# BALLUFF

## Magnetic encoder system BML-S1G

## WITH SIL 2 CERTIFICATION FOR USE IN SAFETY APPLICATIONS

The BML-S1G magnetic encoder system features a safe incremental sin/cos interface and a safe absolute SSI or BiSS-C interface. This makes it ideal for use in safety applications (certified by TÜV Rheinland).

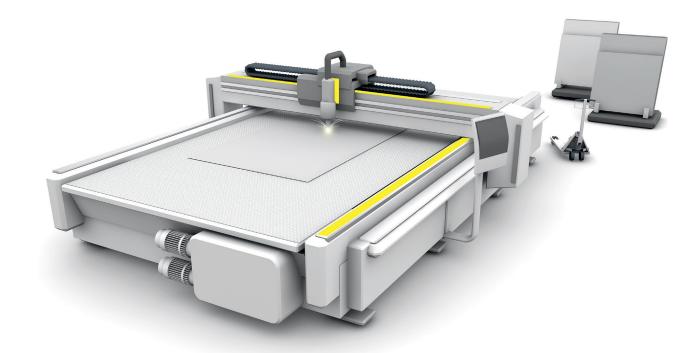
Due to the long measuring range up to 48 m and its high repeat accuracy (< 1  $\mu$ m) the system is suitable for many applications which require functional safety. It supports the functions "safe incremental value" and "safe absolute value".

This allows you to implement many safety functions in a safe overall application according to EN IEC 61800-5-2, such as safe slow speed (SLS) or safe stop 1 (SS1). You also enjoy the benefits of the non-contact, wear-free operating principle for long service life. The BML-S1G can be integrated into a safety controller with safe analog input – without the need for using expensive absolute interface cards. If the system is used together with the BML Configuration Tool, many additional parameter and diagnostics functions, such as condition monitoring, are available.

#### Features

- Safe: Meets the requirements for DIN EN ISO 13849-1:2015 (Machine Directive, Pld), IEC 61508: 2010 (Functional Safety, SIL2) and EN IEC 61800-5-2: 2007 (Safety Function, SIL2)
- Time-saving: Easy to set up, no configuration needed
- Universal: Measuring lengths up to 48 m, resolution configurable, high system accuracy down to 20 µm
- Convenient: Parameterizing and diagnostic functions





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### BML-S1G MAGNETIC ENCODERS FOR LINEAR AND ROTATIONAL MOTION

|                                | BML05RP   |
|--------------------------------|---|
| Operating voltage              | 5 V ±5 % and 1028 V DC                                |
| Incremental interface          | sin/cos, 1 V <sub>ss</sub>                            |
| Absolute interface             | SSI: 32 Bit, RS422 with differential and error signal |
| Additional features            | real-time capable                                     |
| Resolution                     | ≤ 1 µm  |
| Measuring range                | 48 m  |
| Performance level/SIL          | d/2   |
| Degree of protection IEC 60529 | IP67  |
| Approval/conformity            | CE, cURus, TÜV  |
| Ambient temperature            | -20+70 °C   |
| Housing material               | Coated die-cast zinc                                  |
| Connection                     | M12 connector, 12-pin                                 |

| ACCESSORIES |               |                       |            | Constant of the second se |
|-------------|---------------|-----------------------|------------|--|
|             | BML04P4       | BAM02YC               | BAM01MK    | BAM021H  |
| Description | Magnetic tape | Mounting<br>accessory | Guide rail | Sliding carriage   |
|             |               | -                     |            | 5 0  |



### CONNECTORS

|             | BCC09MY   | BCC09MZ  |  |
|-------------|---|--|--|
| Description | M12 female straight,<br>12 pin with<br>5 m PUR cable<br>(black) | M12 female straight,<br>12 pin with<br>10 m PUR cable<br>(black) |  |

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