



4.5D/4.5E/4.5R Dimensions

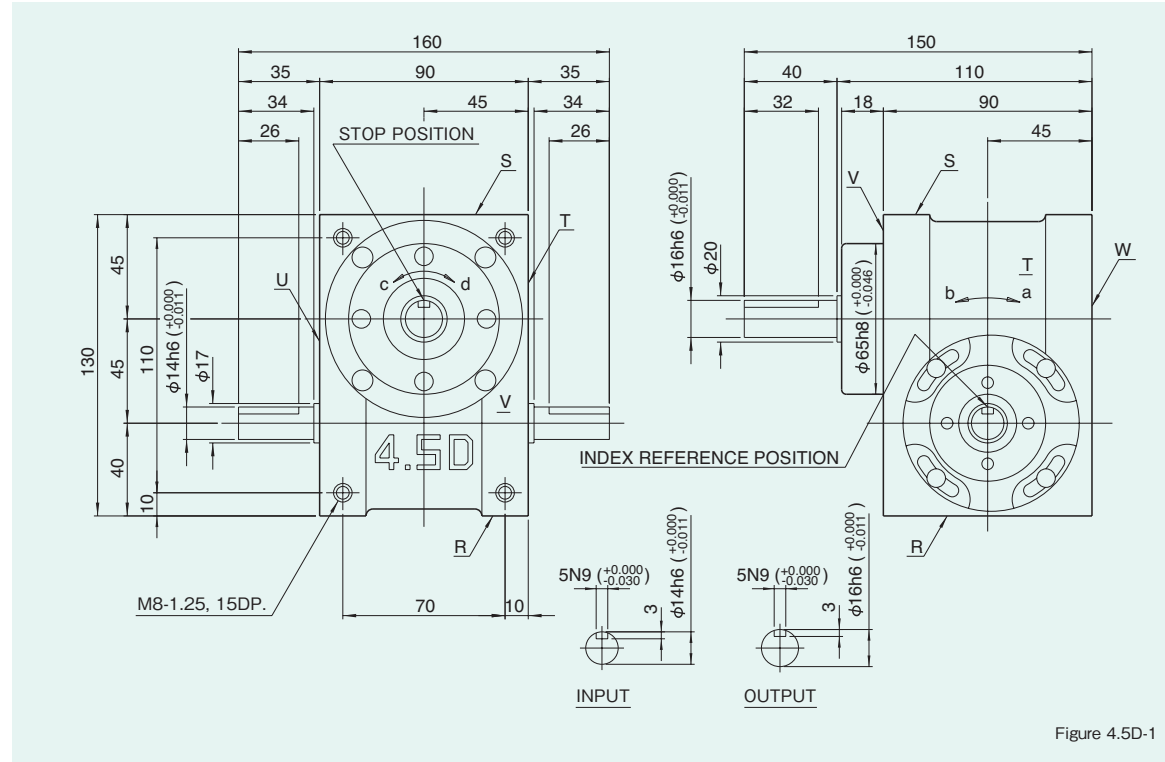
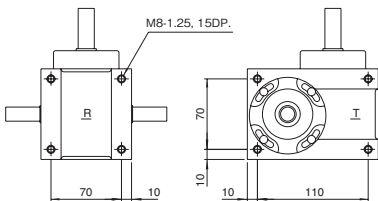


Figure 4.5D-1

Mounting hole locations Figure 4.5D-2



Dimension R,S,T, and U surface

Specifications

Table 4.5D-1

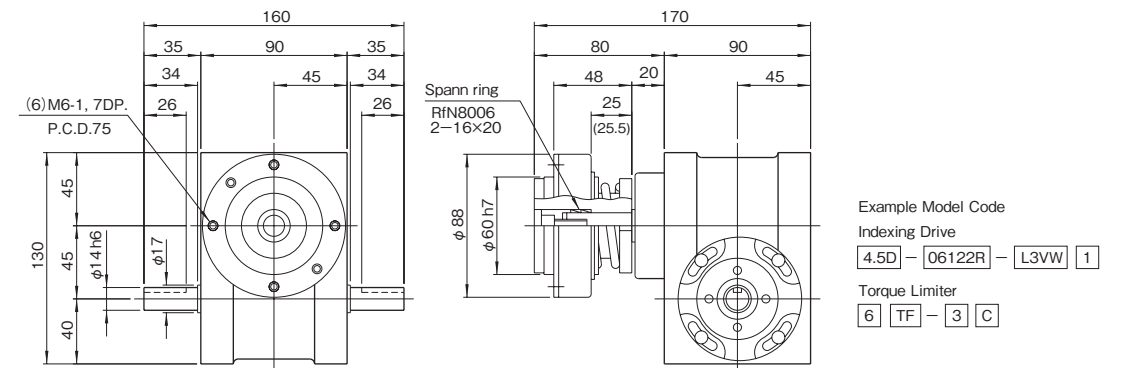
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	784	Input allowable axial load	P ₄	N	833	Indexing accuracy (1 DWELL)		sec	±60
Output allowable radial load	P ₂	N	711	Input maximum repetitious bending force	P ₅	N	735	Indexing accuracy (2 DWELL)		sec	±120
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P ₆	N·m	39.2	Indexing accuracy (3 DWELL)		sec	±180
Output torsional rigidity	K ₁	N·m/rad	6.08×10 ³	Input torsional rigidity	K ₂	N·m/rad	2.74×10 ³	Indexing accuracy (4 DWELL)		sec	±240
Output inertia	J ₀	kg·m ²	1.5×10 ⁻⁴	Input inertia	J ₁	kg·m ²	8.0×10 ⁻⁵	Repetitive accuracy		sec	30
Output allowable bending moment	P ₃	N·m	24.5					Product weight		kg	6
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

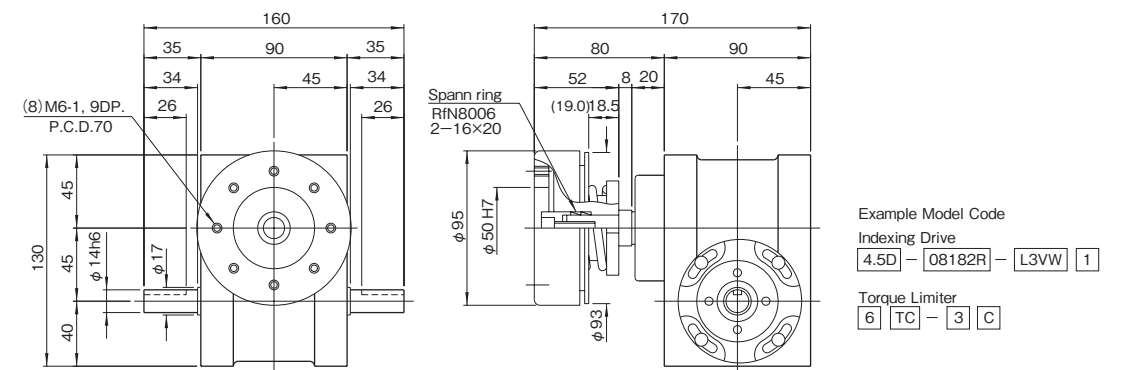
(1N=0.102kgf)

Mounted accessories

4.5D (a)



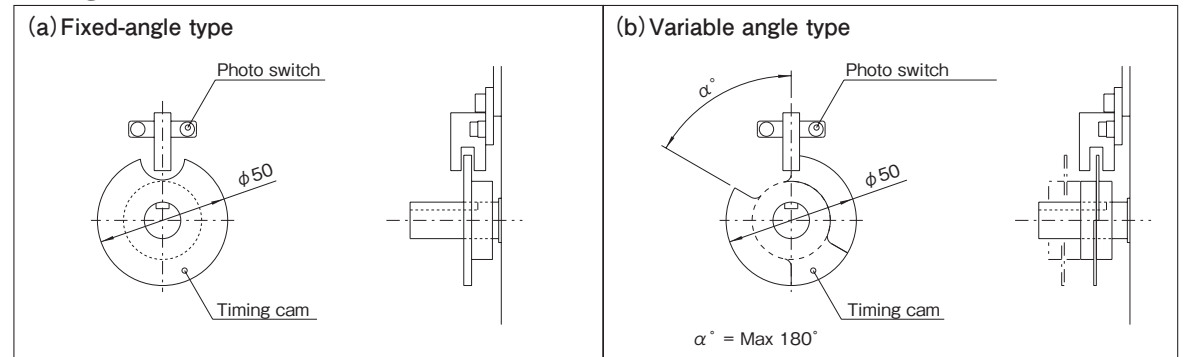
4.5D (b)



