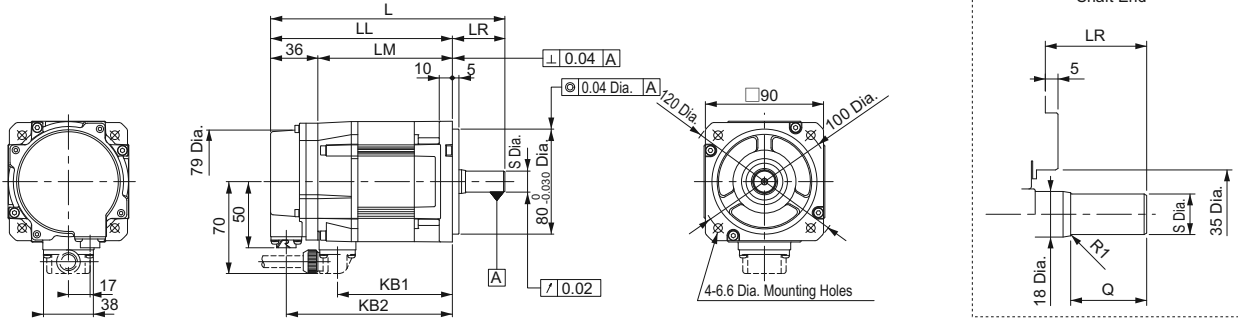


External Dimensions Units: mm

● Without Holding Brakes

(1) 300 W, 450 W

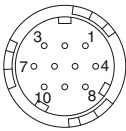


Note: For the specifications of the other shaft ends, refer to page 58.

Model SGMGV-	L	LL	LM	LR	KB1	KB2	Shaft End Dimensions		Approx. Mass kg
							S	Q	
03□□A21	163	126	90	37	75	114	14 ⁰ _{-0.011}	25	2.6
05□□A21	179	139	103	40	88	127	16 ⁰ _{-0.011}	30	3.2

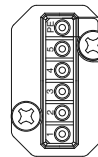
Note: Models with oil seals are of the same configuration.

· Cable Specifications for Encoder-end Connector
(20-bit Encoder)



Receptacle: CM10-R10P-D
Applicable plug (To be provided by the customer)
Plug: CM10-AP10S-□-D (Angle)
CM10-SP10S-□-D (Straight)
(Boxes (□) indicate a value that varies, depending on cable size.)
Manufacturer: DDK Ltd.

· Cable Specifications for Servomotor-end Connector



Pin	Signal
5	—
4	—
3	Phase U
2	Phase V
1	Phase W

Manufacturer: Japan Aviation Electronics Industry, Ltd.

With an Absolute Encoder

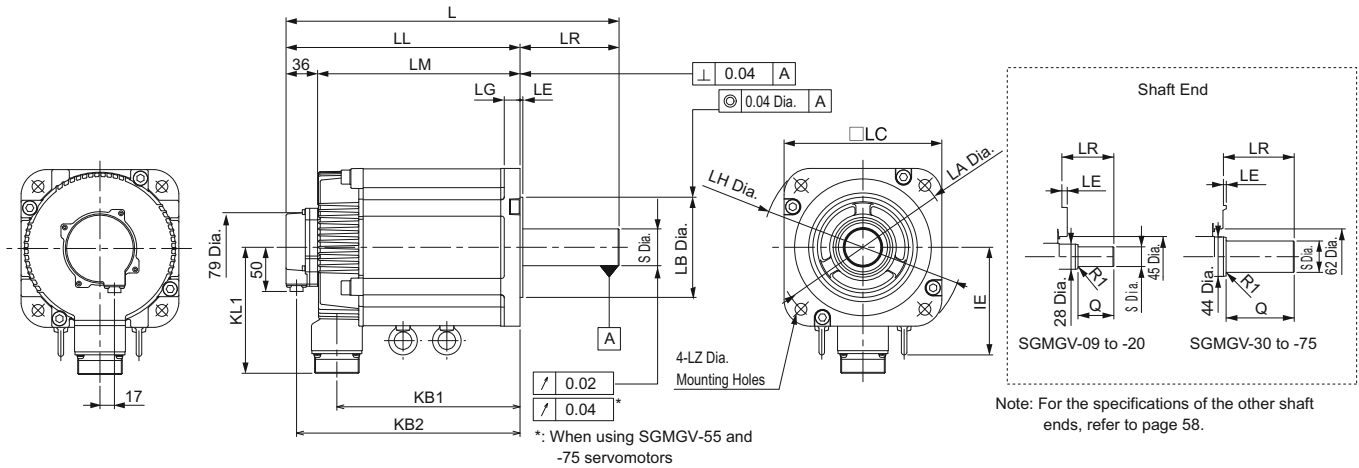
Pin	Signal	Pin	Signal
1	PS	6	BAT (+)
2	/PS	7	—
3	—	8	—
4	PG 5V	9	PG 0V
5	BAT (-)	10	FG (Frame ground)

