Absolute Encoder

Cable or M12 connection

LP series

- Low profile package saves space
- Excellent resistance to shock and vibration
- 30mm standard through shaft, PEEK reduction hub available
- High protection level of IP66
- High performance in temperatures from –40°C to +100°C
- SSI output
- Resolution up to 16 bits

Certifications:

The LP35 Absolute Encoder is available with the following certifications

2004/108/CE

c UL us LISTED
Proc. Cont. Eq.
E477663

Output:

Serial Synchronous Interface SSI output provides effective synchronisation in a closed-loop control system. A clock pulse train from a controller is used to shift out sensor sensor data: one bit of position data is transmitted to the controller per clock pulse received by the sensor.

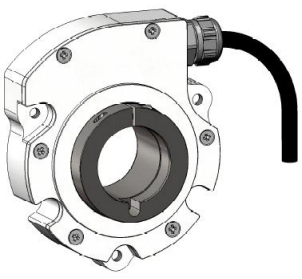
Mechanical Characteristics:

Material	Cover : anodised aluminum	Vibrations (EN60068-2-6)	≤ 200m.s^{-2} (55 … 2 000 Hz)
	Body : anodised aluminum	Shaft inertia	< 84000 g.mm^2
	Shaft : AISI 303 stainless steel	Static/Dynamic torque	30 / 300 mN.m
Ball bearings	6807 - Sealed	Permissible max. speed	6000 min^{-1}
Maximum loads	Axial: 40 N	Continuous max. speed	4000 min^{-1}
	Radial: 80 N	Theoretical mechanical lifetime L_{10}h*	> 18.10^9 turns / 100000 hours
Shocks (EN60068-2-27)	≤ 3000m.s^{-2} (during 5 ms)	Encoder weight (approx.)	450g

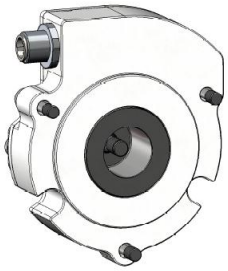
* continuous max. speed – ½ max. load – ISO 281, L_{10}

Available mechanics – shaft options:

