

Technical data Multi-turn gearboxes

Valve			Gearbox					
Max. valve torque	Valve attachment		Gearbox	Reduction ratio	Factor ²⁾	Max. input torques	Input shaft	Weight
to [Nm]	Flange according to EN ISO 5210	Shaft diameter ¹⁾ [mm]						
100	F10	20	VZ 2.3	2.4:1	2.3	44	20	6.0
400	F14	30		2.4:1	2.3	174	30	6.0
100	F10	20	VZ 3.3	3:1	2.9	35	20	6.0
400	F14	30		3:1	2.9	138	30/(20)	6.0
100	F10	20	VZ 4.3	4:1	3.7	27	20	6.0
400	F14	30		4:1	3.7	108	20	6.0
700	F16	40	GZ 160.3	4:1	3.6	195	30	19.5
700	F16	40		8:1	7.4	95	20	19.5
1,200	F25	50	GZ 200.3	4:1	3.6	333	30	55
1,200	F25	50		8:1	7.4	162	30	55
1,200	F25	50	GZ 250.3	16:1	13.2	91	20	65
2,500	F30	60		4:1	3.6	694	40	63.5
2,500	F30	60		8:1	7.4	338	30	63.5
2,500	F30	60		16:1	13.2	189	30	75.5

Possible combinations with multi-turn actuators				
Gearbox	Reduction ratio	Suitable AUMA multi-turn actuator ³⁾	Input mounting flange for mounting multi-turn actuator	
			EN ISO 5210	DIN 3210
VZ 2.3	2.4:1	SA 07.6	F10	G0
	2.4:1	SA 14.2	F14	G1/2
VZ 3.3	3:1	SA 07.6	F10	G0
	3:1	SA 14.2	F14	G1/2
VZ 4.3	4:1	SA 07.2	F10	G0
	4:1	SA 10.2	F10	G0
GZ 160.3	4:1	SA 14.2	F14	G1/2
	8:1	SA 10.2	F10	G0
GZ 200.3	4:1	SA 14.6	F14	G1/2
	8:1	SA 14.2	F14	G1/2
	16:1	SA 10.2	F10	G0
GZ 250.3	4:1	SA 16.2	F16	G3
	8:1	SA 14.6	F14	G1/2
	16:1	SA 14.2	F14	G1/2

General information

For motor or manual operation of valves (e.g. gate valves and globe valves).

Notes on table

1) Shaft diameter	Bore with keyway according to DIN 6885-1
2) Faktor	Conversion factor from output torque to input torque for actuator size definition
3) Multi-turn actuator flange	Standard flange according to EN ISO 5210

Features and functions

Type of duty	Short-time duty S2 - 15 min (open-close duty)
Direction of rotation	Clockwise rotation at input shaft results in clockwise rotation at output drive
Input shaft	Input shaft with metallic surface protection, cylindrical with parallel key according to DIN 6885-1

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Operation										
Motor operation	<ul style="list-style-type: none"> • Directly via electric multi-turn actuator • Input mounting flanges for multi-turn actuator (refer to table page 1) 									
Manual operation	Available handwheel diameters according to EN 12570, selection according to output torque:									
	Type	VZ 2.3		VZ 3.3		VZ 4.3				
	Reduction ratio	2.4:1		3:1		4:1				
	Input shaft	20	30	20	30/(20)	20				
	Handrad Ø [mm]	200	400	160	400	160	315			
	Type	GZ 160.3		GZ 200.3			GZ 250.3			
	Reduction ratio	4:1	8:1	4:1	8:1	16:1	4:1	8:1	16:1	
	Input shaft	30	20	30	30	20	40	30	30	
	Handwheel Ø [mm]	400	250	800	400	250	–	800	400	
Standard:	<ul style="list-style-type: none"> • Handwheel made of aluminium • Handwheel with ball handle 									
Options:	<ul style="list-style-type: none"> • Handwheel made of GJL-200 • Handwheel lockable • WSH for signalling position and end positions 									

Valve attachment	
Valve attachment	B3 according to EN ISO 5210

Service conditions	
Mounting position	Any position
Ambient temperature	Standard: –40 °C to +80 °C
	Options: –60 °C to +60 °C 0 °C to +120 °C
Enclosure protection according to EN 60529	Standard: IP68-8, dust and water tight up to max. 8 m head of water
	Option: IP68-20, dust and water tight up to max. 20 m head of water
Corrosion protection	Standard: KN Suitable for installation in industrial units, in water or power plants with a low pollutant concentration
	Options: KS Suitable for installation in industrial units, in water or power plants with a low pollutant concentration as well as for installation in occasionally or permanently aggressive atmospheres with a moderate pollutant concentration (e.g. wastewater treatments plants, chemical industry)
	KX Suitable for installation in extremely aggressive atmospheres with high humidity and high pollutant concentration
Paint	Two-component iron-mica combination
Colour	Standard: AUMA silver-grey (similar to RAL 7037)
	Option: Other colours are possible on request.
Lifetime	AUMA multi-turn gearboxes meet or exceed the lifetime requirements of EN 15714-2. Detailed information can be provided on request.
Housing	Cast iron

Further information	
EU Directives	Machinery Directive: (2006/42/EC)
Reference documents	Dimensions VZ 2.3 – VZ 4.3, GZ 160.3 – GZ 250.3 Technical data SA 07.2 – SA 16.2 with 3-phase AC motors Technical data WSH 10.2 – WSH 16.2