

Use

Magnetic field, electronic sensors in the BMF series detect the piston position in pneumatic and hydraulic cylinders and piston pumps.

Depending on the model, the sensor housing will be made of plastic, aluminum, brass or stainless steel.

The supply voltage is indicated by a green LED and the function by a yellow LED.

Mounting brackets are available for every model for installing on virtually any cylinder size and type.

Function

Permanent magnets are installed in the piston ring of the pneumatic cylinder which are sensed by the magnetic field sensor through the cylinder wall. As the piston approaches, the sensor changes its output signal state.

The BMF magnetic field sensor exhibits **no multiple switchpoints** on a cylinder at magnetic field strengths of approx. 2 kA/m to 30 kA/m. The sensing path within this magnetic field strength range is virtually constant.

Advantages

- Reliable, bounceless switching
- No double switchpoints
- Long service life
- Non-contact, wear-free piston sensing
- Insensitive to contamination
- Detects piston position through the cylinder wall
- Space-saving design, small sizes and shapes
- Can be installed on any cylinder using the appropriate bracket
- Significantly greater switching distances for the same size
- Switches through alloy and aluminum walls without a reduction in switching distance
- Responds only to magnetic fields; no spurious switching caused by chips

- Magnet can be flush mounted in steel
- Reverse polarity protected
- Supply voltage 10...30 V DC
- Responds to both magnetic field directions equally
- Semiconductor, wear-free
- Insensitive to vibration
- Output protected against inductive peaks
- Short circuit protected
- Housing material is highly resistant to aggressive media