With an Incremental Encoder

Pin	Signal	Pin	Signal
1	PS	6	—
2	/PS	7	—
3	—	8	—
4	PG 5V	9	PG 0V
5	—	10	FG (Frame ground)

External Dimensions Units: mm

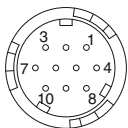
(2) 850 W to 7.5 kW



Model SGMGV-	L	LL	LM	LR	KB1	KB2	IE	KL1	Flange Face Dimensions							Shaft End Dimensions		Approx. Mass kg
									LA	LB	LC	LE	LG	LH	LZ	S	Q	
09□□A21	195	137	101	58	83	125	-	104	145	110 ⁰ _{-0.035}	130	6	12	165	9	19 ⁰ _{-0.013}	40	5.5
13□□A21	211	153	117	58	99	141	-	104	145	110 ⁰ _{-0.035}	130	6	12	165	9	22 ⁰ _{-0.013}	40	7.1
20□□A21	229	171	135	58	117	159	-	104	145	110 ⁰ _{-0.035}	130	6	12	165	9	24 ⁰ _{-0.013}	40	8.6
30□□A21	239	160	124	79	108	148	-	134	200	114.3 ⁰ _{-0.025}	180	3.2	18	230	13.5	35 ^{+0.01} ₀	76	13.5
44□□A21	263	184	148	79	132	172	-	134	200	114.3 ⁰ _{-0.025}	180	3.2	18	230	13.5	35 ^{+0.01} ₀	76	17.5
55□□A21	334	221	185	113	163	209	123	144	200	114.3 ⁰ _{-0.025}	180	3.2	18	230	13.5	42 ⁰ _{-0.016}	110	21.5
75□□A21	380	267	231	113	209	255	123	144	200	114.3 ⁰ _{-0.025}	180	3.2	18	230	13.5	42 ⁰ _{-0.016}	110	29.5

Note: Models with oil seals are of the same configuration.

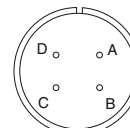
· Cable Specifications for Encoder-end Connector (20-bit Encoder)



Receptacle: CM10-R10P-D
 Applicable plug (To be provided by the customer)
 Plug: CM10-AP10S-□-D (Angle)
 CM10-SP10S-□-D (Straight)
 (Boxes (□) indicate a value that varies, depending on cable size.)

Manufacturer: DDK Ltd.

· Cable Specifications for Servomotor-end Connector



A	Phase U
B	Phase V
C	Phase W
D	FG (Frame ground)

Manufacturer: DDK Ltd.

