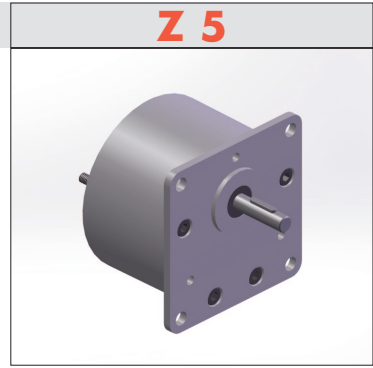


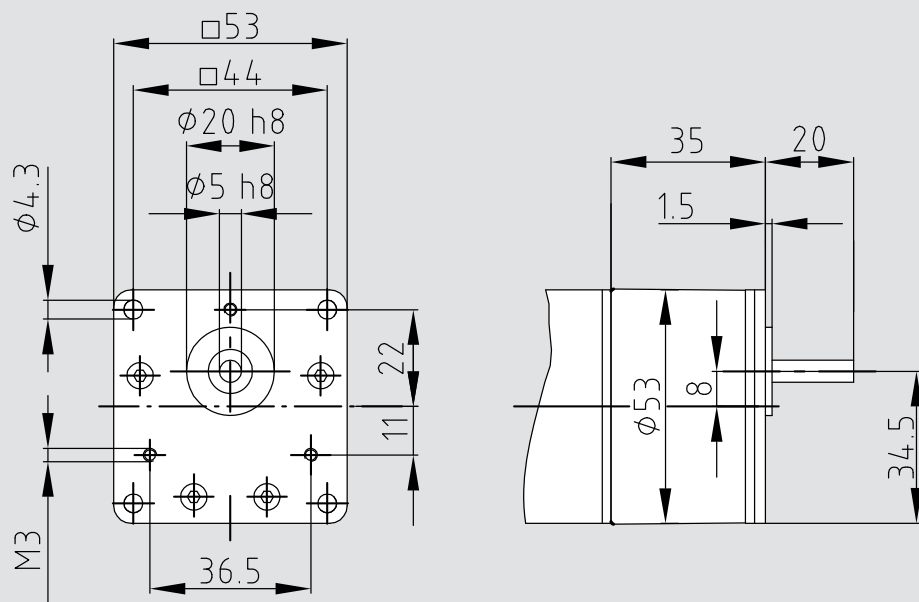
# Spur gear

- Properties:**
- General: Multi-stage, closed spur gear  
For use in combination with our motors.  
Single gear with ball-bearing ingoing shaft  
(2 bearings back-to-back)  
Lifetime grease lubrication
  - Housing: Zinc diecast, machined  
User-defined installation
  - Tooth system tech.: Individually guided gear-pinion combinations  
Ingoing stage with oblique teeth  
Ball bearing end shaft
  - Options: Planet gears



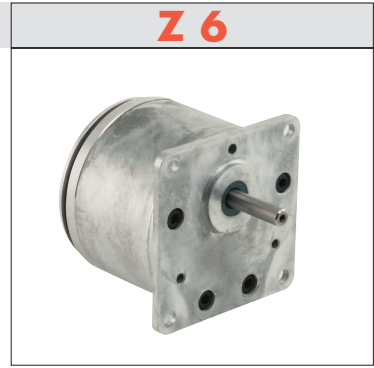
<b>Loading capacity</b>	Max. radial force	N	90									
	Max. axial force	N	5									
	Max. input speed	rpm	5000									
	Temperature range	°C	-20° – +40°									
<b>Mounting</b>	Shaft diameter	mm	5									
	Weight	kg	0.30 (2-stage) – 0.38 (4-stage) front side									
	Mounting part (standard)											
<b>Translations</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>
	4.6	2	1	0.9	43.5	3	3	0.85	128	4	3.3	0.81
	8.9	2	2	0.9	46.2	4	3.3	0.81	145	4	3.3	0.81
	13	2	2	0.9	62.2	4	3.3	0.81	158	4	3.3	0.81
	17.4	2	2	0.9	82	4	3.3	0.81	194	4	3.3	0.81
	25	3	3	0.85	96	4	3.3	0.81				
	35.5	3	3	0.85	110	4	3.3	0.81				

