

Model 1816

Rotary Torque Transducers With Air Bearing



1816 series rotary torque transducers (RTT) are designed as non-contact between the rotor and the stator through an air bearing, which allows these products to be able to function under high rotating speed up to 6000 rpm. The air gap between the rotor and the stator is 1.5 mm. The non-contact nature of the signal transfer reduces the need for maintenance. Hence, 1816 RTTs are ideal for long-term durability applications.

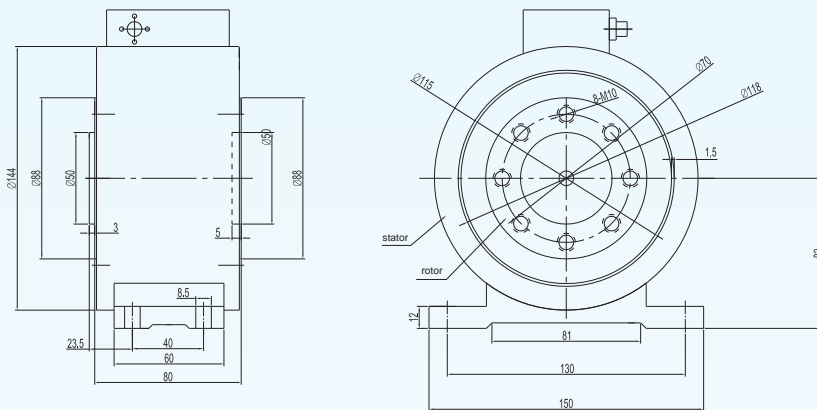
The measuring torque capacities of 1816 transducers span from 5 to 2000 Nm with an accuracy of 0.5 %fs (fs=full scale). The output (o/p) signal is frequency signal 10 ± 5 kHz (square wave, 0-12 V).

Features:

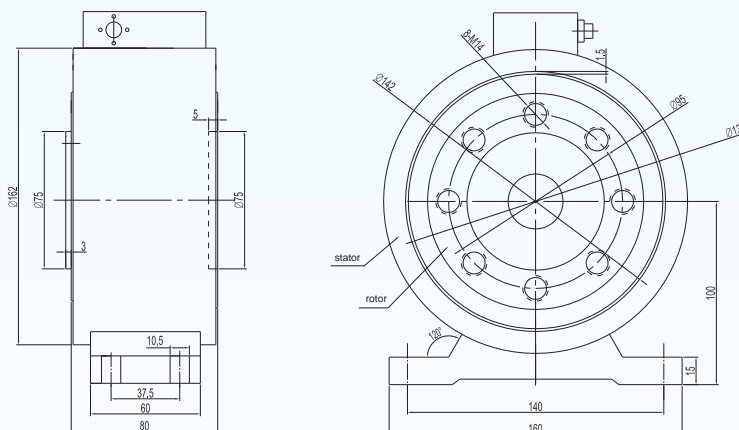
- air bearing
- 5, ..., 2000 Nm capacity
- maximum rotation speed of 6000 rpm
- 0.5%fs measuring accuracy



Dimensions:



dimensions for capacity of 100 Nm and 200 Nm



dimensions for capacity of 1000 Nm and 2000 Nm

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Technical data:

parameters	units	specifications
capacity	Nm	5, 7, 10, 20, 30, 50, 70, 100, 200, 300, 500, 700, 1000, 2000
safe load limit	%fs	120
ultimate overload	%fs	150
output signal		frequency signal of square wave of 0-12V
frequency@zero load	kHz	10
frequency@clockwise fs	kHz	15
frequency@counter-clockwise fs	kHz	5
accuracy	%fs	± 0.5
maximum rotation speed	rpm	6000
speed measurement*	pulse/round	6-60
power supply	Vdc	± 15
load current	mA	< 10
response time	ms	0.1
storage temp. range	°C	-40 ~ +80
operating temp. range	°C	-30 ~ +80
compensated temp. range	°C	0 ~ 40
temp. coefficient of SPAN	%fs/°C	± 0.2
temp. coefficient of ZERO	%fs/°C	± 0.2
rotor material		mild steel
stator material		mild steel
environment protection		IP 66
mechanical interface		refer to the dimensions drawing
electrical interface		5-pin connector with detachable mating socket and 3 m PVC cable

The listed specifications are subject to change without prior notice.

*: This function is available on request.

Ordering Code: model - capacity - other requests

example: 1816-50Nm-detachable mating socket+3m Cable



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