

- 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  $-40^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$
- Reinforced SSI output
- Wiring fault tolerant
- Resolution up to 16 bits



### Certifications:

The LP35 Absolute Encoder is available with the following certifications



### Output:



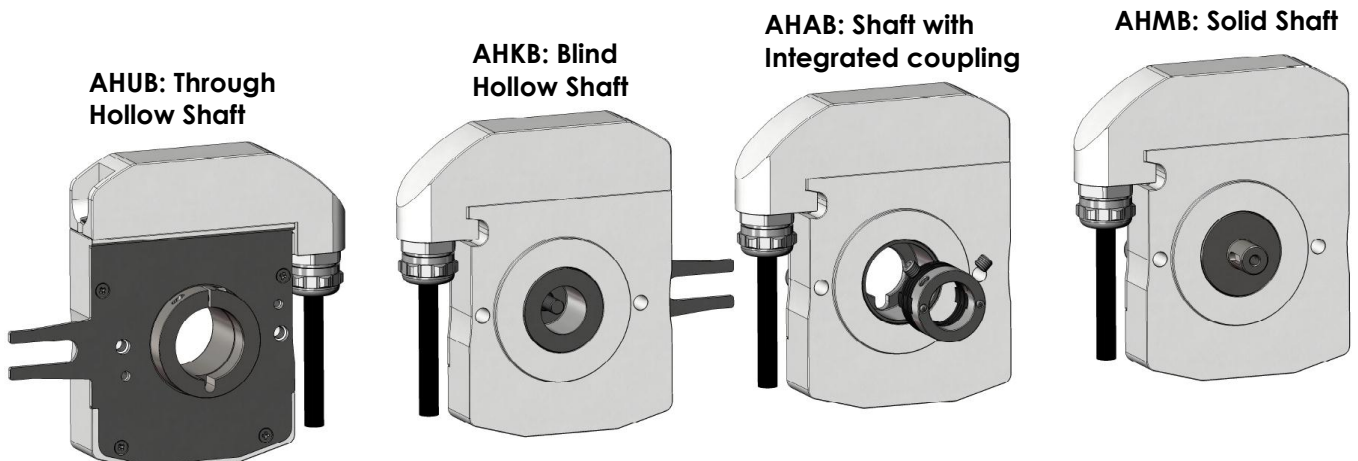
Serial Synchronous Interface SSI output provides effective synchronisation in a closed-loop control system. A clock pulse train from a controller is used to shift out sensor data: one bit of position data is transmitted to the controller per clock pulse received by the sensor.

### Mechanical Characteristics:

Material	Cover : anodised aluminum	Vibrations (EN60068-2-6)	$\leq 200\text{m.s}^{-2}$ (55 ... 2 000 Hz)
	Body : anodised aluminum	Shaft inertia	$< 84000 \text{ g.mm}^2$
	Shaft : AISI 303 stainless steel	Static/Dynamic torque	30 / 300 mN.m
Ball bearings	6807 - Sealed	Permissible max. speed	6000 $\text{min}^{-1}$
Maximum loads	Axial: 40 N	Continuous max. speed	4000 $\text{min}^{-1}$
	Radial: 80 N	Theoretical mechanical lifetime $L_{10h}^*$	$> 18 \cdot 10^9$ turns / 100000 hours
Shocks (EN60068-2-27)	$\leq 3000\text{m.s}^{-2}$ (during 5 ms)	Encoder weight (approx.)	790g

