



Robust incremental encoder with commutation outputs

- ▶ 12 or 16 mm hollow shaft with extra sturdy bearings
- ▶ Shock and vibration protected
- ▶ IP 65, encapsulation class
- ▶ Short-circuit protected outputs



COMMUTATION 861

ELECTRICAL SPECIFICATION

Supply voltage +EV	9-30V	
	Polarity protected	
Current consumption at no load	60mA @ 24V Max 100mA	
Line counts / poles	1024 / 2, 1536 / 3, 2048 / 4, 2560 / 5	
Measuring steps	4 x Line counts	
Accuracy	A and B	P1, P2, P3
Dividing error	$\pm 50^\circ$ el	$\pm 1^\circ$ mech for P1 - flank to STR center
Channel separation	$90^\circ \pm 25^\circ$ el	
Outputs	High current HTL	
Load max	± 40 mA	
Cable length max	350m @ 100kHz	
U_{high} (at 40mA load)	$> +EV - 4,0V$	
U_{low} (at 40mA load)	$< 2,5V$	
Frequency range	0...100kHz	

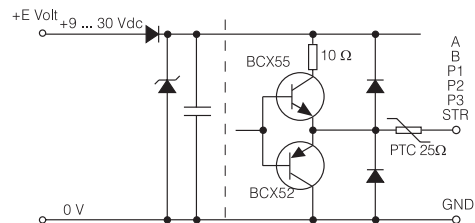
ACCESSORIES

Torque arm	
M5	Part. No. 01208013
M6	Part. No. 01208014

CONNECTION

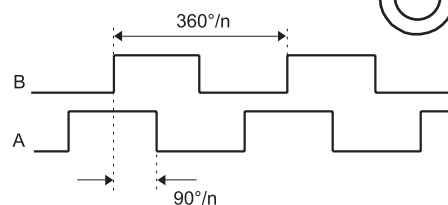
Function	Colour
+ E Volt	Red
0 Volt	Blue
A	White
B	Black
P1	Yellow
P2	Green
P3	Brown
STR	Violet
Case	Shield

OUTPUT CIRCUIT

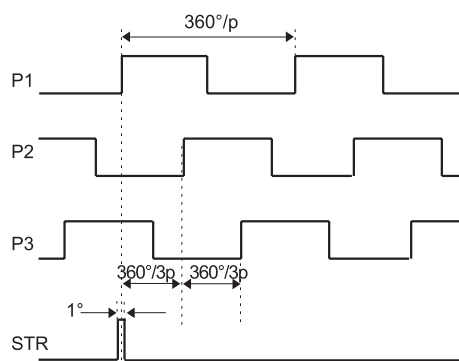


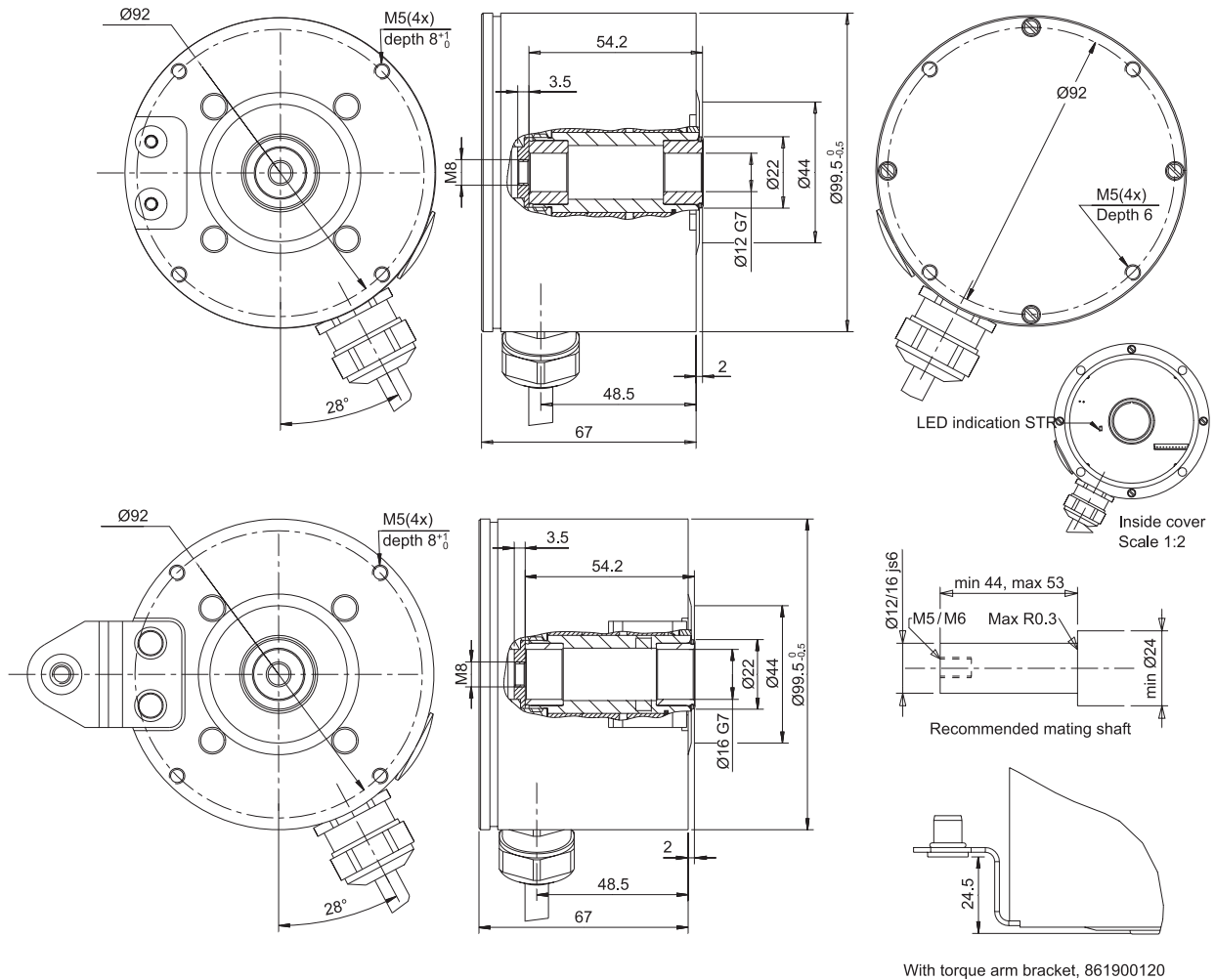
OUTPUT SIGNALS

Incremental signals



Commutation signals





MECHANICAL SPECIFICATION

Isolated Hollow-shaft	Ø12, 16mm, Stainless steel / PEEK
Moment of inertia	55 x 10 ⁻⁶ kgm ²
Load max	
Radial	300N
Axial	100N
Speed max	4000 rpm
Code disc	Extended temp
Temperature	
Operating	-20°C ... +80°C
Storage	-25°C ... +80°C
Housing	Aluminium, anodized
Weight	Approx. 1250g
Protection class	IP 65 according to IEC 529
Vibration	<100m/s ² (50...2000 Hz)
Shock	<1000m/s ² (11ms)
Cable	10x0,25mm ² , twisted pair, PVC

ORDERING INFORMATION

8 6 1 - 9 0 0 1

Mechanical

1 = Ø12mm hollowshaft
2 = Ø16mm hollowshaft, M6 torque arm bracket

Type Line counts P1, P2, P3

0 =	1024 ppr	2 ppr
1 =	1536 ppr	3 ppr
2 =	2048 ppr	4 ppr
3 =	2560 ppr	5 ppr