**Miniature 303 Shaft encoder, Incremental**

- 30mm diameter
- 6 short-circuit protected outputs
- IP 67 at housing
- Shock and vibration protected
- Status output for warning indication

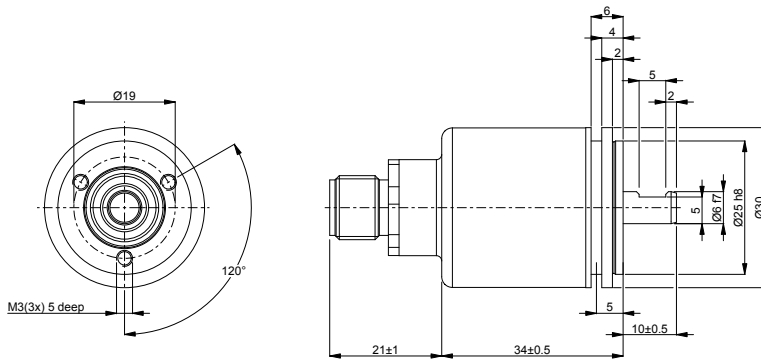
**Technical data**

Operating temperature	-40 °C .. +70 °C
Ingress protection class [IEC 60529]	IP67
Vibration [IEC 60068-2-6]	≤ 200 m/s <sup>2</sup>
Shock [IEC 60068-2-27]	≤ 3000 m/s <sup>2</sup>
Cover material	Aluminium (anodized)
Weight	70 g
Shaft load (axial/radial)	10 N / 10 N
Rotational speed max	6000 rpm
Shaft material	Stainless steel
Short circuit protected	Yes
Polarity protected	No
Current consumption	30 mA (Max. 90 mA)
Output load	±20 mA
Output frequency max	200 kHz
Cable length max	50 m at 50 kHz
Channel separation	90° el ± 25° el
Dividing error	±50° el

**Encoder configuration**

Type	MSI
Model	303 Standard
Shaft type	Ø6 mm with partial flat
Flange type	31-flange
Resolution	1250
Power supply	5 Vdc
Output signal	TTL
Connection type	M12 connector 8-pin
Connecting direction	Axial

## Dimensions



## Output signals



## Pin configuration

Function	Pin
S90 inverted	1
Sref	2
S90	3
S00	4
S00 inverted	5
Sref inverted	6
0V	7
+EV	8
Shield	Chassis

## Ordering information

Part number

751095-01