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

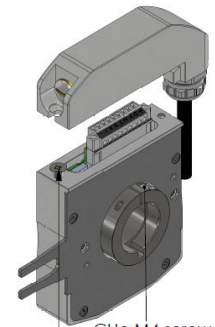
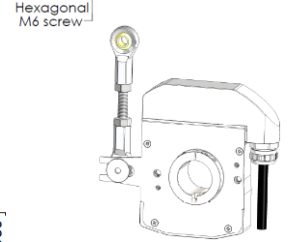
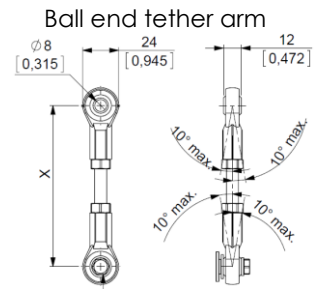
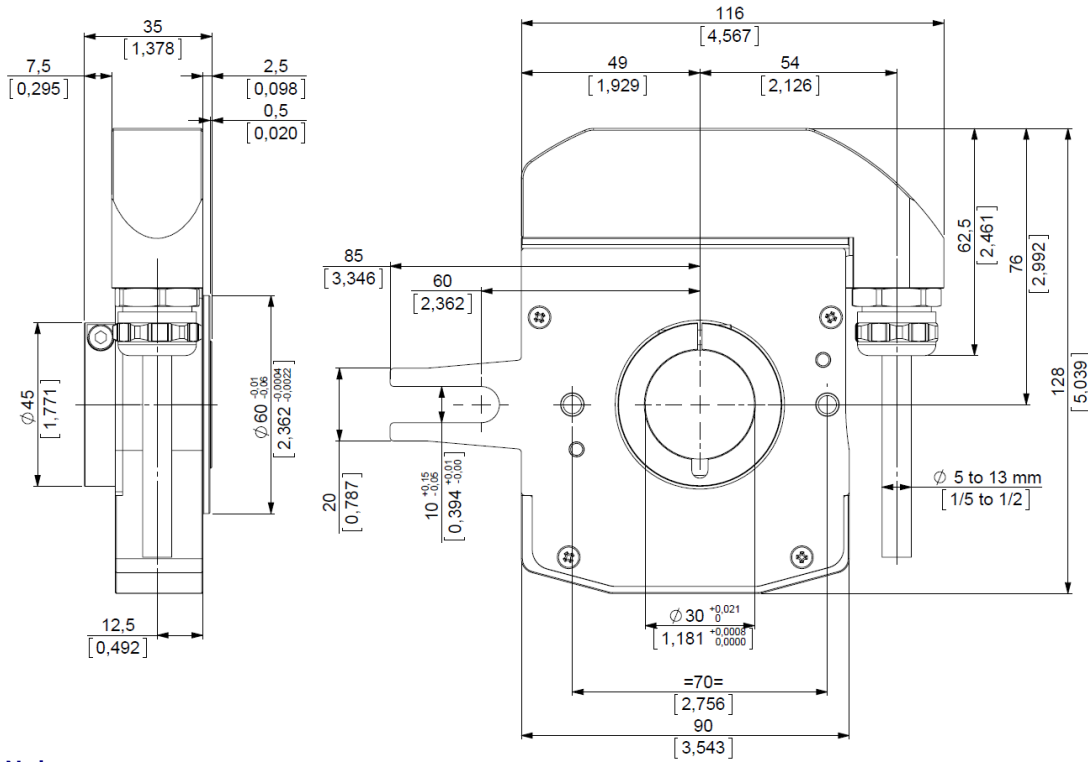
### Available mechanics – shaft options:



### Absolute Encoder

#### Dimensions

AHUB – Through hollow shaft – with terminal box



CHc M4 screw (SW3)  
M5 Flat countersunk head machine screw

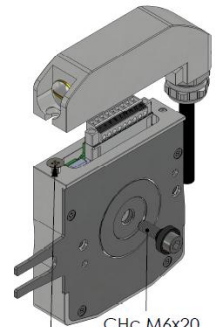
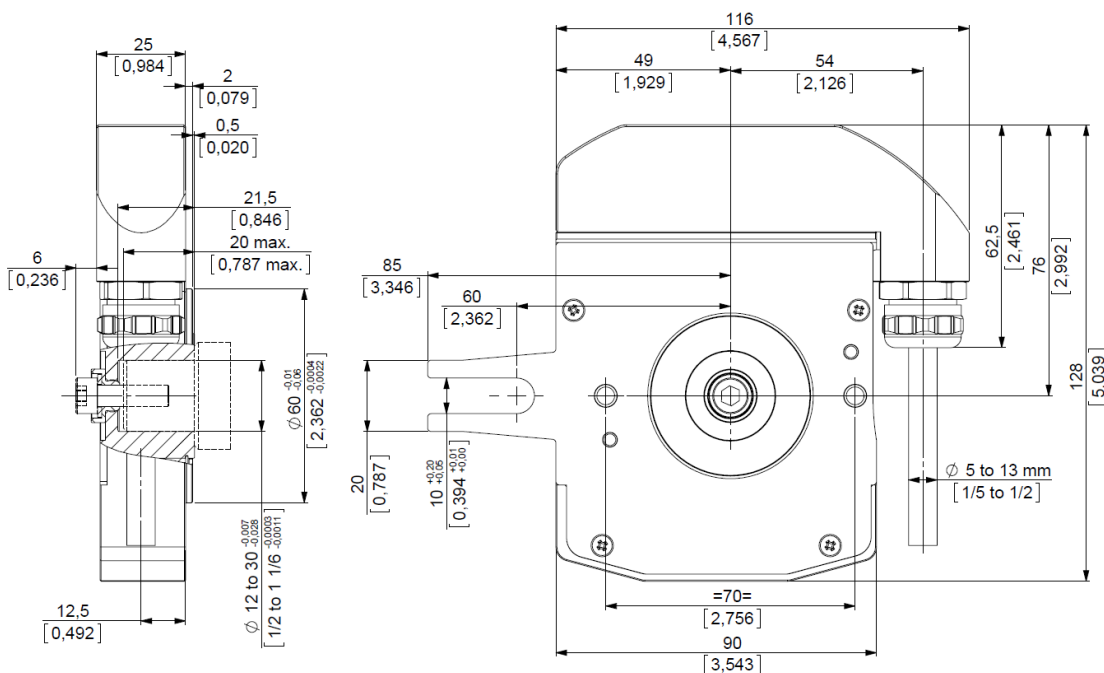
#### Note :

