

Data Model for the Exchange of Harness Components

Version 1.0

VDA AK CAD/CAM WG Car Electric 2008-01-02





Main Use Cases

- Import component descriptions into component databases
- Data source for KBL master data
- Data source for automatic terminal, seal and plug determination
- Seach for harness parts (e.g. connectors, fixings, wire protections, ...)
- Data source for various harness analysis options (e.g. copper weight)





Application Context Search for connectors, fixings **OEM** and wire protection components Search for **ELOG GEO** wires Information about part usage **Harness** Information **Supplier** about electrical system **KBL Automatic** terminal determination **KOMP KOMP** ELOG Usage Component Management of validation **GEO KBL** and search for **Supplier** Other Data reusable parts users **ProSTEP Establishing Leadership in IT-Based Engineering iViP**

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Focus of KOMP 1.0 Search for connectors, fixings **OEM** and wire protection components Search for **ELOG GEO** wires Information about part usage **Harness** Information **Supplier** about electrical system **KBL Automatic** terminal **KOMP** determination KOMP ELOG Usage Component Management of validation **GEO KBL** and search for **Supplier** Other Data reusable parts



Establishing Leadership in IT-Based Engineering

users

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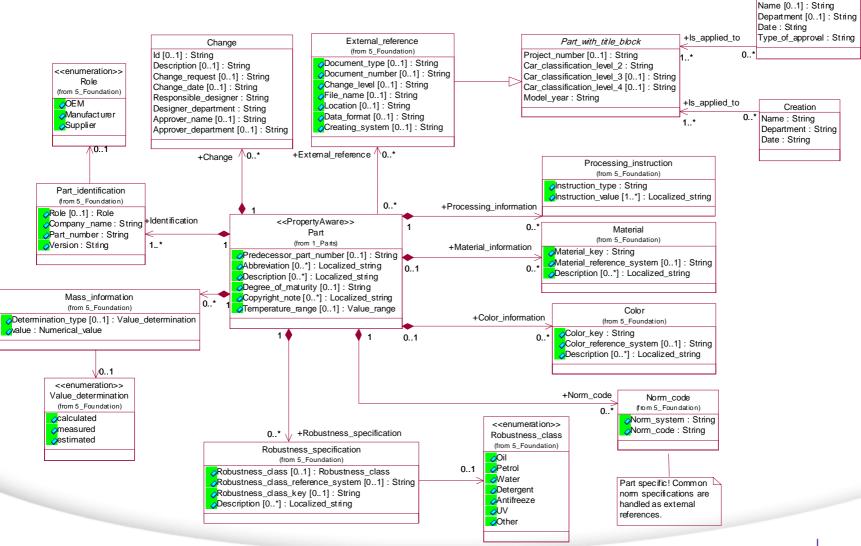
General information

- Only parts are considered which may be part of a harness
 - Only attributes are considered which are relevant for harness engineering
 - Exception: Interfaces to EE-Components
- No part usage specific information is exchanged
- One exchange file may contain only one version of a part
- A part may be specified differently by different application roles (e.g. OEM, harness supplier, component supplier). The differences may concern
 - The part identification (i.e. a part can only be identified by company name part number and version)
 - The bill of material (i.e. the assembly structure)
 - Attribute values (i.e. technical specifications)
- Every part may be an accessory part to any other part.
- The model information must facilitate automatic terminal determination
- Descriptions may be exchanged multi-lingual





