HALL POTENTIOMETER HMS 220

This absolute rotary sensor based on Hall technology operates contactlessly. This allows even the smallest changes in angle to be reliably detected.

Advantages
– Freely programmable rotation angle from 0° to 360°
– Small housing diameter of just 23 mm
– High resolution, precision, and measurement accuracy
– Insensitive to vibrations

Application Examples
– Joysticks
– Valve flap control
– Angle measurement in vehicles
– Servo systems



General Data	
Sensor technology	Hall technology
Type of contact	Magnet
Sensor type	Absolute measuring

Electrical Data	
Measuring range	0° – 360°, freely programmable
Independent linearity	± 0.5 %
Resolution	Analog 12 bit SPI 14 bit PWM 14 bit
Current consumption without load	Slow mode: typ. 8.5 mA, max. 10 mA Fast mode: typ. 13.5 mA, max. 16 mA
Supply voltage	5 VDC ± 10 %
Sampling rate	Slow mode 800 µs Fast mode 300 µs
Output signal	Analog, 10 to 90 % of supply voltage
Min. ohmic load at output	10 kΩ
Max. capacitive load at output	10 nF

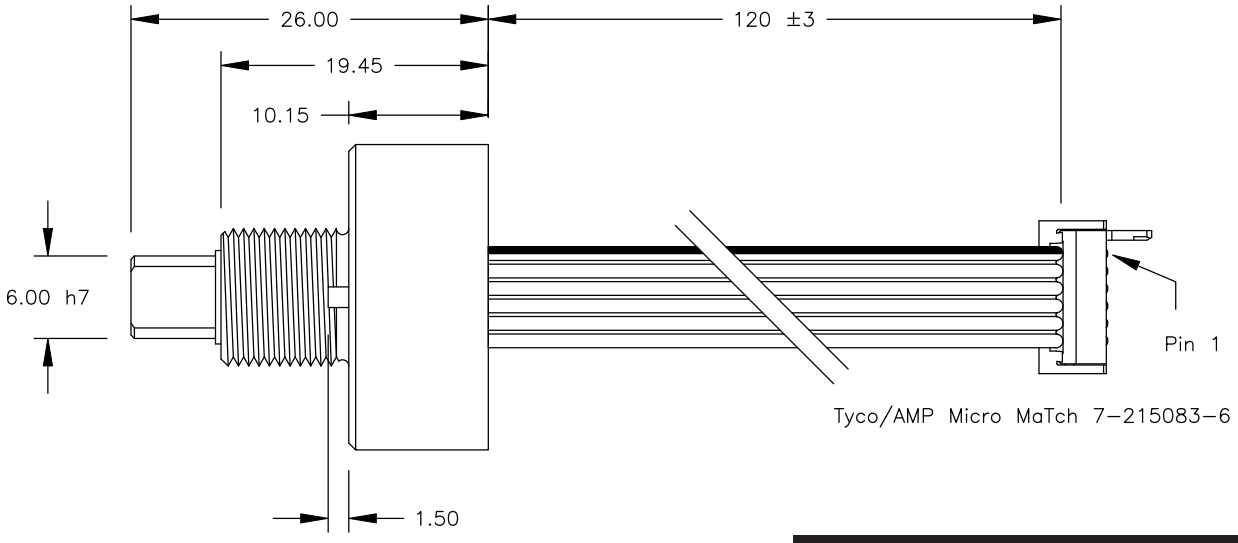
Mechanical Data	
Dimensions	See drawing
Bearing	Double ball bearing
Lifespan	200 million cycles
Mounting	Thread M10 x 0.75

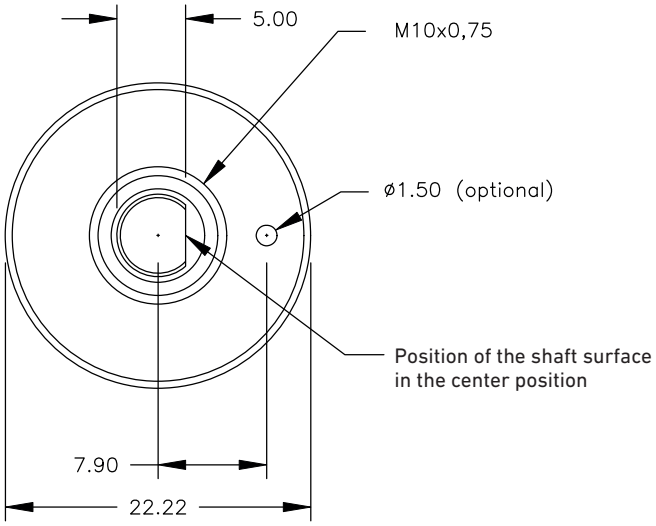
Environmental Data	
Operating temperature	-40 °C to +105 °C
Protection class acc. to IEC 60529	IP 65

Material	
Housing	Aluminium anodised
Axis	Stainless steel

Electrical Connection	
	Wire Others on request

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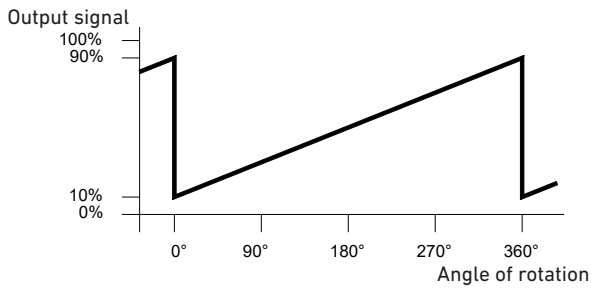




All dimensions in mm

Electrical Connection	
Analog	Pin 1 VDD 5V Pin 2 GND Pin 3 OUTPUT Analog
SPI	Pin 1 VDD 5V Pin 2 GND Pin 3 OUTPUT In /Out Pin 4 Serial Clock Pin 5 Slave select Pin 6 n.c.
PWM	Pin 1 VDD 5V Pin 2 GND Pin 3 PWM

Output signal



Sample order

Article No.	Product name	Measuring range	Electrical Connection
H061500286	HMS 220	360°	Wire

Metallux cannot picture the customer's operating and application conditions and the customer's existing environmental influences.
We therefore recommend that you carry out your own investigations into the planned use of the products under the actual operating conditions.

We continuously improve our products and also update our data sheets regularly. In this respect, there may be changes in the specification.
These changes will apply to orders received by us from the time of the update, unless otherwise agreed.

Our products comply with Directive 2011/65/EU (RoHS) including Directive 2015/863/EU and Regulation (EC) No. 1907/2006 (REACH).