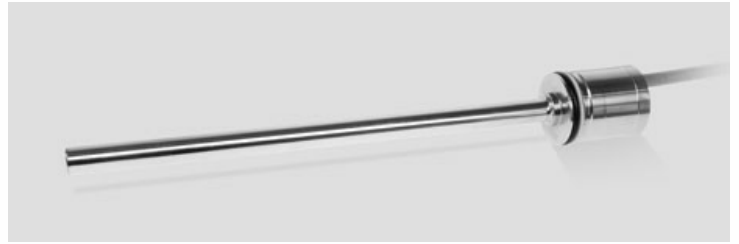


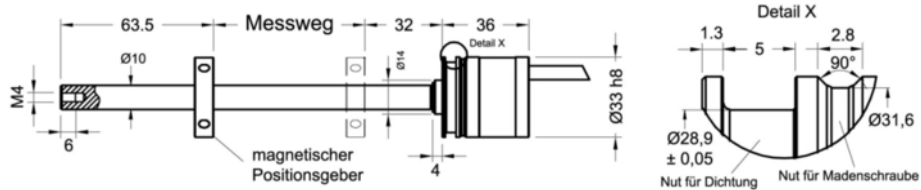
Series IMS - Magnetostrictive Linear Transducer

- Contactless measurement principle
 - Infinite lifetime
 - Robust against vibration influences
- Solid construction, protection class IP67
- Accurate measurement because of low linearity tolerance of $\pm 0,02\%$
- Analogue and absolute output signal
- Measurement length from 50 mm to 4000 mm in 28 versions

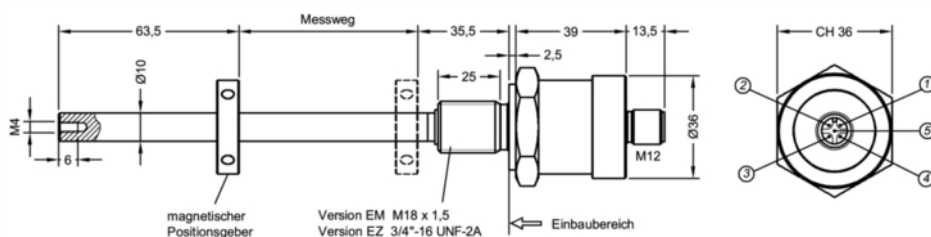


With his diameter of 10mm in a round profile the IMS ist the smallest type under the magnetostrictive linear transducers. He combines a friction-free precision with a compact and robust design. Because of his wearless measurement principle he is insensitive against shock- vibration influences and guarantees a high lifetime. Mechanical coupling by flange, (optionally threaded or matched), applicable up to 350 bar.

Drawing



internal flange with match 33h8 > available with cable only

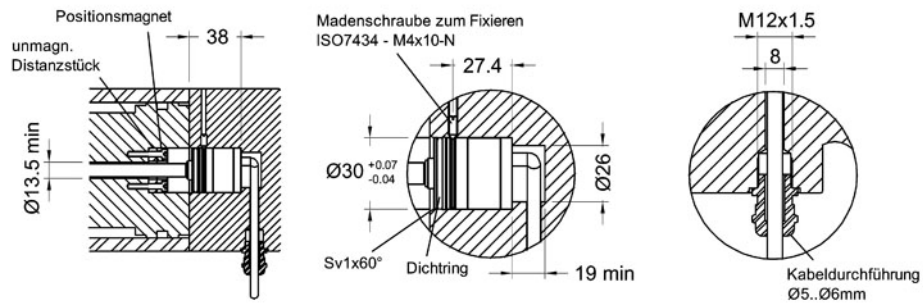


external flange with thread M18x1.5 or in inch dimensions > available with connector only

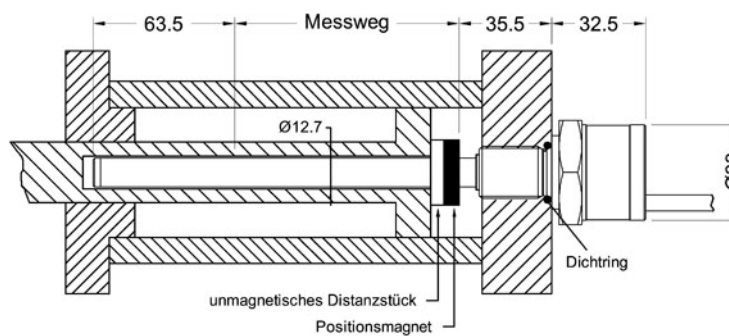
Series IMS - Magnetostrictive Linear Transducer