Precautions

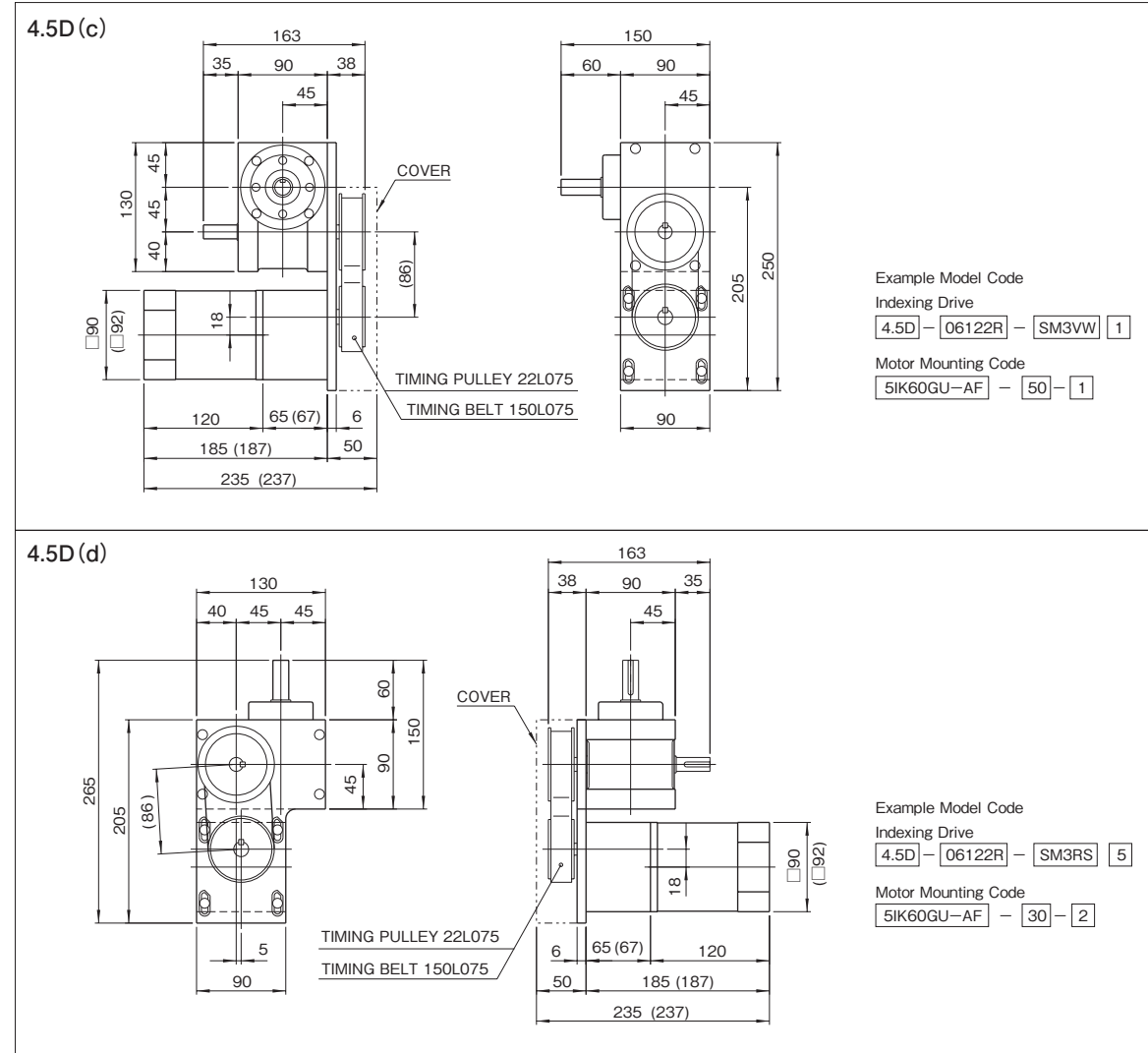
- Models 4.5D,4.5E and 4.5R can be equipped with Torque limiters 6TF and 6TC.
- Torque limiter TC-type require a collar for mounting.

Timing cam-Photo switch

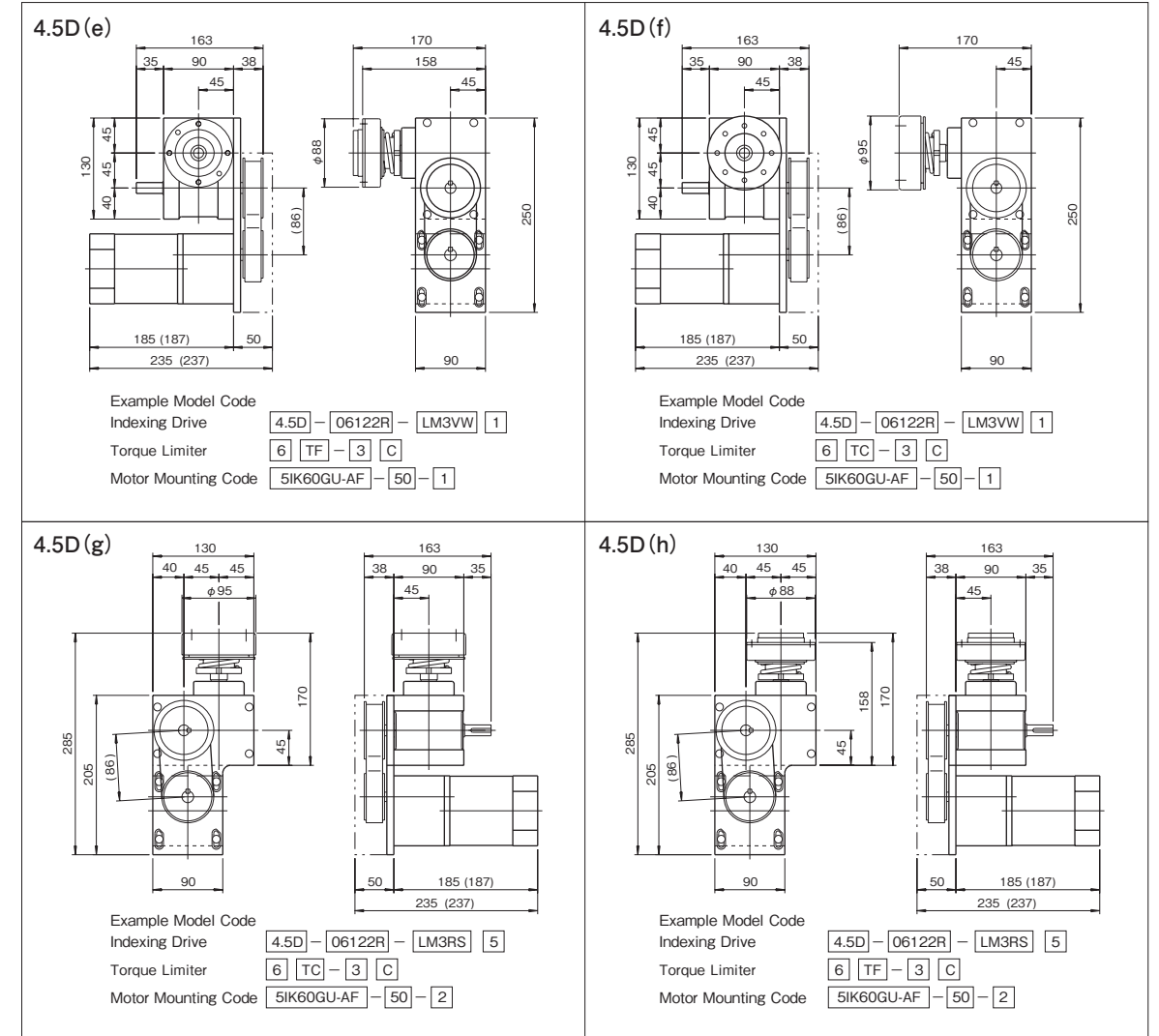


※Up to 3 sets of timing cams and photo switches can be added as necessary.

Mounted accessories



Mounted accessories



Induction motor specifications

Table 4.5D-2

Motor model	Output power (W)	Frequency (Hz)	Voltage (V)	Current (A)	Starting torque (N·m)	Rated torque (N·m)	Rotating speed (rpm)	Capacitor (μ F)	Gear head model	
									Ball bearing type	
Oriental Motor	5IK60GU-AF	60	50 60	1.4	0.32 0.30	0.45 0.38	1300 1550	15.0	5GU	KB
Panasonic	M9IC60G4L	60	50 60	1.3 1.2	0.441	0.451 0.363	1275 1575	15.0	M9GD	B

Allowable torque with gear head (N·m)

Table 4.5D-3

Rotating speed (rpm)	200	120	100	60	50	30	20	15	10
50Hz Gear ratio	7.5	12.5	15	25	30	50	75	100	150
60Hz Gear ratio	9	15	18	30	36	60	90	120	180
Allowable torque(N·m)	5IK60GU-AF	2.7	4.1	4.9	7.4	8.9	14.9	19.9	20
	M9IC60G4L	2.35	3.92	4.70	7.55	9.11	15.19	19.60	19.60

(1N·m=0.102kgf·m)

Precautions

- The mounting base of the motor mounts on the sides T or U of the indexing drive as shown in Figure 4.5D-(c),(d).
- Figure 4.5D-(c),(d) shows the opposite of when mounted on side U.
- Dimensions in parenthesis Panasonic motor.
- When ordering, always specify the gear reduction ratio along with the indexing drive code number.
- Note:For details on the induction motor, refer to the brochure for Oriental Motors(or Panasonic).

