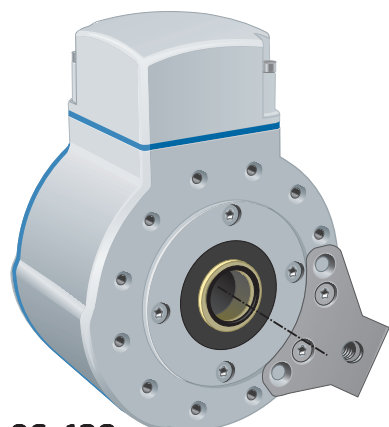


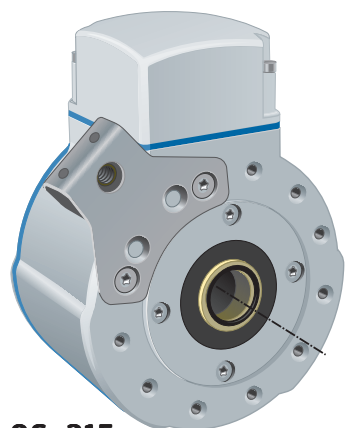
# 801

## X-heavy duty Hollow shaft encoder, Incremental

1 Vpp



86-120



86-315

### Short description:

- >> Analogue interface with amplitude 1 Volt peak-to-peak
- >> Sinusoidal output signals that can be highly interpolated and enable high resolutions
- >> Shaft with keyway available to ensure non-slip mechanical installation
- >> Encoder status output for warning indication
- >> Suitable for safety applications
- >> Hybrid bearings for extended lifetime
- >> 1 Vpp interface is also available on model XHI 803

### General information

Encoder data	
Type	XHI 801
Operating temperature	-40 °C .. +100 °C
Ingress protection class	IP-67 according to IEC 60529
At shaft inlet	IP-66 according to IEC 60529
Vibration (50 to 2000Hz)	< 200 m/s <sup>2</sup> according to IEC 60068-2-6
Shock (11 ms)	< 1500 m/s <sup>2</sup> according to IEC 60068-2-27
Cover material	Aluminium
Cover surface treatment	Anodized
Weight	Approx. 1,4 kg
Resolution	
Line count	1024, 2048 ppr Other line counts available on request
Accuracy	
Dividing error	± 25 °el
Channel separation	90 °el ± 25 °el

### Flange option

Flange type	86-120	86-315
Shaft type	Blind	Blind
Flange material	Aluminium (anodized)	Aluminium (anodized)
Torque bracket material	Stainless steel	Stainless steel

### Shaft option

Hollow-shaft dimension	Ø 12 mm	Ø 12 mm with keyway	Ø 16 mm	Ø 17 mm taper
Shaft type	Blind	Blind	Blind	Blind
Axial shaft load @ 1500 rpm	100 N	100 N	100 N	100 N
Radial shaft load @ 1500 rpm	300 N	300 N	300 N	300 N
Mech. permissible speed	6000 rpm	6000 rpm	6000 rpm	6000 rpm
Shaft material	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Moment of inertia	55 x 10 <sup>-6</sup> kgm <sup>2</sup>	55 x 10 <sup>-6</sup> kgm <sup>2</sup>	55 x 10 <sup>-6</sup> kgm <sup>2</sup>	55 x 10 <sup>-6</sup> kgm <sup>2</sup>

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## Connection option

Function	Connection type		
	Cable <sup>(1)</sup>	Screw terminal <sup>(2)</sup>	12 pin M23 CW
A	Yellow	F	5
A inverted	Black	E	6
B	Green	D	8
B inverted	White	C	1
R	Brown	B	3
R inverted	Violet	A	4
+E Volt	Red	K	12
0 Volt	Blue	H	10
Status	Grey	L	7
Housing	Shield	Chassis	Chassis
<b>Connecting direction</b>			
Radial / Adjustable			

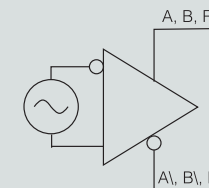
<sup>(1)</sup> PVC 5x2x0,25 mm<sup>2</sup>

<sup>(2)</sup> Cable gland for cable dimension Ø 8-11 mm. Terminals for conductor dimension 0,14-1,5 mm<sup>2</sup>.