Common part master data



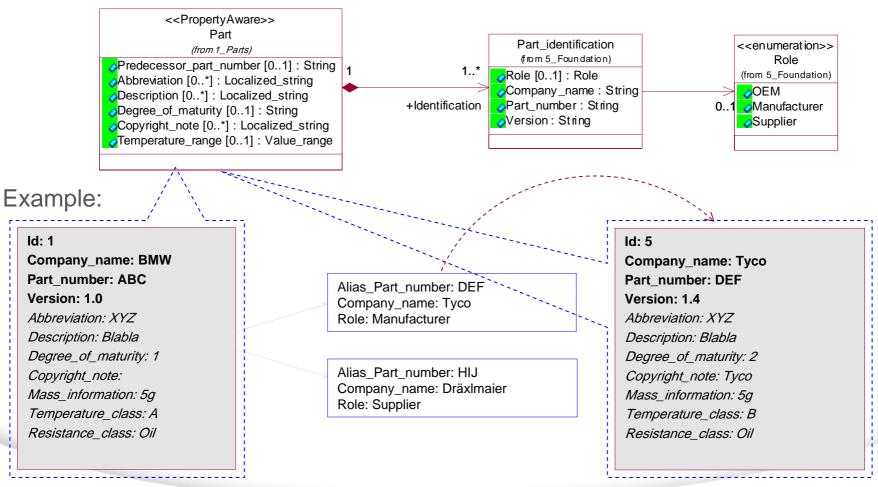




Approval

Part identification

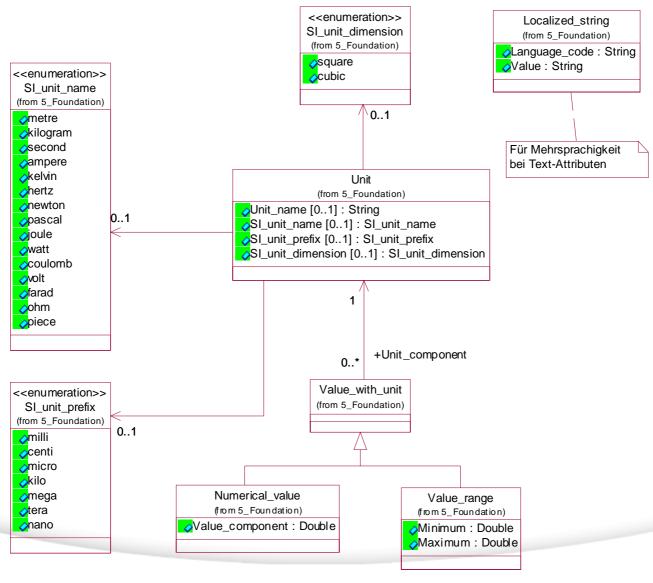
One part may be described differently by different companies