6D/6E/6R Dimensions

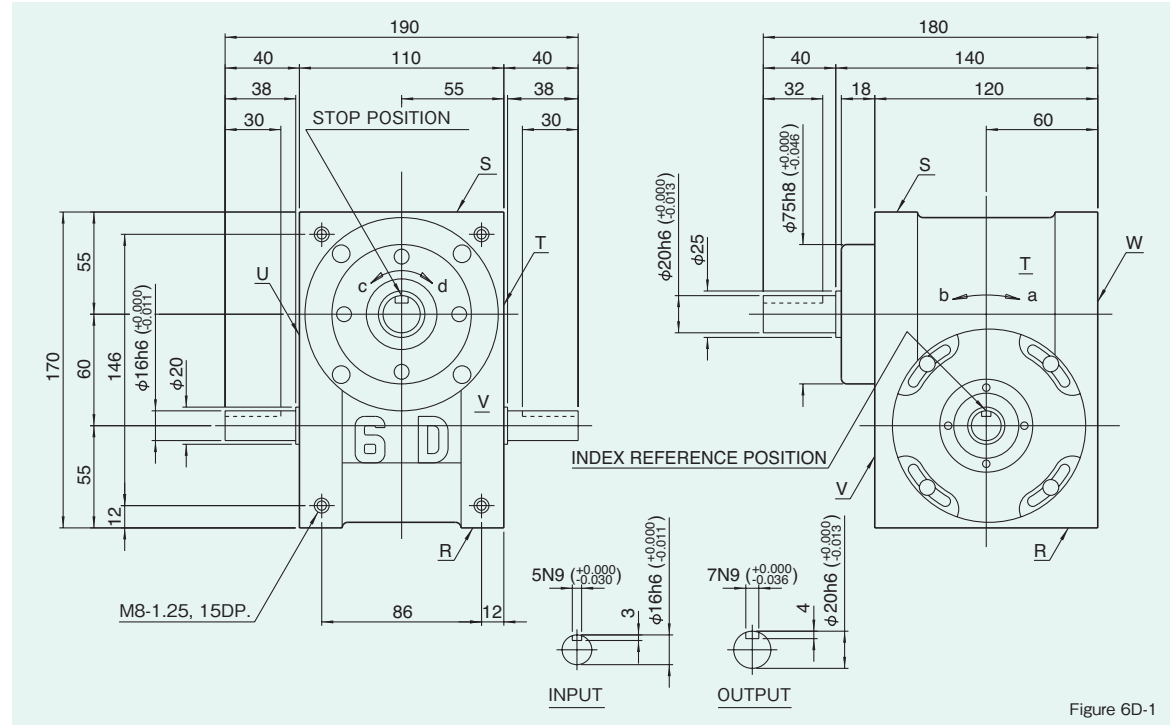
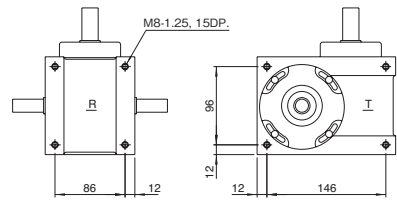


Figure 6D-1

Mounting hole locations

Figure 6D-2



Dimension R,S,T, and U surface

Locations of oil plug, etc., and oil capacity

Figure 6D-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	0.5	0.37	0.35	0.35	0.3	0.3

Precautions

- Each point indicated in the mounting positions shown in Figure 6D-3 represents (starting at top) the oil plug (PT3/8), oil level (VA-01), and drain (PT1/4).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 6D-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 6D-1

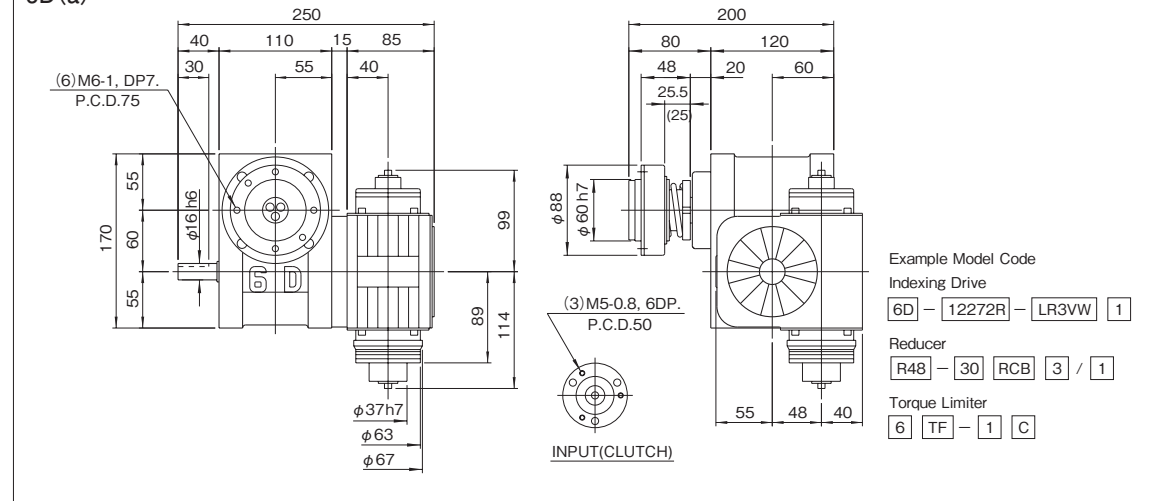
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	1764	Input allowable axial load	P ₄	N	980	Indexing accuracy (1 DWELL)		sec	±45
Output allowable radial load	P ₂	N	1470	Input maximum repetitive bending force	P ₅	N	931	Indexing accuracy (2 DWELL)		sec	±90
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitive allowable torque	P ₆	N·m	58.8	Indexing accuracy (3 DWELL)		sec	±135
Output torsional rigidity	K ₁	N·m/rad	1.37×10 ¹	Input torsional rigidity	K ₂	N·m/rad	4.12×10 ³	Indexing accuracy (4 DWELL)		sec	±180
Output inertia	J ₀	kg·m ²	3.4×10 ⁻⁴	Input inertia	J ₁	kg·m ²	4.75×10 ⁻⁴	Repetitive accuracy		sec	20
Output allowable bending moment	P ₃	N·m	34.3					Product weight		kg	10
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

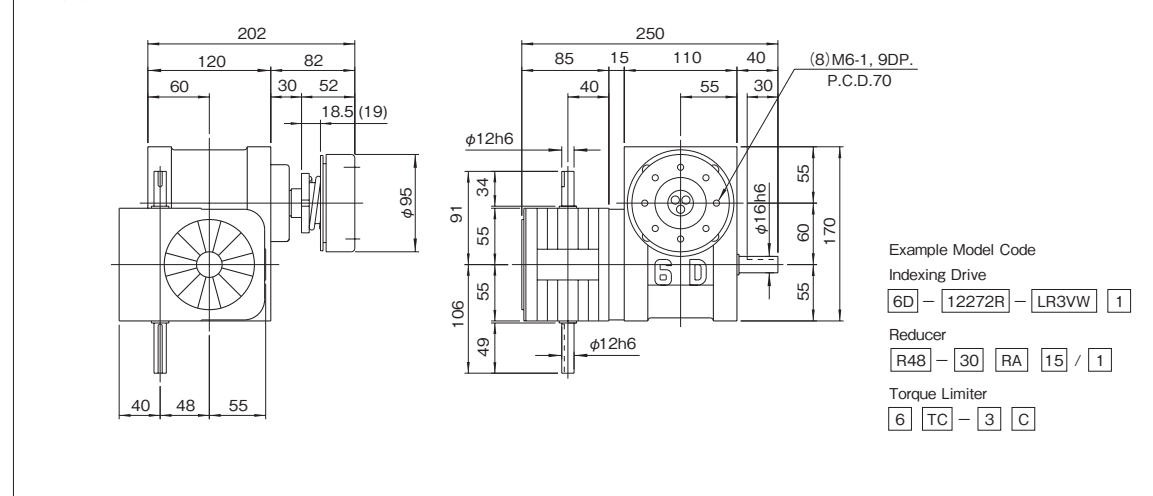
Mounted accessories

6D(a)



Example Model Code
Indexing Drive
6D - 12272R - LR3VW 1
Reducer
R48 - 30 RCB 3 / 1
Torque Limiter
6 TF - 1 C

6D(b)

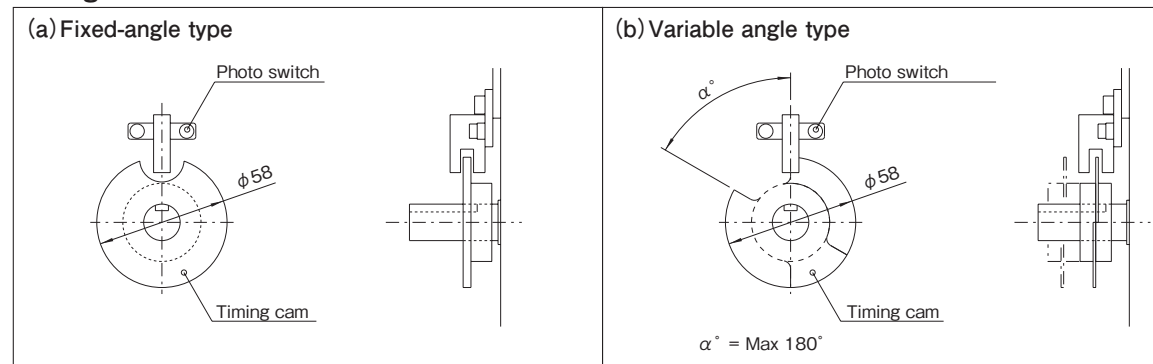


Example Model Code
Indexing Drive
6D - 12272R - LR3VW 1
Reducer
R48 - 30 RA 15 / 1
Torque Limiter
6 TC - 3 C