With an Absolute Encoder

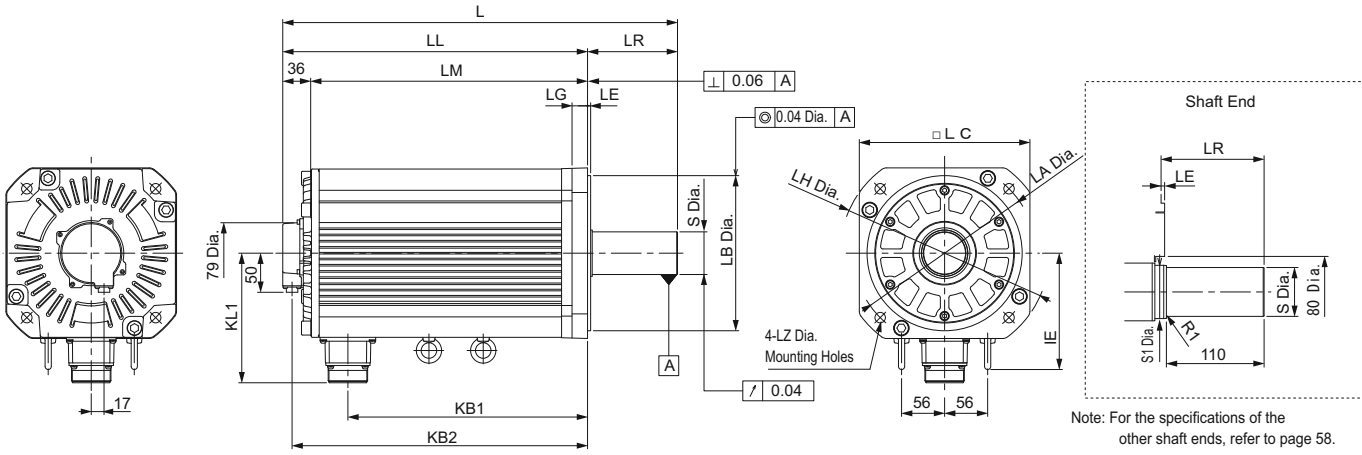
1	PS	6	BAT (+)
2	/PS	7	-
3	-	8	-
4	PG 5V	9	PG 0V
5	BAT (-)	10	FG (Frame ground)

With an Incremental Encoder

1	PS	6	-
2	/PS	7	-
3	-	8	-
4	PG 5V	9	PG 0V
5	-	10	FG (Frame ground)

External Dimensions Units: mm

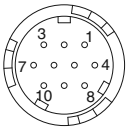
(3) 11 kW, 15 kW



Model SGMGV-	L	LL	LM	LR	KB1	KB2	IE	KL1	Flange Face Dimensions						Shaft End Dimensions		Approx. Mass kg	
									LA	LB	LC	LE	LG	LH	LZ	S		S1
1A□□A21	447	331	295	116	247	319	150	168	235	200 ⁰ _{-0.046}	220	4	20	270	13.5	42 ⁰ _{-0.016}	50	57
1E□□A21	509	393	357	116	309	381	150	168	235	200 ⁰ _{-0.046}	220	4	20	270	13.5	55 ^{+0.030} _{+0.011}	60	67

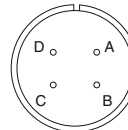
Note: Models with oil seals are of the same configuration.

· Cable Specifications for Encoder-end Connector (20-bit Encoder)



Receptacle: CM10-R10P-D
 Applicable plug (To be provided by the customer)
 Plug: CM10-AP10S-□-D (Angle)
 CM10-SP10S-□-D (Straight)
 (Boxes (□) indicate a value that varies, depending on cable size.)
 Manufacturer: DDK Ltd.

· Cable Specifications for Servomotor-end Connector



A	Phase U
B	Phase V
C	Phase W
D	FG (Frame ground)

Manufacturer: DDK Ltd.

With an Absolute Encoder

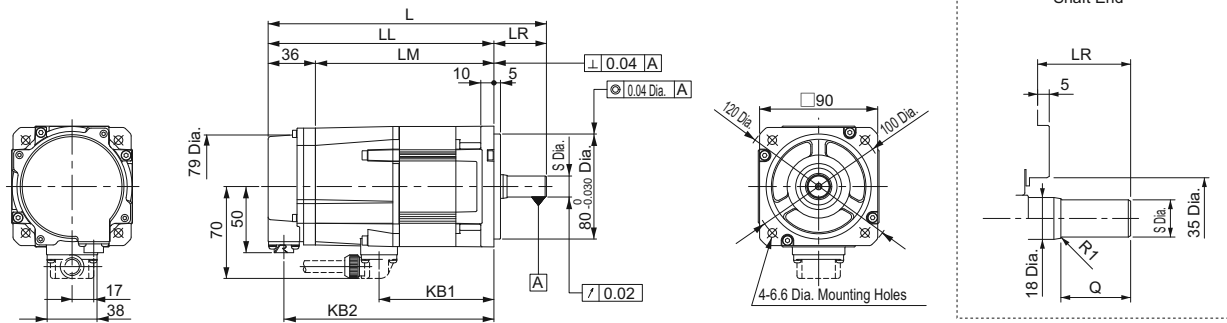
1	PS	6	BAT (+)
2	/PS	7	-
3	-	8	-
4	PG 5V	9	PG 0V
5	BAT (-)	10	FG (Frame ground)

