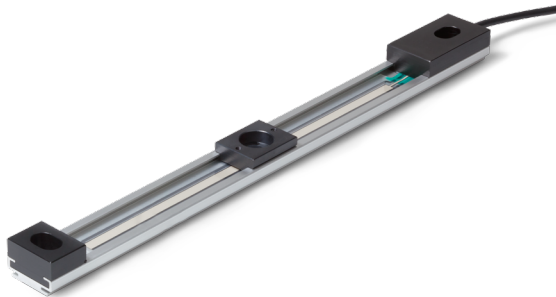


Data Sheet for Linear Sensors

Potentiometric Linear Transducer

Series MBH



The Series MBH is used in applications that need a hermetically sealed sensor element. The sensor technology is based on an encapsulated foil-potentiometer.

- Hermetically encapsulated sensor element
- Sealed round cable outlet
- Flat design
- Integrated end stops
- Protection class IP45
- 3 million slider movements

There are various applications for the linear potentiometer series MBH with environmental exposure to water and humidity, like filling level meters, adjustment of operation tables or position control of diagnostics or therapy appliances.

Electrical Data

Effective electrical travel 1.)	100 ±0,3 mm (optional 50, 200, 300, 400, 500 mm)
Total resistance 1.)	2,5 kOhm
Resistance tolerance	±20 %
Independent linearity (best straight line) 1.)	±2 % (90% effective electrical travel)
Theoretical resolution 1.)	Almost infinite
Max. / recommended wiper current1.)	1 mA (@ 40°C, 1 min in case of failure) / 0,1 µA
Power rating	≤ 0,25 W

Mechanical Data, Environmental Conditions, Miscellaneous

Mechanical stroke 1.)	> 95 mm
Lifetime (90% effective electrical travel) 2.)	3 Mio. movements
Max. operational speed	< 3 m/s
Operational force @ RT 1.) 2.)	< 1 N
End stop force	< 20 N
Operational temperature	-25..+55°C
Storage temperature	-30..+60°C
Protection grade (IEC60529)	IP45
Sensor length	200 mm
Max. permissible perpendicular load on the slider	< 1 N
Mass	about 110 g
Mounting parts (not included in delivery)	For example: Screws M5 ISO7380
Fastening torque of the screws	<150 Ncm
Materials	Plastic, Aluminium

1.) According IEC 60393

2.) Determined by climatic conditions according to IEC 68-1, para. 5.3.1 without load collectives

Please note: Max. permissible supply voltage ≤42 VDC respectively ≤42 VAC in addition the max. power rating must be observed

Data Sheet for Linear Sensors

Potentiometric Linear Transducer

Series MBH

Order Code

Description		Selection: standard=black/bold, possible options=grey/cursive				
Series	MBH					
Effective electrical travel:						
<i>Optional 50 mm</i>		50				
100 mm		100				
<i>Optional 200 mm</i>		200				
<i>Optional 300 mm</i>		300				
<i>Optional 400 mm</i>		400				
<i>Optional 500 mm</i>		500				
Total resistance:						
100 mm 2,5 kOhm			R2,5K			
<i>(Depending on the electrical travel)</i>			<i>Rxxx(K)</i>			
Resistance tolerance:						
100 mm (±20%)				W20%		
Independent linearity:						
≤±2%					L2%	
Electrical connection:						
Round cable standard length 1 m						R1,00
<i>Option round cable length in m</i>						<i>Rx,xx</i>

For higher quantities or on-going demand, additional options are available as described below on request

For example:

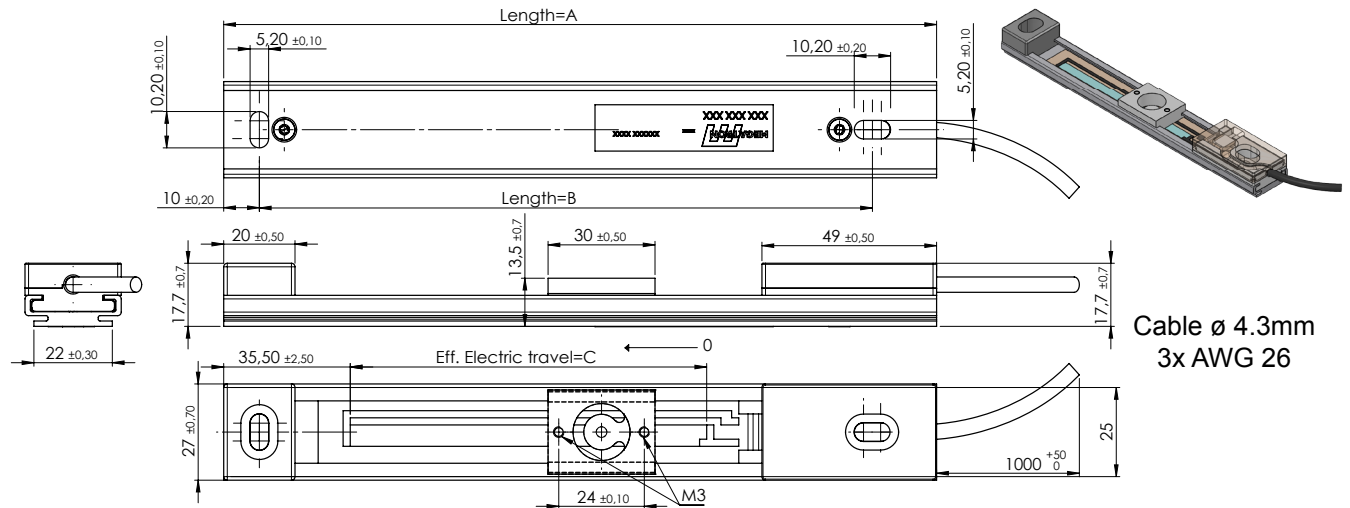
- Cable assemblies with and without connector
- Special mechanical coupling parts for the slider, for example: ball joints

Data Sheet for Linear Sensors

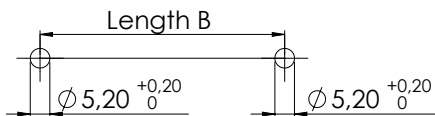
Potentiometric Linear Transducer

Series MBH

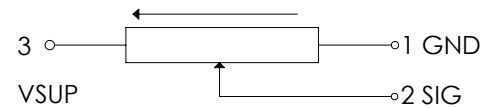
Drawing



Drilling Pattern



Length A	Length B	Effectiv Electric Travel C
200 ±0,3	172 ±0,2	100 ±0,3



Lead colour	Assignment
Red	VSUP
Black	GND
Brown	OUT