Precautions

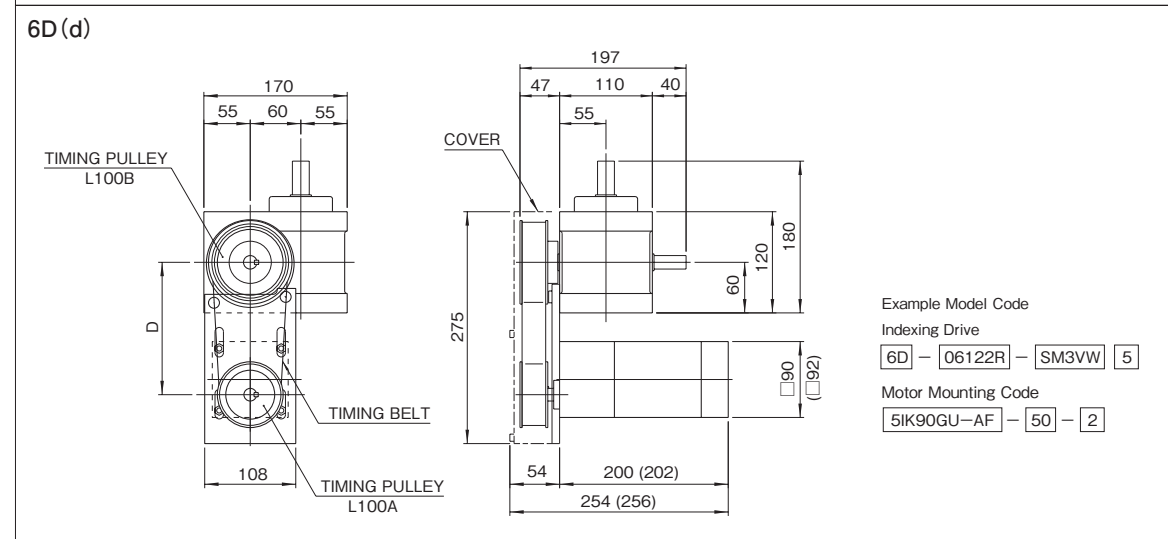
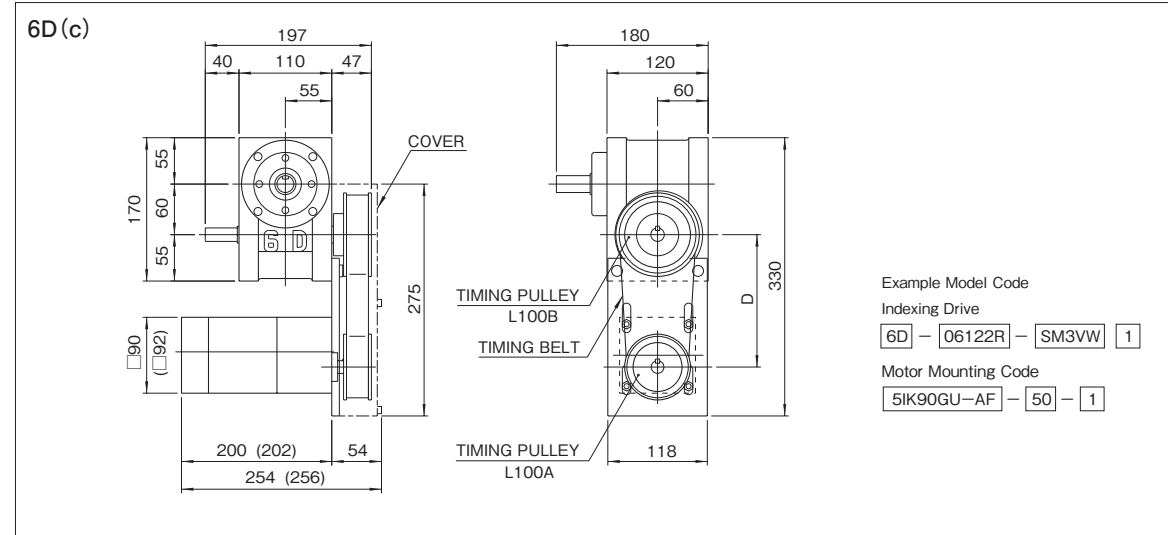
- Models 6D, 6E and 6R can be equipped with reducer R48.
- Models 6D, 6E, and 6R can be equipped with torque limiters 6TF and 6TC. Torque limiter TC-type require a collar for mounting.

Timing cam-Photo switch

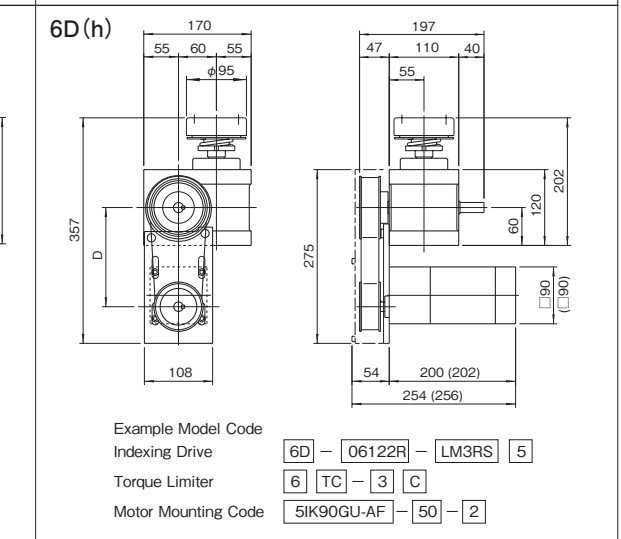
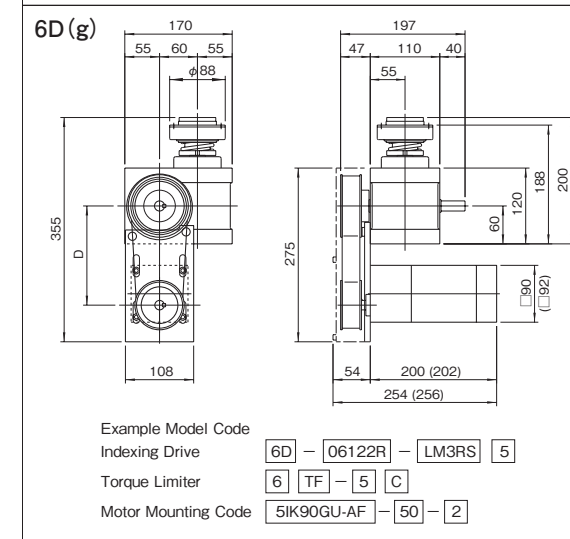
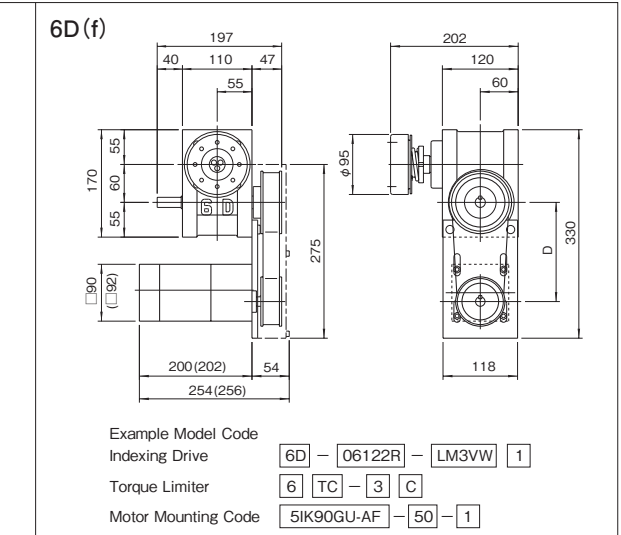
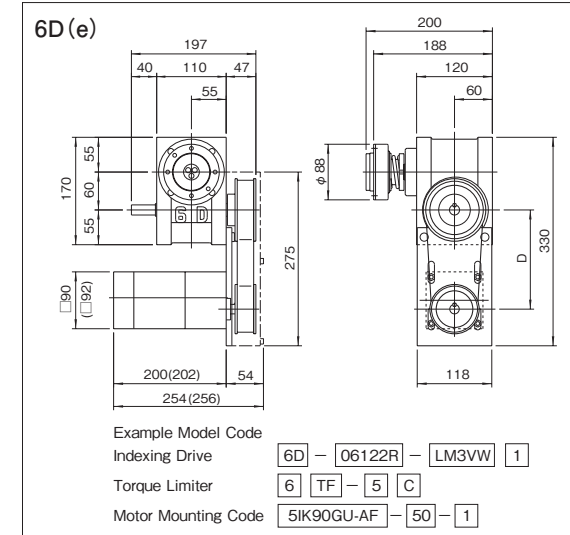


※Up to 3 sets of timing cams and photo switches can be added as necessary.

Mounted accessories



Mounted accessories



Induction motor specifications

Table 6D-2

Maker	Motor model	Output power (W)	Frequency (Hz)	Voltage (V)	Current (A)	Starting torque (N·m)	Rated torque (N·m)	Rotating speed (rpm)	Capacitor (μ F)	Gear head model	
										Ball bearing type	
Oriental motor	5IK90GU-AF	90	50 60	100	2.0	0.45	0.68 0.57	1300 1550	25.0	5GU □ KB	
Panasonic	M9IC90G4L	90	50 60	100	1.6 1.7	0.470	0.637 0.519	1325 1625	25.0	M9GD □ B	

Allowable torque with gear head

Table 6D-3

Rotating speed (rpm)	200	120	100	60	50	30	20	15	10
50Hz Gear ratio	7.5	12.5	15	25	30	50	75	100	150
60Hz Gear ratio	9	15	18	30	36	60	90	120	180
Allowable torque(N·m)	5IK90GU-AF	4.1	6.2	7.4	11.2	13.5	20	20	20
	M9IC90G4L	3.43	5.68	6.76	10.88	13.03	19.60	19.60	19.60

(1N·m=0.102kgf·m)

Timing transmission specifications

Table 6D-4

Timing pulley reduction ratio	Pulley A Number of teeth	Pulley B Number of teeth	D	Belt Number
1.5	20	30	146.8	210L teeth

※Pulley gear ratio is 1.5. Make note of this when selecting gear ratios for the gear head.

Precautions

- The mounting base of the motor mounts on the sides T or U of the indexing drive as shown in Figure 6D-(c),(d).
- Figure 6D-(c),(d) shows the opposite of when mounted on side U.
- Dimensions in parenthesis indicate Panasonic motor.
- When ordering, always specify the gear reduction ratio along with the indexing drive code number.
- Note:For details on the induction motor, refer to the brochure for Oriental Motors (or Panasonic).