AHU9: Through Hollow Shaft

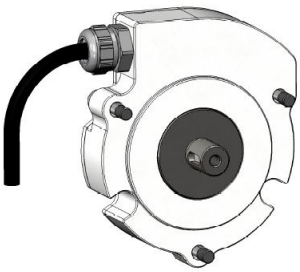


AHK9: Blind Hollow Shaft



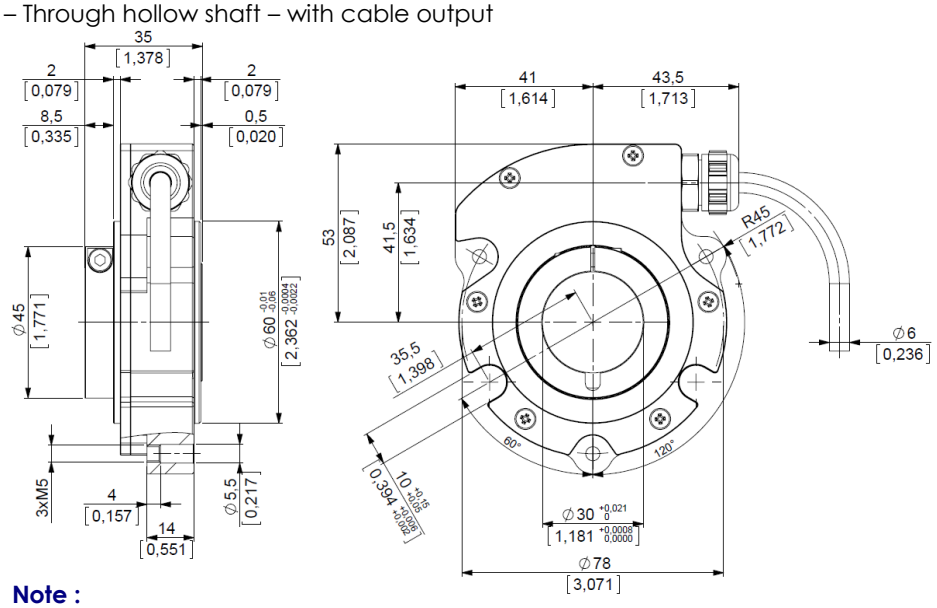
AHA9: Shaft with Integrated coupling

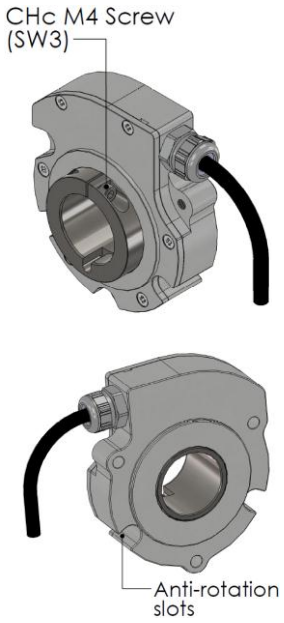
AHM9: Solid Shaft



Dimensions

AHU9 – Through hollow shaft – with cable output



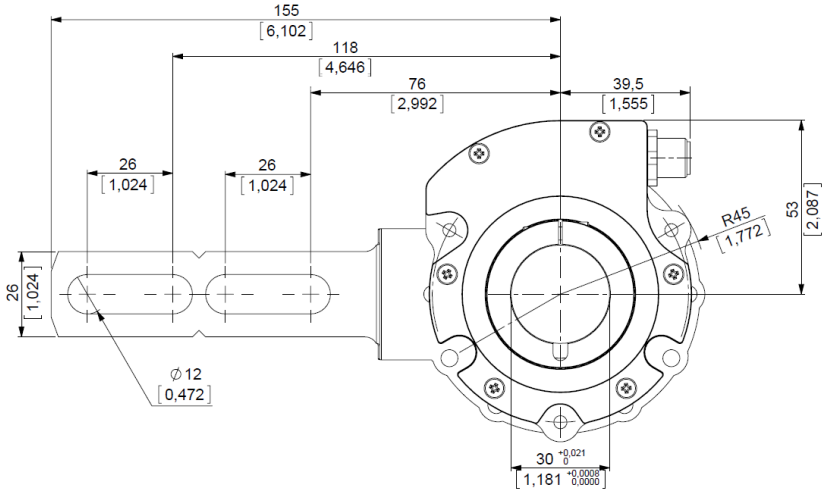


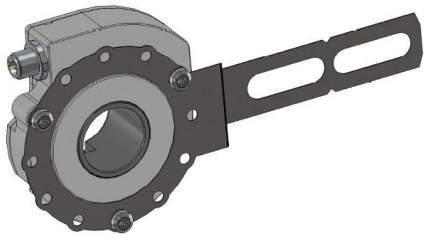
Note :

CHc : Hexagonal Socket head cap screws HC : Hexagonal socket set screws

Dimensions

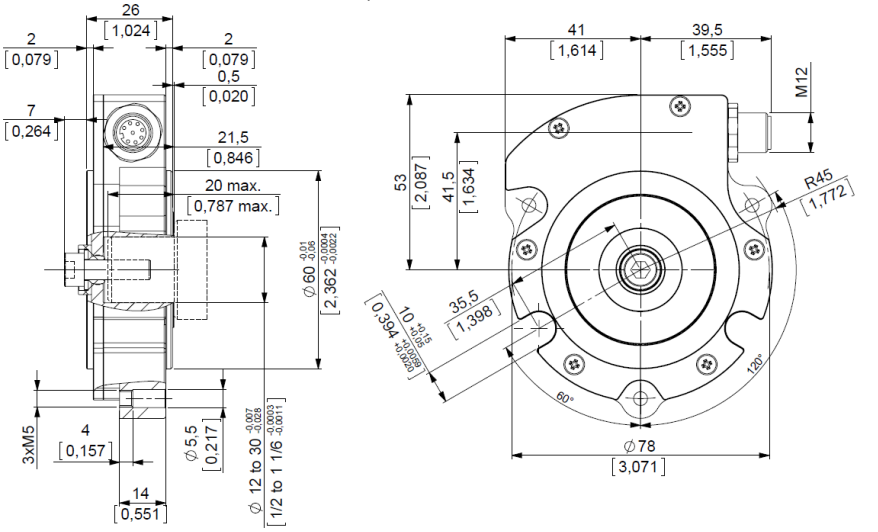
AHU9 – Through hollow shaft – with M12 output and anti-rotation 9445/053





