



TWO-THRESHOLD MAGNETIC FIELD INDICATOR *MFf-4*[®] product information

Intended Use

The two-threshold magnetic field indicator is designed for the permanent registration of a magnetic field presence. Inter alia, it can be used for the identification of attempts to affect measuring devices with a permanent magnet (e.g. watt-hour meters, water meters, gas meters) whose operation correctness, and thus the measuring accuracy of the medium used, is disrupted by an external magnetic field.

Principle of Operation

The indicator is divided into three fields: a dark green reference field, a light green field and a field with a magnetic geometric figure (a triangle or circle or square with a circle inside each figure) with a light green contour on a dark green background. When a magnetic field of a strength over 10 kA/m (e.g. coming from a neodymium magnet placed at a distance of a dozen or so centimetres from the indicator or a ferrite magnet placed at a distance of a few centimetres from the indicator) has acted on the indicator, the light green field irreversibly changes its colour into dark green, equal to the colour of the reference field. When a magnetic field of a strength over 280 kA/m (e.g. coming from a neodymium magnet placed at a distance of a few millimetres from the indicator) has acted on the indicator, the light green contours of the magnetic geometric figure become irreversibly blurred or the figure disappears completely.



Types

The magnetic field indicator MFI-4 is manufactured in two versions:

- to install on internal surface of transparent casing of measuring device (MFI-4i)
- to install on external casing surface of measuring device (MFI-4o)

In both indicator versions, the installation consists in applying the indicator on a flat surface with the help of the transparent, self-adhesive tape being an integral part of the indicator.

Protection

A magnetic field indicator MFI-4o, installed on the external surface of a measuring device casing, requires additional mechanical protection in the form of holograms or film protection labels applied on one or both the indicator side wings. The holograms and labels are characterized by so-called self-destruction (each attempt of removal from the surface they are applied to causes their destruction). For each magnetic field indicator, the holograms and/or labels with a printed inscription (logo, name, serial number, code, etc.) are delivered. In the case of the hologram, its mark is registered in the Polish Central Holographic Register.



Technical Data

- width: 11 mm,
- length: 29 mm,
- thickness: 1.5 mm,
- operating temperature: - 40 ÷ + 70 °C,
- passive indicator – does not require any electric, mechanical, chemical or luminous energy supply and does not have any movable elements.

*The two-threshold magnetic field indicator *MFf-4*[®] and their geometric figures are subject to patent applications: P-374397, Z-299748, Z-299749, Z-299750, Z-299751, and a Community design present in all European Community countries: 000485487-0001/000*

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