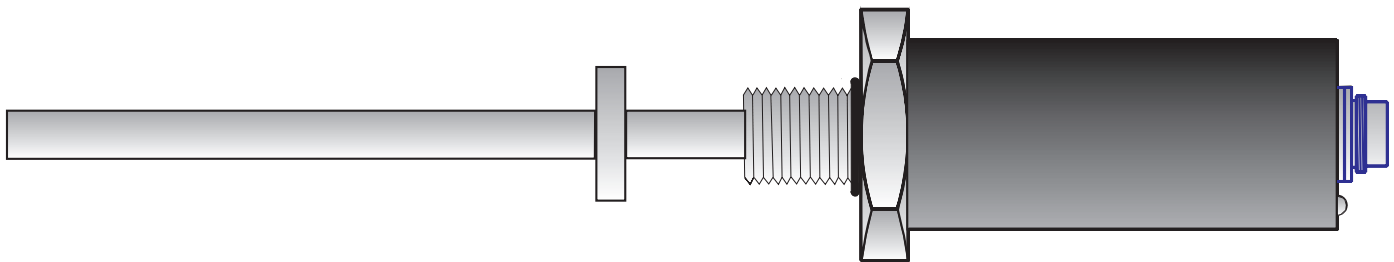


- | | |
|---|--|
| <ul style="list-style-type: none"> ■ Measuring strokes from 100 bis 2000 mm ■ Robust, contactless design ■ Infinite resolution ■ Definite repeatability | <ul style="list-style-type: none"> ■ Start-Stop-Output: RS 485 - Interface ■ Protection grade IP 67 ■ Working temp. range -20°C ... +80°C ■ Pressure proof up to 300 bar |
|---|--|



Construction and operating principle

The transducers carry out a run time measurement between two points of a magnetostrictive material. One point is in the electronic. The second point is determined by an external permanent magnet. The runtime of an ultrasonic puls is proportional to the displacement of the permanent magnet.

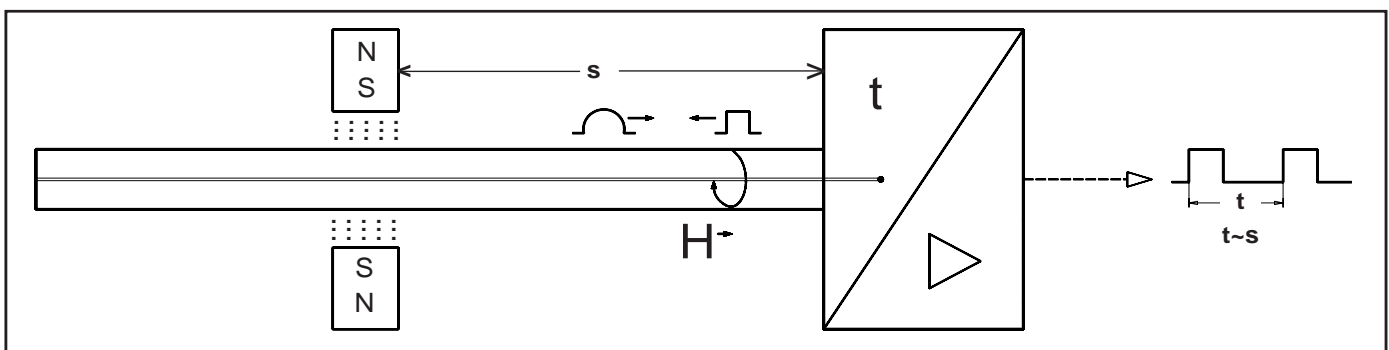
The time between two pulses - Start and Stop - is proportional to the distance. The initialisation of the start-pulse is to be triggered externally.

The permanent magnet is integrated to a stainless steel ring
 The ring can be mounted with two screws to the moving object.
 The movement can be done contactless.

The interface is built according to RS 485 standard and can cope with a wire lengths up to 500m.

Measurement stroke (mm)

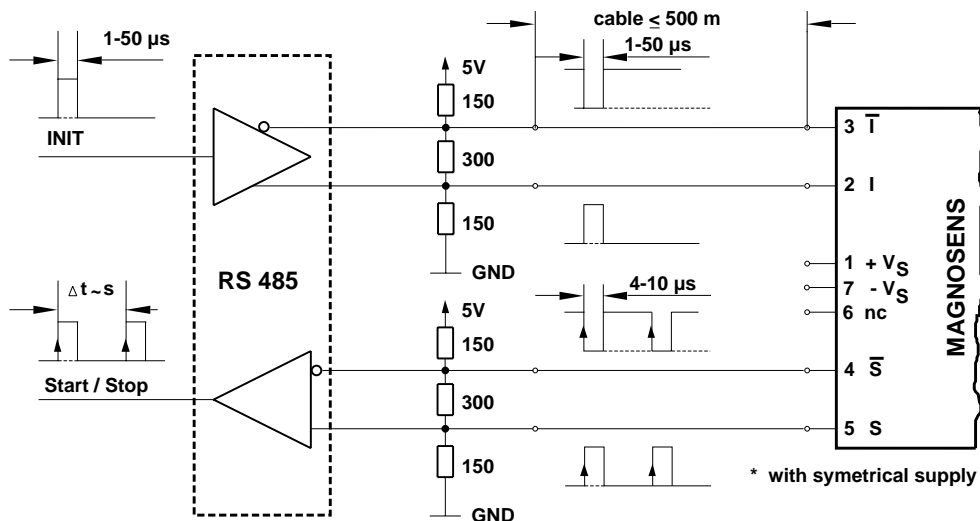
100 / 200 / 300 / 400 / 500 / 750 / 1000 / 1500