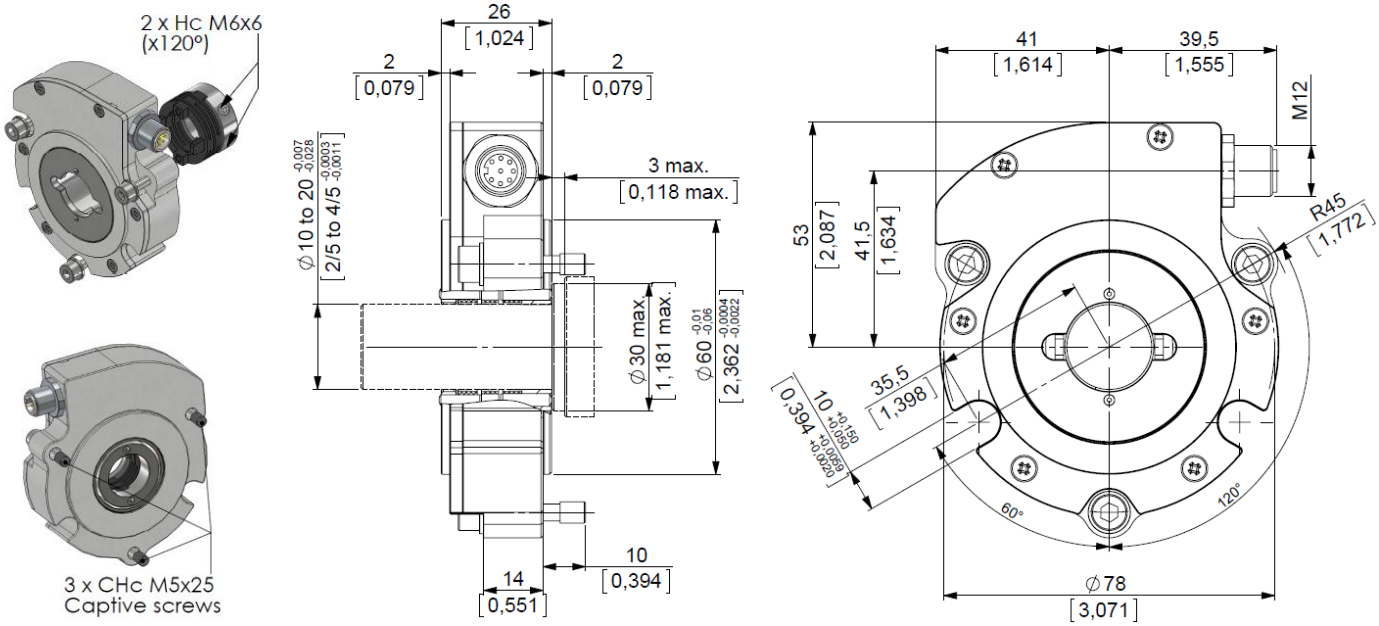
Dimensions

AHK9 – Blind hollow shaft – with cable output



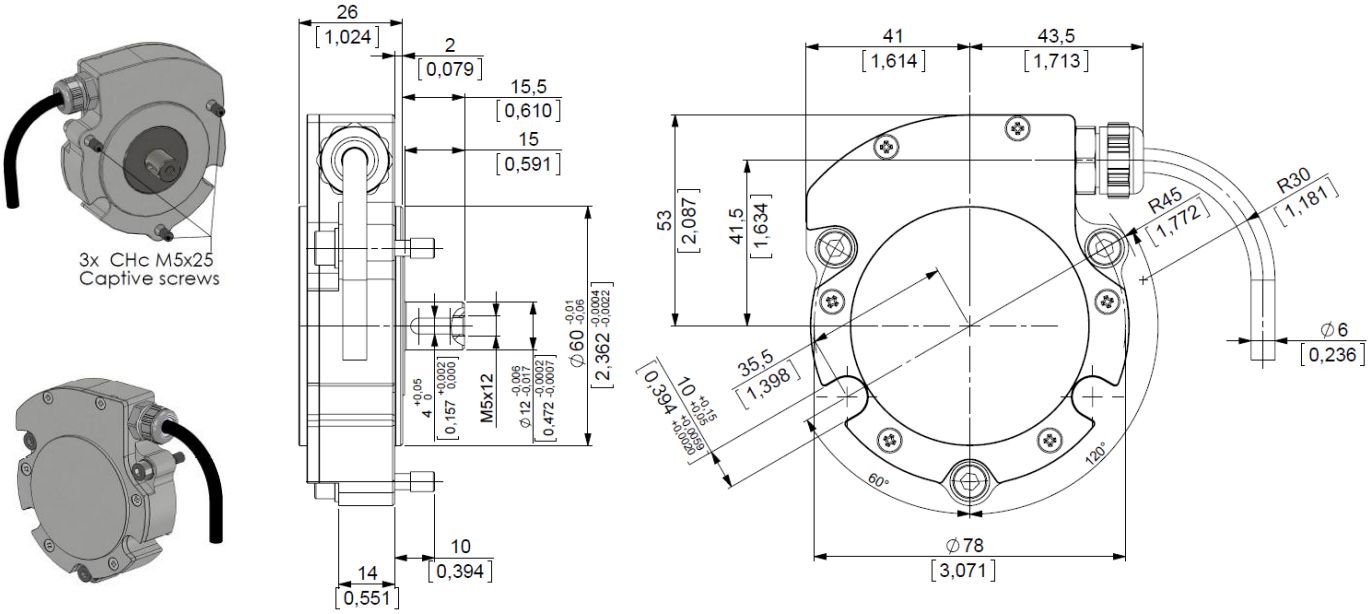
Dimensions

AHA9 – Shaft with integrated coupling – with M12 connection



Dimensions

AHM9 – Solid shaft – with cable output



Absolute Encoder

Cable or M12 connection

LP series

Electrical Characteristics:

Version	Output signals	Resolution	Operating Voltage Vcl	Supply current (no loads)	Current per channel pair	Max Frequency capability	Encoder accuracy	Short circuits proof	Reverse polarity tolerant	Temperature range
PSS	RS422	up to 16 BITS	5-30V ⎓ 250mA	75mA	40mA	1MHz	+/-0.1°	Yes (except to Vcl)	Yes	-40°C +100°C

Connection:

		-	+	Clk+	Clk-	Data+	Data-	RAZ	Ground
SL	M12 (1) - 8 pins	1	2	3	4	5	6	7	Connector Body
SM	PUR cable (1) 8 wires	BK Black	RD Red	GN Green	YE Yellow	BN Brown	OG Orange	BU Blue	General shielding

(1) UL listed : -20°C +80°C

Available resolution:

Standard: 12 and 13 bits

For non-standard resolutions up to 16 bits, please contact factory

LP35 Absolute Ordering Options

Use this diagram, working from left to right to construct your model number (Example : **AHU9_E6//PSSG//13//SLR//U6**)

AH _ 9	_ _	//	_ _ _	_	//	_ _ _ _ _	//	_ _ _	_ _ _	//	_ _