## Dimensions



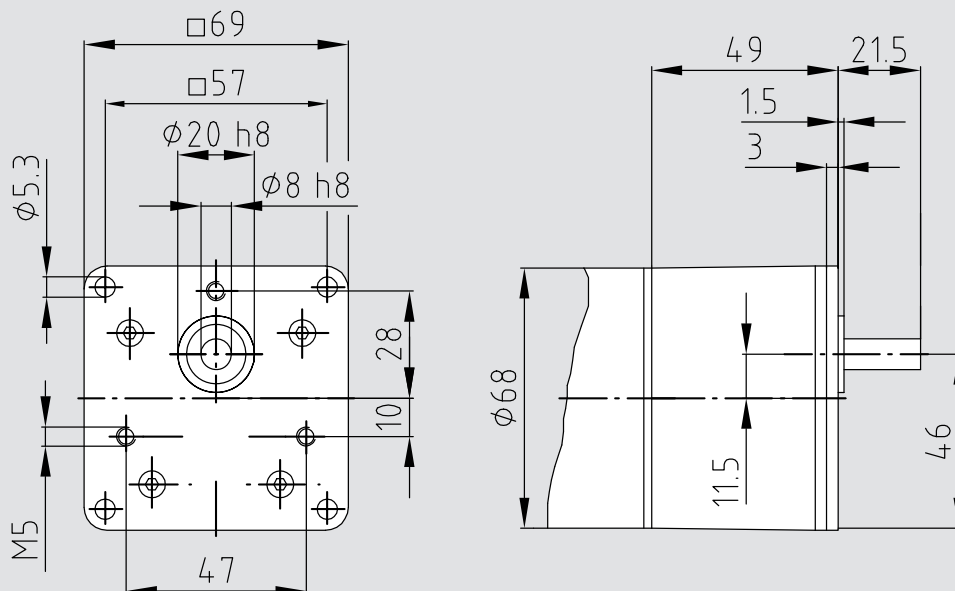
# Spur gear

<b>Properties:</b>	General:	Multi-stage, closed spur gear For use in combination with our motors. Single gear with ball-bearing ingoing shaft (2 bearings back-to-back) Lifetime grease lubrication
	Housing:	Zinc diecast, machined User-defined installation
	Tooth system tech.:	Individually guided gear-pinion combinations Ingoing stage with oblique teeth Ball bearing end shaft
	Options:	Planet gears



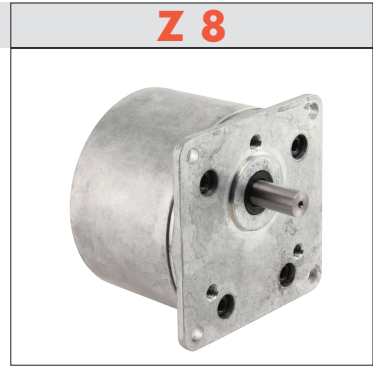
<b>Loading capacity</b>	Max. radial force	N	220									
	max. axial force	N	22									
	Max. input speed	rpm	5000									
	Temperature range	°C	-20° - +40°									
<b>Mounting</b>	Shaft diameter	mm	8									
	Weight	kg	0.30 (2-stage) 0.38 (4-stage) front side									
	Mounting part (standard)		-									
<b>Translations</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>
	4.8	2	2.5	0.9	42	3	6.5	0.85	136	4	7	0.81
	10.4	2	5.5	0.9	49	3	6.5	0.85	155	4	7	0.81
	15.4	2	5.5	0.9	64.8	4	7	0.81	181	4	7	0.81
	20.5	2	5.5	0.9	86.1	4	7	0.81	210	4	7	0.81
	24.7	3	6.5	0.85	100	4	7	0.81	279	4	7	0.81
	31.6	3	6.5	0.85	117	4	7	0.81				

