



Characteristics

- Metal crust is more shock. Compact structure suitable for installation in limited space.
- Resolution is 2048ppr, IP66 ensure precision & safety
- More compacted hollow shaft saves installation space & cost
- Optional crutch arm or block-pin accessories provide flexible connection and more free angle.
- S.S hollow shaft $\varnothing 30/\varnothing 35/\varnothing 38/\varnothing 40/\varnothing 45$ "C" lock ring fix.
- Direct cable output or connector provides much more flexibility and convenience for maintenance. The water-proof end rubber ensures more safety.
- Short-circuit protection. Reverse connection protection

Naming Rules

VI 100 P Y 30 - L5 P - 1024 . XXXX

1 **2** **3** **4** **5** **6** **7** **8** **9**

1. Series

VI = Heavydic Incremental

2. Housing Diameter

100

3. Flange Type

P = short spring

K = long torque support slot

R = torque arm

H = tether arm large

4. Output direction

Y = Radial

X = axis

5. Shaft Diameter

25 = $\varnothing 25H7$

30 = $\varnothing 30H7$

38 = $\varnothing 38H7$

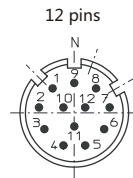
40 = $\varnothing 40H7$

42 = $\varnothing 42H7$

45 = $\varnothing 45H7$

shaft add "K" mean hollow shaft with keyway ($\leq \varnothing 40$)

Eg: 30K = $\varnothing 30K7$ with keyway



Diameter	Lock ring	M3x8 lock screw
$\varnothing 25$	BE41230036	M3x8
$\varnothing 30$	BE41230040	M3x8
$\varnothing 38$	BE41230042	M3x8
$\varnothing 40$	BE41230038	M3x8
$\varnothing 42$	BE41230049	M3x8
$\varnothing 45$	BE41230039	M3x8

6. Output & Supply voltage¹⁾

L5 = RS422 (with reverse sign)

5Vdc power

L6 = RS422 (with reverse sign)

10~30Vdc power

L4 = RS422 (with reverse sign)

5~30Vdc power

H6 = Push-Pull HTL (with reverse sign)

10~30Vdc power

H4 = Push-Pull HTL (with reverse sign)

5~30Vdc power

P6 = Push-Pull (without reverse sign)

10~30Vdc power

P4 = Push-Pull (without reverse sign)

5~30Vdc power

E4 = Push-Pull 7272 HTL (with reverse sign)

5~30Vdc power

7. Type of connection

P = output cable length 1.5m

8. Resolution

Pulse/r ≤ 2048

Attention: for pulse scale pls contact our company

9. XXXX

XXXX = special code

¹⁾ Only one channel allowed to be shorted-out
 if Ub = 5V, short-circuit to channel, 0V, or +UB is permitted
 if Ub = 10...30V short-circuit to channel or 0V is permitted

Mechanical Characteristics

Hollow Shaft (mm)	Ø25H7/Ø30H7/Ø38H7/Ø40H7/Ø45H7	
Protection acc.to EN 60 529	IP66(Max)	
Resolution	1024,2048	
Speed (r/m)	12000(IP64);6000(IP66)	
Max load capacity of shaft	Axial load capacity	100N
	Radial load capacity	200N
Shock resistance	50G/11ms	
Vibration resistance	10G 10 ~ 2000Hz	
Bearing life	10 ⁹ revolution	
Rotor moment of inertia	15×10 ⁻⁶ kgm ²	
Starting torque	<0.05Nm (no oil seal); <0.1Nm (oil seal)	
Body material	AL-alloy	
Housing material	AL-alloy	
Operating temperature	-20 ~ +90°C	
Storage temperature	-40 ~ +100°C	
Weight	1200g	

Attention: for other resolution pls contact our company.

Electrical Characteristics

Output circuit	RS422	Push-pull	Push-pull	Push-pull7272
Resolution	Max.2048ppr	Max.2048ppr	Max.2048ppr	Max.2048ppr
Supply voltage (Vdc)	5±0.25or5(10)-30	10-30	5-30	5-30
Power consumption (no load)	≤80mA	≤125mA	≤125mA	≤125mA
Permissible load/channel	±50mA	±80mA	±80mA	±80mA
Pulse frequency	Max.800kHz	Max.800kHz	Max.800kHz	Max.800kHz
Signal level high	Min.3.4V	Min.Ub-1.8	Min.Ub-1.8	Min.Ub-2.5
Signal level low	Max.0.4V	Max.2.0V	Max.0.4V	Max.0.4V
Rise time Tr	Max 200ns	Max 1µS	Max 1µS	Max 1µS
Fall time Tf	Max 200ns	Max 1µS	Max 1µS	Max 1µS