TYPE:	**SHAFT BORE:**		**VOLTAGE/ OUTPUT:**	**CODE:**		**CYCLES PER TURN:**		**OUTPUT TERMINATION:**	**CABLE LENGTH:**		**HUB:**
AHU9 = hollow shaft	E5 = 5/8'' E6 = 3/4'' E8 = 1'' 30 = 30mm		PSS = 5-30V voltage and SSI output (without parity)	B = Binary (CCW increasing code) G = Gray (CCW increasing code)		(Enter bits) See available resolutions above		SMR = PUR cable	xxx = cable length ex 020 = 2meters		U3 = With insulated sleeve
AHK9 = blind shaft								SLR = M12	Blank = No cable		U5 = Blind sleeve U6 = Through sleeve
AHA9 = hollow shaft with integrated coupling	E6 = 3/4'' 14 = 14mm 20 = 20mm										
AHM9 = solid shaft	E3 = 3/8'' 12 = 12mm										** = no sleeve

Stainless steel option available.

Anti-rotation accessory: M9445/053 to be ordered separately

BEI SENSORS Europe
9, rue de Copenhague
Espace Européen de l'Entreprise-Schiltigheim
BP 70044 - 67013 STRASBOURG Cedex France
Tel: +33 (0)3-88-20-80-80 | Fax: +33 (0)3-88-20-87-87
email: info@beisensors.com

BEI SENSORS North America
7230 Hollister Avenue | Goleta, CA 93117 USA
Tel: 800-350-2727 or 805-968-0782
Fax: 800-960-2726 or 805-968-3154
email: beisales@beisensors.com
www.beisensors.com

A brand of CST CUSTOM SENSORS & TECHNOLOGIES