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Ergonomics of human-system interaction - Part 309: Organic light-emitting diode (OLED) displays (ISO/TR 9241-309:2008)

Ergonomie de l'interaction homme-système - Partie 309: Écrans à diodes électroluminescentes organiques (OLED) (ISO/TR 9241-309:2008)

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European foreword

This document (CEN ISO/TR 9241-309:2015) has been prepared by Technical Committee ISO/TC 159 "Ergonomics" in collaboration with Technical Committee CEN/TC 122 "Ergonomics" the secretariat of which is held by DIN.

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Introduction

This part of ISO 9241 introduces the OLED (organic light-emitting diode) display technology, and provides guidance for the assessment of OLED-based products. OLED technology is not addressed by ISO 9241-307 (which establishes test methods for the analysis of a variety of visual display technologies, tasks and environments) or other parts of the "300" subseries.

ISO 9241 was originally developed as a seventeen-part International Standard on the ergonomics requirements for office work with visual display terminals. As part of the standards review process, a major restructuring of ISO 9241 was agreed to broaden its scope, to incorporate other relevant standards and to make it more usable. The general title of the revised ISO 9241, "Ergonomics of human-system interaction", reflects these changes and aligns the standard with the overall title and scope of Technical Committee ISO/TC 159, Subcommittee SC 4. The revised multipart standard is structured as series of standards numbered in the "hundreds": the 100 series deals with software interfaces, the 200 series with human centred design, the 300 series with visual displays, the 400 series with physical input devices, and so on.

See Annex A for an overview of the entire ISO 9241 series.

Ergonomics of human-system interaction -

Part 309: Organic light-emitting diode (OLED) displays

1 Scope

This part of ISO 9241 gives guidelines for organic light-emitting diode (OLED) displays.

OLED technology 2

OLED is an emissive device used in visual displays for direct view^[3]. A typical active matrix OLED (AM-OLED) display panel is shown in Figure 1. It consists of three parts: substrate, organic layers and reflective electrode. A pixel contains three or more primary-colour sub-pixels in full-colour OLED displays.



Key

- 1 cathode
- 2 organic layer (electron transport layer, emitting layer, hole transport layer)
- 3 anode
- 4 low temperature poly-Si TFT substrate
- 5 driver, horizontal
- 6 driver, vertical

