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## **Intelligent transport systems — Full speed range adaptive cruise control (FSRA) systems — Performance requirements and test procedures**

*Systèmes intelligents de transport — Systèmes de commande de croisière adaptatifs à la gamme entière de vitesse (FSRA) — Exigences de performance et méthodes d'essai*



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## Contents

Page

Foreword .....	iv
Introduction.....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Symbols and abbreviated terms .....	3
5 Classification .....	4
6 Requirements.....	5
6.1 Basic control strategy.....	5
6.2 Functionality .....	5
6.3 Basic driver interface and intervention capabilities .....	9
6.4 Operational limits .....	10
6.5 Activation of brake lights.....	12
6.6 Failure reactions.....	12
7 Performance evaluation test methods .....	13
7.1 Environmental conditions .....	13
7.2 Test target specification .....	13
7.3 Automatic “stop” capability test.....	14
7.4 Target acquisition range test .....	15
7.5 Target discrimination test.....	16
7.6 Curve capability test .....	18
Annex A (normative) Technical information .....	21
Bibliography.....	27

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 22179 was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

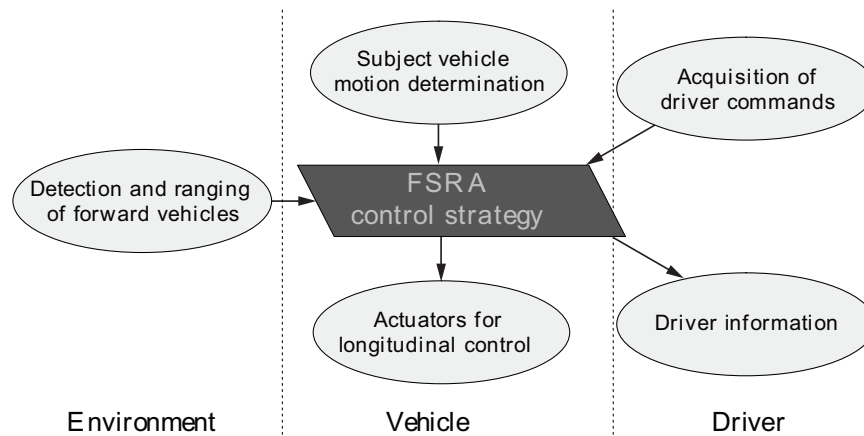
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## Introduction

The main system function of full speed range adaptive cruise control (FSRA) is to control vehicle speed adaptively to a forward vehicle by using information about:

- a) distance to forward vehicles,
- b) the motion of the subject (FSRA equipped) vehicle, and
- c) driver commands (see Figure 1).

Based upon the information acquired, the controller (identified as "FSRA control strategy" in Figure 1) sends commands to actuators that carry out its longitudinal control strategy, and sends status information to the driver.



**Figure 1 — Functional FSRA elements**

The goal of FSRA is partial automation of longitudinal vehicle control to reduce drivers' workload.

This International Standard may be used as a system level standard by other standards, which extend FSRA to a more detailed standard, e.g. for specific detection and ranging-sensor concepts or higher levels of functionality. Issues such as specific requirements for the detection and ranging sensor function and performance or communication links for co-operative solutions are not considered in this International Standard.