

# SAFELOCK

## MUZ-602 and MUZ-202

### Coded Magnetic Monitoring Systems

**BIA Rated for Safety Category 3 EN 954-1**  
**Single Failsafe System With Partial Fault Recognition**

#### Description

The monitoring controls available to Category 3 certification are the MUZ-202, two channel control and the MUZ-602 six channel control. The number of channels indicated refers to the maximum number of Coded Magnetic Sensors that can be used per control.

Both controls can only be used with series MAK-xx36 Coded Magnetic Sensors and corresponding Magnets TK-xx-CD, as shown on page 57.

These systems are intended for use with movable protective guard installations, i.e. flaps, doors, and covers.

Magnetic Coded Monitoring Systems offer an alternative to mechanical interlock switches, especially on machines that operate in areas where cleaning, disinfecting, or contamination play a major role, as the sensor and magnet are fully encapsulated.

#### Features

- BIA rated for Safety Category 3
- Forced disconnection of the safety contacts
- Control unit mounts to 35 mm DIN rail (TS 35)
- BIA Approved

#### System Operation

The correct operation of the system is ensured, as the circuitry monitors each sensor and magnet to ensure they are aligned correctly, by using an evaluation circuit with two timing stages.

Only when all the sensors have met this requirement will the controls output relay give the signal for the machine to operate.

Within this series of controls an additional output contact is available, to be used for informational purposes only and not for any safety function.



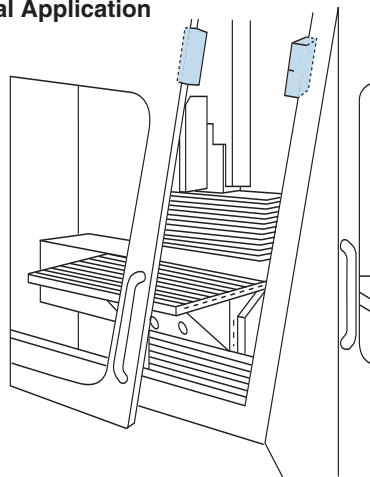
MUZ 202



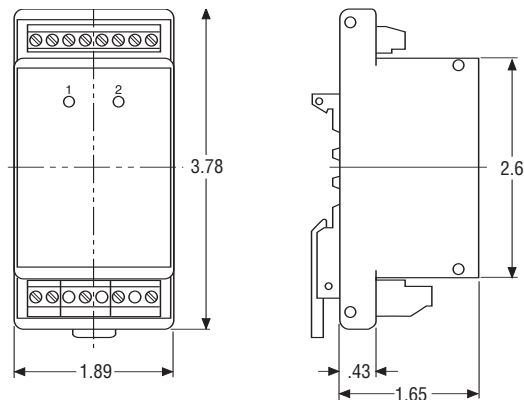
MUZ 602

Model	MUZ-202/D24-UM	MUZ-602/D24-UM
Part Number	639-2702-301	639-2706-302
Enclosure	PA 6.6 Plastic	
Channels	2	6
Safety Contact	1 Normally Closed, Forced Disconnect	
Monitor Contact	1 Normally Open	
Operating Voltage	24 VDC	
Operating Current	100 mA	
Switching Voltage	250 VAC (max.)	
Switching Current	8 A (max.)	
Switching Capacity	1700 VA (MAX.)	
Protection Class	IP 20 (Equivalent to NEMA 1)	
Temperature	+32°F to +131°F [0°C to +55°C]	

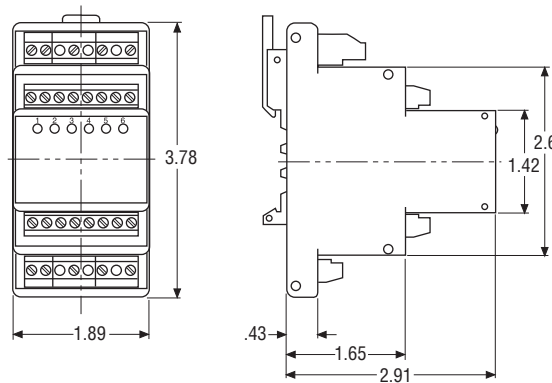
#### Typical Application



(Dimensions are in inches)



MUZ 202



MUZ 602

# SAFELOCK Coded Magnetic Sensors Coded Magnets

Model	Part Number
MAK-4236-3 <sup>1</sup>	649-0642-301
MAK-4236-STK <sup>2</sup>	649-0642-305
TK-42-CD	640-2042-301