## Dimensions



# Spur gear

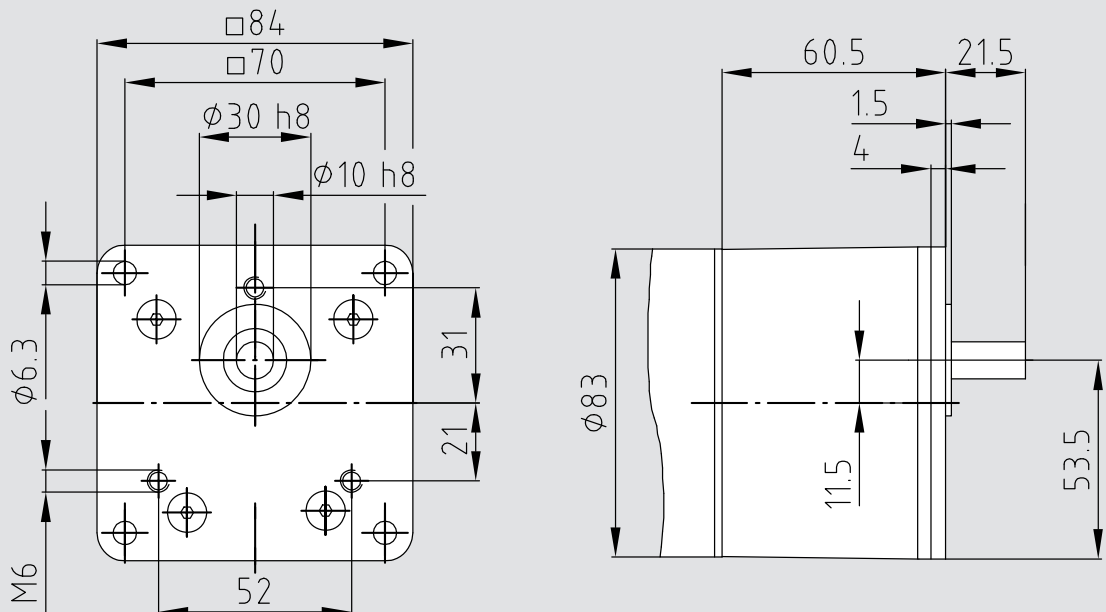
- Properties:**
- General: Multi-stage, closed spur gear  
For use in combination with our motors.  
Single gear with ball-bearing ingoing shaft  
(2 bearings back-to-back)  
Lifetime grease lubrication
  - Housing: Zinc diecast, machined  
User-defined installation
  - Tooth system tech.: Individually guided gear-pinion combinations  
Ingoing stage with oblique teeth  
Ball bearing end shaft
  - Options: Planet gears



<b>Loading capacity</b>	Max. radial force	N	400
	Max. axial force	N	40
	Max. input speed	rpm	5000
	Temperature range	°C	-20° – +40°
<b>Mounting</b>	Shaft diameter	mm	10
	Weight	kg	0.66 (2-stage) – 0.78 (4-stage)
	Mounting part (standard)		front side

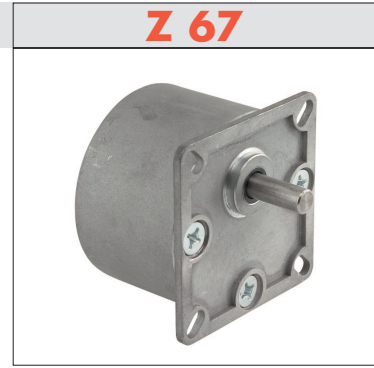
Translations	i	Stages	M (Nm)	η	i	Stages	M (Nm)	η	i	Stages	M (Nm)	η
	5.6	2	3	0.9	58.5	3	10.5	0.85	131	4	12	0.81
	13	2	7	0.9	71	3	10.5	0.85	143	4	12	0.81
	17.5	2	7	0.9	84	3	10.5	0.85	165	4	12	0.81
	25	2	7	0.9	96.5	4	12	0.81	194	4	12	0.81
	36.5	3	10.5	0.85	103	4	12	0.81	237	4	12	0.81
	43	3	10.5	0.85	111	4	12	0.81	279	4	12	0.81
	49.5	3	10.5	0.85	121	4	12	0.81				

