

**Series
PRA
PHA**

Absolute hollow shaft encoder,
high settlement; self-aligning system panted

PRA = Absolute parallel

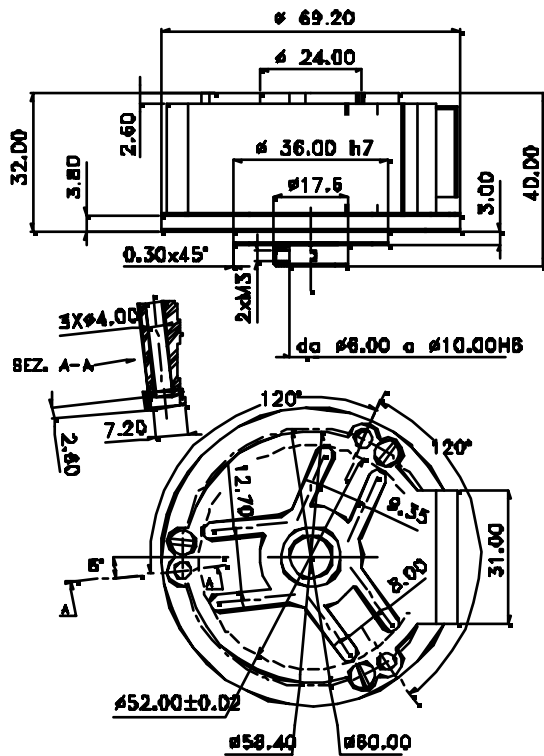
PHA = Absolute parallel
with Hall effect



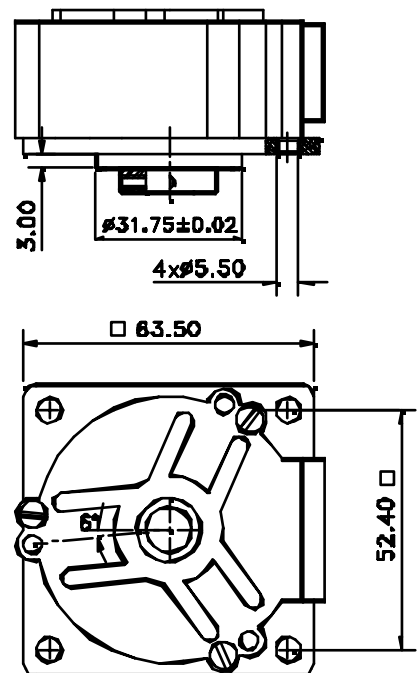
Mechanics Data

Cover:	SMC fiber glass + ABS
Body:	Aluminium
Solid shaft:	Stainless steel
Bearings:	2, ballraces
Weight:	Approx. 150gr.
Protection:	IP65
Rpm:	6000 Max
Torque:	3Ncm
Inertia:	40gcm ²
Shaft loading:	Axial 30N - Radial 30N
Recovery max value:	Angular 1,5° -0,5mm axial and radial

Dimensions in mm



1



6

Series PRA-PHA

Electronics Data

Power supply: from 5 to 24V depends on the electronics circuit
 Current consumption: 20mA
 Max power: 2Watt
 Permissible load: 20mA
 Frequency: 160KHz
 Protections: Against short circuit, reversal polarity

Ordering code

Series **P * A** - *** * * * *** / **Pulses** (Max 2.048)

Model

R = Absolute
H = With Hall probe

Shaft

6 = Ø 6mm
7 = Ø 7mm
8 = Ø 8mm
0 = Ø 10mm

Flange

1 = See previous
6 = page

Outputs

1 = PP 11/24V
2 = LD 5V

Connection

S
3 = Cable radial

Version

S = Standard (PRA)
4 = 4 Way (PHA)
6 = 6 Way (PHA)
8 = 8 Way (PHA)

Connections

	Absolute encoder: output bit															Hall probe									
	-	+	U/D	G/B	MSB → LSB											H0	H1	H2							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18							
Cable	B L A C K	B L U E	Y E L L O W	W H I T E	Y E L L O W	G R E Y	B I N A R Y	Y E L L O W	G R E Y	V O L T A G E	P U L S E	O R A N G E	T R A N S P A R E	R E D	W H I T E	B L U E	W H I T E	G R E Y	W H I T E	B R O W N	W H I T E	V I O L E T	W H I T E	O R A N G E	W H I T E

Legend connections:
 MSB = Most Significant Bit
 LSB = Low Significant Bit
 U/D = Up / Down direction signals (clockwise or anticlockwise)
 G/B = Gray or Binary
 H0..2 = Hall probe (outputs signals)

N.B. Encoder inputs are internally connected to logical "1"
 The standard configuration is as follows: outputs code: Gray; clockwise increment (UP)
 Connecting input to logical "0", the configuration changes, output code: Binary, anticlockwise increment (UP)