

Series REM13 - Potentiometric Linear Transducer

- Resolution quasi infinite
- Electrical travel from 50 mm to 1000 mm
- Displacement speed up to 5 m/s
- Protection class IP67
- Linearity tolerance up to $\pm 0,05\%$
- Operating temperature -30°C bis $+100^{\circ}\text{C}$
- Electrical connection:
shielded three-wire cable, length 1 m



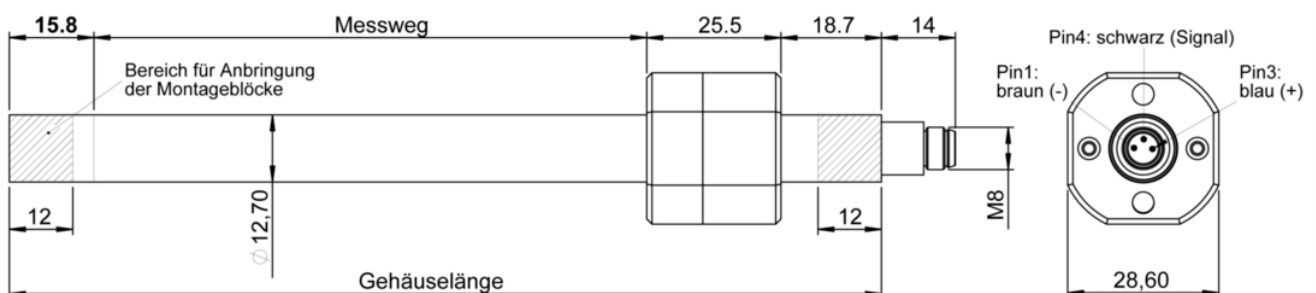
The REM13 series has an external magnetic actuator linked to an internal measurement cursor. Because of this cursor - drag construction the REM13 Sensor has high seal protection of IP67 and is designed to work in humid environments and temporary immersion. Another advantage of this construction is the compact and space saving design without push rod.

Drawing

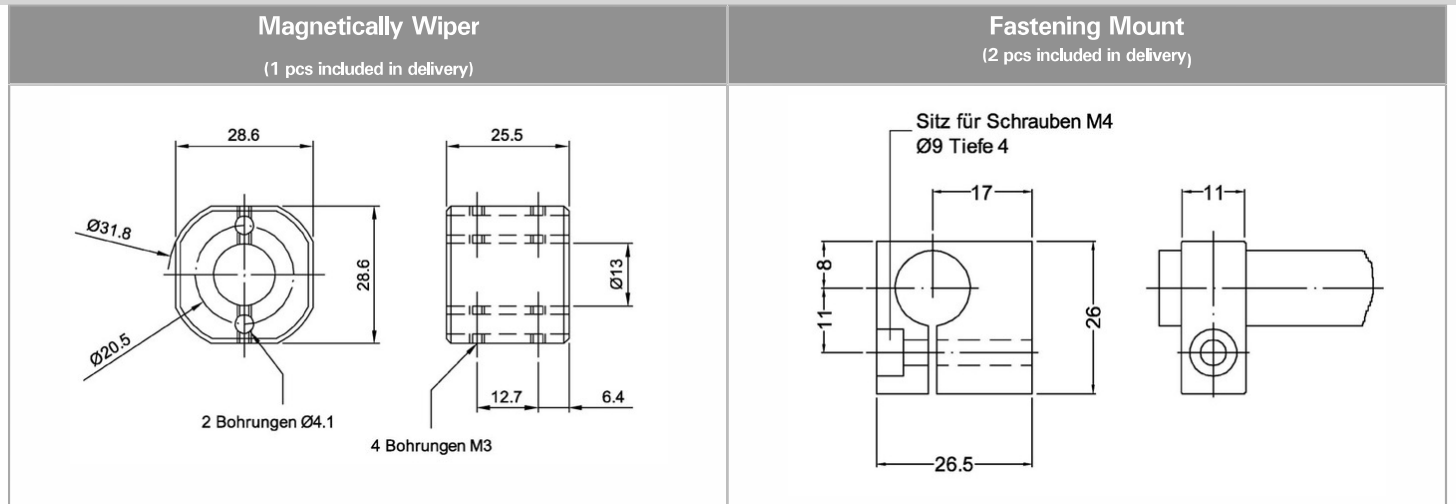
Cable Version



Connector Version



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Schematic:



