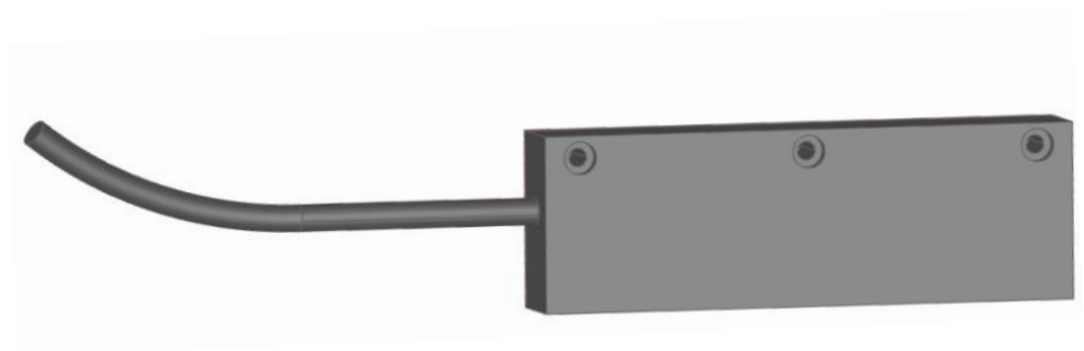


# ***MAX1***



- Resolution 1,0 mm standard (other on request)
- Direct and contactless measuring principle
- Absolute measurement up to 524 m
- Housing length only 98 mm
- Easy and quick installation
- Available interfaces SSI, RS 422

# **MAX1** Magnetic Absolute Measuring System

## **General**

MAX1 is an absolute measuring system that is used for various positioning applications in many different sectors. MAX1 can be installed horizontally and vertically. The definite position information is set as magnetic code on the tape. The measuring occurs always contactless.

The magnetic measuring principle is extremely robust. Smoke and higher temperatures do not affect the measurement in any way. Also dust, dirt and humidity have no influence on the measuring quality. Therefore, MAX1 is also particularly suited for applications in high bay warehouses. Also the tape is robust enough to withstand the sometimes harsh conditions during mounting and operating warehouse applications.

Depending on the given space - it can be installed anywhere on the storage service system. Due to the small space requirement, MAX1 is perfect for retrofitting and modernization.

## **Product Features**

- no reference necessary
- direct contactless measuring
- the distance between sensor and magnetic tape is max. 1,5 mm (without cover tape)
- measuring length up to 524 m
- resolution 1 mm
- repeat accuracy +/- 1 increment
- robust against dirt and humidity

The available interfaces are SSI with 25-bit Graycode and RS 422.

## **Functional Principle**

A Hall sensor line is guided over a magnetic tape which is containing a absolute track. This absolute track system provides together with the Hall sensor line an absolute value.

## **Pin assignment:**

Black	0 V
Brown	+24 VDC
Green	SSI CLK +
Yellow	SSI CLK -
Red	SSI Data +
Orange	SSI Data -

## Technical Data

EMAX2 (Standard version)	
Mechanical Data	
Measuring principle	absolute
Measurement	linear
Repeat accuracy	+/- 1 increment
Distance from sensor to the magnetic tape	max. 1.5 mm
Basic pole pitch	4 mm
Sensor housing material	ABS plastic
Sensor housing dimensions	L x W x H = 98 x 15x 32 mm
Required magnetic tape	AB20-40-08-1-R-D-17A
Measuring length	max. 524 m
Connection	open cable ends
Sensor cable	1.5 m standard cable length (others on request)
Weight	approx. 55 g (without cable) cable approx. 60 g/m
Electrical Data	
Supply voltage	+ 10 ... 30 VDC
Residual ripple	10 - 30 V: <10 %
Power input	max. 200 mA
Interfaces	SSI-Interface (Graycode 25 Bit; 24 Data bits + 1 Powerfailbit (always low), RS 422
Resolution	1 mm
Speed	max. 6 m/s
Environment Conditions	
Storage temperature	-20 ... +85° C
Operation temperature	-10 ... +70° C (-20 ... +85° C on request)
Humidity	max. 95 %, not condensing
Protection Class	IP65