7D/7E/7R Dimensions

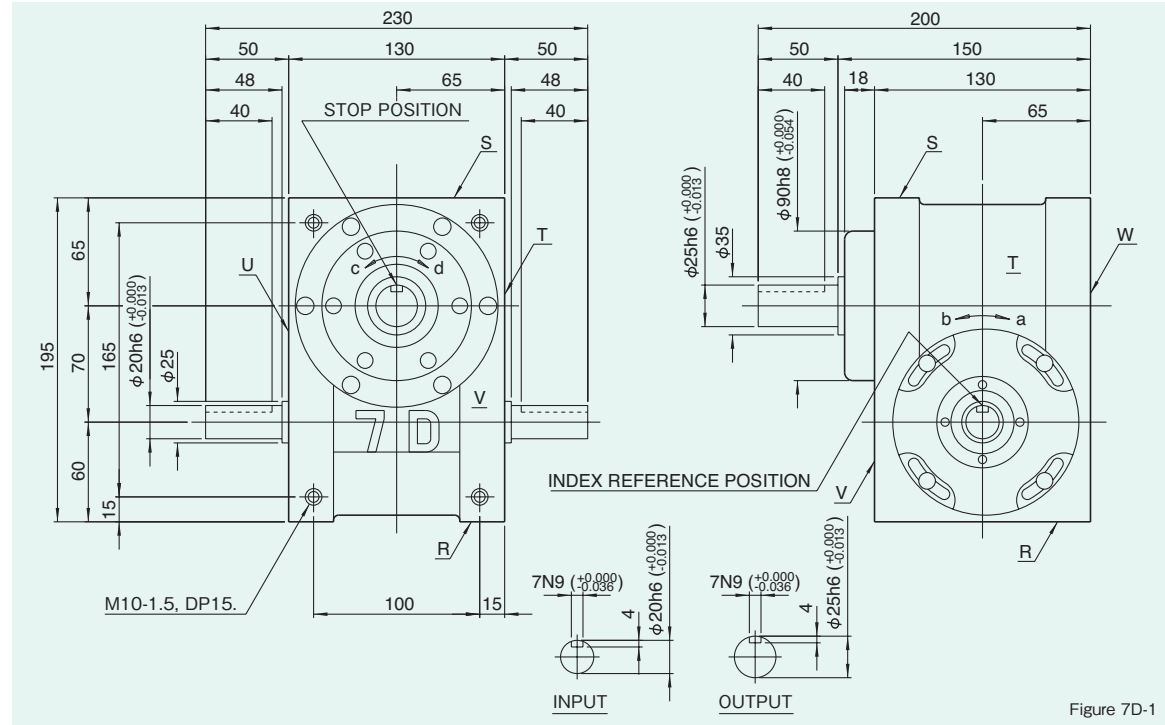
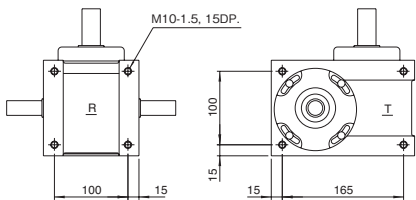


Figure 7D-1

7D

Mounting hole locations

Figure 7D-2



Dimension of R, S, T, and U surface

Locations of oil plug, etc., and oil capacity

Figure 7D-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	0.6	0.6	0.55	0.55	0.4	0.4

Precautions

- Each point indicated in the mounting positions shown in Figure 7D-3 represents (starting at top) the oil plug (PT3/8), oil level (VA-01), and drain (PT1/4).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 7D-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

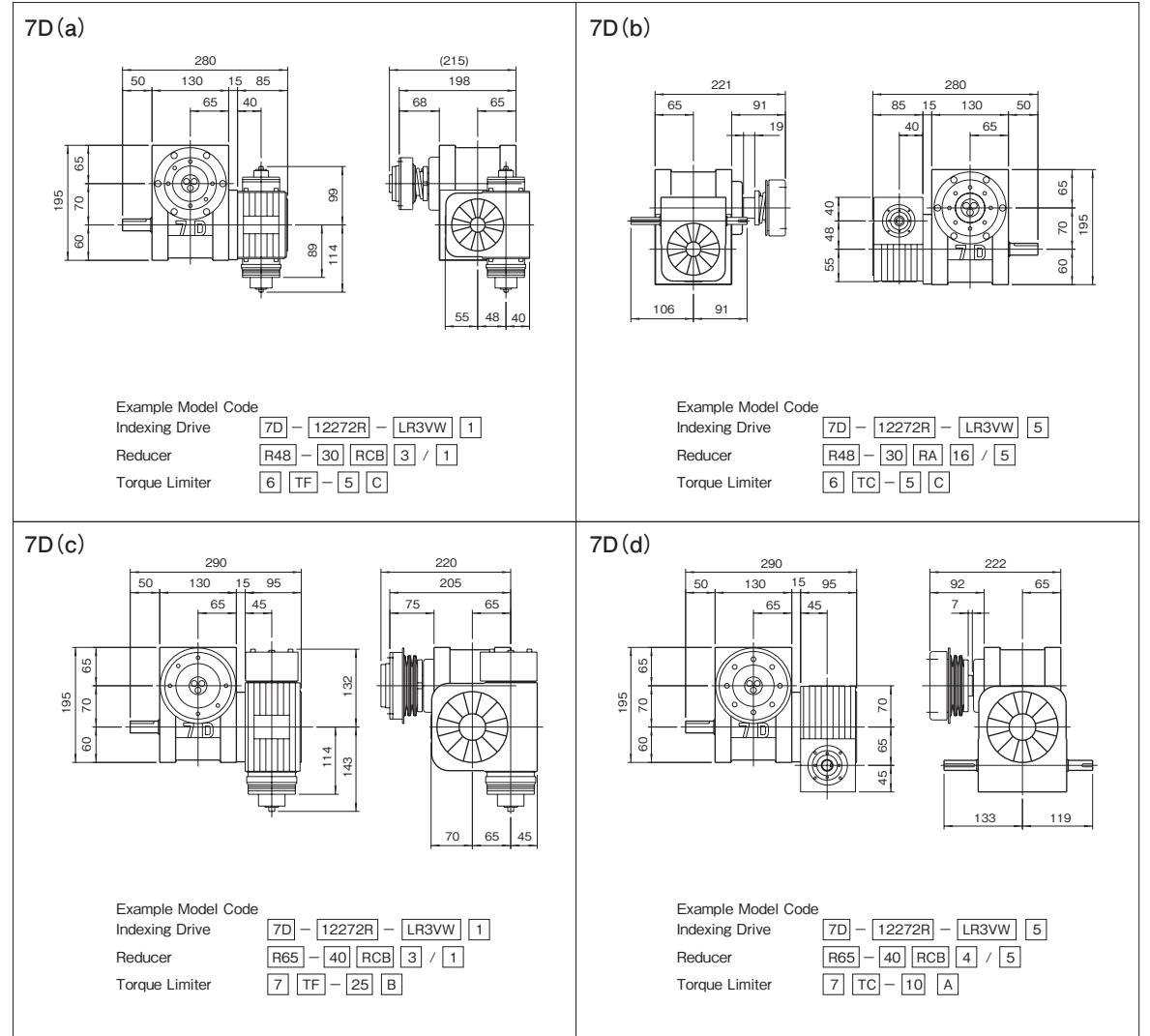
Table 7D-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	2156	Input allowable axial load	P ₄	N	1470	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	2156	Input maximum repetitious bending force	P ₅	N	1078	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P ₆	N·m	93.1	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	2.84×10 ⁴	Input torsional rigidity	K ₂	N·m/rad	8.43×10 ³	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J ₀	kg·m ²	1.05×10 ⁻³	Input inertia	J ₁	kg·m ²	1.5×10 ⁻³	Repetitive accuracy		sec	15
Output allowable bending moment	P ₃	N·m	63.7					Product weight		kg	16
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

Mounted accessories



Precautions

- Models 7D, 7E, and 7R can be equipped with reducers R48 and R65.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- Models 7D, 7E, and 7R can be equipped with torque limiters 6TF, 7TF, 6TC and 7TC.
- Torque limiter TC-types require a collar for mounting. Reducers require a collar for mounting.

7D

8D/8E/8R Dimensions

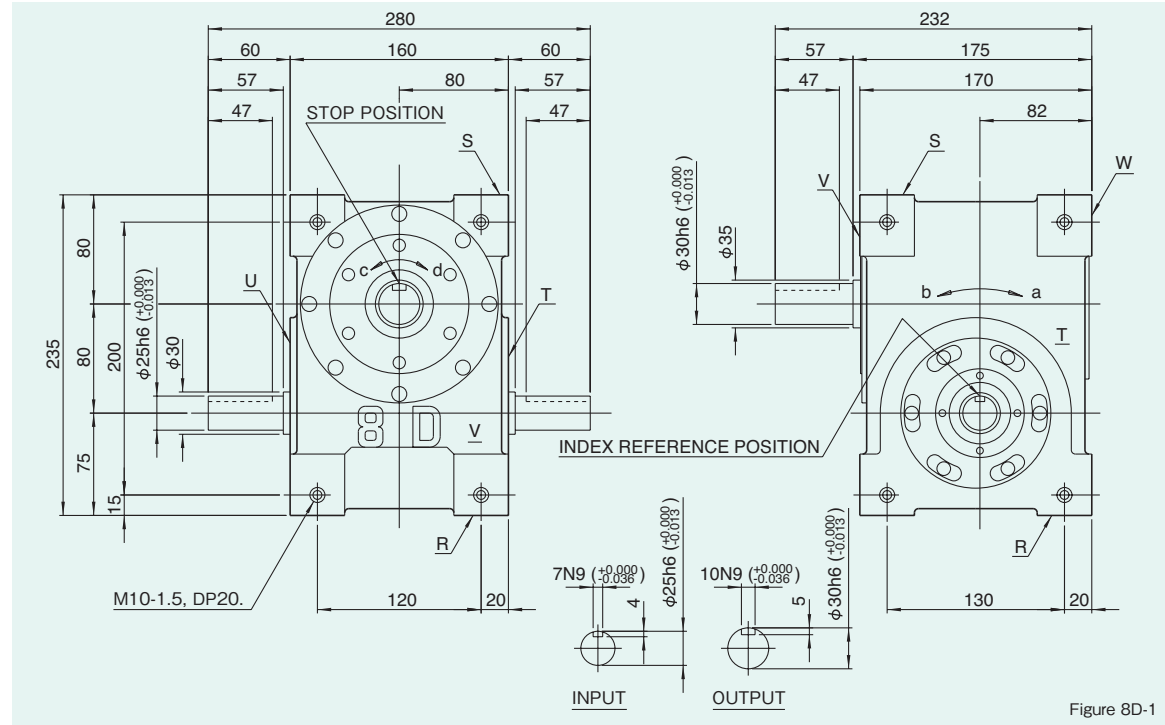
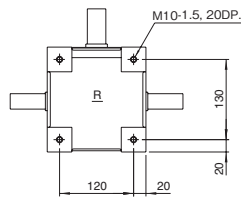


