

520 / 521 / 522



Incremental encoders

- ▶ 6 short-circuit protected outputs
1, 1̄, 2, 2̄, 0, 0̄
- ▶ IP 65, encapsulation class
- ▶ 5 Vdc or 9...30 Vdc
- ▶ Robust housing for harsh environment
- ▶ Shock and vibration protected

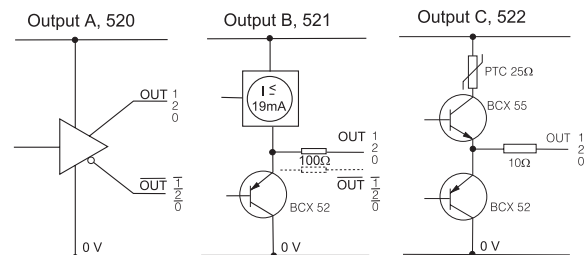


ELECTRICAL SPECIFICATION

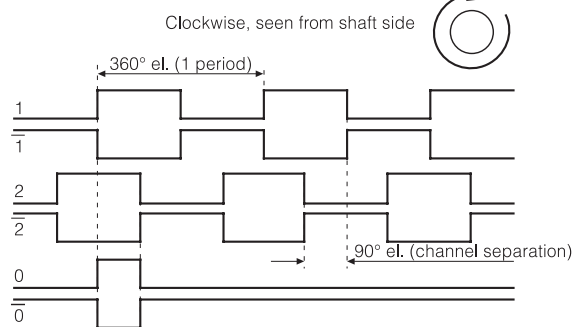
Model	520-	
Supply voltage +EV	9-30V	5V ±10%
	Polarity protected	---
Current consumption at no load	65mA @ 24V Max 75mA	45mA Max 70mA
Line counts (free choice)	1...5000 ppr	
Measuring steps	Max 20 000/r	
Accuracy		
Dividing error	± 50° el	
Channel separation	90° ± 25° el	
Outputs	HTL	RS-422, TTL
	Short circuit protected	
Load max	± 40mA	± 20mA
Max cable length	200m @ 50kHz	1km (TIA/EIA-422-B)
U _{high} (at 10mA load)	> +EV - 2,0V	> 3,0V
U _{low} (at 10mA load)	< 1,15V	< 0,4V
Frequency range	0...200kHz	

Model	521-	522-
Supply voltage +EV	9-30V	
	Polarity protected	
Current consumption at no load	60mA @ 24V Max 90mA	60mA @ 24V Max 90mA
Line counts (free choice)	1...5000 ppr	
Measuring steps	Max 20 000/r	
Accuracy		
Dividing error	± 50° el	
Channel separation	90° ± 25° el	
Outputs	B Current limited in source	C Short-circuit protected in source
Load max	+ 19mA / - 40mA	± 40mA
Max cable length	---	200m @ 100kHz
U _{high} (at 40mA load)		> +EV - 4,0V
U _{low} (at 40mA load)	< 6V	< 1,3V
Frequency range	0...200kHz	

