

Technical Data sheet for Part-turn Worm Gearboxes

TECHNICAL DATA FOR PART-TURN WORM GEARBOXES (FLANGE MOUNTED) AND PRIMARY REDUCTION GEARS

GS 40.2 – GS 125.2/VZ 4

Application

Manual operation and motor operation of valves (e.g. butterfly valves, ball valves, louver valves)
For special applications, please consult AUMA.

Worm gearboxes GS 40.2 – GS 125.2 with primary reduction gearing VZ 4

Valve			Gearboxes									
Max. Permissible valve torque in Nm up to	Valve attachment		Gearbox size	Suitable primary reduction gearing			Factor ¹⁾	Turns for 90°	Input shaft Ø mm	Max. input torques in Nm	Weight ²⁾ GS+VZ kg	
	Flange acc. to EN ISO 5211	Max. shaft diameter in mm		Type	GS	VZ						GS+VZ
420	F07 ³⁾ F10	25	GS 40.2	-	21:1	-	21:1	9	5.25	20	47	3.5
1000	F10 ³⁾ F12	36	GS 63.2	-	39:1	-	39:1	16.7	9.75	20	60	9
2000	F12 ³⁾ F14	48	GS 80.2	-	40:1	-	40:1	17.3	10	20	116	13.5
4000	F14 ³⁾ F16	60	GS 100.2	-	40:1	-	40:1	17.3	10	30	232	30
				VZ 4	40:1	3.92:1	157:1	58.5	39	20	68	34
8000	F16 ³⁾ F25	80	GS 125.2	-	52:1	-	52:1	22.5	13	30	356	43
				VZ 4	52:1	3.92:1	204:1	75.5	51	20	106	47

Gearbox size	Primary reduction gearing Type	Possible combinations with multi -turn actuators												Multi -turn actuator Actuator for max. input torque	Flange mounting of actuator		Max. weight ⁴⁾ GS+VZ+SA max. kg
		Operating times for 50 Hz ⁵⁾ in seconds for 90° at actuator speed in rpm													EN ISO 5210	DIN 3210	
		4	5.6	8	11	16	22	32	45	63	90	125	180				
GS 40.2	-			40	28	20	14	-	-	-	-	-	-	SA6	F10	G0	37
GS 63.2	-	146	104	73	53	36	27	18	13	-	-	-	-	SA6	F10	G0	42
GS 80.2	-	150	107	75	55	38	27	19	14	-	-	-	-	SA12	F10	G0	47
GS 100.2	-	150	107	75	55	38	27	19	14	-	-	-	-	SA25	F14	G½	102
	VZ 4	589	420	296	216	148	108	74	54	37	27	19	13	SA12	F10	G0	67
GS 125.2	-	195	139	98	70	49	35	24	17	12	-	-	-	SA50	F14	G½	143
	VZ 4	765	546	384	274	192	137	99	69	48	35	24	17 ⁶⁾	SA12	F10	G0	80

- 1) Conversion factor from output torque to input torque to determine the actuator size. This can be used to select the actuator for torque other than the max. permissible valve torque.
- 2) With coupling (with pilot bore), grease filling in the gear housing and without handwheel
- 3) Observe maximum torque for valve mounting flanges according to EN ISO 5211
- 4) With coupling (with pilot bore) and grease filling in the gear housing, multi-turn actuator AUMA NORM with 3-phase AC motor, standard electrical connection, output drive E type and handwheel
- 5) Standard values at 50Hz, at 60 Hz the speeds increase by 20% and the operating times are reduced to 83% of the indicated values
- 6) Observe max. output torque of the multi-turn actuator.

We reserve the right to alter data according to improvements made. Previous documents become invalid with the issue of this document.

Technical Data sheet for Part-turn Worm Gearboxes

GS 40.2 – GS 125.2/VZ 4	TECHNICAL DATA FOR PART-TURN WORM GEARBOXES (FLANGE MOUNTED) AND PRIMARY REDUCTION GEARS																								
Features and functions																									
Version	Standard: clockwise rotation LR, counterclockwise rotation RL, option: R or L																								
Self-locking	The gearboxes are self-locking when at standstill under normal service conditions; strong vibration may cancel the self-locking effect. While in motion, safe breaking is not guaranteed. If this is required, a separate brake must be used.																								
End stops	Positive for both end positions by traveling nut, sensitive adjustment																								
GS - Swing angle	Fixed swing angle up to max. 120°; set in the factory to 92° unless ordered otherwise																								
Mechanical position indicator	Standard : Pointer cover for continuous position indication Option : Protection cover for buried service instead of pointer cover.																								
Input shaft	Cylindrical with parallel key according to IS 2048. (refer to tables page 8)																								
Operation																									
Motor operation	With electric multi-turn actuator, directly or through primary reduction gearing VZ Flanges for mounting of multi-turn actuator (refer to tables page 1).																								
Type of duty	Short-time duty S2-15 min. (open–close duty)																								
Manual operation	Via handwheel, directly or through primary reduction gearing VZ Available handwheel diameters, selection according to the max. output torque:																								
	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Type</th> <th>GS40.2</th> <th>GS63.2</th> <th>GS80.2</th> <th colspan="2">GS100.2</th> <th colspan="2">GS125.2</th> </tr> </thead> <tbody> <tr> <td>Primary red. gearing</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>VZ 4</td> <td>-</td> <td>VZ 4</td> </tr> <tr> <td>Handwheel Ø mm</td> <td>250/300</td> <td>250/300</td> <td>300/400</td> <td>300/400</td> <td>250/300</td> <td>400/500</td> <td>300/400</td> </tr> </tbody> </table>	Type	GS40.2	GS63.2	GS80.2	GS100.2		GS125.2		Primary red. gearing	-	-	-	-	VZ 4	-	VZ 4	Handwheel Ø mm	250/300	250/300	300/400	300/400	250/300	400/500	300/400
Type	GS40.2	GS63.2	GS80.2	GS100.2		GS125.2																			
Primary red. gearing	-	-	-	-	VZ 4	-	VZ 4																		
Handwheel Ø mm	250/300	250/300	300/400	300/400	250/300	400/500	300/400																		
Primary reduction gearing																									
Primary reduction gearing	- Planetary VZ reduction ratio for reducing the input torques (refer to tables page 8).																								
Valve attachment																									
Valve attachment	Dimensions according to EN ISO 5211 (refer to table page 8) Standard: GS 40.2 – GS 125.2: with spigot Option: GS 40.2 – GS 125.2: without spigot																								
Splined coupling for connection to the valve shaft	Standard: With pilot bore Worm gearbox can be repositioned 4 x 90° on coupling Option: Machined with bore and keyway or square bore																								
Service conditions																									
Mounting position	Any position																								
Enclosure protection according to IS/IEC 60529	Standard: IP 67, Totally enclosed protection against short time immersion in water Option: IP 68, Enclosure can be provided on request																								
Corrosion protection	Standard: Suitable for installation in industrial units, in water or power plants with a low pollutant concentration																								
Paint	Standard: Epoxy primer + Epoxy finish paint Option: Other paints on request																								
Colour	Standard: Smoke grey Code 692 as per IS: 5 Option: Other colours on request																								
Ambient temperature	Standard: –20 °C to +80 °C Option: Others temperature requirements on request.																								
Notes																									
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