

KUEBLER - MAGNET SENSOR LI20 WITH MAGNETIC RING RI20

SERIE 8.LI20

- Robust and able to withstand vibration
- Easy to install
- High resolution
- IP67. Impervious to chips, oil, water, etc.



Product description

The combination RI20/LI20 is used to measure length via a rotary shaft, e.g. in woodturning machines, materials handling, overhead cranes, etc. This sensor is more or less totally impervious to chips, oil, dust and water and thus can be used in troublesome environments, it is sealed and has no moving parts. The sensor is fitted to read on a yoke. This yoke is available for shaft dimensions 8-30 mm. There are three different yoke sizes; 31 mm, 41.2 mm and 45 mm.

The yoke RI20 has a pole distance of 2 mm. The distance between the sensor and the yoke should be 0.1 to 1.0 mm (recommended 0.4 mm). For the magnet sensor, the slope must not exceed $\pm 3^\circ$, the rotation must not exceed $\pm 3^\circ$ and the offset must not exceed ± 1 mm.

The following information is required to select the right combination:

- yoke size
- max. shaft rotation speed (given the frequency to following systems)

Pulses/revolution	Yoke	Magnet sensor	Max. revolutions (rpm)
250	RI20.031.XXXX	LI20.11X1.2005	12000
1000	RI20.031.XXXX	LI20.11X1.2020	2400
2500	RI20.031.XXXX	LI20.11X1.2050	3900
1024	RI20.041.XXXX	LI20.11X1.2016	7000
360	RI20.045.XXXX	LI20.11X1.2005	12000
3600	RI20.045.XXXX	LI20.11X1.2050	2700

Please refer to the images below for ordering information.

Order code		8.LI20 . X1XX . 2XXX					
Sensor head Limes LI20		Type	a	b	c	d	e
a Model	1 = IP67, standard 2 = IP68 / IP69k and humidity tested acc. to EN 60068-3-38, EN 60068-3-78	c Type of connection	1 = cable, 2 m [6.56'] PUR A = radial cable, special length PUR *)	d Reference signal	2 = Index periodical	e Interpolation factor	005, 016, 020, 050
b Output circuit / power supply	1 = RS422 / 4.8 ... 26 V DC 2 = Push-pull / 4.8 ... 30 V DC	e Stock types	8.LI20.1111.2005 8.LI20.1111.2020 8.LI20.1111.2050 8.LI20.1121.2005 8.LI20.1121.2020 8.LI20.1121.2050				
		*) Available special lengths (connection type A): 3, 5, 8, 10, 15 m [9.84, 16.40, 26.25, 32.80, 49.21'] order code expansion .XXXX = length in dm ex.: 8.LI20.111A.2005.0030 (for cable length 3 m)					

Order code Magnetic ring RI20

8.RI20 . XXX . XXXX . 111
Type a b

Min. order quantity for non-stock types: 10 pieces

a Outer diameter

031 = 31 mm [1.22"]
041 = 41.2 mm [1.62"]
045 = 45 mm [1.77"]

b Bore diameter

0800 = 8 mm [0.32"] 1800 = 18 mm [0.71"] 0952 = 3/8"
1000 = 10 mm [0.39"] 2000 = 20 mm [0.79"] 1587 = 5/8"
1200 = 12 mm [0.47"] 2500 = 25 mm [0.98"]³⁾ 2540 = 1"³⁾
1500 = 15 mm [0.59"] 3000 = 30 mm [1.18"]³⁾

Stock types

8.RI20.031.0800.111
8.RI20.031.1000.111
8.RI20.031.1200.111
8.RI20.031.1500.111
8.RI20.041.0800.111
8.RI20.045.1200.111
8.RI20.045.1500.111
8.RI20.045.2500.111
8.RI20.045.2540.111
8.RI20.045.3000.111

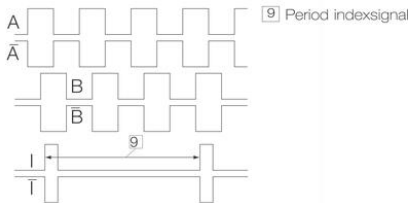
Order code	8.LI20	X1	XX	2	XXX
Standard head L120					
1 - Head	1 - IPEZ standard	2 - IPEZ (P/N) and headless head	3 - IPEZ (P/N) and headless head	4 - IPEZ (P/N) and headless head	5 - IPEZ (P/N) and headless head
2 - Cable	1 - cable, 2 - 2x0.38 [1.5] P/N	3 - cable, 2 - 2x0.38 [1.5] P/N	4 - cable, 2 - 2x0.38 [1.5] P/N	5 - cable, 2 - 2x0.38 [1.5] P/N	6 - cable, 2 - 2x0.38 [1.5] P/N
3 - Reference signal	1 - Index period of	2 - Index period of	3 - Index period of	4 - Index period of	5 - Index period of
4 - Interpolation factor	100, 150, 200, 250	100, 150, 200, 250	100, 150, 200, 250	100, 150, 200, 250	100, 150, 200, 250
5 - Stock type	8.LI20.111.2000	8.LI20.111.2000	8.LI20.111.2000	8.LI20.111.2000	8.LI20.111.2000

Order code	8.RI20	XXX	XXXX	111
Magnetic ring RI20				
1 - Outer diameter	0800 = 8 mm [0.32"]	1000 = 10 mm [0.39"]	1200 = 12 mm [0.47"]	1500 = 15 mm [0.59"]
2 - Bore diameter	1800 = 18 mm [0.71"]	2000 = 20 mm [0.79"]	2500 = 25 mm [0.98"] ³⁾	3000 = 30 mm [1.18"] ³⁾
3 - Stock type	8.RI20.031.0800.111	8.RI20.031.1000.111	8.RI20.031.1200.111	8.RI20.031.1500.111

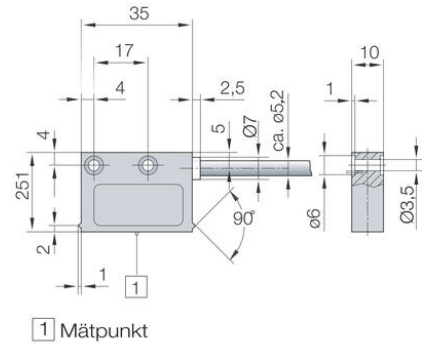
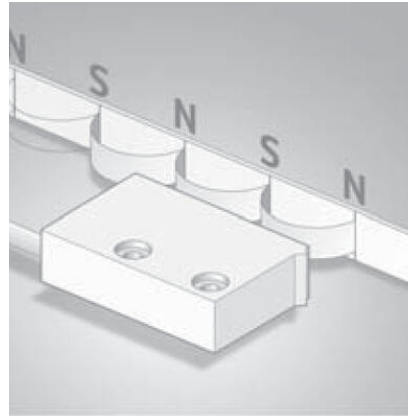
Pin assignment:

Signal	Wire colour
0 V, GND	white
U _B	brown
A	green
\bar{A}	yellow
B	grey
\bar{B}	pink
I	blue
T	red

Shield is on the housing



9) Period index signal



Magnetring 8.RI20.031.XXXX.111, ø 31 mm

