



Technical Specification

ISO/TS 8231

Road vehicles — Visibility — Requirements and recommendations for automotive interior display systems

*Véhicules routiers — Visibilité — Exigences et recommandations
relatives aux systèmes d'affichage intérieur des véhicules
automobiles*

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This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 35, *Lighting and visibility*.

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Introduction

Display systems are increasingly replacing traditional instrument clusters in vehicles. Transportation information and vehicle control systems (TICS) are now being integrated with one or two digital display systems to provide vital information to drivers and passengers.

This display system can be located anywhere in front of the driver as the instrument cluster display, in the centre of the vehicle, in front of the passenger on front or rear seats, or throughout the dashboard, or anywhere in the vehicle.

The display system is intended to provide vehicle data, navigation, infotainment and other information such as comfort and warning systems.

In the past, display systems were designed for static applications in the home or workplace, such as TV screens or computer monitors. There are many IEC standards on electronic display systems.

An in-vehicle display system is not only exposed to the elements, but also to constant shock and vibration. A touch screen will assemble fingerprint marks. Therefore, it is important that it can withstand cleaning solutions, beverage and food spills. In addition, the display is subjected to misuse like scratches and dents. Large displays put a significant area of glass in front of the passenger. The glass must not cause any bodily injury if it breaks for any reason. The in-vehicle display system must function in all the environmental operating and storage conditions for which the vehicle is designed. The display must also remain readable and operable even after years of use.

The IEC has published standards for display device systems for video, TV and IT, covering operational, optical and safety requirements. IEEE has published reports and articles about in-vehicle display technology, recognizing the special requirements for displays as information systems in vehicles. The German Display Forum (DFF) has established a European Original Equipment Manufacturer (OEM) specification for in-vehicle displays. Another source of information about optical measurements can be found in the Society for Information Displays (SID) and its International Committee for Display Metrology (ICDM) standard.

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