Figure 8D-1

Mounting hole locations

Figure 8D-2



Dimension of R and S surface

Locations of oil plug, etc., and oil capacity

Figure 8D-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	1.2	0.8	1.4	1.2	0.7	1.4

Precautions

- Each point indicated in the mounting positions shown in Figure 8D-3 represents (starting at top) the oil plug (PT1/2), oil level (VA-01), and drain (PT1/2).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 8D-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

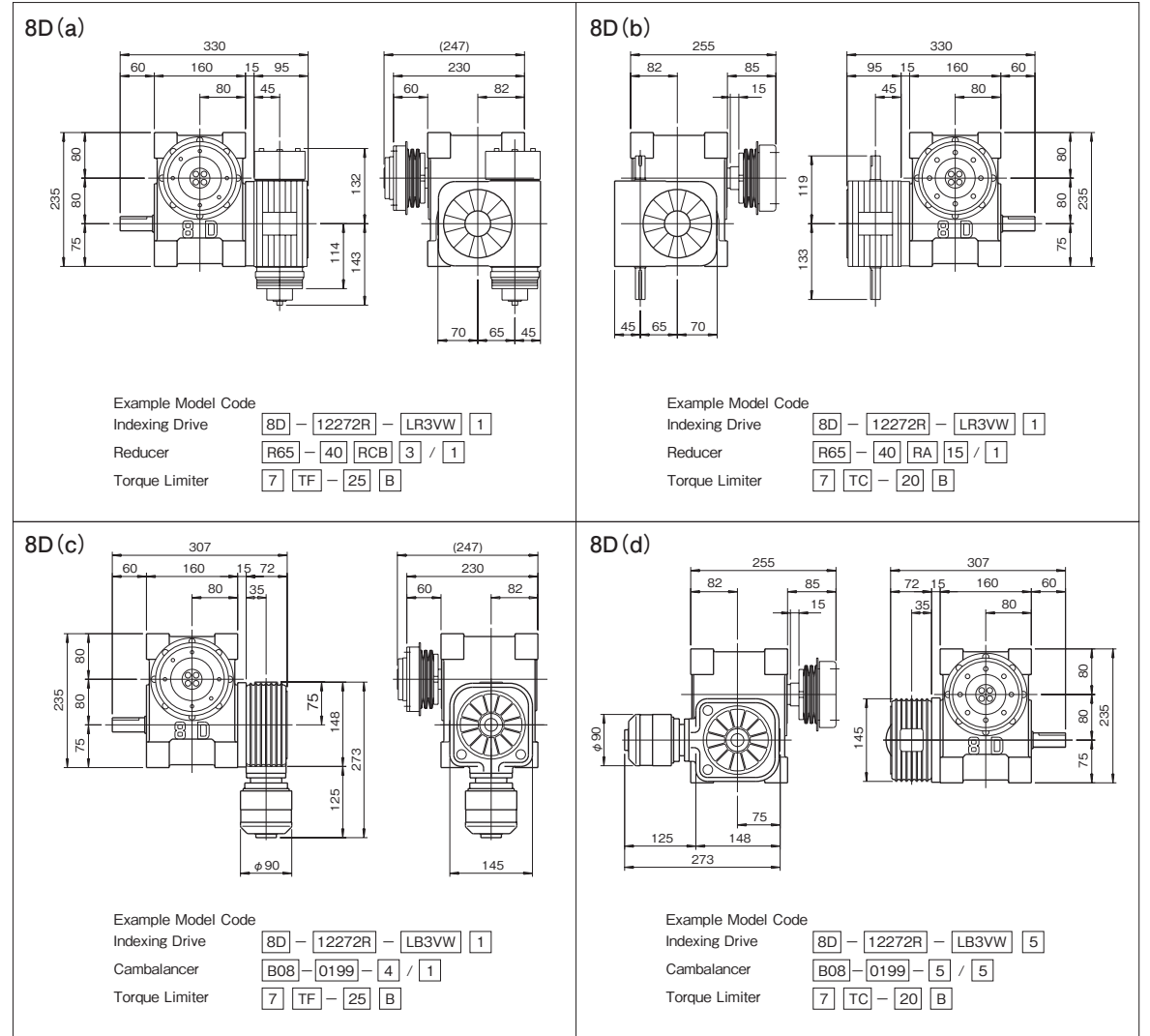
Table 8D-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	2156	Input allowable axial load	P ₄	N	2058	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	2156	Input maximum repetitious bending force	P ₅	N	1862	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitious allowable torque	P ₆	N·m	181.3	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	5.29×10 ⁴	Input torsional rigidity	K ₂	N·m/rad	1.67×10 ⁴	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J ₀	kg·m ²	1.79×10 ⁻³	Input inertia	J ₁	kg·m ²	2.25×10 ⁻³	Repetitive accuracy		sec	15
Output allowable bending moment	P ₃	N·m	63.7					Product weight		kg	29
								Housing color		Gray	

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

Mounted accessories



Precautions

- Models 8D, 8E, and 8R can be equipped with reducer R65.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- Models 8D, 8E, and 8R can be equipped with torque limiters 7TF, 8TF, 7TC and 8TC.
- Torque limiter TC-types require a collar for mounting. Reducer R65 requires a collar for mounting.

11D/11E/11R Dimensions

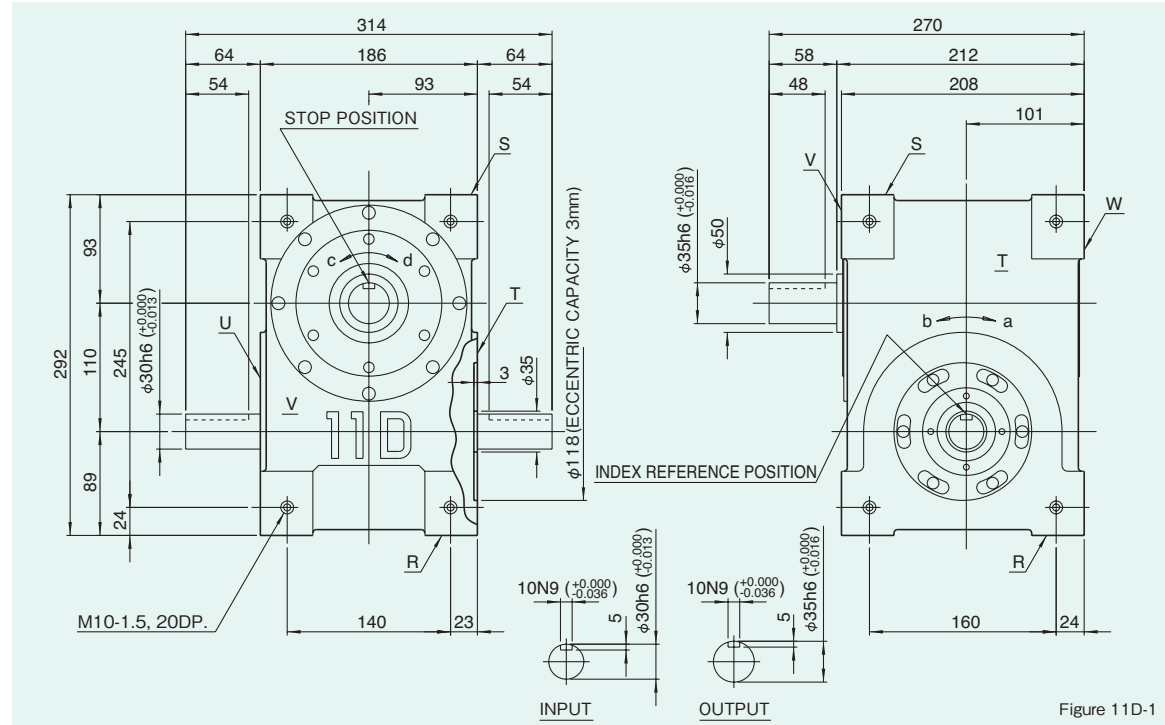
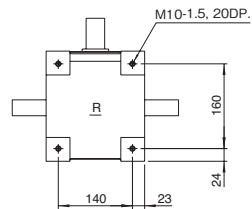


Figure 11D-1

Mounting hole locations

Figure 11D-2



Dimension of R and S surface

Locations of oil plug, etc., and oil capacity

Figure 11D-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	2.0	1.4	0.9	0.9	1.2	1.3

Precautions

- Each point indicated in the mounting positions shown in Figure 11D-3 represents (starting at top) the oil plug (PT1/2), oil level (VA), and drain (PT1/2).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 11D-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

