

Magnetic sensors for linear applications

MLFK

features

- competitively priced linear measuring solution using magnetized ribbons
- 2 channel version
- channel A/B 90° phase shifted
- 8-fold interpolation
- 160'000 Hz switching frequency

description

Magnet encoders provide linear position information by non-contact tracking of a magnetized ribbon based on a magneto resistive sensor. Depending on the angle between the sensor and the magnetic field, the device generates analog signals containing the angular information. These signals are further fed into an electronics circuit for additional conditioning and processing. The rugged and easy to mount linear encoder generates 8 pulses per pole (2 mm width) when used in conjunction with a magnetized ribbon. The IP 67 protected sensor contains absolutely no moving parts and is not subject to any wear when in operation. Air gap between magnet and sensor can be up to 1 mm without sacrificing system accuracy.



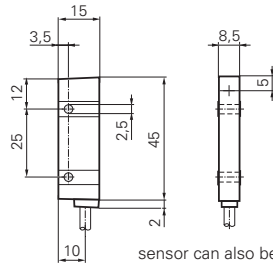
part numbers

2 channel push-pull	MLFK 08G2101
2 channel complementary (RS 422)	MLFK 08T7101

technical data		MLFK 08G2101	MLFK 08T7101
		2 channel push-pull	2 channel complem. (RS 422)
voltage supply range +Vs	8 - 30 VDC	5 VDC ±5%	
supply current	35 mA	55 mA	
switching current	30 mA	RS 422	
max. switching frequency	160'000 Hz		
voltage drop	< 4 VDC (I _{out} = 20 mA)	RS 422	
output circuit	push-pull	TTL (RS 422)	
output signal	CH A/CH B	CH A/ CH $\bar{A}$ CHB/CH $\bar{B}$	
air gap	max. 1,0 mm		
resolution	8 pulses/pole		
interpolation	8-fold*		
max. measuring step	32 steps/pole (ext. quadrature)		
short circuit protection	yes	yes	
reverse polarity protection	yes, Vs to GND	no	
temperature range	-25...+85 °C		
housing material	PC		
protection class	IP 67		
connection cable	PUR 4 x 0,25 mm ²	PUR 6 x 0,14 mm ²	

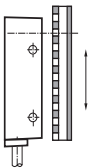
*lower interpolation rates on request

dimensions

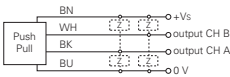


sensor can also be mounted with self-tapping screws (M3)

mounting and direction of movement



2 channel push-pull



pin assignment 2 channel push-pull

color	abbreviation	signals
brown	BN	+Vs
blue	BU	GND
black	BK	CH A
white	WH	CH B

2 channel complementary RS 422



pin assignment 2 channel complementary RS 422

color	abbreviation	signals
brown	BN	+Vs
green	GN	CH A
pink	PK	CH $\bar{A}$
yellow	YE	CH B
grey	GY	CH $\bar{B}$
white	WH	GND

accessories

magnetized ribbon
pole width 2 mm, ribbon width 10 mm
height max. 1,4 mm

length	part nr.
50 mm	128662
150 mm	128663
300 mm	128664

other lengths see accessories page

output signals push-pull



output signals complementary

