



SHR-3 Induction Sensor

Zone 22



Use:

The set of the SHR-3 induction sensor, MHR-2, MHR-3, MHR-4 and MHR-5 magnets is intended for monitoring a rotary or oscillatory movement and position. A robust model enables their usage in the most difficult operational conditions such as for checking belt conveyers, sorting machines or vibration feeders, positions of fork chutes and tank closures in quarries. It is highly mechanically resistant and reliably works in a larger temperature range.

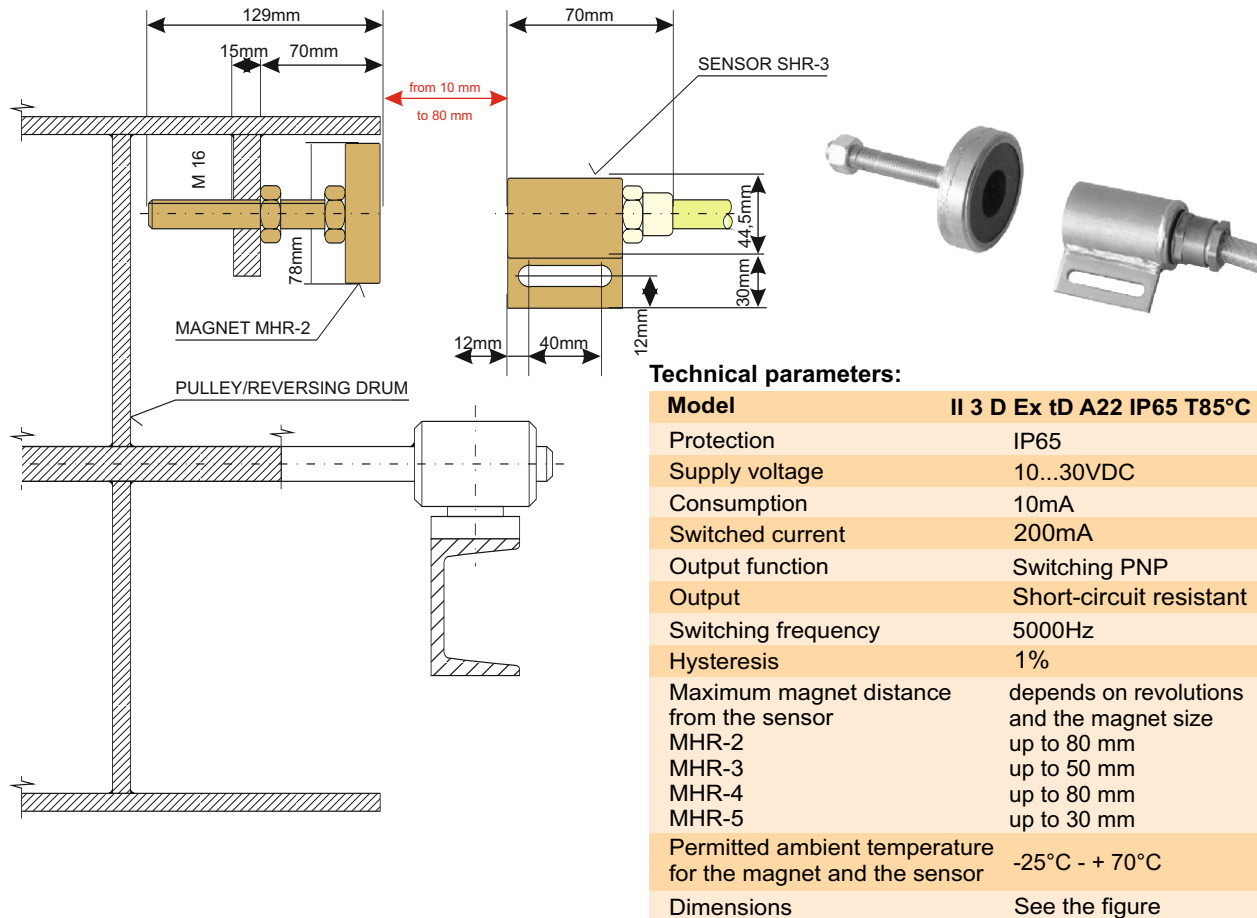
Description:

The sensor casing is made of steel with a surface treatment in which an electrical sensing element is buried including an electronic evaluator. At the end of the casing there is a Pg16 bushing. A cable with a rubber hose protecting the cable is fixed to the bushing. The rubber hose is resistant to perforation by the falling material and accidental hits and thus protects the cable. The cable with the protecting duct is ended in a plastic box (standard delivery). The box can be ordered made of another material such as cast steel, etc.

Assembly and principle:

The sensor functions on the principle of magnetic induction. The magnet is mounted to the movable part of the checked equipment (a reversing drum of the belt conveyer, a movable part of the vibration feeder, a screen in the sorting machine, etc.) The distance of the MHR-2 magnet from the sensor ranges from 10 mm to 80 mm while the same function is preserved. This distance guarantees a minimum damage to the sensor caused by the rotating part movements in the axis. The maximum achievable distance is determined by the magnet location in the steel structure and to determine the threshold, it is necessary to test the application in question.

The magnet movement around the sensor induces a voltage impulse (PNP output) in the sensor. It can be used as an input signal to the VHR-10M evaluation unit or to the control system.