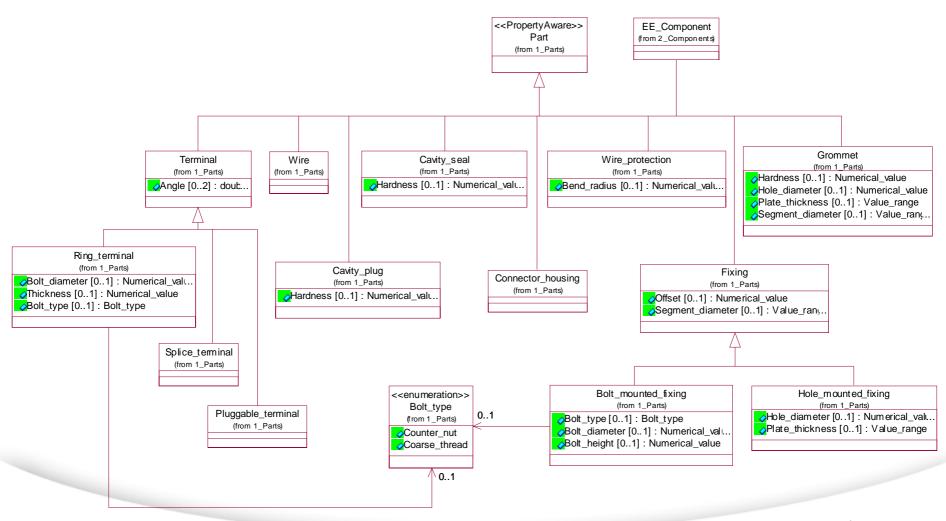
Common data types







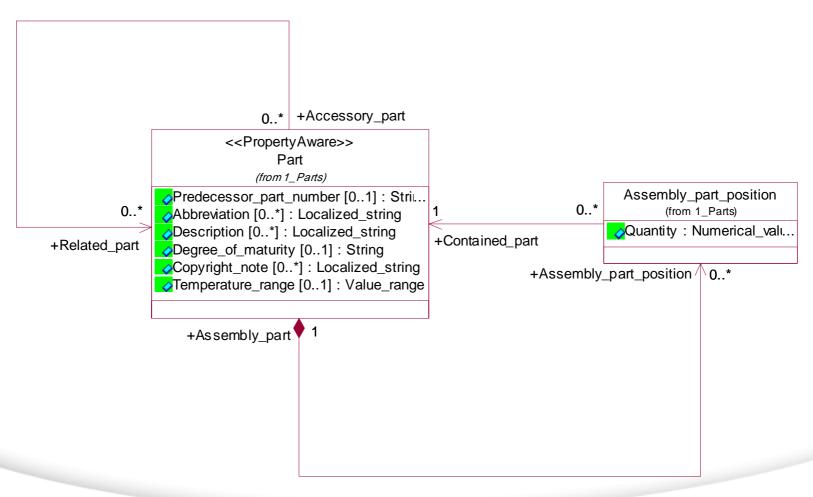
Part specializations







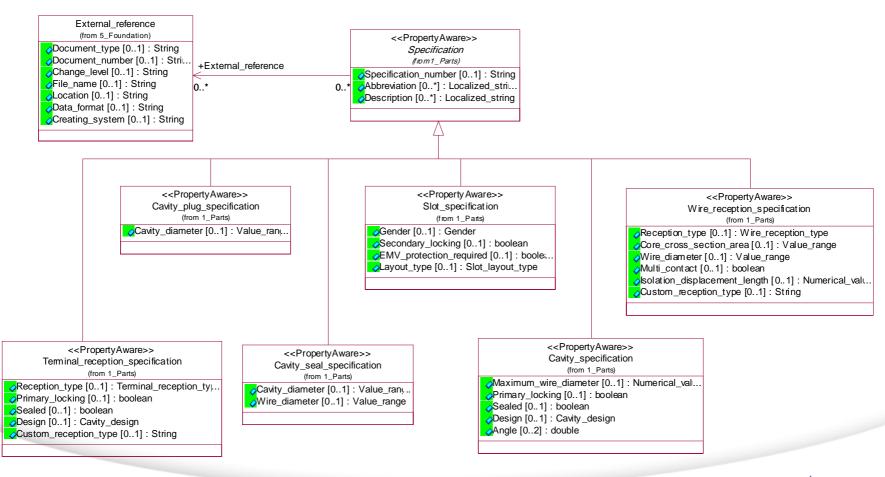
Assemblies and accessory parts







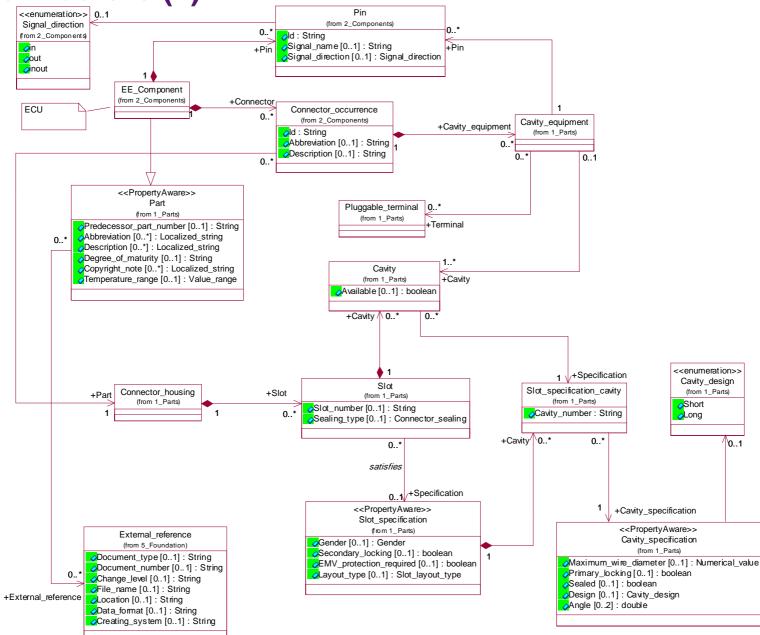