## Dimensions



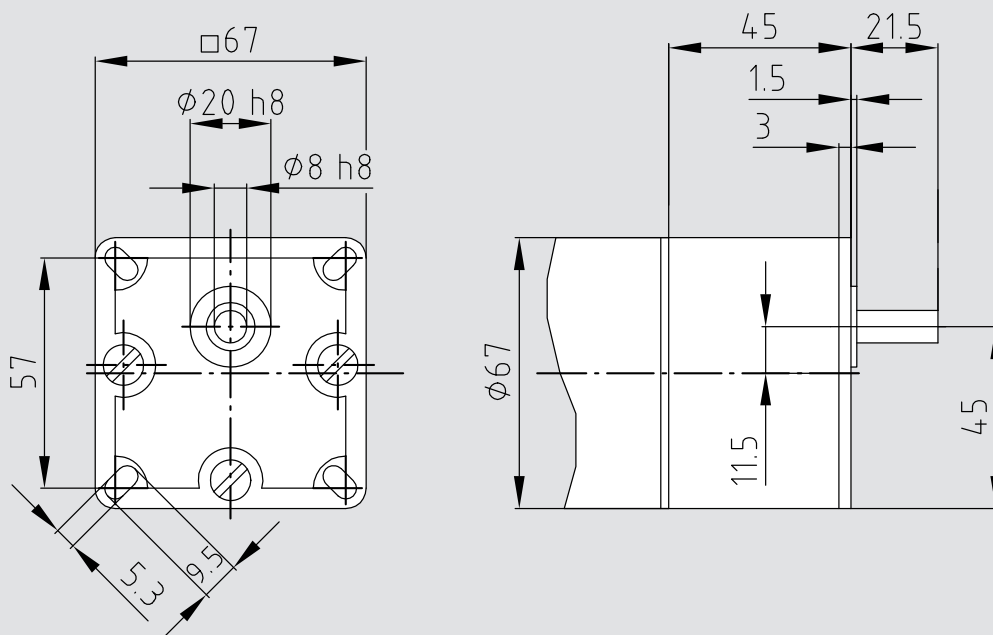
# Spur gear

<b>Properties:</b>	General:	Multi-stage, closed spur gear For use in combination with our motors. Single gear with ball-bearing ingoing shaft (2 bearings back-to-back) Lifetime grease lubrication
	Housing:	Zinc diecast, machined User-defined installation
	Tooth system tech.:	Gear-pinion combinations on a common needle bearing Ball bearing end shaft
	Options:	Planet gears



<b>Loading capacity</b>	Max. radial force	N	220									
	Max. axial force	N	22									
	Max. input speed	rpm	4500									
	Temperature range	°C	-20° – +40°									
<b>Mounting</b>	Shaft diameter	mm	8									
	Weight	kg	0,42									
	Mounting part (standard)		front side									
<b>Translations</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>
	5	2	0.35	0.82	60	4	2.8	0.66	160	6	4	0.54
	10	2	0.35	0.82	75	4	2.8	0.66	200	6	4	0.54
	12.5	2	0.35	0.82	80	5	4	0.6	250	6	4	0.54
	20	3	1.4	0.74	100	5	4	0.6	300	6	4	0.54
	25	3	1.4	0.74	125	5	4	0.6	375	6	4	0.54
	30	3	1.4	0.74	150	5	4	0.6	391	6	4	0.54
	40	4	2.8	0.66	188	5	4	0.6	469	6	4	0.54
	50	4	2.8	0.66	234	5	4	0.6	586	6	4	0.54

