

# The worldwide unique electromechanical safety switches and solenoid interlocks with high coding in accordance to ISO 14119

AZ 16i / AZ 17i / AZM 161i / AZM 170i

Coding level  
HIGH  
to ISO 14119



# Latest safety requirements in a proven design



## Proven design

The electromechanical safety switches with separate actuator AZ 16 and AZ 17 as well as the electromechanical solenoid interlocks AZM 161 and AZM 170 are tried and tested and have been used millions of times around the world for decades.

The series referred to are also available as individually coded versions with more than 1,000 different coding versions, achieving coding level "high" in accordance with ISO 14119. To do this, the switch is supplied with the corresponding actuator, which is specially adapted to the respective switch. Manipulation by a replacement actuator is not possible.

## Fields of application

The safety switches with separate actuators are used in all areas of production and in almost all types of machine tools. The design offers advantages particularly where frequent access to the hazard area is necessary for purposes of machine actuation, fault clearance or set-up.

The solenoid interlocks have been designed to prevent sliding, hinged and removable safety guards (fences, flaps or doors) from being opened before hazardous conditions (e.g. run-on movements from rollers, chains, shafts etc) have been eliminated.

The individually coded versions enable the latest safety requirements to be integrated by the machine manufacturer without intervention in an existing machine design. The identical construction forms of the individually coded versions guarantee a trouble-free replacement.

## Advantages

- High level tamper protection (Coding level "high" according to ISO 14119)
- Fewer additional measures necessary to minimize defeat possibilities of interlocking devices, such as mounting out of reach or in a hidden position (see table 3, ISO 14119)
- Same design as versions already widely distributed in the market
- Low cost, electromechanical version combined with high standard of safety

The ISO 14119 standard "Safety of machinery – Interlocking devices with guards – Principles for design and selection" supersedes the previous EN 1088 standard. Schmersal has summarised the main changes that arise due to the new standard in a 24-page brochure. A poster is given with the brochure as a further aid which clearly illustrates the standard-compliant sequence when configuring protection devices and the selection of safety switchgear.



Detailed information can be found at:  
[www.schmersal.net](http://www.schmersal.net)  
or directly through the QR-code.