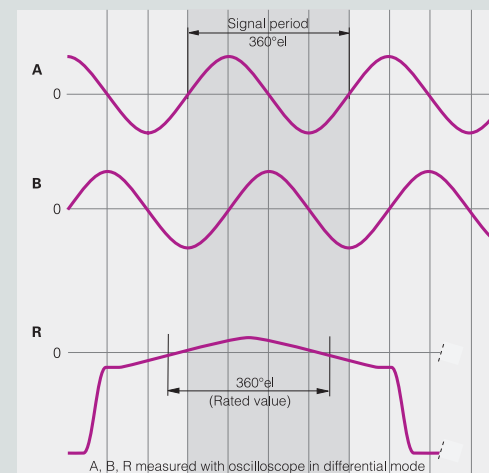
## Electrical option

Power supply	5 Vdc	9-30 Vdc
Polarity protected	No	Yes
<b>Output signal</b>	<b>1 Vpp</b>	<b>1 Vpp</b>
Short circuit protected	No	No
Current consumption	85 mA	40 mA @ 24 Vdc
Max consumption	100 mA	60 mA
Termination resistance	120 ohm	120 ohm
Output frequency (max)	200 kHz	200 kHz
Signal amplitude (typical)	1 Vpp	1 Vpp
Max signal amplitude	1,2 Vpp	1,2 Vpp
Min signal amplitude	0,6 Vpp	0,6 Vpp
Cable length (max)	150 m @ 90 pF	150 m @ 90 pF
<b>Status output</b>		
High level (green LED)	Encoder OK	
Low level (red LED)	Warning / Failure	