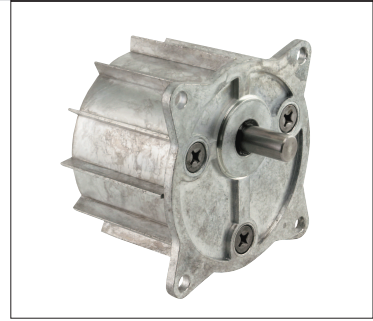
## Dimensions



# Spur gear

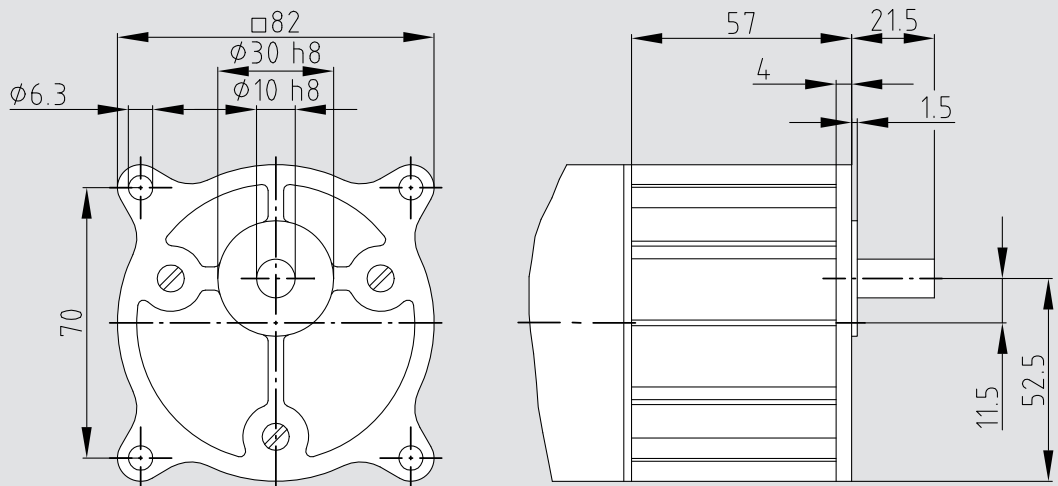
**Properties:**

General:	Multi-stage, closed spur gear For use in combination with our motors. Single gear with ball-bearing ingoing shaft (2 bearings back-to-back) Lifetime grease lubrication
Housing:	Zinc diecast, machined User-defined installation
Tooth system tech.:	Gear-pinion combinations on a common needle bearing Ball bearing end shaft
Options:	Planet gears



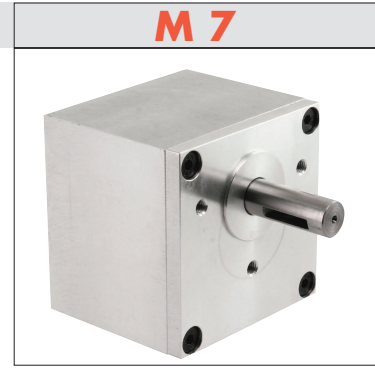
<b>Loading capacity</b>	Max. radial force	N	400									
	Max. axial force	N	40									
	Max. input speed	rpm	4500									
	Temperature range	°C	-20° – +40°									
<b>Mounting</b>	Shaft diameter	mm	10									
	Weight	kg	0.6									
	Mounting part (standard)		front side									
<b>Translations</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>	<b>i</b>	<b>Stages</b>	<b>M (Nm)</b>	<b>η</b>
	5	2	0.7	0.82	60	4	5.6	0.66	160	6	6	0.54
	10	2	0.7	0.82	75	4	5.6	0.66	200	6	6	0.54
	15	2	0.7	0.82	100	5	6	0.6	240	6	6	0.54
	20	3	2.8	0.74	125	5	6	0.6	300	6	6	0.54
	25	3	2.8	0.74	156	5	6	0.6	360	6	6	0.54
	30	3	2.8	0.74	188	5	6	0.6	540	6	6	0.54
	40	4	5.6	0.66	225	5	6	0.6	675	6	6	0.54
	50	4	5.6	0.66	270	5	6	0.6	810	6	6	0.54

## Dimensions



# Spur gear

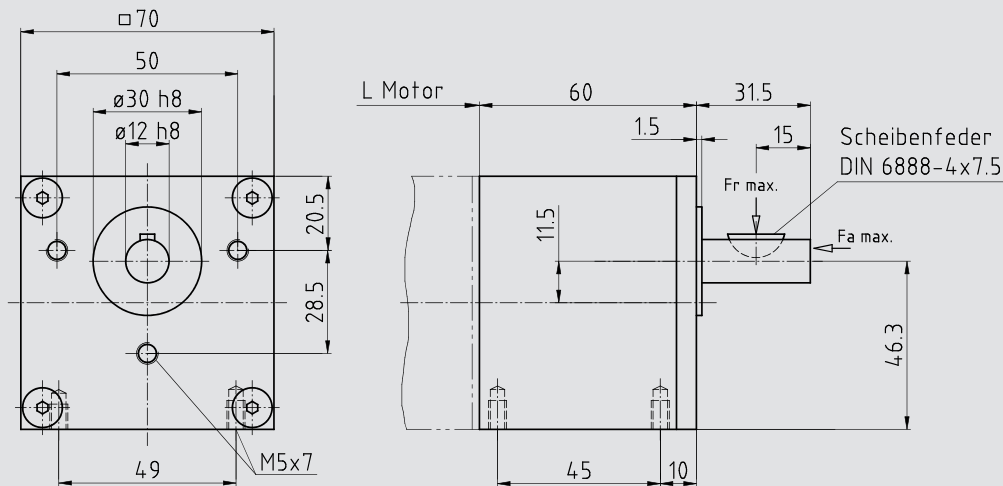
<b>Properties:</b>	General:	Multi-stage, closed spur gear For use in combination with our motors. Single gear with ball-bearing ingoing shaft (2 bearings back-to-back) Lifetime grease lubrication
	Housing:	Machined from massive aluminum User-defined installation Mounting possibility from all accessible sides
	Tooth system tech.:	Individually guided gear-pinion combinations Ingoing stage with oblique teeth Ball bearing end shaft
	Options:	Planet gears



