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**Linear encoder**

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## Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Precision Measuring Instruments Manufacturers Association (JMA)/Japanese Standards Association (JSA)/ with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied *mutatis mutandis* pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS B 7450 : 1989**), which has been technically revised.

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# Linear encoder

## 1 Scope

This Japanese Industrial Standard specifies the requirements for a linear encoder to be incorporated in a device, having a scale and reading head, and outputting either the relative travel amount or the position information from the reading head with respect to the scale, or both.

## 2 Normative references

Part or all of the provisions of the following standards, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

- JIS B 0641-1 *Geometrical product specifications (GPS) — Inspection by measurement of workpieces and measuring equipment — Part 1: Decision rules for proving conformance or nonconformance with specifications*
- JIS B 0641-5 *Geometrical product specifications (GPS) — Inspection by measurement of workpieces and measuring equipment — Part 5: Uncertainty in verification testing of indicating measuring instruments*
- JIS B 0642 *Geometrical product specifications (GPS) — General concepts and requirements for GPS measuring equipment*
- JIS B 0680 *Geometrical product specifications (GPS) — Standard reference temperature for the specification of geometrical and dimensional properties*
- JIS B 6190-2 *Test code for machine tools — Part 2: Determination of accuracy and repeatability of positioning of numerically controlled axes*
- JIS C 0920 *Degrees of protection provided by enclosures (IP Code)*
- JIS C 61000-6-2 *Electromagnetic compatibility (EMC) — Part 6-2: Generic standards — Immunity standard for industrial environments*
- JIS C 61326-1 *Electrical equipment for measurement, control and laboratory use — EMC requirements — Part 1: General requirements*
- JIS Z 8103 *Glossary of terms used in measurement*
- ISO 14253-2 *Geometrical product specifications (GPS) — Inspection by measurement of workpieces and measuring equipment — Part 2: Guidance for the estimation of uncertainty in GPS measurement, in calibration of measuring equipment and in product verification*
- ISO/IEC Guide 98-3 *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*