27 January 2003), they can be incorporated without any restriction in an assembly or an installation subject to this Directive.

Details of ROHS and REACH substances information are available on the Schneider-Electric Green Premium website
http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page

# Additional environmental information

| The KNX DALI - GATEWAY BASIC REG-K/2/16/64 (2 DALI CHANNELS) presents the following relevent environmental aspects | |
|---|---|
| **Design** | These devices are rather powerful and enable the control of up to 64 or 128 lamps. A new function allows to switch off the power of lamps if they are not used. The device delivers a signal per DALI group to benefit from this opportunity. |
| **Manufacturing** | Manufactured at a production site complying with the regulations |
| **Distribution** | Weight and volume of the packaging optimized, based on the European Union's packaging directive<br>Packaging weight is 76,7 g, consisting of cardboard (96%), paper (4%)<br>Product distribution optimised by setting up local distribution centres |
| **Installation** | Ref MTN6725-0004 does not require any installation operations. |
| **Use** | The product does not require special maintenance operations. |
| **End of life** | End of life optimized to decrease the amount of waste and allow recovery of the product components and materials<br>This product contains electronic cards (97g), cables (1,9) that should be separated from the stream of waste so as to optimize end-of-life treatment.<br>The location of these components and other recommendations are given in the End of Life Instruction document which is available on the Schneider-Electric Green Premium website<br>http://www2.schneider-electric.com/sites/corporate/en/products-services/green-premium/green-premium.page<br>Recyclability potential: **39%** 9 <: F ; <<< (version V1, 20 Sep. 2008 presented to the French Agency for Environment and Energy Management: ADEME). |

# Environmental impacts

| | | | | |
|---|---|---|---|---|
| **Reference life time** | 10 years | | | |
| **Installation elements** | Packaging is being disposed during installation process. | | | |
| **Use scenario** | This product is permanently in operation and powered 100% of the time. Power consumption is depending only on the number of connected ballasts. For a typical installation it is about 9 W for 10 years. Typical installation is considered 55 ballasts per DALI line connected and no short circuit on the DALI lines. | | | |
| **Geographical representativeness** | Europe, Asia, South America | | | |
| **Technological representativeness** | The means of material production, processing and transport modeled are representative of the technologies used in production. | | | |
| **Energy model used** | **Manufacturing** | **Installation** | **Use** | **End of life** |
| | Energy model used: Germany | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 | Electricity grid mix; AC; consumption mix, at consumer; < 1kV; EU-27 |

| **Compulsory indicators** | | **KNX DALI - GATEWAY BASIC REG-K/2/16/64 (2 DALI CHANNELS) - MTN6725-0004** | | | | | |
|---|---|---|---|---|---|---|---|
| **Impact indicators** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Contribution to mineral resources depletion | kg Sb eq | 2,51E-03 | 2,47E-03 | 0* | 0* | 3,28E-05 | 0* |
| Contribution to the soil and water acidification | kg $SO_2$ eq | 1,60E+00 | 7,76E-03 | 5,73E-03 | 0* | 1,59E+00 | 0* |
| Contribution to water eutrophication | kg $PO_4^{3-}$ eq | 1,02E-01 | 1,97E-03 | 5,65E-04 | 1,96E-04 | 9,97E-02 | 4,66E-05 |
| Contribution to global warming | kg $CO_2$ eq | 4,00E+02 | 5,35E+00 | 2,02E-01 | 1,03E-01 | 3,94E+02 | 1,52E-01 |
| Contribution to ozone layer depletion | kg CFC11 eq | 2,54E-05 | 6,33E-07 | 0* | 0* | 2,47E-05 | 5,28E-09 |
| Contribution to photochemical oxidation | kg $C_2H_4$ eq | 9,00E-02 | 9,56E-04 | 2,84E-04 | 2,47E-05 | 8,87E-02 | 0* |
| **Resources use** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Net use of freshwater | m3 | 1,37E+03 | 0* | 0* | 0* | 1,37E+03 | 0* |
| Total Primary Energy | MJ | 7,87E+03 | 7,11E+01 | 2,59E+00 | 0* | 7,79E+03 | 0* |