Technical data

- | | |
|---|---|
| <ul style="list-style-type: none"> ■ Supply voltage V_S : 24 VDC \pm 10% ■ Supply current : \leq 150 mA ■ Linearity depending on measuring stroke <ul style="list-style-type: none"> □ 100 - 300 mm : \pm 0,3 mm □ 300 - 1500 mm : \pm 0,1 % ■ Rate of measurement : 1 kHz max. | <ul style="list-style-type: none"> ■ Temperature drift : \leq 0,01 % / °C ■ Operating temperature range: - 20 °C to + 80 °C ■ Storage temperature range: - 25 °C to + 80 °C ■ Resistance to shock: \leq 500 m/s² for 11 ms ■ Resistance to vibrations: \leq 60 m/s² from 10 to 150 Hz ■ Protection class : IP 67 ■ Mass : 0,4 kg + 0,02 kg / 100 mm |
|---|---|

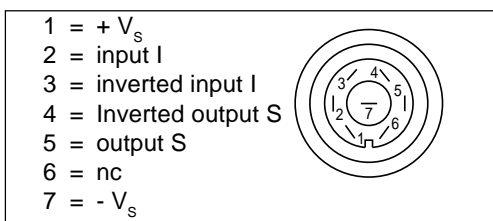
Interface



Description : With an initial-pulse (INIT, $t = 1-50 \mu s$) the transducer is activated to generate two pulses, Start-pulse and Stop-pulse. The time between the rising edges of the pulses is proportional to the displacement of the permanent magnet.

Remark : Other interfaces on request

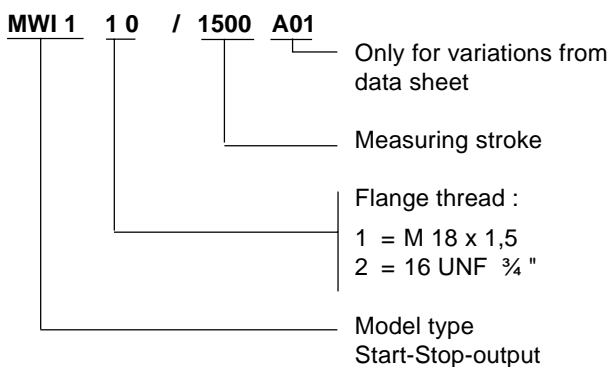
Electrical connection at the plug



Mating plugs

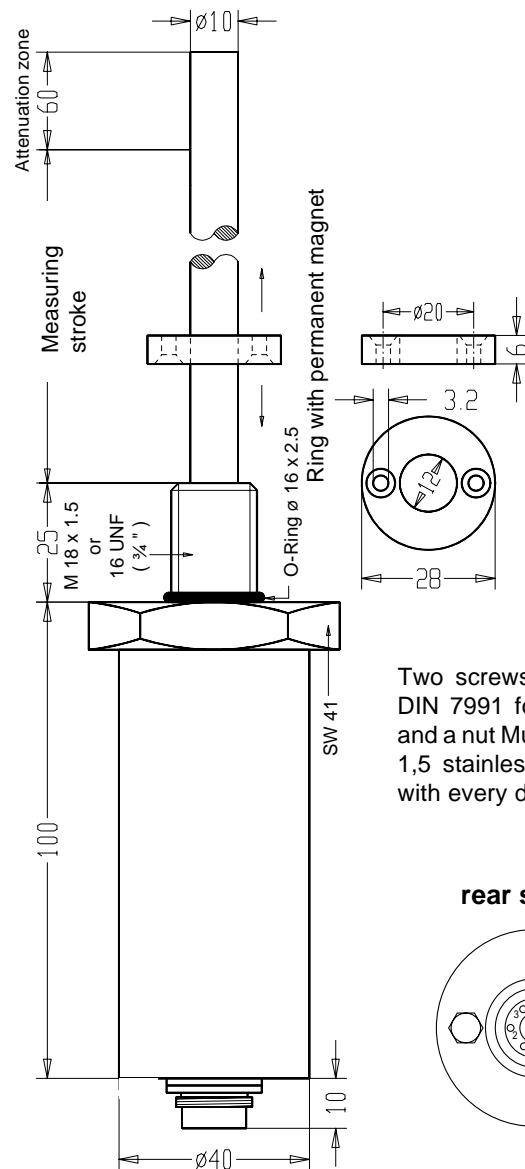
Socket BI 723 M/7 PS (IP 67, metal case with ground connected outer ring) to be ordered separately. All plugs contacts are gold plated.

Order code format



Remark : when installing MAGNOSENS transducers electro magnetic fields as well as magnetic fields must be shielded properly to avoid disturbances.

Dimensions in mm



Two screws M3 x 12 DIN 7991 for the ring and a nut Mutter M18 x 1,5 stainless steel go with every device.

rear side

