

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	
IP class	IP54
Material	Rotor : Alloy steel 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)

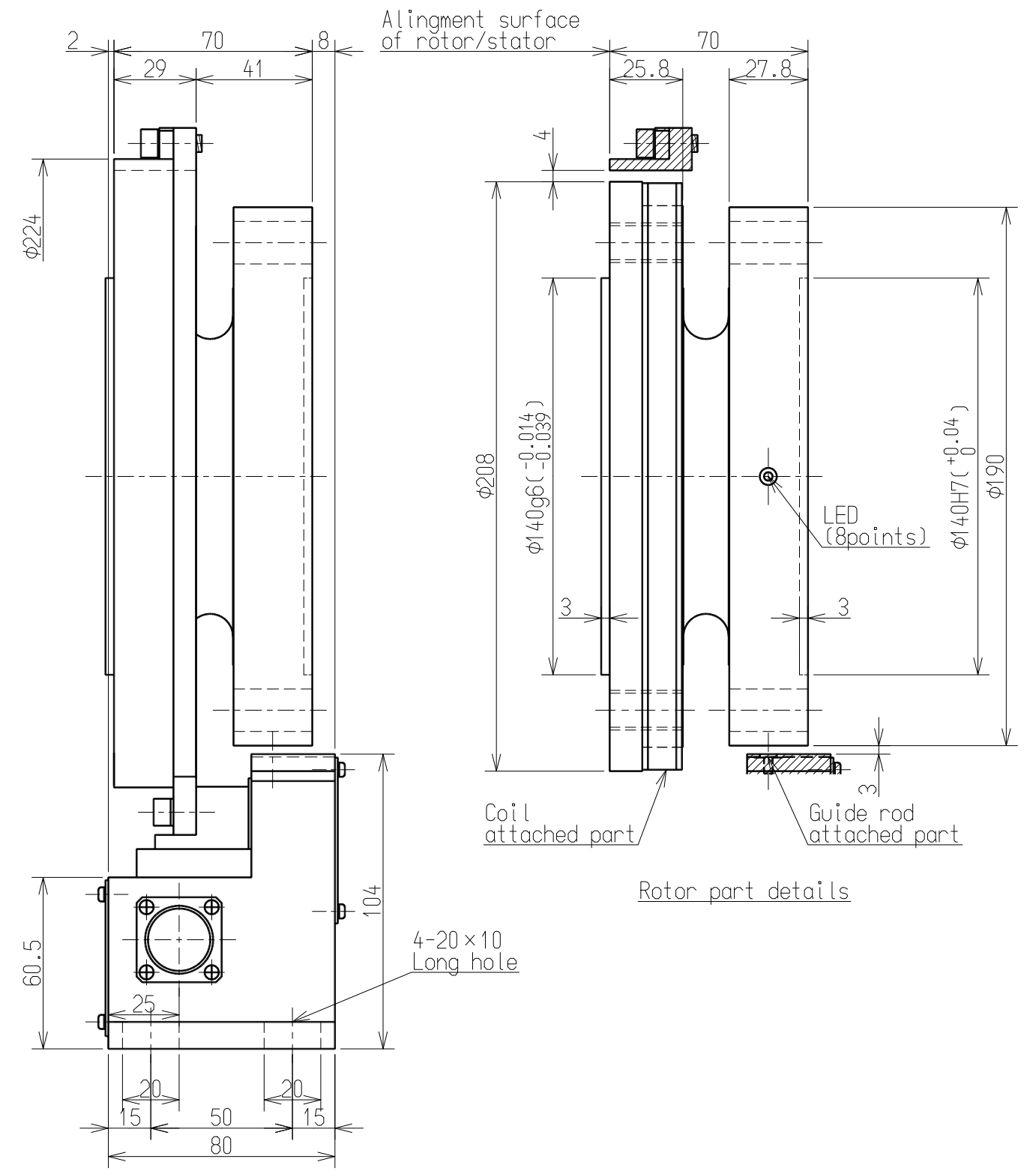
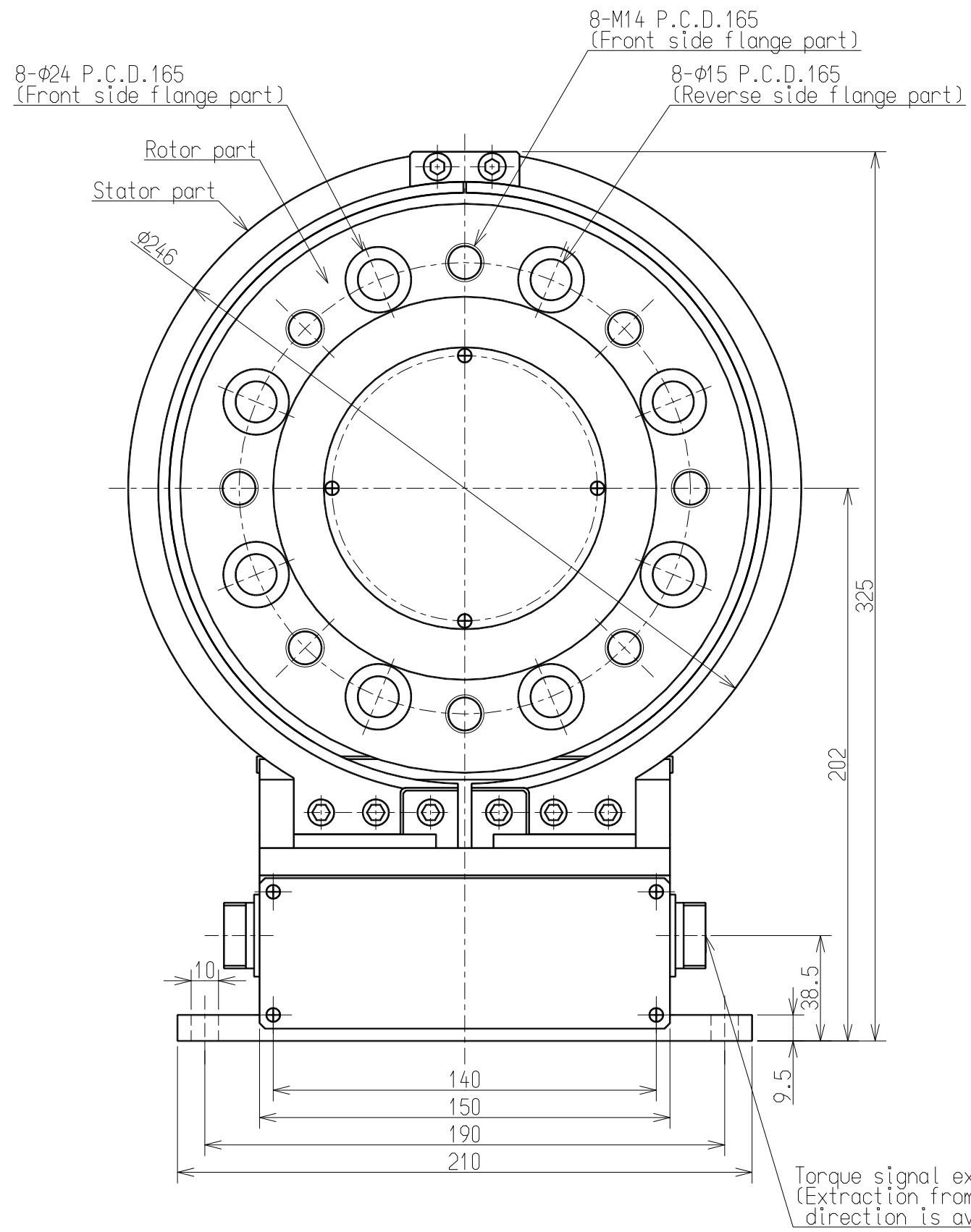
Response Frequency	[kHz]	1
Inertia moment	[kg·cm ²]	641.8
Torsion rigidity	[kN·m/rad]	8577
Torsion peculiar pitch	[kHz]	4.237
Bending peculiar pitch(Radial direction)	[kHz]	6.173
Bending peculiar pitch(Thrust direction)	[kHz]	3.289
Twist angle at R.C.	[°]	0.030
Accuracy safe bending load	[N]	7500
Accuracy 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		
					APPROVED	CHECKED	DRAWN	寸法 L		公差		熱処理 HEAT TREAT. -		
					F. IDE		S. UCHIBORI		Y. Kobayashi		品番 PART NO.(MODEL NO.) TMOFB-5KNM		葉番 SHEET 1 / 2	
					符号 MARK	日付 DATE	変更事項 REASON	ECN NO.	担当 ENGINEER	承認 APPROVED	表面処理 FINISH -		図番 DRAWING NO. KT53865-2	
					-		2014.11.24		NEW		KOBAYASHI F. IDE		改訂 REV. -	
					TOL		角度 DEG		±0.5					

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