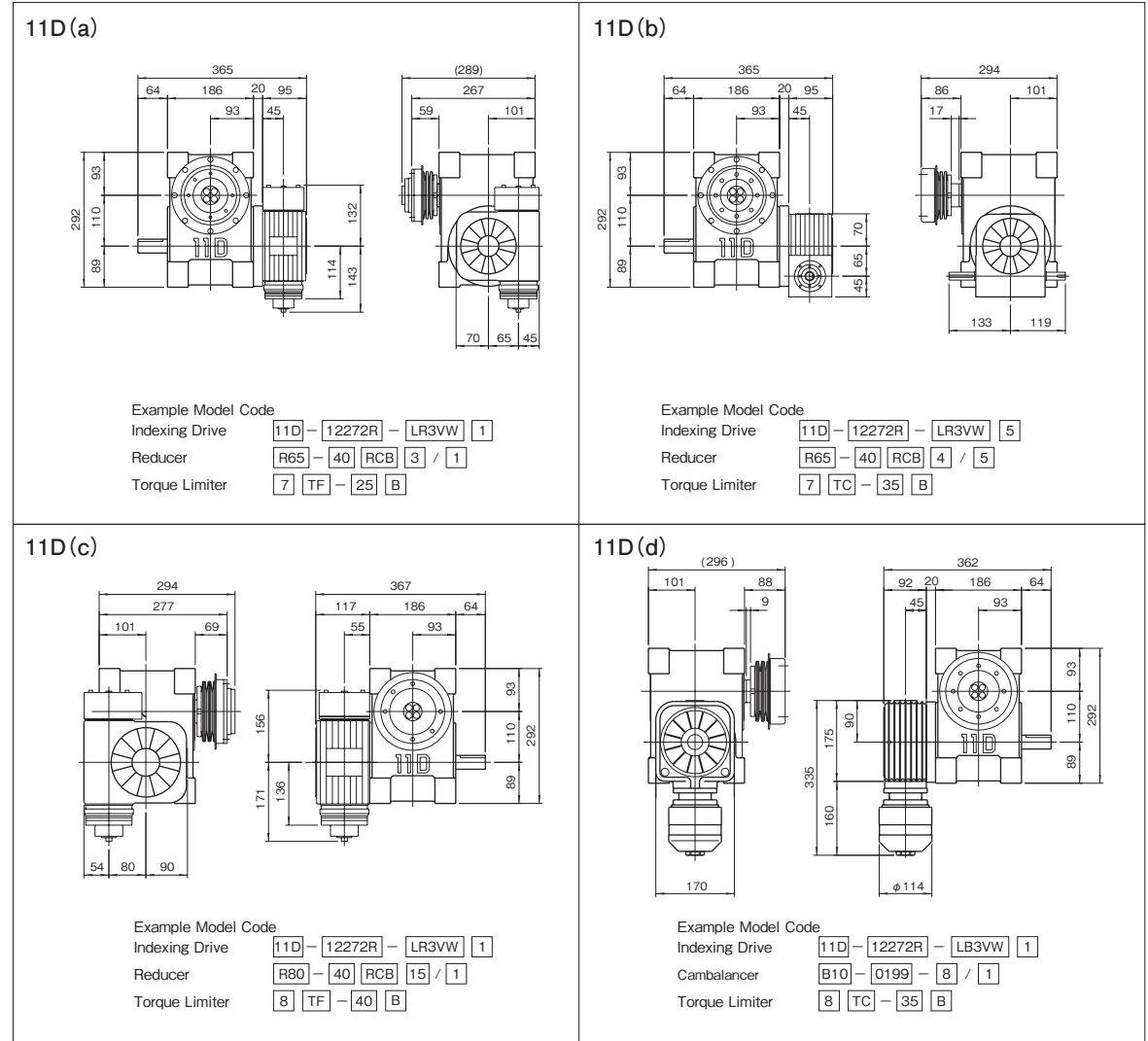
Table 11D-1

Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	4900	Input allowable axial load	P ₄	N	3528	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	5390	Input maximum repetitive bending force	P ₅	N	2842	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitive allowable torque	P ₆	N·m	313.6	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	8.82×10 ⁴	Input torsional rigidity	K ₂	N·m/rad	3.04×10 ⁴	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J ₀	kg·m ²	9.05×10 ⁻³	Input inertia	J ₁	kg·m ²	7.0×10 ⁻³	Repetitive accuracy		sec	15
Output allowable bending moment	P ₃	N·m	166.6					Product weight		kg	51
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

Mounted accessories



Precautions

- Models 11D, 11E, and 11R can be equipped with reducers R65 and R80.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- Models 11D, 11E, and 11R can be equipped with torque limiters 7TF, 8TF, 11TF, 7TC, 8TC and 11TC.
- Torque limiter TC-types require a collar for mounting. Reducer R65 requires a collar for mounting.

14D/14E/14R Dimensions

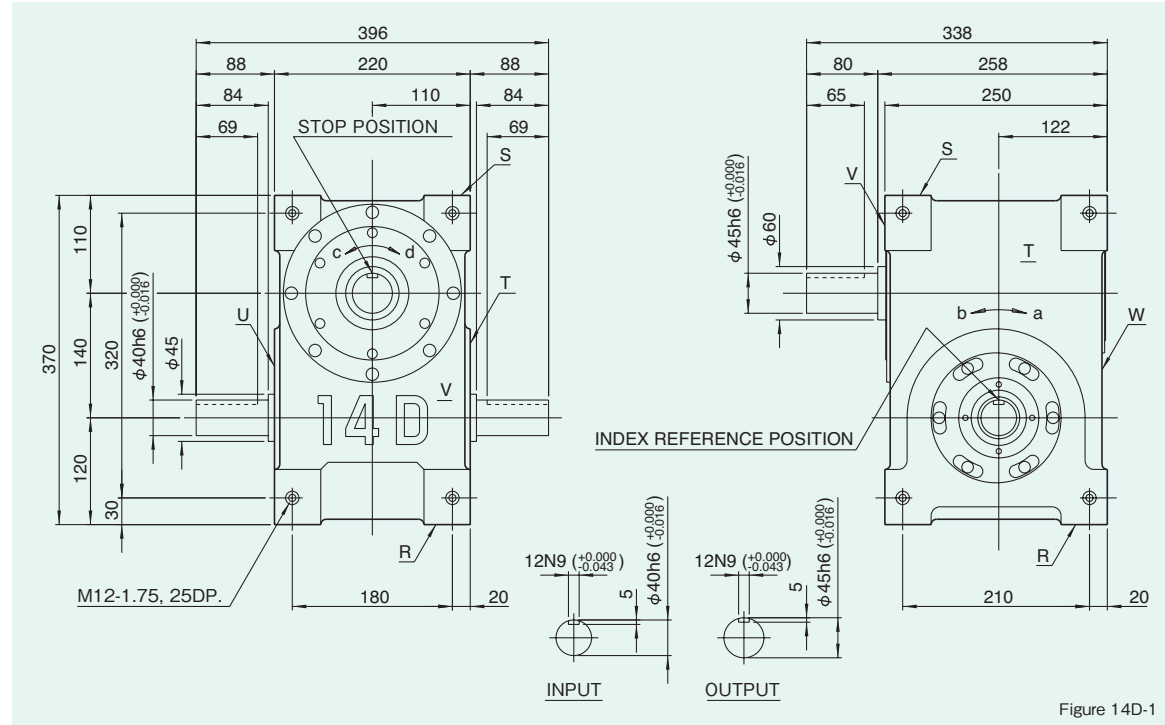
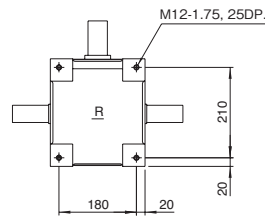


Figure 14D-1

Mounting hole locations

Figure 14D-2



Dimension of R and S surface

Locations of oil plug, etc., and oil capacity

Figure 14D-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	4.3	4.3	4.1	4.1	2.7	5.1

Precautions

- Each point indicated in the mounting positions shown in Figure 14D-3 represents (starting at top) the oil plug (PT1/2), oil level (VA), and drain (PT1/2).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 14D-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 14D-1

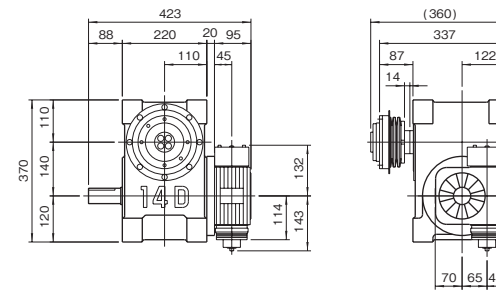
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	7154	Input allowable axial load	P ₄	N	4312	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	8428	Input maximum repetitive bending force	P ₅	N	5488	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitive allowable torque	P ₆	N·m	735	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	1.86×10 ⁵	Input torsional rigidity	K ₂	N·m/rad	7.84×10 ⁴	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J ₀	kg·m ²	2.63×10 ⁻²	Input inertia	J ₁	kg·m ²	2.75×10 ⁻²	Repetitive accuracy		sec	15
Output allowable bending moment	P ₃	N·m	313.6					Product weight		kg	120
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

Mounted accessories

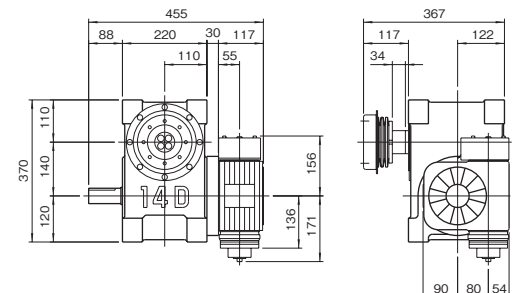
14D (a)



Example Model Code

Indexing Drive **14D** - **12272R** - **LR3VV** **1**
 Reducer **R65** - **40** **RCB** **3** / **1**
 Torque Limiter **8** **TF** - **40** **B**

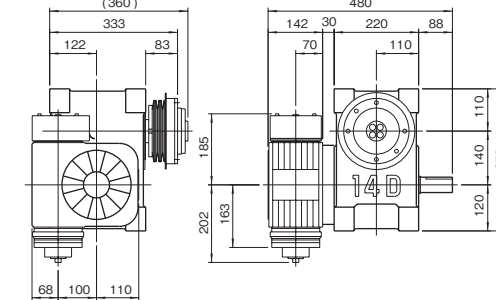
14D (b)