## Type Designation:

Please use the following code to order:

MAX1 

A	B	B	B	C	C	C	C	D	D	E	E	E	E	F	G	G	G	H	I
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

### A SN-Number

00 0.. 99

### B Signal cable length (cable length in dm)

015 standard length 1,5m, open cable ends

### C Resolution

1000 1,00 mm  
0500 0,5 mm  
0250 0,25 mm

### D Interface

SG0 SSI-Interface (Graycode 25 Bit; 24 data bits + 1 Powerfailbit (always low))  
420 RS422

### E Bit rate (not for SSI-Interface)

09k6 9600 Bit/s - Standard bit rate bei RS422  
19k2 19200 Bit/s bei RS422  
38k4 38400 Bit/s bei RS422

### Additional options

F F device address 0.. F  
(standard address = 0)

### G D9M0

M8F0 connector (8-pin M16-female with ELGO Standard SSI-pin assignment)

R8M0 connector 8- pin male M12  
R5M0 connector 5- pin male M12

### H V

sealed version (standard)

### I A

without termination resistor

Order example:

MAX1 

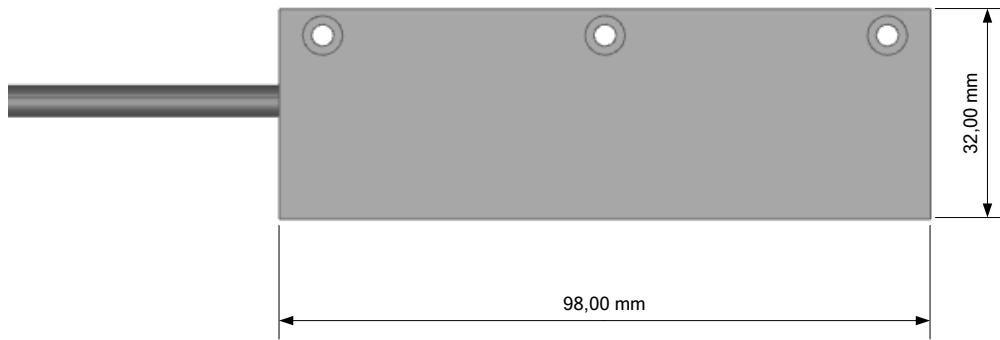
0	0	0	1	5	1	0	0	0	SG	0								V	
A	B	B	B	C	C	C	C	D	D	E	E	E	E	F	G	G	G	H	I

MAX1 with SSI Graycode interface, 25 Bit, sealed, 1,5 m cable and 1,0 mm resolution

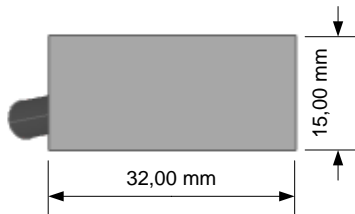
**Note:** Please fill in „-“ for ordering options which are not needed.

## Dimensions:

Side view sensor:



Front view sensor:



## Accessories:

AB20-40-08-1-R-D-17A	Magnetic tape for MAX1, without adhesive tape and without cover tape (max. measuring length 524 m)
AB20-40-08-1-R-17A	Magnetic tape for MAX1, one side with adhesive tape included cover tape (max. measuring length 524 m)
Magnetic tape end caps 10 mm - Set	2 end caps (10 mm) und 2 x M3 Schrauben; Additional fixation in radial and linear area, and protection of the magnetic tape ends <a href="#">Art. Nr. 731031002</a>
Magnetic tape end cap 10 mm	1 end cap (10 mm) <a href="#">Art. Nr. 731031000</a>
FS-1000, FS-1500, FS- 2000	guide rail for für MAX1 (length specification in mm)