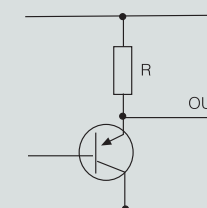
## Output circuit



## Output signals



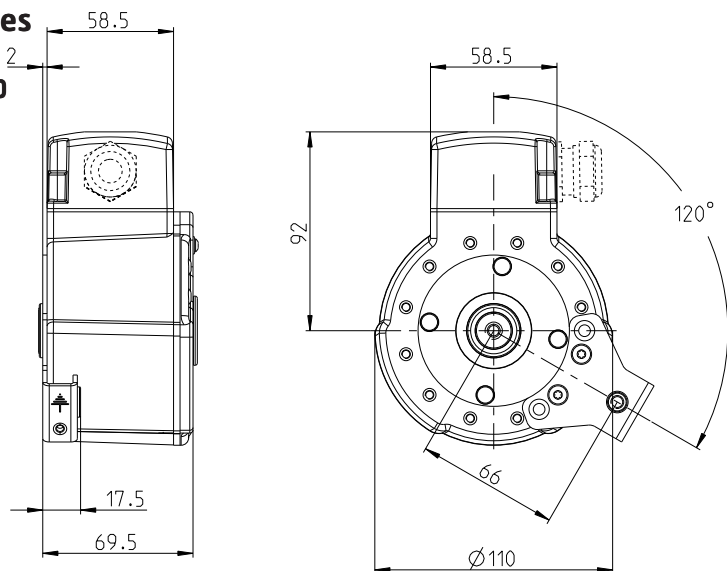
## Status output



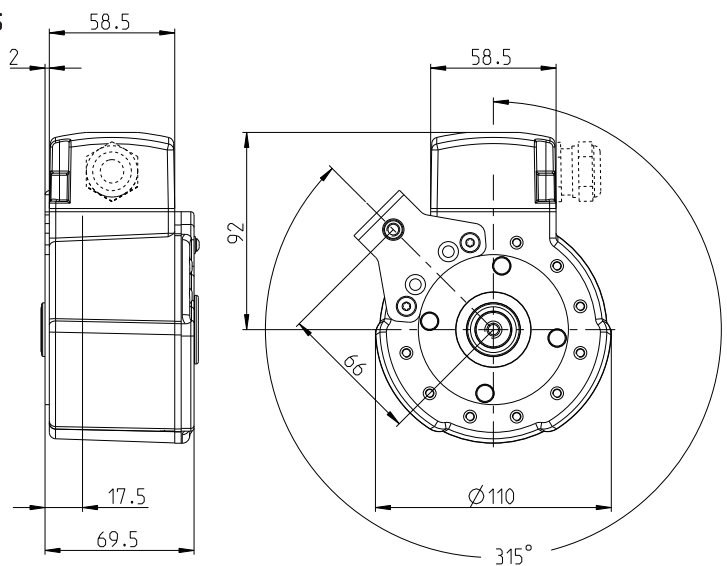


### Flanges

86-120

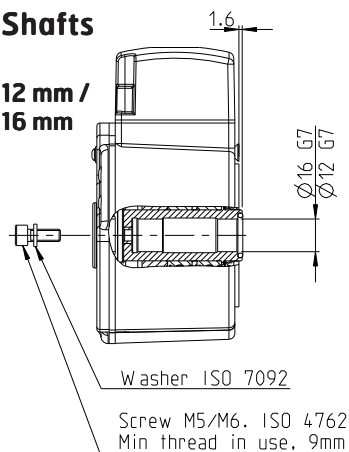


86-315

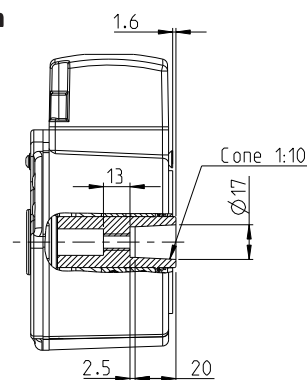


### Shafts

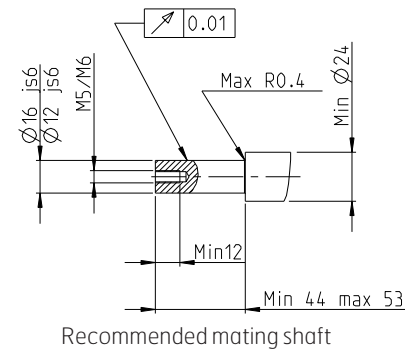
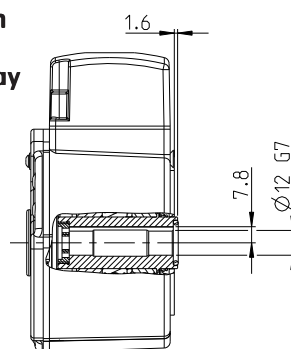
12 mm / 16 mm



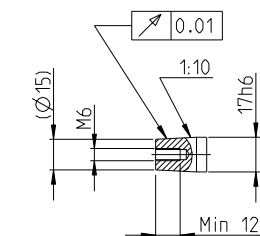
17 mm taper



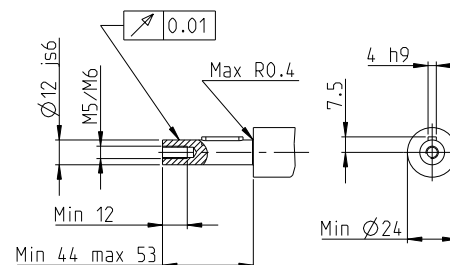
12 mm with keyway



Recommended mating shaft



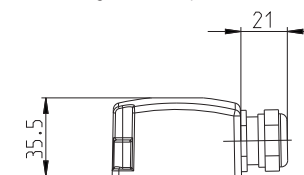
Recommended mating shaft



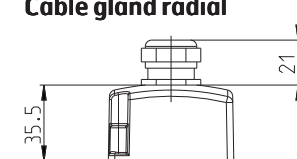
Recommended mating shaft

### Connections

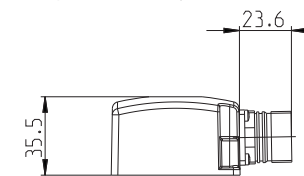
Cable gland adjustable



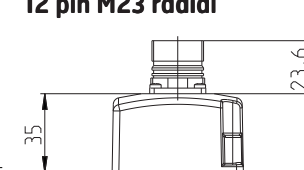
Cable gland radial



12 pin M23 adjustable



12 pin M23 radial



# 801 — X-heavy duty Hollow shaft encoder, Incremental 1Vpp



## Accessories

Mounting accessories	Part number
Torque arm M6	01208014
Mating connector M23	01209090

## Various combinations/examples

**XHI 801 86-120**

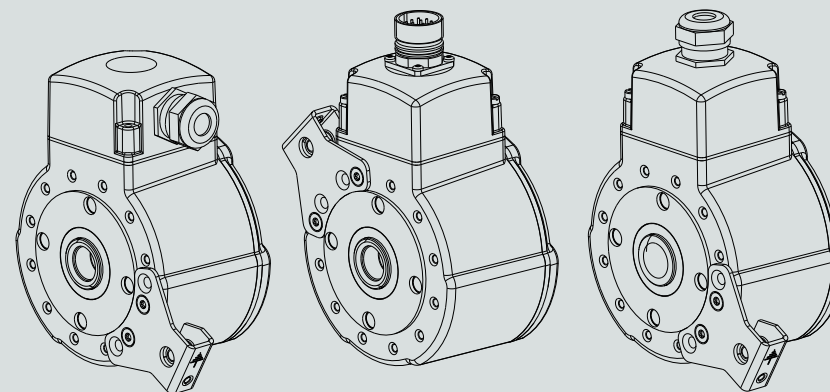
16 mm, adjustable cable gland

**XHI 801 86-315**

16 mm, radial 12 pin M23

**XHI 801 86-120**

17 mm taper, radial cable gland



## Ordering information Tick your choice

Type	XHI 801			
Flange	86-120 / 86-315			
Shaft	Ø 12 mm	Ø 12 mm with keyway	Ø 16 mm	Ø 17 mm taper
Electronics	Supply 5 Vdc	9-30 Vdc		
	Output 1 Vpp			
Connection	Cable 1,5 m / 5 m / 10 m	Cable gland	12 pin M23	
Connecting direction	Radial / Adjustable			
Line count	1024 / 2048 ppr			
Functionality	Standard	OVP		

OVP: Overvoltage protection

Ordering example: XHI 801, 86-120, Ø12 mm, 9-30 Vdc, 1 Vpp, 12 pin M23, radial, 1024 ppr, OVP