Example Model Code

Indexing Drive **14D** - **12272R** - **LR3VV** **1**
 Reducer **R80** - **40** **RCB** **3** / **1**
 Torque Limiter **8** **TC** - **45** **B**

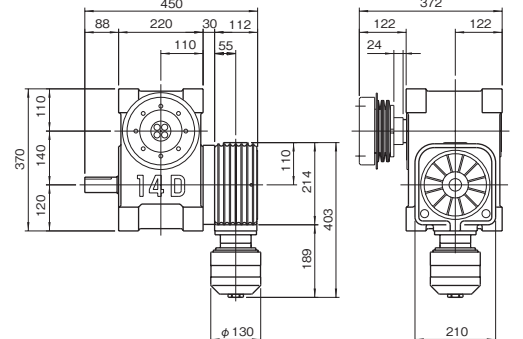
14D (c)



Example Model Code

Indexing Drive **14D** - **12272R** - **LR3VV** **1**
 Reducer **R100** - **40** **RCB** **15** / **1**
 Torque Limiter **11** **TF** - **85** **B**

14D (d)



Example Model Code

Indexing Drive **14D** - **12272R** - **LB3VV** **1**
 Cambalancer **B12** - **0199** - **4** / **1**
 Torque Limiter **11** **TC** - **65** **B**

Precautions

- Models 14D, 14E, and 14R can be equipped with reducers R65, R80 and R100.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- Models 14D, 14E, and 14R can be equipped with torque limiters 8TF, 11TF, 14TF, 8TC, 11TC and 14TC.
- Torque limiter TC-types require a collar for mounting. Reducers require a collar for mounting.

17D/17E/17R Dimensions

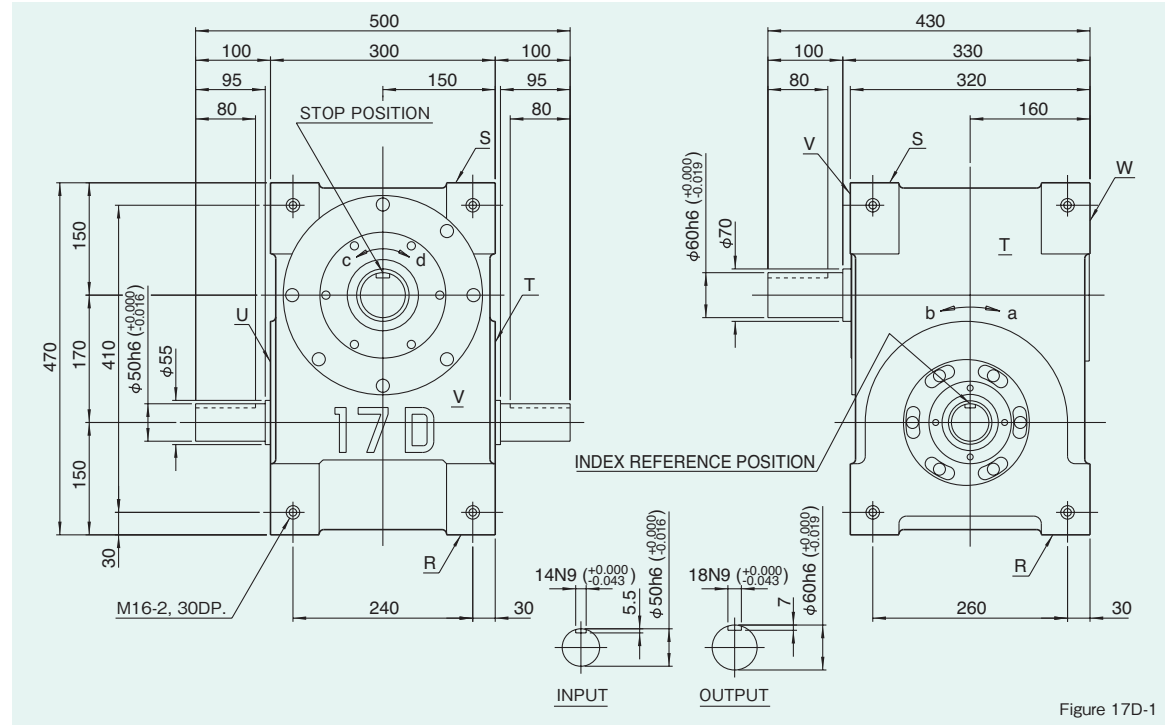
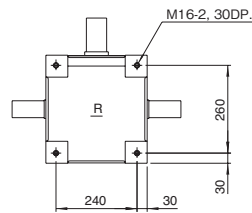


Figure 17D-1

Mounting hole locations

Figure 17D-2



Dimension of R and S surface

Locations of oil plug, etc., and oil capacity

Figure 17D-3

Mounting position	1	2	3	4	5	6
Location						
Oil capacity (ℓ)	10	9	9	9	4	7

Precautions

- Each point indicated in the mounting positions shown in Figure 17D-3 represents (starting at top) the oil plug (PT3/4), oil level (VB), and drain (PT3/4).
- The mounting positions correspond to code i for the indexing, oscillating, and rotary drives.
- The oil levels indicated in Figure 17D-3 are given in general figures and will differ according to the profile of the cam and the number of cam followers.

Specifications

Table 17D-1

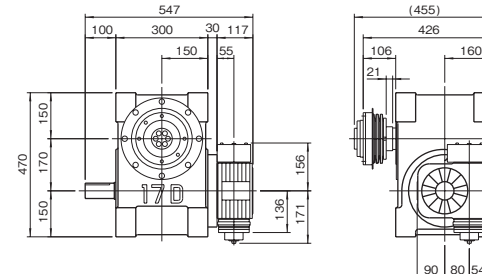
Item	Symbol	Unit	Value	Item	Symbol	Unit	Value	Item	Symbol	Unit	Value
Output allowable axial load	P ₁	N	8134	Input allowable axial load	P ₄	N	5782	Indexing accuracy (1 DWELL)		sec	±30
Output allowable radial load	P ₂	N	9604	Input maximum repetitive bending force	P ₅	N	9800	Indexing accuracy (2 DWELL)		sec	±60
Output static torque	T _s	N·m	Refer to Torque Capacity Table	Input maximum repetitive allowable torque	P ₆	N·m	1421	Indexing accuracy (3 DWELL)		sec	±90
Output torsional rigidity	K ₁	N·m/rad	4.02×10 ⁵	Input torsional rigidity	K ₂	N·m/rad	1.37×10 ⁵	Indexing accuracy (4 DWELL)		sec	±120
Output inertia	J _o	kg·m ²	6.25×10 ⁻²	Input inertia	J ₁	kg·m ²	7.25×10 ⁻²	Repetitive accuracy		sec	15
Output allowable bending moment	P ₃	N·m	392					Product weight		kg	200
								Housing color			Gray

Note : Input inertia : J is calculated in dwell.

(1N=0.102kgf)

Mounted accessories

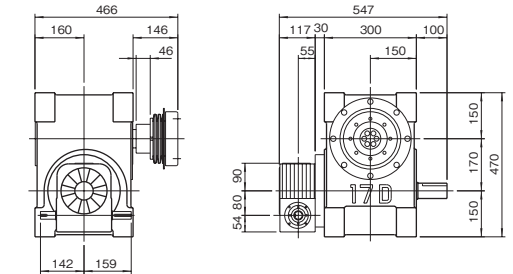
17D (a)



Example Model Code

Indexing Drive: 17D - 12272R - LR3VV 1
 Reducer: R80 - 40 RCB 3 / 1
 Torque Limiter: 11 TF - 120 B

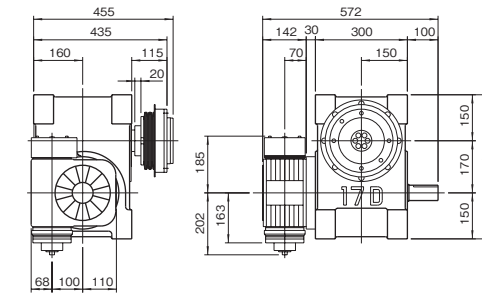
17D (b)



Example Model Code

Indexing Drive: 17D - 12272R - LR3VV 5
 Reducer: R80 - 40 RA 14 / 5
 Torque Limiter: 11 TC - 100 B

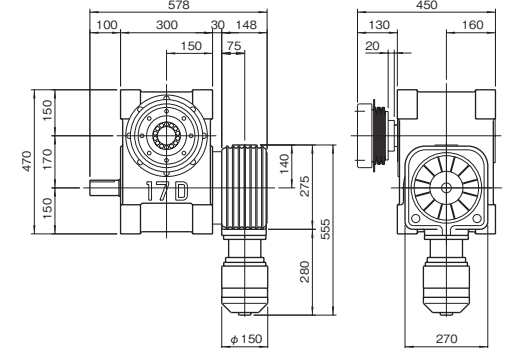
17D (c)



Example Model Code

Indexing Drive: 17D - 12272R - LR3VV 1
 Reducer: R100 - 40 RCB 15 / 1
 Torque Limiter: 14 TF - 120 B

17D (d)



Example Model Code

Indexing Drive: 17D - 12272R - LB3VV 1
 Cambalancer: B16 - 0199 - 4 / 1
 Torque Limiter: 14 TC - 130 B

Precautions

- Models 17D, 17E, and 17R can be equipped with reducers R80 and R100.
- The reducer can be mounted in 16 different positions as shown on page of Reducer.
- Models 17D, 17E, and 17R can be equipped with torque limiters 11TF, 14TF, 11TC and 14TC.
- Torque limiter TF-types require a collar for mounting.
- Torque limiter TC-types require a collar for mounting.