Specification specializations

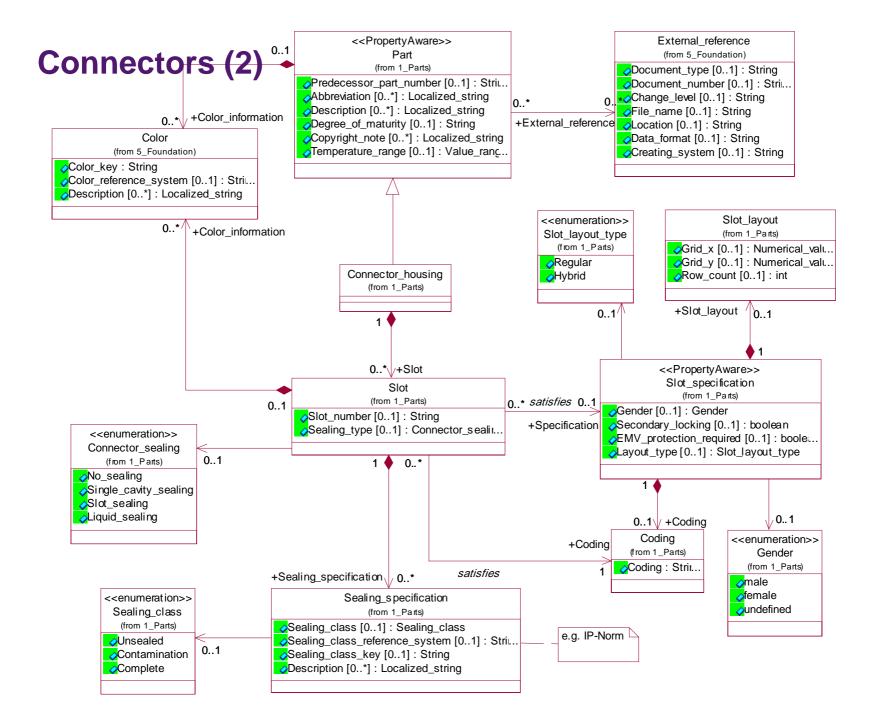


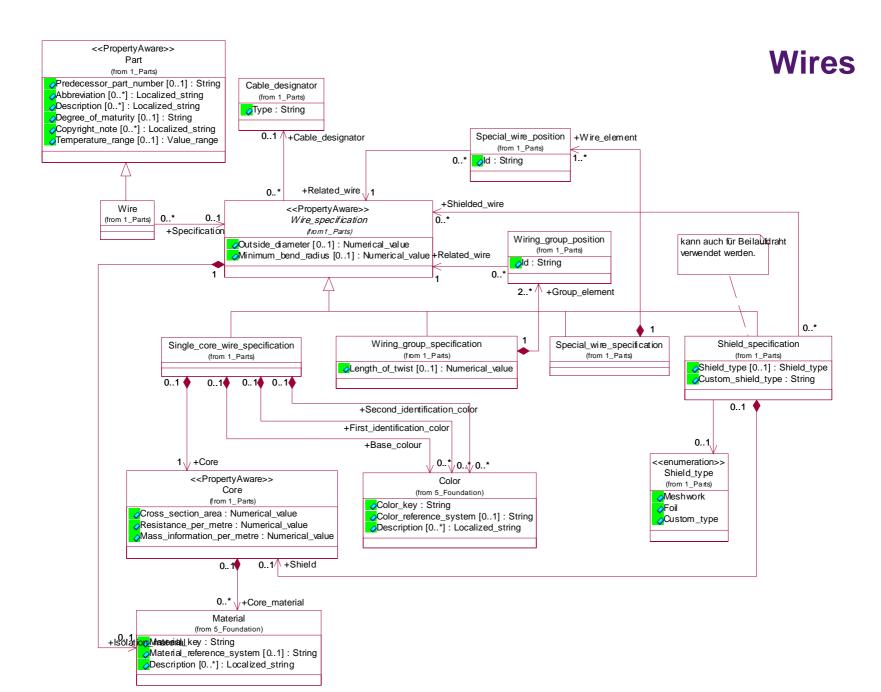


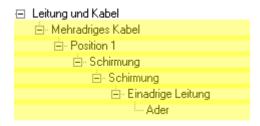


Connectors (1)

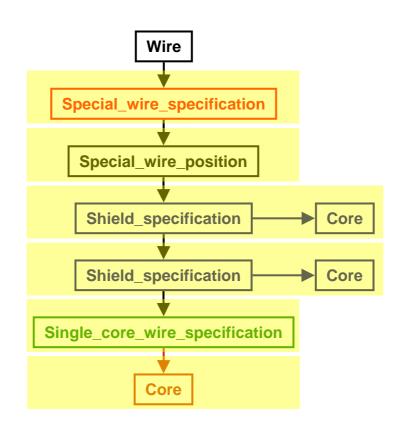












Legend



Special_wire (multi-core wire)



