

Specifications

Flange type Torque Transducer by Optical Transformer method

- ★ Composition apparatus
- | | |
|---------------------------|--|
| 1) Torque Transducer | Model : TMOFB-5KNM |
| 2) Exclusive signal cable | Model : CAC-169A- *M (selectable from 10m,20m) 【Option】
CAC-169B-30M (30m) 【Option】 |
| 3) Exclusive transmitter | Model : CSA-562B 【Option】 |

The following spec. is fulfilled when an exclusive signal cable and exclusive transmitter are combined and adjusted.

★ Spec. of torque transducer

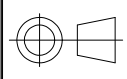
Performance		
Rated capacity(R.C.)		±5kN・m
Safe overload		240 %R.C.
Ultimate overload		400 %R.C.
Rated output(R.O.)		±10 V
Accuracy of detected value (include Nonlinearity,Hysteresis,Repeatability)		±0.05 %R.O.
Temperature		
Safe temperature range		-10 ℃ to 60 ℃
Temperature effect on zero balance		0.05 %R.O./10℃
Temperature effect on output		0.05 %LOAD/10℃
Characteristics on rotation		
Maximum number of rotation		6,000 rpm
Zero point shift by rotation(noise)		0.5 %R.O.p-p(WB=1kHz)
Others		IP54
IP class		Rotor : Alloy steel
Material		Stator : Aluminum alloy
Fatigue life		10 ⁷ times with rated load
Mass	Rotor part	10.0 kg
	Stator part	3.5 kg

★ Machine characteristics(Rotor part)

