



ISO 23150-2

Road vehicles — Logical interface between sensors and data fusion unit for automated driving functions —

Part 2: Object level interfaces

Véhicules routiers — Interface logique entre capteurs et unité de fusion de données pour les fonctions de conduite automatisée —

Partie 2: Interfaces de niveau objet

First edition
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This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 31, *Data communication*.

This first edition of ISO 23150-2, together with ISO 23150-1 [\[1\]](#), ISO 23150-11 [\[2\]](#), ISO 23150-12 [\[3\]](#), ISO 23150-13 [\[4\]](#), ISO 23150-14 [\[5\]](#), ISO 23150-15 [\[6\]](#) and ISO 23150-20 [\[7\]](#), cancels and replaces ISO 23150:2023, which has been technically revised.

The main changes are as follows:

- reorganisation of the document structure; use of generic interfaces, generic signals, generic profiles and terms and definitions defined in ISO 23150-1 [\[1\]](#) as a basis for this document;
- specific collection of interfaces in separated documents; in this document specific collection of all interfaces on object level.

A list of all parts in the ISO 23150 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Vehicle environmental perception sensors (single sensor or sensor cluster) provide logical interfaces according to the ISO 23150 series to the fusion unit or automated driving functions. The fusion unit generates a surround model and interprets the scene around the vehicle based on the sensor data. Interfaces are defined on different levels and described in a modular and semantic representation. The interfaces on feature level, advanced detection level and detection level are technology specific and differ by each technology.

[Figure 1](#) shows the schematic and contextual relationships between the documents relating to logical interfaces of the ISO 23150 series.

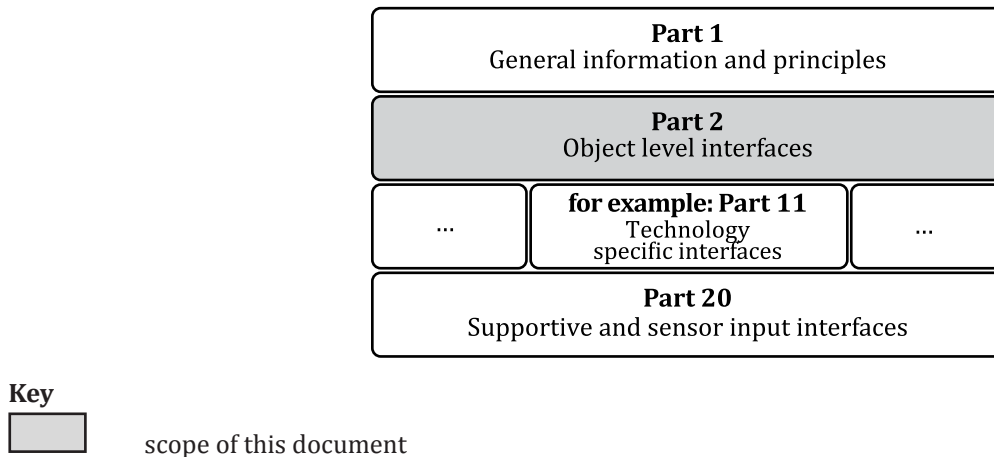


Figure 1 — Relationship of the ISO 23150 series

This document specifies the object level interfaces. Object interfaces such as the "potentially -moving -object interface" ([5.2.1](#)), the "road object interface" ([5.3.1](#)), the "static object interface" ([5.4.1](#)) and the "free-space object interface" ([5.5.1](#)) are part of the object level. These interfaces are based on the generic specifications of the object level interface in the ISO 23150-1 [\[1\]](#), which are supplied by single sensors or sensor clusters. This document references generic specifications of signals of the header and the generic interface levels.

A sensor or sensor cluster may also implement (provide or receive) logical interfaces:

- on feature, advanced detection or detection level (see technology specific parts of the ISO 23150 series);
- for additional interfaces as supportive sensor interfaces and sensor input information interfaces (see ISO 23150-20 [\[7\]](#)).