CHc : Hexagonal Socket head cap screws

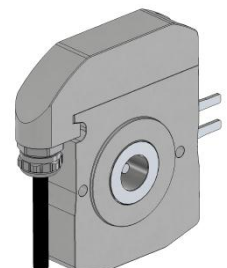
HC : Hexagonal socket set screws

#### Dimensions

AHKB – Blind hollow shaft – with terminal box

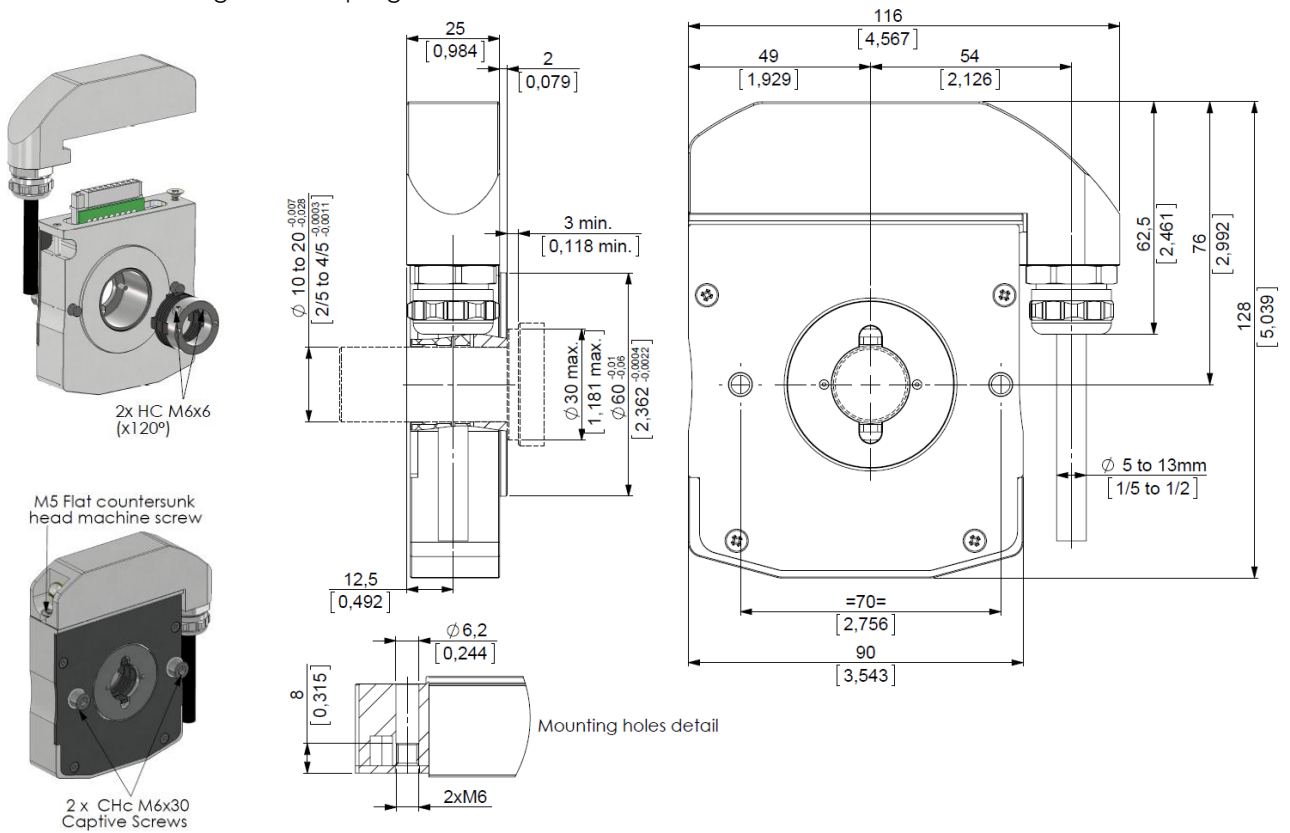


CHc M6x20 screw (SW5)  
M5 Flat countersunk head machine screw



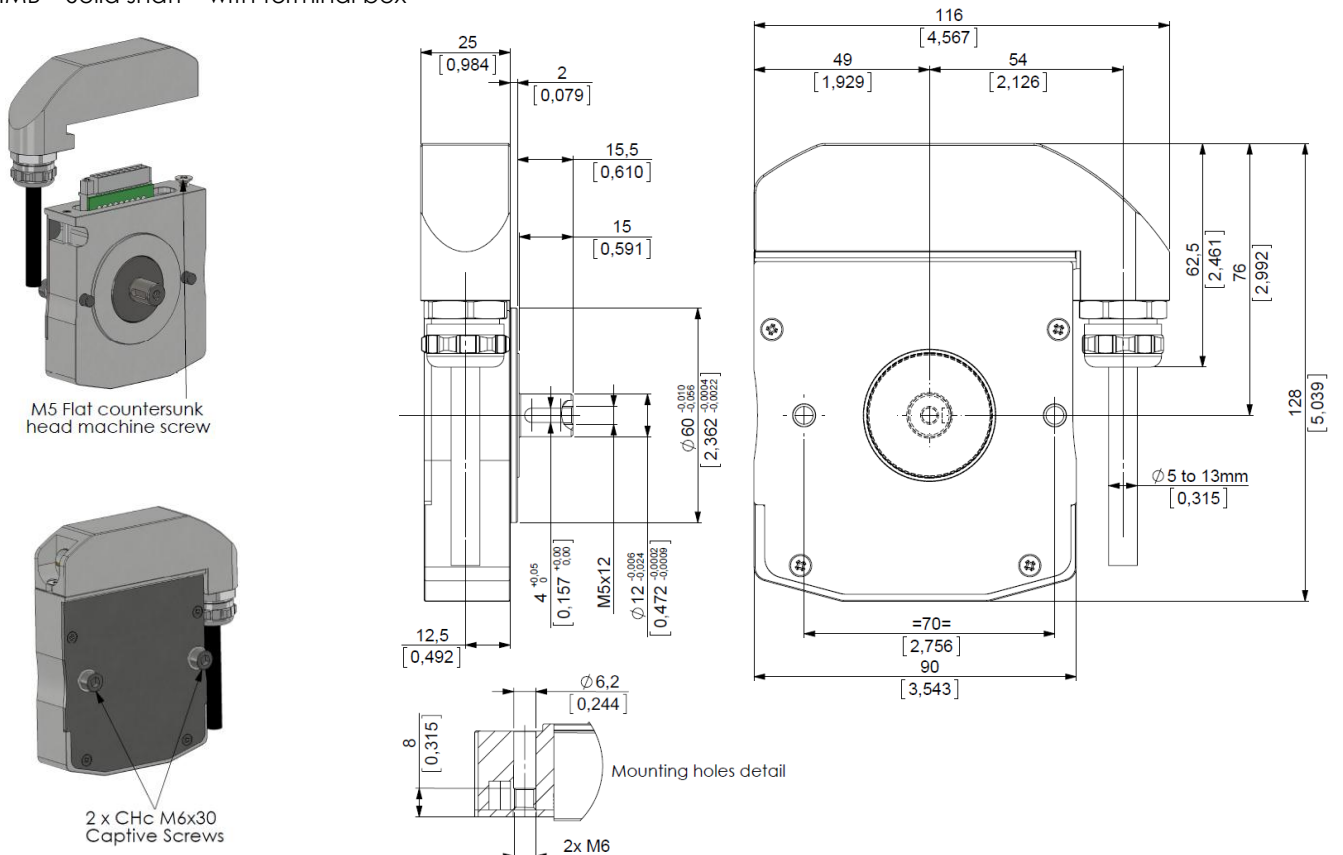
#### Dimensions

AHAB – Shaft with integrated coupling – with terminal box



#### Dimensions

AHMB – Solid shaft – with terminal box



### 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	Wiring fault tolerant	Temperature range
PSR	RS422	up to 16 BITS	5-30V --- 250mA	75mA	40mA	1MHz	+/-0.1°	Yes (except to Vcl)	Yes	Yes	-40°C +100°C
PSS										No	

### Terminal Box Connection:

		-	+	Clk+	Clk-	Data+	Data-	RAZ	NC	Ground
SX	Terminal box - 9 pins	1	2	3	4	5	6	7	8	9

### 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 : **AHAX\_E6//PSRG//13//SXR//U6\*\*\*\***)

AH_B	--	//	---	-	//	-----	//	---	//	--	---**
TYPE:	SHAFT BORE:		VOLTAGE/ OUTPUT:	CODE:		CYCLES PER TURN:		OUTPUT TERMINATION:		HUB:	ANTI-ROTATION:
AHUB = hollow shaft	E5 = 5/8'' E6 = 3/4'' E8 = 1'' 30 = 30mm		PSR = 5-30V voltage and reinforced SSI output (without parity)	B = Binary (CCW increasing code)		(Enter bits)		SXR = M16 cable-gland		U3 = With insulated sleeve	B2** = Anti-rotation fork (always with HHUB and HHKB)
AHKB = blind shaft				G = Gray (CCW increasing code)		See available resolutions above			U5 = Blind sleeve	**** = No anti-rotation for HHAB and HHMB	
AHAB = hollow shaft with integrated coupling	E6 = 3/4'' 14 = 14mm 20 = 20mm		PSS = 5-30V voltage and SSI output (without parity)						U6 = Through sleeve		
AHMB = solid shaft	E3 = 3/8'' 12 = 12mm								** = no sleeve		

Stainless steel option available.

Anti-rotation accessory: M9230-04/xxx Ball end tether arm (xxx = length in cm) to be ordered separately

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