# **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  $\pm 1$  mm.

The following information is required to select the right combination:

- voke 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 Sensor head Limes LI20	8.L120 . X 1 X X . 2 XXX		
<ul> <li>Model</li> <li>1 = IP67, standard</li> <li>2 = IP68 / IP69k and humidity tested acc. to EN 60068-3-38, EN 60068-3-78</li> <li>Output circuit / power supply</li> <li>1 = RS422 / 4.8 26 V DC</li> <li>2 = Push-pull / 4.8 30 V DC</li> </ul>	Type of connection  1 = cable, 2 m [6.56'] PUR  A = radial cable, special length PUR *)	• Reference signal 2 = Index periodical	Stock types 8.LI20.1111.2005 8.LI20.1111.2020
	*) 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)	Interpolation factor 005, 016, 020, 050	8.LI20.1111.2050 8.LI20.1121.2005 8.LI20.1121.2020 8.LI20.1121.2050

## Order code Magnetic ring RI20

8.RI20 . XXX . XXXX . 111

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

Outer diameter

031 = 31 mm [1.22"] 041 = 41.2 mm [1.62"]

045 = 45 mm [1.77"]

6 Bore diameter

1500 = 15 mm [0.59"] 3000 = 30 mm [1.18"] 3)

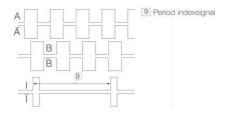
Stock types
8.RI20.031.0800.111
8.RI20.031.1000.111
8.RI20.031.1200.111
8.RI20.031.1500.111
8.RI20.041.0800.111
8.RI20.045.1200.111
8.RI20.045.1500.111
8.RI20.045.2500.111
8.RI20.045.2540.111
8.RI20.045.3000.111

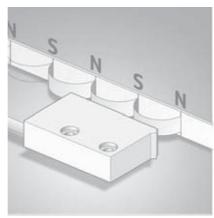
Order code Sensor head Limes LI20	8.LI20 . X 1 X X . 2 XXX		
Model 1 = IPST, standard 2 = IPSE, IPSS and humidity rested act. to EN 60086-3-36, EN 60086-3-78      Guspot circuit / power aupply 1 = ISSEZ (4.8 28 V DC 2 = Pain-byold (4.8 20 V DC)	Type of connection Co	Reference signal     Index periodical     Interpolation factor     005, 016, 020, 059	Stock types 8120:1111:2005 8120:1111:2009 8120:1111:2006 8120:1121:2005 8120:1121:2006 8120:1121:2006

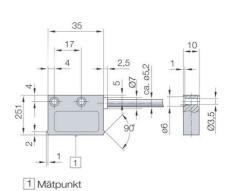
Order code Magnetic ring RI20		XX . XXXX .	111	Min. order o	quantity for non-stock types: 10 pieces
Outer diameter 031 = 31 mm [1.22"] 041 = 41.2 mm [1.82"] 045 = 45 mm [1.77"]	O Sore diameter 0800 = 8 mm [0.32*] 1000 = 10 mm [0.39*] 1200 = 12 mm [0.79*] 1500 = 15 mm [0.59*]	1800 = 18 mm [0.71*] 2000 = 20 mm [0.79*] 2500 = 25 mm [0.98*] <sup>3</sup> 3000 = 30 mm [1.18*] <sup>3</sup>	1587	* 1. 2 * 20. * 30.	Sock types 8 R120 031 8000 311 8 R120 031 8000 311 8 R120 031 3000 311 8 R120 031 3500 311 8 R120 041 8000 111 8 R120 045 1500 111 8 R120 045 1500 111 8 R120 045 2500 111 8 R120 045 2500 111

### Pin assignment:

Signal	Wire colour	
0 V, GND	white	
$U_B$	brown	
Α	green	
Ā	yellow	
В	grey	
$\overline{B}$	pink	
1	blue	
Γ	red	
Shield is on the housing		







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