This document is not intended to replace the logical interface specifications of other documents in the ISO 23150 series.

This document is based on the generic specifications in ISO 23150-1 [\[1\]](#) as shown in [Figure 2](#):

- generic object level interface;
- general level-independent profiles.

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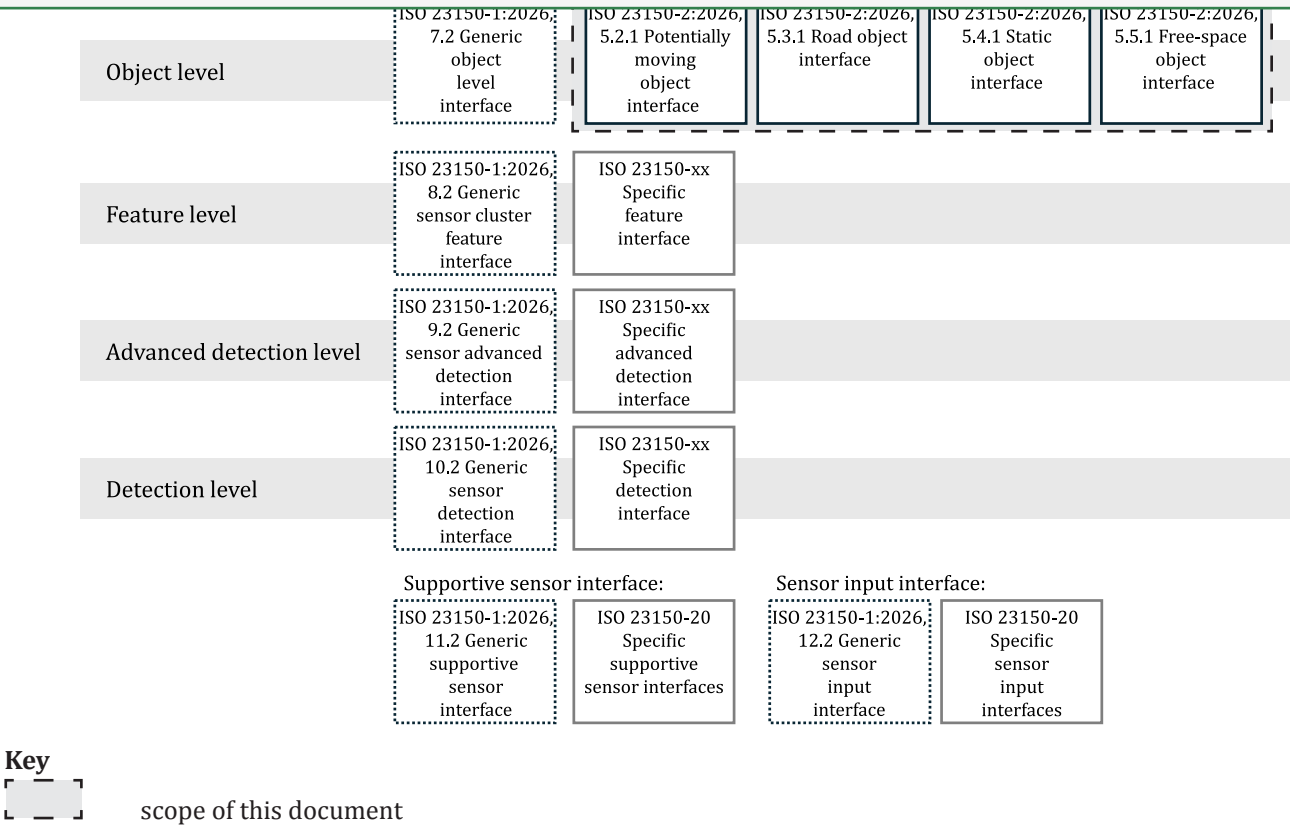


Figure 2 — Interfaces in the scope of this document and the related interfaces of the ISO 23150 series