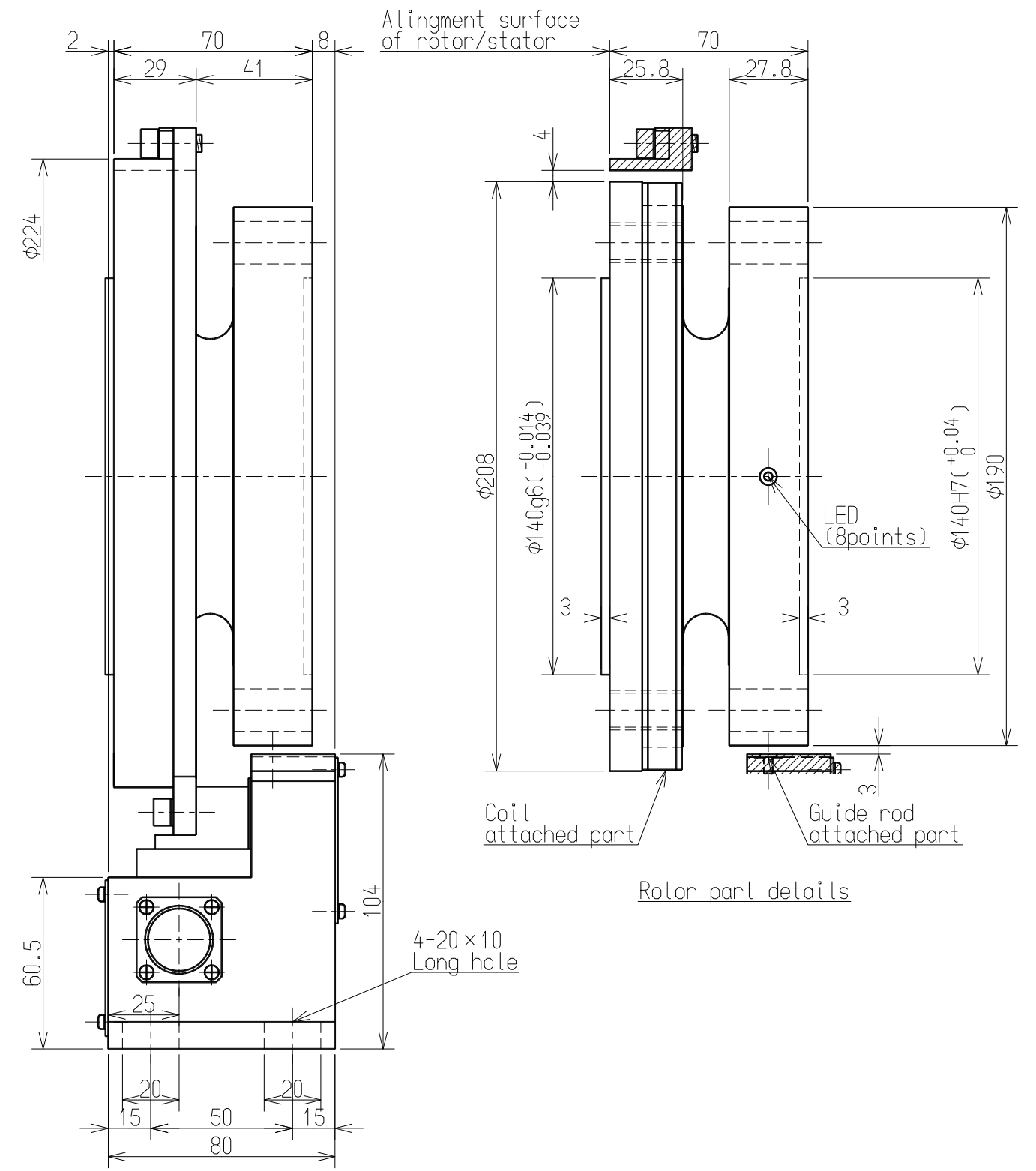
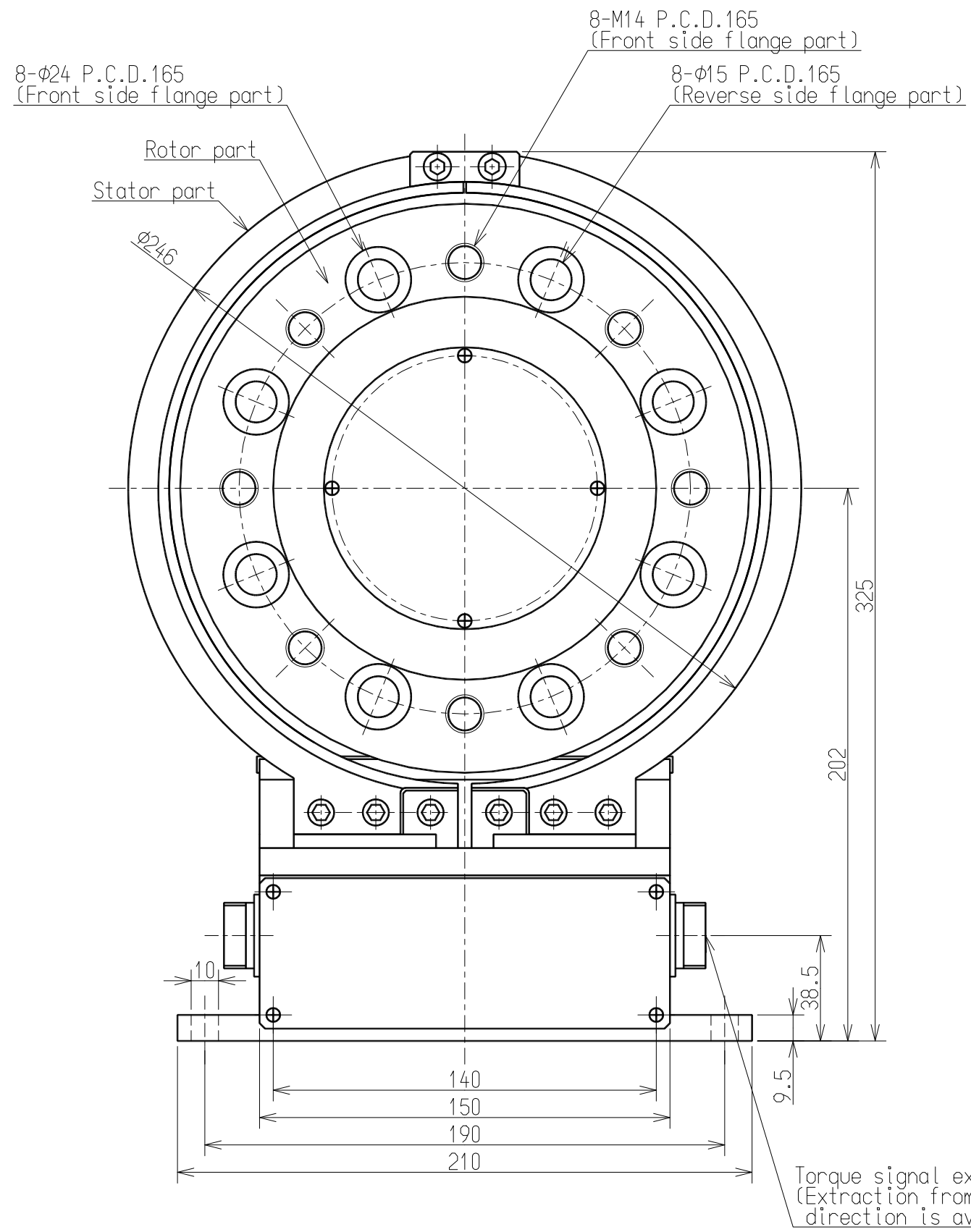
Response Frequency	[kHz]	1
Inertia moment	[kg・cm ²]	641.8
Torsion rigidity	[kN・m/rad]	8577
Torsion peculiar pitch	[kHz]	4.237
Bending peculiar pitch(Radial direction)	[kHz]	6.173
Bending peculiar pitch(Thrust direction)	[kHz]	3.289
Twist angle at R.C.	[°]	0.030
Accuracy safe bending load	[N]	7500
Accuracy safe thrust load	[N]	6500

- Accuracy safety bending/thrust load is load value(actual measurement) which generate output error 0.1%R.O.
- Accuracy safety bending load is the result of loading at position 200mm from flange edge.
- All are the guarantee value over static load.

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			ミネベア株式会社 MINEBEA CO.,LTD.		単位 UNIT mm		材質 MATERIAL -		作成日 DATE 2014.11.24	
			計測機器事業部		尺度 SCALE Free		表面粗さ SURF.ROUGH. -		品名 DESCRIPTION OUTLINE	
					 — 寸法 L 公差 一般 <L≤4 ±0.1 公差 4<L≤16 ±0.2 差 16<L≤63 ±0.3 250<L≤1000 ±0.8 TOL 角度 DEG ±0.5		熱処理 HEAT TREAT. -		品番 PART NO.(MODEL NO.) 葉番 SHEET TMOFB-5KNM 1 / 2	
							表面処理 FINISH -		図番 DRAWING NO. 改訂 REV. KT53865-2 -	
-	2014.11.24	NEW								
符号 MARK	日付 DATE	変更事項 REASON / ECN NO.								

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ミネベア株式会社 MINEBEA CO.,LTD. 計測機器事業部 MEASURING COMPONENTS BUSINESS UNIT	作成日 DATE 2014.11.24	品名 DESCRIPTION
	OUTLINE	
	品番 PART NO.(MODEL NO.)	葉番 SHEET
	TMOFB-5KNM	2 / 2
図番 DRAWING NO.	改訂 REV.	
KT53865-2	-	