With an Incremental Encoder

1	PS	6	-
2	/PS	7	-
3	-	8	-
4	PG 5V	9	PG 0V
5	-	10	FG (Frame ground)

External Dimensions Units: mm

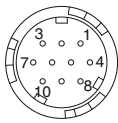
● With Holding Brakes (1) 300 W, 450 W



Model SGMGV-	L	LL	LM	LR	KB1	KB2	Shaft End Dimensions		Approx. Mass kg
							S	Q	
03 □ □ A2 □	196	159	123	37	75	147	14 _{0,011} ⁰	25	3.6
05 □ □ A2 □	212	172	136	40	88	160	16 _{0,011} ⁰	30	4.2

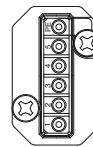
Note: Models with oil seals are of the same configuration.

· Cable Specifications for Encoder-end Connector (20-bit Encoder)



Receptacle: CM10-R10P-D
 Applicable plug (To be provided by the customer)
 Plug: CM10-AP10S-□-D (Angle)
 CM10-SP10S-□-D (Straight)
 (Boxes (□) indicate a value that varies, depending on cable size.)
 Manufacturer: DDK Ltd.

· Cable Specifications for Servomotor-end Connector



Terminal	Function
PE	FG (Frame ground)
5	Brake terminal
4	Brake terminal
3	Phase U
2	Phase V
1	Phase W

With an Absolute Encoder

1	PS	6	BAT (+)
2	/PS	7	-
3	-	8	-
4	PG 5V	9	PG 0V
5	BAT (-)	10	FG (Frame ground)

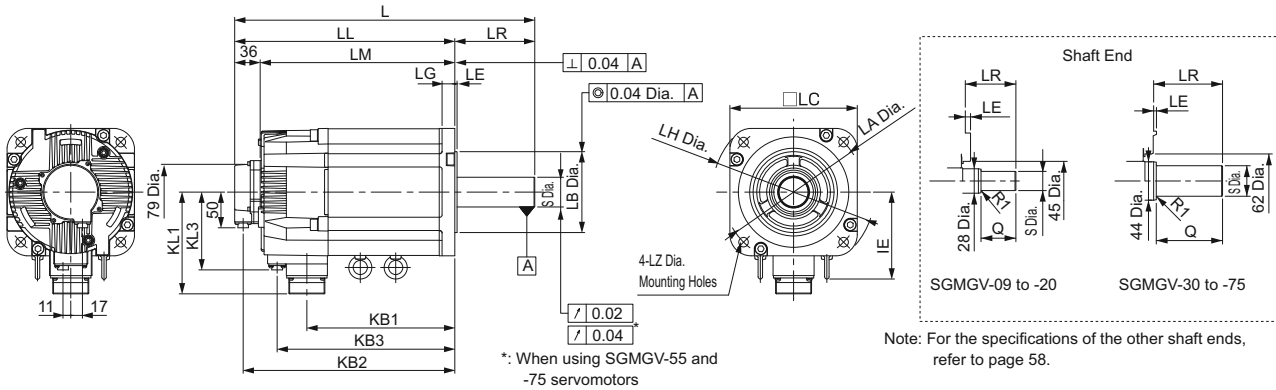
With an Incremental Encoder

1	PS	6	-
2	/PS	7	-
3	-	8	-
4	PG 5V	9	PG 0V
5	-	10	FG (Frame ground)

Manufacturer: Japan Aviation Electronics Industry, Ltd.

