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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 25890.9-2010

**Railway applications -- Fixed installations -- DC switchgear -- Part 7-3:
Measurement, control and protection devices for specific use in d.c. traction
systems -- Isolating voltage transducers and other voltage measuring devices**

轨道交通 地面装置 直流开关设备 第7-3部分：直流牵引供电系统专用测量、控制
和保护装置 隔离电压变送器和其他电压测量设备

(English Translation)

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Foreword

GB/T 25890 "rail transit ground device DC switch device" consists of the following parts.

- Part 1. General;
- Part 2. DC circuit breakers;
- Part 3. Indoor DC disconnecter, load switch and earthing switch;
- Part 4. Outdoor DC disconnectors, load switches and earthing switches;
- Part 5. DC arrester and low voltage limiter;
- Part 6. DC switchgear;
- Part 7-1. Guidance on the application of special measurement, control and protection devices for direct current traction power supply systems;
- Part 7-2. DC traction power supply system Special measurement, control and protection devices Isolated current transmitters and other current measurements equipment;
- Part 7-3. DC traction power supply system Special measurement, control and protection devices Isolated voltage transmitters and other voltage measurements equipment.

This part is part 7-3 of GB/T 25890.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the translation method equivalent to the use of IEC 61992-7-3.:2006 "rail transit ground device DC switchgear 7-3 Partial. DC traction power supply system for special measurement, control and protection devices Isolated voltage transmitters and other voltage measuring devices "(English version).

In this part of the normative reference documents are consistent with the relationship

between the Chinese documents are as follows.

Electromagnetic compatibility for rail transit - Part 1. General principles (IEC 62236-1.:2003, IDT); GB/T 24338.1-2009.

Railways - Electromagnetic compatibility - Part 3-1. Locomotives and rolling stock - Trains and vehicles - GB/T 24338.3-2009.

(IEC 62236-3-1.:2003, IDT);

Railways - Electromagnetic compatibility - Part 3-2. Locomotive and vehicle equipment (IEC 62236-3-2.

2003, MOD);

Railways - Electromagnetic compatibility - Part 4. Emission and immunity of signaling and communication equipment GB/T 24338.5-2009 (IEC 62236-4.:2003, IDT);

Electromagnetic compatibility for rail transit - Part 5. Emission and immunity of ground power plant and equipment GB/T 24338.6-2009 Degree (IEC 62236-5.:2003, IDT);

Rail Transit Traction System Supply Voltage (IEC 60850.:2007, MOD) GB/T 1402-2010.

This part is made by the Ministry of Railways of the People's Republic of China.

This part is headed by the National Technical Committee for Standardization of Electrical Equipment and Systems (SAC/TC278).

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Rail Transit Ground Equipment DC Switchgear Part 7-3. dedicated for DC traction power supply systems Measurement, control and protection devices Isolated voltage transmitters and other voltage measuring devices

1 Scope

This part of GB/T 25890 specifies the voltage measurement of isolated voltage transmitters and other DC devices and ground devices for rail transit Quantity of equipment requirements.

The transmitter is usually installed between the sensors of the primary side of the switchboard or between the rails and the secondary equipment to provide electrical input

for the input and output insulation.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article. For undated references, the latest edition (including all modifications) applies to this document.

GB/T 25890.1-2010 Rail Transit Ground Unit DC Switchgear Part 1. General (IEC 61992-1. 2006, IDT)

IEC 60850.:2000 Railway application of the traction system supply voltage (Railway application-Supply voltage of traction systems) IEC 62236 (all parts) Railway facilities Electromagnetic compatibility (Railway application-Electromagnetic compatibility) EN 50124-1.:2001 Railway installations - Insulation coordination - Part 1. Basic requirements - Clearance and creep for all electrical and electronic equipment Variable distance (Railway application-Insulation coordination-Part 1. Basic requirements-Clearance and creepage distances for electrical and electronic equipment)

3 Terms and definitions

The terms and definitions established in GB/T 25890.1-2010 apply to this document.

4 Working conditions

When the equipment is installed on the equipment and equipment specified in GB/T 25890, the working conditions are consistent with those of the installation and complete sets of equipment.

In this section, the contamination levels PD4 and overvoltage levels described in EN 50124-1.:2001 (see GB/T 25890.1-2010

Note 1) is considered normal working conditions.

See Table B in GB/T 25890.1-2010 for normal operating conditions.

5.1.1 Overview

The insulation level between the primary and secondary terminals of the isolated transmitter is the same as that of the main circuit.

The insulation rating of the isolating transmitter shall comply with Table 1 of GB/T 25890.1-2010.

Unless otherwise specified, the transmitter used in the vicinity of the live conductor shall be fitted with an insulating housing. The transmitter should be GB/T 25890.1-2010 3.1.9 to

3.1.13.