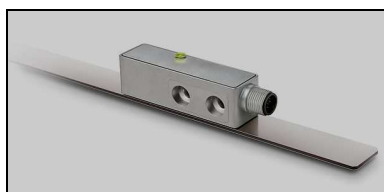


External Absolute Positioning Sensor MSA501- with Magnetic Scale MBA501

MSA501 is an absolute and incremental magnetic sensor.

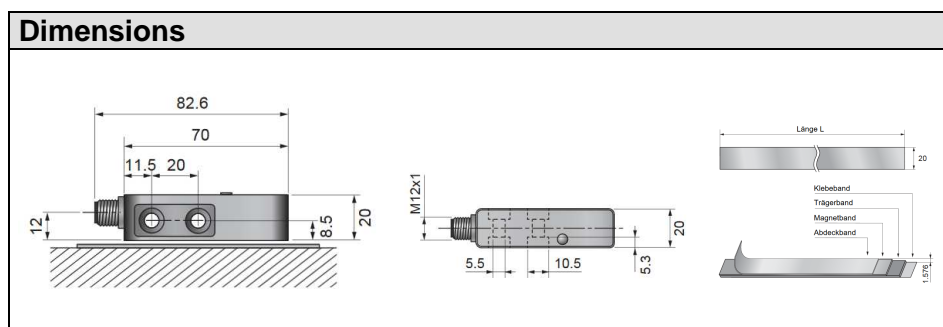
A magnetic strip MBA501 serves as a scale embodiment, which has a magnetic absolute and incremental track. A sensor head contactlessly scans the magnetic strip and delivers an absolute SSI signal, as well as two digitally driven, RS422 compatible output signals.



MSA501 & MBA501 Positioning Measurement System

- repeating accuracy $\pm 5 \mu\text{m}$
- system linearity $\pm 50 \mu\text{m}$
- robust system

Type	MSA501
Operating Data	
resolution absolute / incremental [μm]	5 / 1
repeating accuracy [μm]	± 5
linearity of the system [μm]	± 50
distance sensor head to scale surface [mm]	$< 1,3$
max. pitch and jaw of sensor head [$^\circ$]	< 1
max. speed [m/s]	5,0
status display	LED's
supply voltage + UB [VDC]	4,5 to 30,0
current consumption [mA]	< 300
output circuit SSI	RS485
output circuit incremental	RS422 line driver
cable length with special cable	max. 10 m
housing of sensor head	metal
operating temperature [$^\circ\text{C}$]	-20 to +70
storage temperature [$^\circ\text{C}$]	-30 to +80
humidity [%]	< 100 , with condensing
protection class	IP67



Signal	Pin
A / A	7 / 6
B / B	9 / 8
D+ / D-	2 / 3
T+ / T-	11 / 4
+ UB	5
GND	12

External Positioning Sensor MSA501 Variations, Options & Accessories

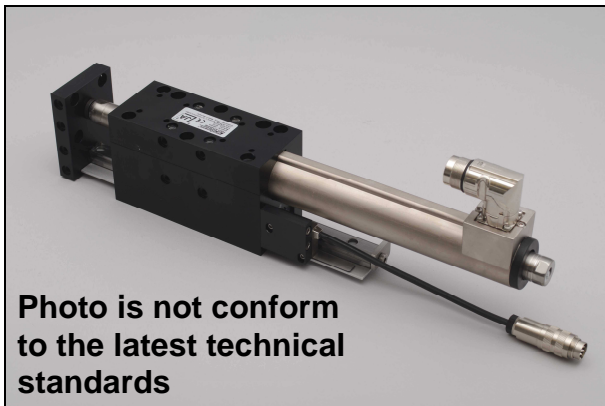
The MSA501 is available in the following variations and with different accessories .
See the following chart.

Type	Item No.
Sensors	
MSA501 5 µm repeating accuracy, max. speed 5,0 m/s, round connector 12-pin	0292048
Ready-to-use Cables	
MSA501-R12/D15 sensor cable for cable chain	
Cable Adaptors	
MSA501-D15/D15/D9 Y-adaptor	0292049



The positioning controllers from series A11XX, B11XX and E11XX are **NOT SUITABLE** for use with the absolute sensor MSA501!

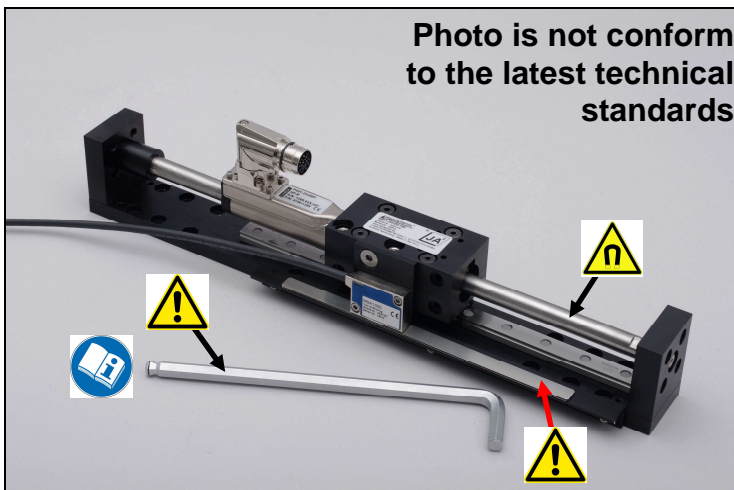
HighDynamic[®] HM01 Modules & HA01 Guides with Adaptor AD22, External Absolute Positioning Sensor MSA501 & Scale



When ordering a completely mounted system (see photo above), the sensor head will be mounted by us. A continuous test-run is included. After dismantling and before assembly, compliance with the mechanical specifications is mandatory - see page 1 of 3.



During assembly work it is imperative to pay attention and make sure that **no tools or workpieces made of steel ever come in contact with the magnetic slider of the linear motor and the magnetic scale**. The magnetic pitch of the magnetic scale is destroyed by strong magnetic fields.



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Rev.: 19.02.2018
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