

## Technical data Multi-turn gearboxes

## General information

Coaxial planetary gearing for motor or manual operation of valves (e.g. gate valves and globe valves).

Valve			Gearboxes					
Max. valve torque	Valve attachment		Gearboxes	Reduction ratio	Factor <sup>1)</sup>	Max. input torques	Input shaft	Weight
up to [Nm]	Flange according to EN ISO 5210	Shaft diameter <sup>2)</sup> [mm]				[Nm]	[mm]	[kg]
100	F10	20	GP 10.1	2.4 : 1	2.2	46	20	6.0
				3 : 1	2.7	37	20	6.0
				4 : 1	3.6	28	20	6.0
400	F14	30	GP 14.1	2.4 : 1	2.2	185	30	6.0
				3 : 1	2.7	148	20/30	6.0
				4 : 1	3.6	111	20	6.0
700	F16	40	GP 16.1	4 : 1	3.6	194	30	19.5
				8 : 1	7.2	97	20	19.5
1,200	F25	50	GP 25.1	4 : 1	3.6	333	30	55
				8 : 1	7.2	167	30	55
				16 : 1	14.4	83	20	65
2,500	F30	60	GP 30.1	4 : 1	3.6	694	40	63.5
				8 : 1	7.2	347	30	63.5
				16 : 1	14.4	174	30	75.5

1) Conversion factor from output torque to input torque to determine the actuator size

2) Bore with keyway according to DIN 6885-1.

Possible combinations with multi-turn actuators				
Gearboxes	Reduction ratio	Suitable AUMA multi-turn actuator <sup>1)</sup>	Input mounting flange for mounting multi-turn actuator	
			EN ISO 5210	DIN 3210
GP 10.1	2.4 : 1	SA 07.6	F10	G0
	3 : 1	SA 07.6	F10	G0
	4 : 1	SA 07.2	F10	G0
GP 14.1	2.4 : 1	SA 14.2	F14	G1/2
	3 : 1	SA 14.2	F14	G1/2
	4 : 1	SA 10.2	F10	G0
GP 16.1	4 : 1	SA 14.2	F14	G1/2
	8 : 1	SA 10.2	F10	G0
GP 25.1	4 : 1	SA 14.6	F14	G1/2
	8 : 1	SA 14.2	F14	G1/2
	16 : 1	SA 10.2	F10	G0
GP 30.1	4 : 1	SA 16.2	F16	G3
	8 : 1	SA 14.6	F14	G1/2
	16 : 1	SA 14.6	F14	G1/2

1) Standard flange according to EN ISO 5210

## Features and functions

Type of duty	<ul style="list-style-type: none"> <li>Short-time duty S2 - 15 min (open-close duty)</li> <li>Intermittent duty S4 - 25 % (modulating duty)</li> </ul>
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
Motor operation	<ul style="list-style-type: none"> <li>Directly via electric multi-turn actuator</li> <li>Input mounting flanges for mounting multi-turn actuators</li> </ul>

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Features and functions									
Manual operation	Available handwheel diameters according to EN 12570, selection according to output torque:								
	Type	GP 10.1			GP 14.1			GP 16.1	
	Reduction ratio	2.4:1	3:1	4:1	2.4:1	3:1	4:1	4:1	8:1
	Input shaft	20			30	20/30	20	30	20
	Handwheel Ø [mm]	250			500	315	250	500	250
		315			630	400	315	630	315
		400			800	500	400	800	
	Type	GP 25.1			GP 30.1				
	Reduction ratio	4:1	8:1	16:1	4:1	8:1	16:1		
	Input shaft	30	30	20	30	20/30	20		
	Handwheel Ø [mm]	630	500	250	500	315	250		
		800	630	315	630	400	315		
			800	400	800	500	400		
Standard:	<ul style="list-style-type: none"><li>Handwheel made of aluminium</li><li>Handwheel with ball handle</li></ul>								
Option:	<ul style="list-style-type: none"><li>Handwheel made of GJL-200</li><li>Handwheel lockable</li></ul>								
Valve attachment	B3 according to EN ISO 5210 (bore with parallel keyway)								

Service conditions	
Mounting position	Any position
Ambient temperature	Standard: –60 °C to +80 °C
	Options: 0 °C to +140 °C (up to +150 °C for a short time with reduced lifetime)
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-tight 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 use in areas with high salinity, almost permanent condensation, and high pollution. KX: Suitable for use in areas with extremely high salinity, permanent condensation, and high pollution.
Paint	Two-component iron-mica combination
Colour	Standard: AUMA silver-grey (similar to RAL 7037)
	Option: Available colours on request
Lifetime	AUMA multi-turn gearboxes meet or even exceed the lifetime requirements of EN 15714-2. Detailed information can be provided on request.
Housing	Cast iron

Special features for use in potentially explosive atmospheres in accordance with ATEX 2014/34/EU	
Explosion protection in accordance with ATEX 2014/34/EU	Standard: II 2G Ex h IIC T4 Gb
Applied standards	EN ISO 80079-36:2016-12 EN ISO 80079-37:2016-12
Type of duty	Standard: Restricted to manual operation, no motor operation permissible.
Ambient temperature	Standard: –30 °C to +70 °C
Lifetime	GP 10.1 – GP 16.1: 500 cycles GP 25.1 – GP 30.1: 250 cycles according to EN ISO 22109: 2020

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**Further information**

EU Directives	ATEX Directive: (2014/34/EU)
	Machinery Directive: (2006/42/EC)
Reference documents	Dimensions GP 10.1 – GP 30.1
	Technical data SA 07.2 – SA 16.2 with 3-phase AC motors