External Dimensions Units: mm

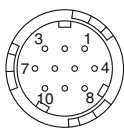
(2) 850 W to 7.5 kW



Model SGMGV-	L	LL	LM	LR	KB1	KB2	KB3	IE	KL1	KL3	Flange Face Dimensions							Shaft End Dimensions		Approx. Mass kg
											LA	LB	LC	LE	LG	LH	LZ	S	Q	
09□□A2□	231	173	137	58	83	161	115	-	104	80	145	110 ⁰ _{-0.035}	130	6	12	165	9	19 ⁰ _{-0.013}	40	7.5
13□□A2□	247	189	153	58	99	177	131	-	104	80	145	110 ⁰ _{-0.035}	130	6	12	165	9	22 ⁰ _{-0.013}	40	9.0
20□□A2□	265	207	171	58	117	195	149	-	104	80	145	110 ⁰ _{-0.035}	130	6	12	165	9	24 ⁰ _{-0.013}	40	11.0
30□□A2□	287	208	172	79	108	196	148	-	134	110	200	114.3 ⁰ _{-0.025}	180	3.2	18	230	13.5	35 ^{+0.01} ₀	76	19.5
44□□A2□	311	232	196	79	132	220	172	-	134	110	200	114.3 ⁰ _{-0.025}	180	3.2	18	230	13.5	35 ^{+0.01} ₀	76	23.5
55□□A2□	378	265	229	113	163	253	205	123	144	110	200	114.3 ⁰ _{-0.025}	180	3.2	18	230	13.5	42 ⁰ _{-0.016}	110	27.5
75□□A2□	424	311	275	113	209	299	251	123	144	110	200	114.3 ⁰ _{-0.025}	180	3.2	18	230	13.5	42 ⁰ _{-0.016}	110	35

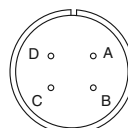
Note: Models with oil seals are of the same configuration.

· Cable Specifications for Encoder-end Connector (20-bit Encoder)



Receptacle: CM10-R10P-D
 Applicable plug (To be provided by the customer)
 Plug: CM10-AP10S-□-D (Angle)
 CM10-SP10S-□-D (Straight)
 (Boxes (□) indicate a value that varies, depending on cable size.)
 Manufacturer: DDK Ltd.

· Cable Specifications for Servomotor-end Connector



A	Phase U
B	Phase V
C	Phase W
D	FG (Frame ground)

Manufacturer: DDK Ltd.

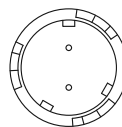
With an Absolute Encoder

1	PS	6	BAT (+)
2	/PS	7	-
3	-	8	-
4	PG 5V	9	PG 0V
5	BAT (-)	10	FG (Frame ground)

With an Incremental Encoder

1	PS	6	-
2	/PS	7	-
3	-	8	-
4	PG 5V	9	PG 0V
5	-	10	FG (Frame ground)

· Cable Specifications for Brake-end Connector



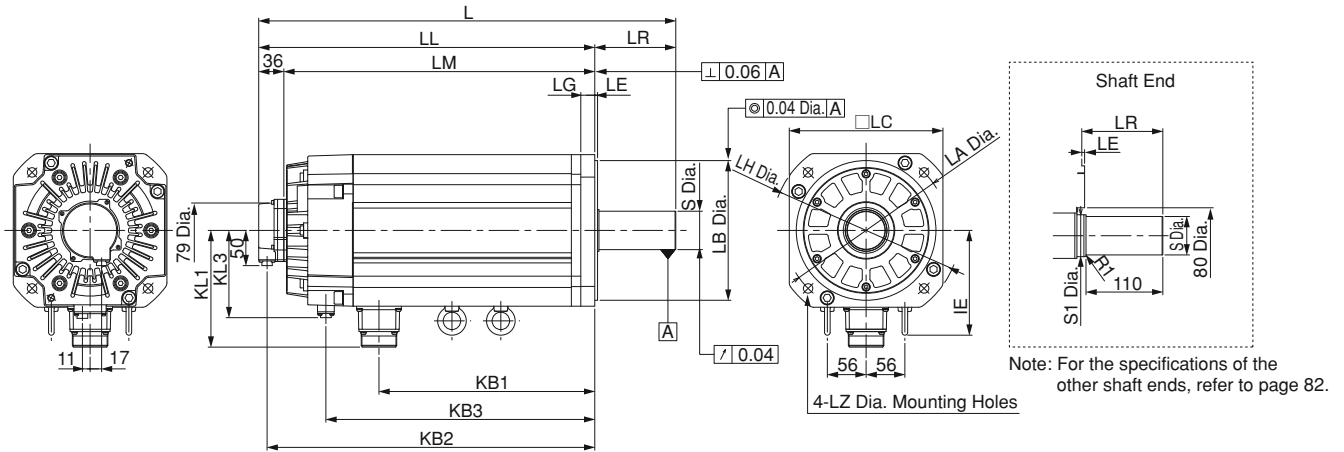
Receptacle: CM10-R2P-D
 Applicable plug (To be provided by the customer)
 Plug: CM10-AP2S-□-D (Angle)
 CM10-SP2S-□-D (Straight)
 (Boxes (□) indicate a value that varies, depending on cable size.)
 Manufacturer: DDK Ltd.

