



National Standards Authority of Ireland

IRISH STANDARD

I.S. ENV 13149-4:2002

ICS 35 240.60
43 080.20
45.060 01

**PUBLIC TRANSPORT - ROAD VEHICLE
SCHEDULING AND CONTROL SYSTEMS -
PART 4: GENERAL APPLICATION RULES
FOR CANOPEN TRANSMISSION BUSES**

National Standards
Authority of Ireland
Dublin 9

Tel: (01) 807 3800
Tel: (01) 807 3838

*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland
and comes into effect on
September 13 2002*

**NO COPYING WITHOUT NSAI
PERMISSION EXCEPT AS
PERMITTED BY COPYRIGHT
LAW**

© NSAI 2002

Price Code E

Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN PRESTANDARD
PRÉNORME EUROPÉENNE
EUROPÄISCHE VORNORM

ENV 13149-4

May 2002

ICS 35.240.60; 43.080.20; 45.060.01

English version

**Public transport - Road vehicle scheduling and control systems -
Part 4: General application rules for CANopen transmission
busses**

This European Prestandard (ENV) was approved by CEN on 25 March 2002 as a prospective standard for provisional application.

The period of validity of this ENV is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the ENV can be converted into a European Standard.

CEN members are required to announce the existence of this ENV in the same way as for an EN and to make the ENV available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the ENV) until the final decision about the possible conversion of the ENV into an EN is reached.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPAISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

ENV 13149-4:2002 (E)

Contents

	page
Foreword	3
Introduction	4
1 Scope.....	4
2 Normative references.....	4
3 Terms and definitions.....	5
4 Basic concepts	5
4.1 General	5
4.2 Topology	5
4.3 CANopen performance	6
4.4 CANopen – OSI reference	6
5 Requirements	8
5.1 Physical layer	8
5.2 Data link layer	8
5.3 Application layer	8
5.4 Virtual device profiles	8
Bibliography.....	9

Foreword

This document (ENV 13149-4:2002) has been prepared by Technical Committee CEN/TC 278 "Road transport and traffic telematics", the secretariat of which is held by NEN.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this European Prestandard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

ENV 13149-4:2002 (E)

Introduction

This European Prestandard is part 4 of prEN 13149, which gives rules for on-board data transmission systems.

This part 4 together with part 5 and part 6 describes a complete solution independent from part 1, part 2 and part 3.

1 Scope

This European Prestandard specifies the choice and the general application's rules of an onboard data transmission bus between the different equipment for service operations and monitoring of the fleet. This applies to equipment installed onboard buses, trolleybuses and tramways only as part of a bus fleet operation. It excludes tramways when they are operated as part of a train, subway or metro operation. This equipment includes operation aid systems, automatic passenger information systems, fare collection systems, etc.

The equipment directly related to the safety-related functioning of the vehicle (propulsion management, brake systems, door opening systems, etc.) are excluded from the scope of the present standard and are dealt with in other standardisation bodies.

For the described application two bus systems are standardised. Part 1 to part 3 describe the WORLDIFIP bus system and part 4 to part 6 describe the CANopen bus system. There is no ranking between the two bus systems.

This European Prestandard covers the link between equipments inside a single vehicle. Although it could be applied to multiple vehicles, this application is not explicitly covered by this standard.

Part 4 of this European Prestandard specifies the CANopen-based network. This specification describes the general architecture in terms of hierarchical layers according to the ISO reference model for Open Systems Interconnection (OSI) specified in ISO 7498.

Part 5 of this European Prestandard specifies in detail the connectors and the connector pin assignment and the cabling.

Part 6 of this European Prestandard specifies in detail the application profiles for the virtual devices in public transport.

2 Normative references

This European Prestandard incorporates by dated or undated references, provisions from other publications. These normative references are cited at the appropriate place in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Prestandard only when incorporated in it by amendment or revision (including amendments).

EN 50325-1: Industrial communications subsystem based on ISO 11898 (CAN) for controller-device interfaces - Part 1: General requirements.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-