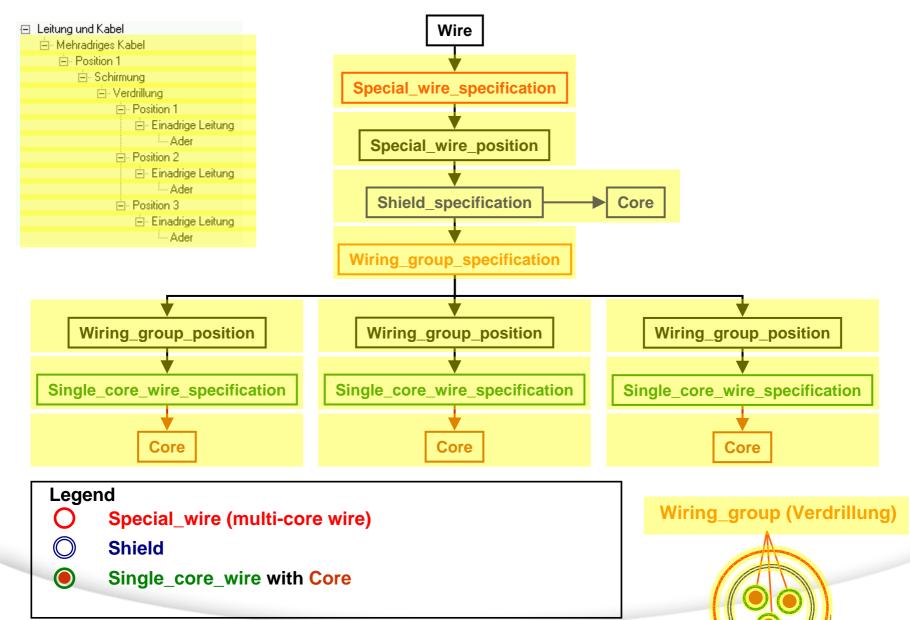
Shield



Single_core_wire with Core







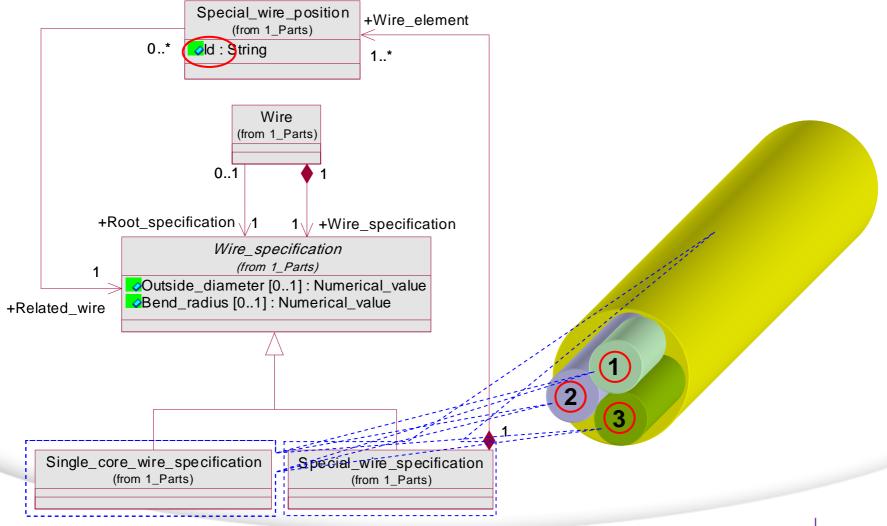


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Multi-core wires

Complete current data model see Wires!