<b>Loading capacity</b>	Max. radial force	N	300
	Max. axial force	N	40
	Max. input speed	rpm	5000
	Temperature range	°C	-20° - +40°
<b>Mounting</b>	Shaft diameter	mm	12
	Weight	kg	0.66 (2-stage) - 0.78 (4-stage) front side
	Mounting part (standard)		

Translations	i	Stages	M (Nm)	η	i	Stages	M (Nm)	η	i	Stages	M (Nm)	η
	4.8	2	2.5	0.9	42	3	6.5	0.85	136	4	7	0.81
	10.4	2	5.5	0.9	49	3	6.5	0.85	155	4	7	0.81
	15.4	2	5.5	0.9	64.8	4	7	0.81	181	4	7	0.81
	20.5	2	5.5	0.9	86.1	4	7	0.81	210	4	7	0.81
	24.7	3	6.5	0.85	100	4	7	0.81	279	4	7	0.81
	31.6	3	6.5	0.85	117	4	7	0.81				

## Dimensions



# Spur gear

**Properties:**

General:	Multi-stage, closed spur gear For use in combination with our motors. Single gear with ball-bearing ingoing shaft (2 bearings back-to-back) Lifetime grease lubrication
Housing:	Machined from massive aluminum User-defined installation Mounting possibility from all accessible sides
Tooth system tech.:	Individually guided gear-pinion combinations Ingoing stage with oblique teeth Ball bearing end shaft
Options:	Planet gears



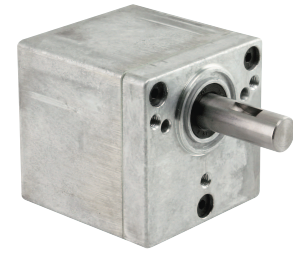
<b>Loading capacity</b>	Max. radial force	N	400
	Max. axial force	N	40
	Max. input speed	rpm	5000
	Temperature range	°C	-20° – +40°
<b>Mounting</b>	Shaft diameter	mm	14
	Weight	kg	2.12 (2-stage) – 2.6 (4-stage) front side
	Mounting part (standard)		

Translations	i	Stages	M (Nm)	η	i	Stages	M (Nm)	η	i	Stages	M (Nm)	η
	5	2	10	0.9	30	3	30	0.85	145	4	30	0.81
	11	2	23	0.9	42	3	30	0.85	177	4	30	0.81
	17.9	2	23	0.9	51	3	30	0.85	215	4	30	0.81
	21.6	2	23	0.9	98.6	4	30	0.81	260	4	30	0.81
	26	3	30	0.85	120	4	30	0.81				

**Dimensions**

## Spur gear

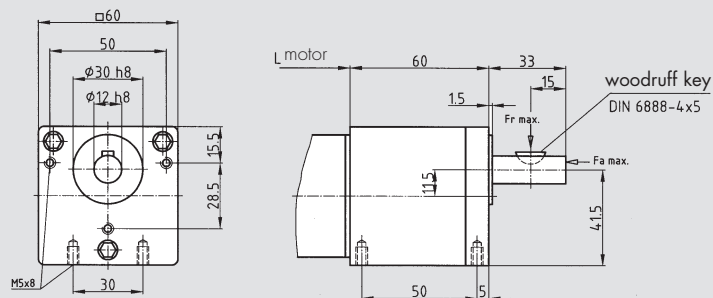
<b>Properties:</b>	General:	Multi-stage, closed spur gear For use in combination with our motors. Single gear with ball-bearing ingoing shaft (2 bearings back-to-back) Lifetime grease lubrication
	Housing:	Zinc-diecast system housing User-defined installation Mounting possibility from all accessible sides
	Tooth system tech.:	Gear-pinion combinations on a common needle bearing Ball bearing end shaft
	Options:	Planet gears



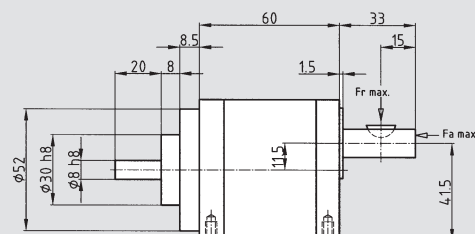
<b>Loading capacity</b>	Max. radial force	N	300
	Max. axial force	N	40
	Max. input speed	rpm	4500
	Temperature range	°C	-20° - +40°
<b>Mounting</b>	Shaft diameter	mm	12
	Weight	kg	0.5
	Mounting part (standard)		front side