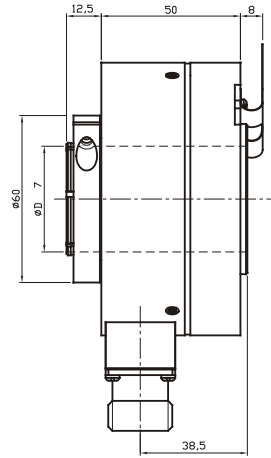
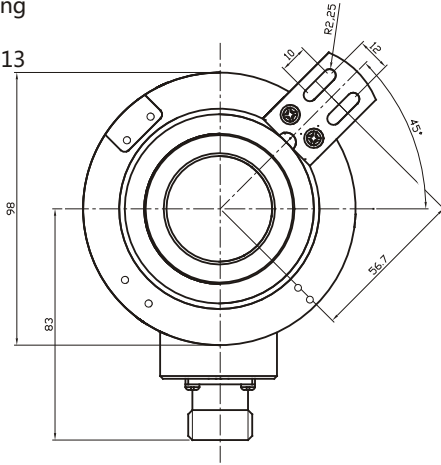
Terminal Assignment

Signal	0V	+Ub	A	\bar{A}	B	\bar{B}	Z	\bar{Z}	0V Sen	+Ub Sen	Shield
Color	WH	BN	GN	YE	GY	PK	BU	RD	GY/PK	RD/BU	\perp
Pin	10	12	5	6	8	1	3	4	11	2	PH

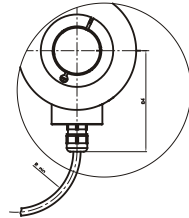
Dimensions

VI100P

Short spring
code:
BE41350013



Cable output

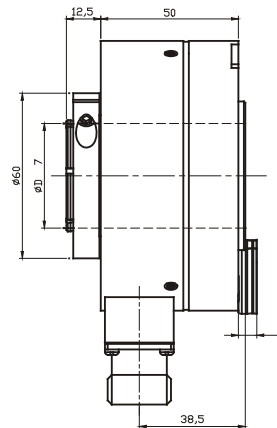
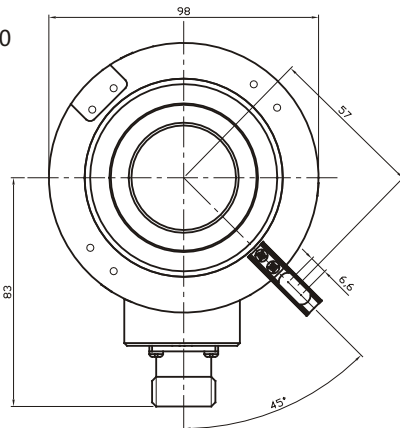


Rmin
Fix install: 55mm
Draw install: 70mm

VI100K

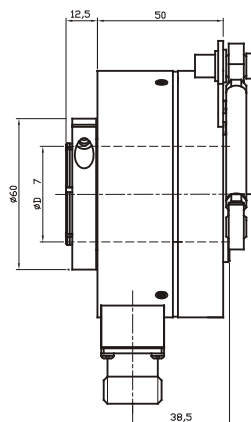
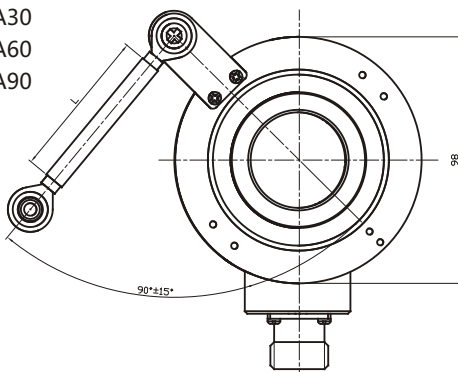
Long torque support

slot code:
BE4A00.0000

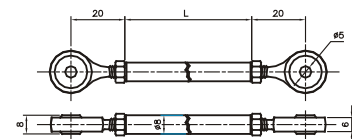


VI100R

Torque arm code:
BSN5A30
BSN5A60
BSN5A90



Crutch arm order:
SN5AXX (30,60,90 mean length)

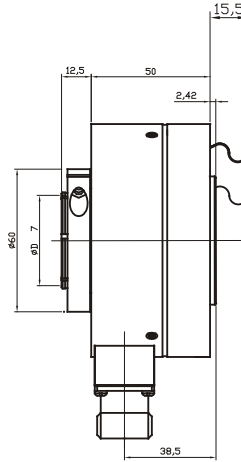
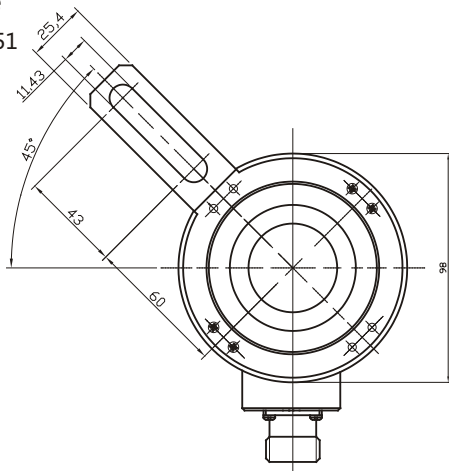


Dimensions

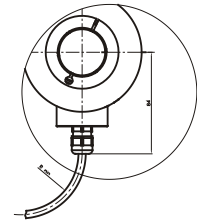
VI100H

Tether arm large

code: BE41350051



Cable output



Rmin
Fix install: 55mm
Draw install: 70mm