Brake terminal
Brake terminal

Note: No polarity for connection to the brake terminals

External Dimensions Units: mm

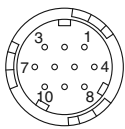
(3) 11 kW, 15 kW



Model SGMGV-	L	LL	LM	LR	KB1	KB2	KB3	IE	KL1	KL3	Flange Face Dimensions							Shaft End Dimensions		Approx. Mass kg
											LA	LB	LC	LE	LG	LH	LZ	S	S1	
1A□□A2□	498	382	346	116	247	370	315	150	168	125	235	200 ⁰ _{-0.046}	220	4	20	270	13.5	42 ⁰ _{-0.016}	50	65
1E□□A2□	598	482	446	116	309	470	385	150	168	125	235	200 ⁰ _{-0.046}	220	4	20	270	13.5	55 ^{+0.030} _{+0.011}	60	85

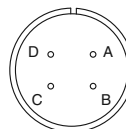
Note: Models with oil seals are of the same configuration.

· Cable Specifications for Encoder-end Connector
(20-bit Encoder)



Receptacle: CM10-R10P-D
Applicable plug (To be provided by the customer)
Plug: CM10-AP10S-□-D (Angle)
CM10-SP10S-□-D (Straight)
(Boxes (□) indicate a value that varies, depending on cable size.)
Manufacturer: DDK Ltd.

· Cable Specifications for Servomotor-end Connector



A	Phase U
B	Phase V
C	Phase W
D	FG (Frame ground)

Manufacturer: DDK Ltd.

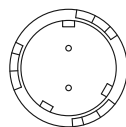
With an Absolute Encoder

1	PS	6	BAT (+)
2	/PS	7	-
3	-	8	-
4	PG 5V	9	PG 0V
5	BAT (-)	10	FG (Frame ground)

With an Incremental Encoder

1	PS	6	-
2	/PS	7	-
3	-	8	-
4	PG 5V	9	PG 0V
5	-	10	FG (Frame ground)

· Cable Specifications for Brake-end Connector



Receptacle: CM10-R2P-D
Applicable plug (To be provided by the customer)
Plug: CM10-AP2S-□-D (Angle)
CM10-SP2S-□-D (Straight)
(Boxes (□) indicate a value that varies, depending on cable size.)
Manufacturer: DDK Ltd.

Brake terminal
Brake terminal

Note: No polarity for connection to the brake terminals

External Dimensions Units: mm

● Shaft End

SGMGV -

Code	Specifications	Remarks
2	Straight without key	Standard
6	Straight with key and tap for one location (Key slot is JIS B1301-1996 fastening type)	Optional

Shaft End	Model SGMGV-									
		03	05	09	13	20	30/44	55/75	1A	1E
Code: 2 (Straight without Key)										
	LR	37	40	58	58	58	79	113	116	116
	Q	25	30	40	40	40	76	110	110	110
	S	14 ⁰ _{-0.011}	16 ⁰ _{-0.011}	19 ⁰ _{-0.013}	22 ⁰ _{-0.013}	24 ⁰ _{-0.013}	35 ^{+0.01} ₀	42 ⁰ _{-0.016}	42 ⁰ _{-0.016}	55 ^{+0.030} _{+0.011}
Code: 6 (Straight with Key and Tap)										
	LR	37	40	58	58	58	79	113	116	116
	Q	25	30	40	40	40	76	110	110	110
	QK	15	20	25	25	25	60	90	90	90
	S	14 ⁰ _{-0.011}	16 ⁰ _{-0.011}	19 ⁰ _{-0.013}	22 ⁰ _{-0.013}	24 ⁰ _{-0.013}	35 ^{+0.01} ₀	42 ⁰ _{-0.016}	42 ⁰ _{-0.016}	55 ^{+0.030} _{+0.011}
	W	5	5	5	6	8	10	12	12	16
	T	5	5	5	6	7	8	8	8	10
	U	3	3	3	3.5	4	5	5	5	6
P	M4 Screw, Depth 10	M5 Screw, Depth 12				M12 Screw, Depth 25	M16 Screw, Depth 32		M20 Screw, Depth 40	