Dimensions

Series REM13	50	100	150	200	250	300	350	400	450	500
Electrical Travel + 1	50	100	150	200	250	300	350	400	450	500
Mechanical Travel	55	105	155	205	255	305	355	405	455	505
Housing Length	115	165	215	265	315	365	415	465	515	565
Series REM13	550	600	650	700	750	800	850	900	950	1000
Electrical Travel + 1	550	600	650	700	750	800	850	900	950	1000
Mechanical Travel	555	605	655	705	755	805	855	905	955	1005
Housing Length	615	665	715	765	815	865	915	965	1015	1065

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Electrical Data

Resistance Values	5 KOhm - 50...300 mm 10 KOhm - 350...600 mm 20 KOhm - 650...1000 mm
Resistance Tolerance	± 20%
Linearity Tolerance, independent	± 0,1% - 50...100 mm ± 0,05% - 150...1000 mm
Resolution	quasi infinite (depending on the noise of the evaluation unit)
Power Rating at 40°C	1 W - 50 mm 2W - 100 mm 3W - 150...1000 mm
Maximum Operating Voltage	40 V - 50 mm 60 V - 100...1000mm
Temperature Coefficient	400 ppm/K - Resistor
Temperature Coefficient	5 ppm/K - voltage divider circuit
Insulation	> 100 MOhm bei 500VDC, 2s, 1bar
Dielectric Strength	< 100µA bei 500Veff, 50Hz, 2s, 1bar
Wiper Current, maximum	10 mA
Wiper Current, recommended	< 0,1µA (voltage divider circuit)

Mechanical Data

Maximum Displacement Speed	< 5m/s
Maximum Acceleration	< 10 m/s ² (pls. see figure Tracking Error)
Actuating Force	< 0,5N
Hysteresis	< 0,25mm
Vibration	12g, 10...2000 Hz
Shock	50g, 11ms
Average Life	> 25 x 10 Mio meter or 100 x 20 Mio movements (respectively the lower value)

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Ambient Conditions

Operating Temperature	-30... + 100°C
Storage Temperature	-45... + 120°C
Vibration DIN IEC 68T2-6	12 g, 10...2000Hz
Shock DIN IEC68T2-27	50 g, 11ms, single cycle
Protection Class	IP67
Max. operating pressure for pneumatic applications	20 bar (50 bar peak value)
Explosion Protection	suited for explosion-prone areas with gases group IIA, IIB, IIC; certified to ATEX CEI EN 50020 2003

Options/ Accessories

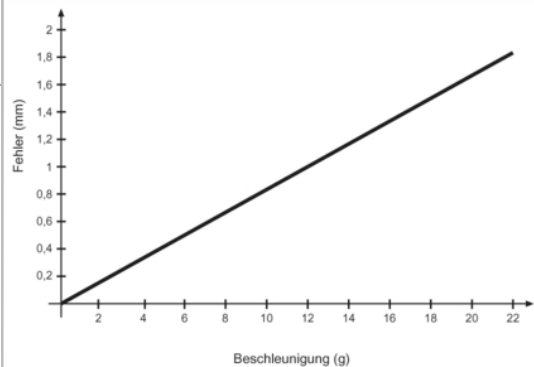
Options:

- special cable length

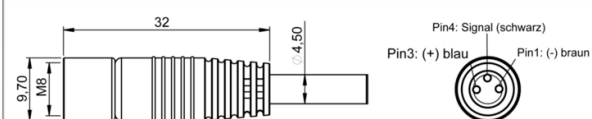
Accessories:

- Fastening mount (2 pcs. included in delivery)
- Magnetically wiper (1 pcs. included in delivery)
- Plug SKT with cable M8 straight 3-pole 2m IP67, unshielded - Part No. 125303
- Plug SKW with cable M8 angled 3-pole 2m IP67, unshielded - Part No. 126325
- Plug SKTG with cable M8 straight 3-pole 2m IP67, shielded - Part No. 127825
- Plug SKWG with cable M8 angled 3-pole 2m IP67, shielded - Part No. 127826

Tracking Error

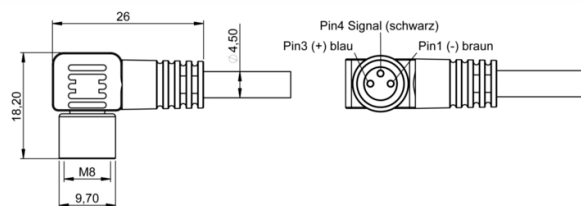


Plug with cable M8 straight 3-pole



Einschraubtiefe ca. 4,5 mm

Plug SKT with cable M8 angled 3-pole



Einschraubtiefe ca. 4,5 mm

Order Code

Series	Electrical Travel	Version
REM13	50 ... 1000	K - cable S - connector

Example: REM13 100 S

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.

04. March 2011. All specifications are subject to change without notice.