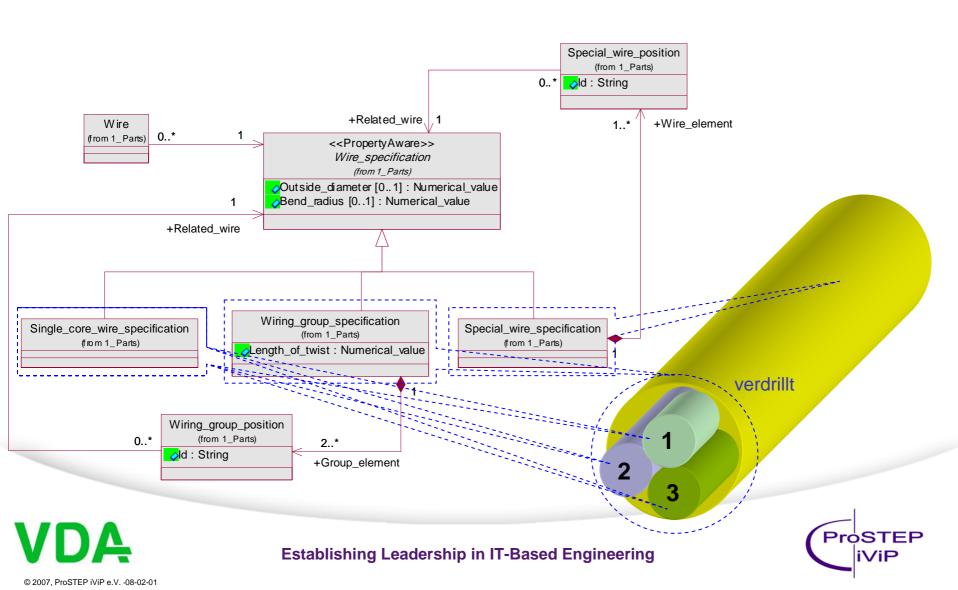




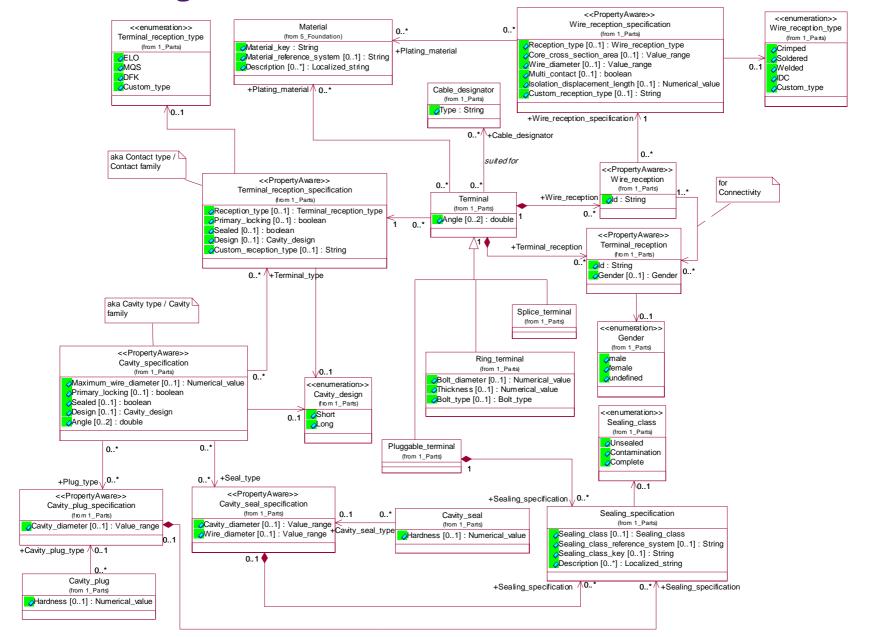


Structure of multi-core wires

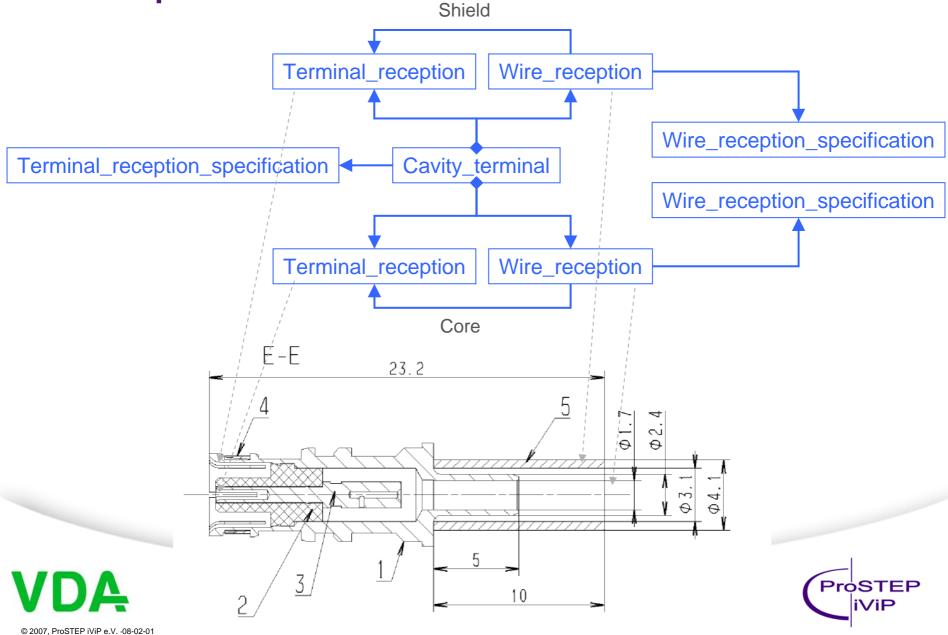
Complete current data model see Wires!