<sup>1</sup>Sensor with 10 ft. (3 m) Cable  
(19 ft. (6 m) and 29 ft. (9 m) Special Order)  
<sup>2</sup>Sensor with Connector (Cable Sold Separately)  
Uses either a 413-9100-228 or 413-9100-230 cable

**Enclosure:** PA 6.6 Plastic  
**Voltage Rating:** 30 VDC (max.)  
**Current Rating:** 4 mA (max.)  
**Protection Class:** NEMA 6  
**Operating Range:** 0.12" (3 mm) On (min.)  
0.55" (14 mm) Off (max.)  
**Temperature:** -4°F to +158°F  
**Controller Type:** MUZ-x02/xxx

Model	Part Number
MAK-5336-3 <sup>1</sup>	649-0653-310
MAK-5336-STK <sup>2</sup>	649-0653-313
TK-43-CD	640-2043-023

<sup>1</sup> Sensor with 10 ft. (3 m) Cable  
(19 ft. (6 m) and 29 ft. (9 m) Special Order)  
<sup>2</sup> Sensor with Connector (Cable Sold Separately)  
Uses cable 413-9100-266

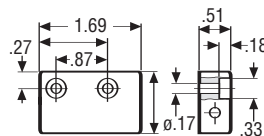
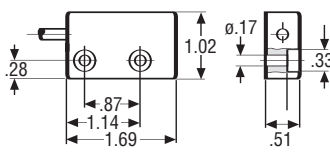
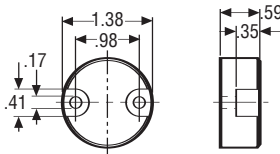
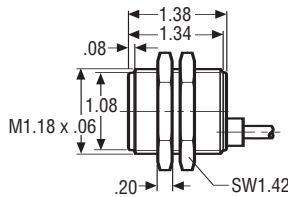
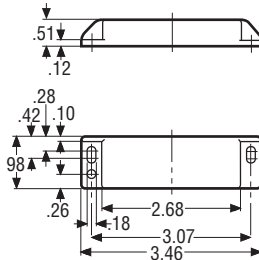
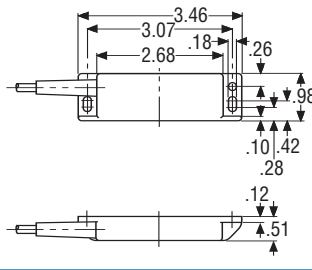
**Enclosure:** PA 6.6 Plastic  
**Voltage Rating:** 30 VDC (max.)  
**Current Rating:** 4 mA (max.)  
**Protection Class:** NEMA 6  
**Operating Range:** 0.12" (3 mm) On (min.)  
0.28" (7 mm) Off (max.)  
**Temperature:** -4°F to +158°F  
**Controller Type:** MUZ-x02/xxx

Model	Part Number
MAK-5236-3 <sup>1</sup>	649-0652-306
MAK-5236-STK <sup>2</sup>	649-0652-309
TK-52-CD-HF	640-2052-305

<sup>1</sup> Sensor with 10 ft. (3 m) Cable  
(19 ft. (6 m) and 29 ft. (9 m) Special Order)  
<sup>2</sup> Sensor with Connector (Cable Sold Separately)  
Uses either a 413-9100-228 or 413-9100-230 cable

**Enclosure:** PA 6.6 Plastic  
**Voltage Rating:** 30 VDC (max.)  
**Current Rating:** 4 mA (max.)  
**Protection Class:** NEMA 6  
**Operating Range:** 0.16" (4 mm) On (min.)  
0.31" (8 mm) Off (max.)  
**Temperature:** -4°F to +158°F  
**Controller Type:** MUZ-x02/xxx

(Dimensions are in inches)



Coded magnetic sensors and coded magnets are designed for use with special purpose safety controllers. They cannot be operated by simple bar magnets.



## Cables for Sensors with Connectors

**Material:** PUR (Cable)  
PA 12 (Connector)  
**Cable Length:** 8 ft. (2.5 m)  
**Protection Class:** NEMA 6

Model	Part Number
GDK-R06US/S00-2.5PU	413-9100-228
WDK-R06US/S00-2.5PU	413-9100-230
WDK-M12UA/S00-2.5PU	413-9100-266