The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.





MHR-2, MHR-3, MHR-4 and MHR-5 magnet

Use:

Magnets for monitoring the rotation serve in the assembly with magnetic field sensors for monitoring the rotary or oscillating movement and position (only with SHR-3). The MHR-2, MHR-3 and MHR-4 rotation monitoring magnets are suitable for the SHR-2 magnetic field sensor. The MHR-5 rotation monitoring magnet is recommended for the SHR-3 magnetic field sensor.

Description:

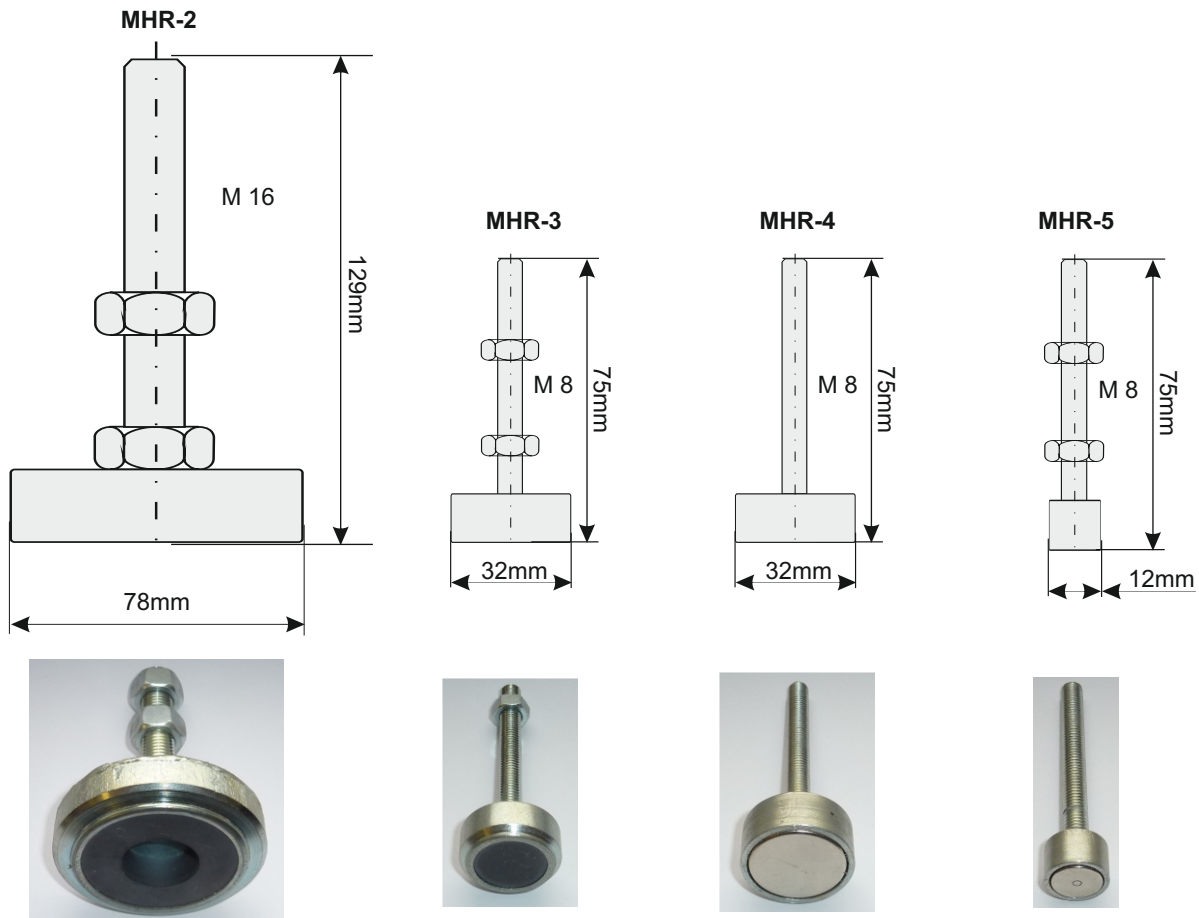
MHR-4 and MHR-5 rotation monitoring magnets consist of a threaded rod ended with a head in which a neodymium magnet is attached. MHR-2 and MHR-3 rotation monitoring magnets use standard "black" magnets. All of them differ by the size of the head with a respective magnet.

MHR-2 and MHR-4 rotation monitoring magnets have a bigger head; therefore create a stronger force of the magnetic field, which means the magnetic field sensor responds to a magnet movement from a higher distance (see technical parameters).

The threaded rod serves for attaching the magnet to the rotating part of the checked equipment (e.g. reversing drum of a conveyer). The magnet movement around the magnetic field sensor induces voltage impulse which is further processed in an evaluation device.

Technical parameters:

Maximum magnet distance from SHR-2 sensor	depends on revolutions and the magnet size
MHR-2	up to 250 mm
MHR-3	up to 100 mm
MHR-4	up to 200 mm
MHR-5	up to 80 mm
Maximum magnet distance from SHR-3 sensor	depends on revolutions and the magnet size
MHR-2	up to 80 mm
MHR-3	up to 50 mm
MHR-4	up to 80 mm
MHR-5	up to 30 mm
Permitted ambient temperature for the magnet and the sensor	-25°C - + 70°C
Dimensions	See the figure



The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.