Translations	i Stages M (Nm) η				i Stages M (Nm) η				i Stages M (Nm) η			
	5	2	0.35	0.82	100	5	4	0.6	469	6	4	0.54
10	2	0.35	0.82	125	5	4	0.6	586	6	4	0.54	
12,5	2	0.35	0.82	150	5	4	0.6	750	7	4	0.48	
20	3	1.4	0.74	188	5	4	0.6	937	7	4	0.48	
25	3	1.4	0.74	234	5	4	0.6	1172	7	4	0.48	
30	3	1.4	0.74	160	6	4	0.54	1200	8	4	0.44	
40	4	2.8	0.66	200	6	4	0.54	1500	8	4	0.44	
50	4	2.8	0.66	250	6	4	0.54	1875	8	4	0.44	
60	4	2.8	0.66	300	6	4	0.54	2344	8	4	0.44	
75	4	2.8	0.66	375	6	4	0.54	2441	8	4	0.44	
80	5	4	0.6	391	6	4	0.54	2930	8	4	0.44	

### Dimensions

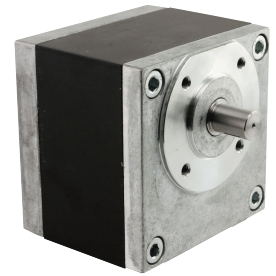


Above:  
Add-on gear  
Below:  
Solo gear





# Spur gear

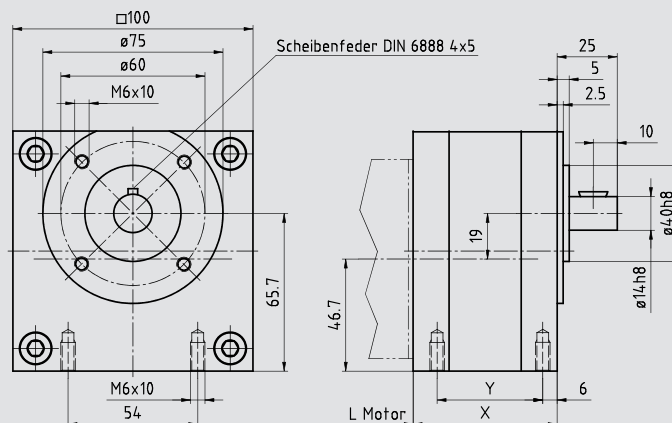


<b>Properties:</b>	General:	Multi-stage, closed spur gear For use in combination with our motors. Single gear with ball-bearing ingoing shaft (2 bearings back-to-back) Lifetime grease lubrication	
	Housing:	Zinc diecast plates, aluminum square shaft User-defined installation Mounting possibility from all accessible sides	
	Tooth system tech.:	Gear-pinion combinations on a common needle bearing Ball bearing end shaft	
	Options:	Planet gears	

<b>Loading capacity</b>	Max. radial force	N	400
	Max. axial force	N	50
	Max. input speed	rpm	4500
	Temperature range	°C	-20° - +40°
<b>Mounting</b>	Shaft diameter	mm	14
	Weight	kg	1.4 (2-stage) - 2.1 (6-stage) front side
	Mounting part (standard)		

Translations	i	Stages	M (Nm)	η	i	Stages	M (Nm)	η	i	Stages	M (Nm)	η
	4	1	2.5	0.91	38.9	3	10	0.74	292	5	15	0.6
	8.4	2	6.5	0.82	52.5	3	10	0.74	349	5	15	0.6
	10.8	2	6.5	0.82	75.6	4	15	0.66	473	5	15	0.6
	13	2	6.5	0.82	97.3	4	15	0.66	680	6	15	0.54
	17.5	2	6.5	0.82	167	4	15	0.66	875	6	15	0.54
	25.2	3	10	0.74	158	4	15	0.66	1049	6	15	0.54
	32.4	3	10	0.74	227	5	15	0.6	1418	6	15	0.54

## Dimensions



	1-stufig	2-stufig	3-stufig	4-stufig	5-stufig	6-stufig
Y	44	44	44	64	64	64
X	60	60	60	80	80	80