Mounting

Einbauinfo IMS interner Flansch



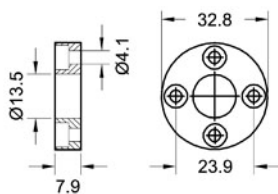
Einbauinfo IMS externer Flansch



Position Encoder

Positionsmagnete IMS

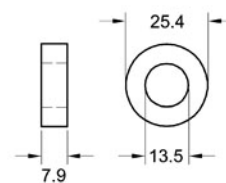
geschlossen Typ P22



offen Typ P23



ohne Montagebohrung Typ P24



Series IMS - Magnetostrictive Linear Transducer

Electrical Data

Electrical Travel in mm	50, 100, 130, 150, 200, 225, 300, 400, 450, 500, 600, 700, 750, 800, 900, 1000, 1250, 1500, 1750, 2000, 2250, 2500, 2750, 3000, 3250, 3500, 3750, 4000
Linearity Tolerance, typical	< ±0,04 %F.S. at 50-175mm < ±0,02 %F.S. at 200mm
Supply Voltage	12V DC bzw. 24V DC ± 20%
Power Consumption, typical	≈ 60 mA
Output Signal	0,1 ... 5,1 V / 0,1 ... 10,1 V / 4..20 mA / Start-Stop
Resolution	5 #m
Sampling Rate	1 ms
Load Resistance	> 5kOhm
Temperature Coefficient	50 ppm/K
Polarity and surge protection	yes

Mechanical Data

Maximum Displacement Speed	≤10 m/s
Maximum Acceleration	≤100 m/s ²
Operating Pressure, static	350 bar (up to 500 bar)

Ambient Conditions

Operating Temperature	-30 ... +90° C stroke ≤2500 mm
Storage Temperature	-30 ... +70° C stroke > 2500mm
Protection Class	IP67
Shock	100g / 11ms (nach IEC68T2-27)
Vibration	12g / 10 ... 2000Hz (nach IEC68T2-6)

Wiring

Electronic Versions

Pin Connector	Colour	Function	Type	Supply	Signal
1	yellow	Signal	1251	12V	0,1...5,1V
2	pink	Signal GND	2411	24V	0,1...10,1V
3	green	nc	2442	24V	4..20mA
4	blue	Excitation + GND	Version 1251 is available up to 1250 mm		
5	brown	Excitation +			
-	grey	nc			

Series IMS - Magnetostrictive Linear Transducer

Accessories

- **Magnetic Position Encoder:**
 - Type P22 - closed
 - Type P23 - open
 - Type P24 - without mounting bore
- **Plug for external flange versions**
 - 5-pole, straight M12x1 IP67 (Part No. 125482)
 - 5-pole, angled M12x1 IP67 (Part No. 125483)
- **Sensor cable with molded plug for external flange versions**
 - 5-pole, straight M12x1 IP67, 2 m (Part No. 125497)
 - 5-pole, angled M12x1 IP67, 2 m (Part No. 125498)
- **Optional for internal flange versions**
 - special cable length (standard 1m)

Not included in delivery. Please order separately.

Order Code

Series	Electrical Travel	Electrical Connection	Signal	Flange
IMS	50 ... 500 ... 4000	K = cable K2 = cable 2m K3 = cable 3m ... S5 = 5-pole connector (ext. flange)	1251 = 12V/0.1-5.1V 2411 = 24V/0.1-10.1V 2442 = 24V/4-20mA	I = internal flange (match 33h8) EM = external flange (thread M18x1,5) EZ = ext. flange (thread 3/4''-16UNF-2A)

Example: IMS 500 K2 2411 I

Magnetostrictive linear transducer, series IMS, stroke 500mm, supply 24V, signal 0,1 ... 10,1V, internal flange

The specifications and information in this datasheet cannot consider all special demands that are caused by the application. Because of this, they are no general description of the properties of the product.
Januar 2010. All specifications are subject to change without notice.