

ADMT4000 Magnet and Stray Magnetic Field Shield

FEATURES

- ▶ Magnet Assembly with an Integrated Stray Magnetic Field Shield
- ▶ Optional PCB-Mounted Stray Magnetic Field Shield
- ▶ Magnetic Stray Field Shielding Effectiveness at 5mT
 - ADMAGB3476 and ADMAGMECH04 $\approx 88\%$
 - ADMAGB3476 Only $\approx 59\%$
- ▶ Low Angular Hysteresis
- ▶ 16mT to 31mT Operating Range
- ▶ -40°C to $+125^{\circ}\text{C}$ Temperature Range
- ▶ Industrial and Automotive Applications

APPLICATIONS

- ▶ ADMT4000 Multiturn Absolute Position Sensing without Power
- ▶ Contactless Position Measurement
- ▶ Brushless DC Motor Control and Positioning
- ▶ Actuator Control and Positioning

GENERAL DESCRIPTION

The ADMAGB3476 and ADMAGMECH04 provide a robust solution for maintaining magnetic window requirements of the ADMT4000. The integrated shielding provides protection against stray magnetic fields, which is crucial for accurate measurements. The integrated magnet shield rotates with the magnet to result in low angular hysteresis. Manufactured from samarium cobalt (SmCo), the magnet maintains the magnetic operating window of the ADMT4000 over the entire temperature range.



Figure 1. ADMAGB3476 Magnet Assembly (Top View)



Figure 2. ADMAGB3476 Magnet Assembly (Bottom View)



Figure 3. ADMAGMECH04 PCB Stray Field Shield (Top View)

ORDERING GUIDE

Table 1. Ordering Guide

Model	Description
ADMAGB3476	Magnet and Shield Assembly
ADMAGMECH04	PCB Back Shield

Recommended magnet supplier is **Max Baermann GmbH**.