| | Unit | Total | Manufacturing | Distribution | Installation | Use | End of Life |
|---|---|---|---|---|---|---|---|
| Contribution to fossil resources depletion | MJ | 4,62E+03 | 6,53E+01 | 2,57E+00 | 0* | 4,55E+03 | 0* |
| Contribution to air pollution | m³ | 1,85E+04 | 5,34E+02 | 2,77E+01 | 0* | 1,79E+04 | 2,64E+00 |
| Contribution to water pollution | m³ | 1,70E+04 | 5,39E+02 | 3,01E+01 | 5,38E+00 | 1,64E+04 | 8,18E+00 |
| **Resources use** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| Use of secondary material | kg | 7,03E-02 | 7,03E-02 | 0* | 0* | 0* | 0* |
| Total use of renewable primary energy resources | MJ | 9,74E+02 | 3,32E+00 | 0* | 0* | 9,71E+02 | 0* |
| Total use of non-renewable primary energy resources | MJ | 6,89E+03 | 6,78E+01 | 2,58E+00 | 0* | 6,82E+03 | 0* |
| Use of renewable primary energy excluding renewable primary energy used as raw material | MJ | 9,74E+02 | 3,23E+00 | 0* | 0* | 9,71E+02 | 0* |
| Use of renewable primary energy resources used as raw material | MJ | 9,30E-02 | 9,30E-02 | 0* | 0* | 0* | 0* |
| | MJ | 6,89E+03 | 6,44E+01 | 2,58E+00 | 0* | 6,82E+03 | 0* |
| | MJ | 3,35E+00 | 3,35E+00 | 0* | 0* | 0* | 0* |
| | MJ | 0,00E+00 | 0* | 0* | 0* | 0* | 0* |
| Use of renewable secondary fuels | MJ | 0,00E+00 | 0* | 0* | 0* | 0* | 0* |
| **Waste categories** | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| | kg | 5,61E+00 | 4,54E+00 | 0* | 0* | 7,30E-01 | 3,42E-01 |
| | kg | 1,41E+03 | 1,53E+00 | 0* | 0* | 1,41E+03 | 0* |
| | kg | 9,39E-01 | 7,75E-04 | 0* | 0* | 9,38E-01 | 0* |
| | **Unit** | Total | Manufacturing | Distribution | Installation | Use | End of Life |
| | kg | 7,18E-02 | 1,31E-02 | 0* | 0* | 0* | 5,87E-02 |
| Components for reuse | kg | 0,00E+00 | 0* | 0* | 0* | 0* | 0* |
| | kg | 4,18E-02 | 0* | 0* | 0* | 0* | 4,18E-02 |
| Exported Energy | MJ | 2,66E-03 | 2,26E-05 | 0* | 2,64E-03 | 0* | 0* |

** represents less than 0.01% of the total life cycle of the reference flow*

*Life cycle as(r)5(y)7( /P <</MCID 175>>BDC BT/F3 8.04 Tf1 0 0 1 16.32 )4(1 16.44 92.184 Tm)-6().)]TJET EMC q1 0 0 1 115.12 117.26 198.77 14.52 re W n /P*

The use phase is the life cycle phase which has the greatest impact on the majority of environmental indicators (based on compulsory indicators).

*Please note that the values given above are only valid within the context specified and cannot be used directly to draw up the environmental assessment of an installation.*

| | | | |
|---|---|---|---|
| *Registration number :* | SCHN-00366-V01.01-EN | *Drafting rules* | PCR-ed3-EN-2015 04 02 |
| *Verifier accreditation N°* | VH25 | *Supplemented by* | PSR-0005-ed2-EN-2016 03 29 |
| *Date of issue* | 09/2018 | *Information and reference documents* | www.pep-ecopassport.org |
| | | *Validity period* | 5 years |

*Independent verification of the declaration and data, in compliance with ISO 14025 : 2010*

Internal External X

*The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)*

*PEP are compliant with XP C08-100-1 :2014*

*The elements of the present PEP cannot be compared with elements from another program.*

*Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »*

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