OUTPUT CIRCUIT



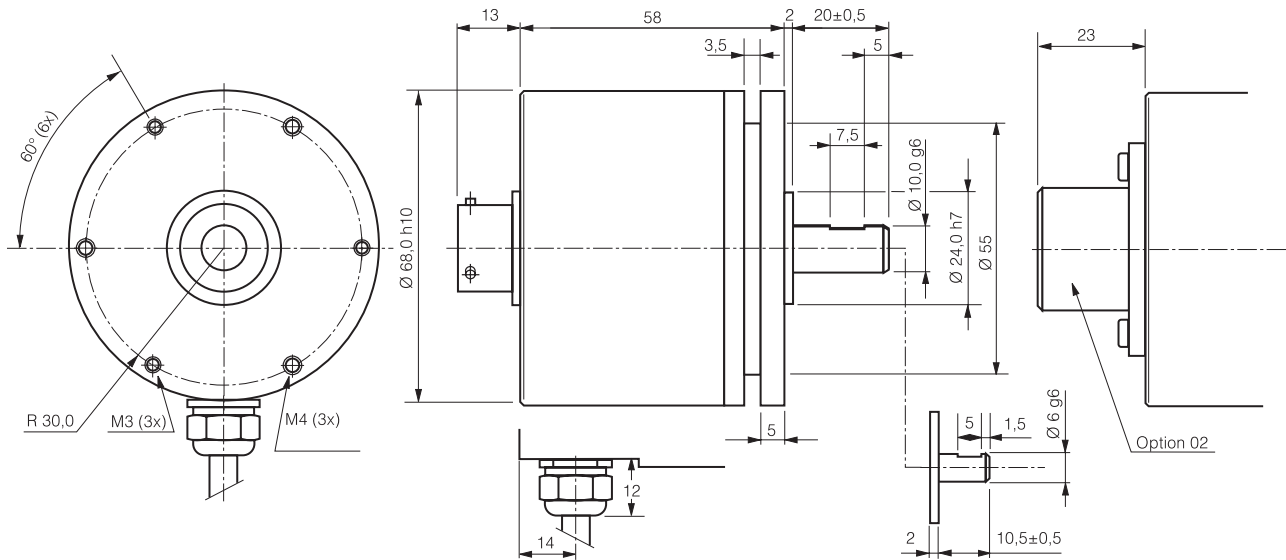
OUTPUT SIGNALS



CONNECTION

Function	8 pin PT 520-, 521-	10 pin MS 520-, 521-	10 pin MS 522-	Colour 520-, 521-	Colour 522-
1	A	A	A	Green	Green
1̄	B	B		White	
2	C	C		Black	
2̄	D	D	D	Yellow	Yellow
+ E Volt	E	E	E	Red	Red
0 Volt	F	F	F	Blue	Blue
0̄	G	G	G	Brown	Brown
0̄	H	H		Violet	
Case				Shield	Shield

520 / 521 / 522



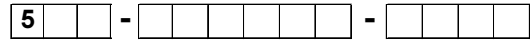
MECHANICAL SPECIFICATION

Shaft, Stainless steel	Ø6mm, Ø10mm
Moment of inertia	2,6 x 10 ⁻⁶ kgm ²
Load max	
Radial	60N
Axial	50N
Speed max	6000 rpm (12000 rpm)
Code disc	Unbreakable acrylic glass or glass disc
Temperature	
Operating	-25°C ... +70°C
Storage	-25°C ... +70°C
Housing	Aluminum, anodized
Weight	Approx. 470g
Protection class	IP 65 according to IEC 529
Vibration	<100m/s ² (50...2000 Hz)
Shock	<1000m/s ² (11ms)
Cable	6x0,25mm ² 2x0,35mm ² PVC

ACCESSORIES

Mating connector	
Options -00-	Part. No. 00201009 (8 pin PT)
Options -02- anged	Part. No. 00201012 (10 pin MS) Part. No. 00201016
Mounting bracket	See datasheets for accessories
Mounting kit	
Bearing box	
Couplings	

ORDERING INFORMATION



Type

- 20 = Output A
- 21 = Output B
- 22 = Output C

Option

- 00 = Standard, cable or 8-pin PT *
- 02 = 10 pin MS connector

Shaft

- 1 = Ø 6 mm with face
- 6 = Ø 10 mm with face

Connection

- 0 = Connector, axial
- 3 = Cable, radial 1.5 m
- 9 = Cable, radial xx m

Supply voltage

- 1 = 5 Vdc (Not 521-, 522-)
- 5 = 9...30 Vdc

Internal use

- 1 = 1 ... 2500 ppr
- 2 = 2501 ... 4999 ppr
- 4 = 4096 or 5000 ppr glass disc

Line counts

* 8-pin PT connector not available for model 522-

Leine&Linde ISO 9001 certified

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01-03-22 PS. Specifications can be changed without prior notice.

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