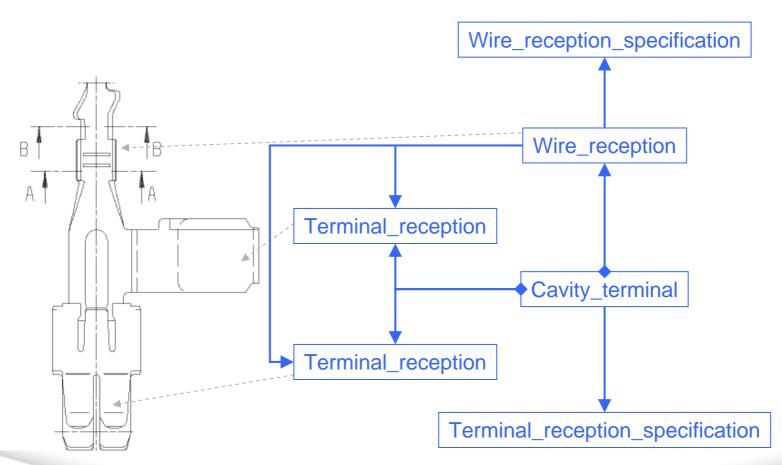
Contacting



Example: coax terminal



Example: double-contact terminal

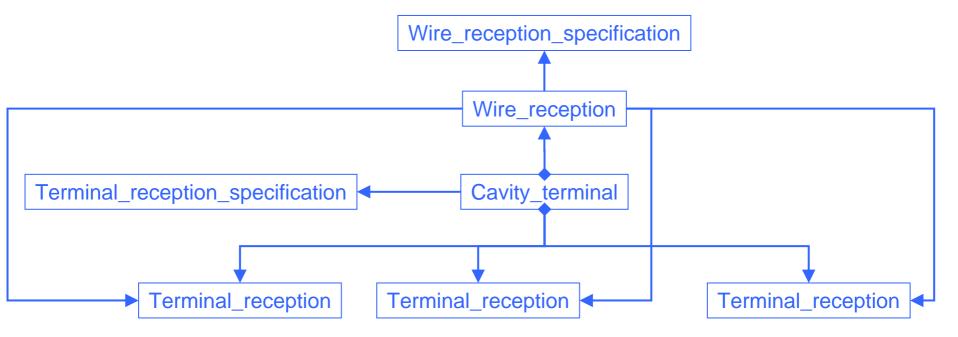


The specification is the same for both Terminal_receptions.





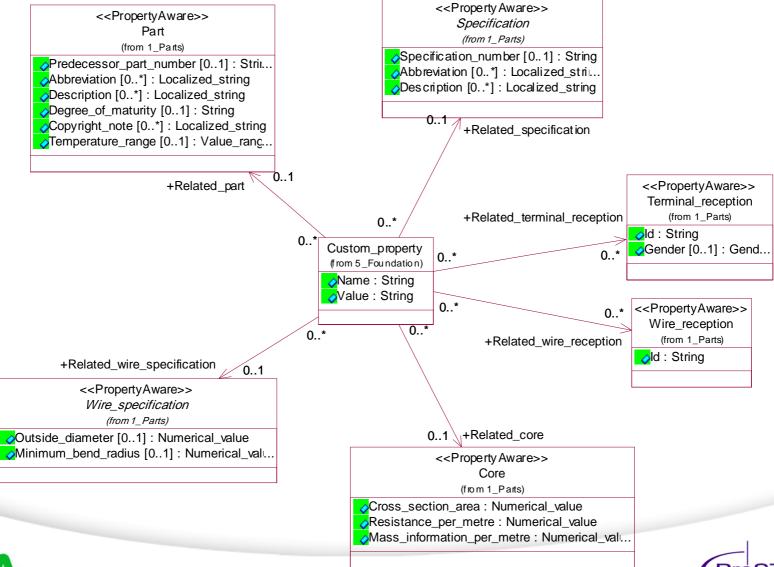
Example: terminal bridge







User-defined properties





XML-Structure

