

Technical data Fail safe unit

Type	Fail safe operation in s/90° ¹⁾	Min. torque	Suitable part-turn actuator		Valve attachment		Valve shaft			Weight ²⁾
	Configurable in factory	[Nm]	Type	Possible operating times s/90°	Standard EN ISO 5211	Option EN ISO 5211	Cylindrical Max. [mm]	Square Max. [mm]	Two-flat Max. [mm]	approx. [kg]
FQM 05.1	9 to 34	150	SQ 05.2	5.6 to 32	F07	F10	25.4	22	22	63
FQM 07.1	8 to 26	300	SQ 07.2	5.6 to 32	F07	F10	25.4	22	22	66
FQM 10.1	15 to 54	600	SQ 10.2	11 to 63	F10	F12	50	36	36	137
FQM 12.1	13 to 39	1,200	SQ 12.2	22 to 63	F12	F14	50	36	36	140

- Operating time increases when higher torque is required.
- The weights of SQ .2 actuators and AC .2 actuator controls must be added.

Features and functions					
Type of duty	Standard:	FQM: Short-time duty S2 - 15 min, classes A and B according to EN 15714-2			
	Option:	FQMR: Intermittent duty S4 - 25 %, class C according to EN 15714-2 (not available in SIL version)			
Mains voltage, mains frequency	Standard voltages:				
	3-phase AC				
	Voltages/frequencies				
	Volt	200 – 240	200 – 240	380 – 690	380 – 690
	Hz	50	60	50	60
	Special voltages:				
	1-phase AC				
	Voltages/frequencies				
	Volt	100 – 240	100 – 240		
	Hz	50	60		
Further voltages on request					
Permissible variation of mains voltage: ±10 %					
Permissible variation of mains frequency: ±5 %					
Overvoltage category	Category III according to IEC 60364-4-443				
ESD input	24 V DC, current consumption: approx. 1 A Permissible voltage variation: +20 %/–15 %				
Status signals	Single switch (1 NC and 1 NO) for each end position, galvanically isolated for OPEN and CLOSED: max. 0.1 A at 30 V DC				
	Output contact for fail safe function ready signal: max. 0.1 A at 30 V DC				
Swing angle	Adjustable between 80° and 96°				
Electrical connection	Standard:	AUMA plug/socket connector with screw-type connection			
	Options:	Terminals or crimp-type connection			
Threads for cable entries	Standard:	Metric threads			
	Option:	Pg-threads, NPT-threads, G-threads			
Terminal plan	Terminal plan according to order number enclosed with delivery				
Splined coupling for connection to the valve shaft	Standard:	Coupling without bore			
	Option:	Machined coupling with bore and keyway, square bore or bore with two-flats according to EN ISO 5211			
Valve attachment	Dimensions according to EN ISO 5211 without spigot				

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Service conditions	
Use	Indoor and outdoor use permissible
Mounting position	Any position (for horizontal mounting position, a support is required)
Installation altitude	≤ 2 000 m above sea level > 2 000 m above sea level on request
Ambient temperature	Standard: –30 °C to +70 °C
	Option: –60 °C to +60 °C
	For exact version, refer to actuator name plate.
Humidity	Up to 100 % relative humidity across the entire permissible temperature range
Enclosure protection according to EN 60529	IP68
	According to AUMA definition, enclosure protection IP68 meets the following requirements: • Depth of water: maximum 8 m head of water • Duration of continuous immersion in water: Max. 96 hours
Pollution degree according to IEC 60664-1	Pollution degree 4 (when closed), pollution degree 2 (internal)
Vibration resistance according to IEC 60068-2-6	FQM 05.1/07.1 with valve attachment F07 = 0.3 g, 10 to 200 Hz FQM 05.1/07.1 with valve attachment F10 = 0.5 g, 10 to 200 Hz FQM 10.1/12.1 with valve attachment F10 = 0.3 g, 10 to 200 Hz FQM 10.1/12.1 with valve attachment F12 = 0.5 g, 10 to 200 Hz Resistant to vibration during start-up or for failures of the plant. However, a fatigue strength may not be derived from this.
Corrosion protection	Standard: KS: Suitable for use in areas with high salinity, almost permanent condensation, and high pollution.
	Option: KX: Suitable for use in areas with extremely high salinity, permanent condensation, and high pollution.
Coating	Double layer powder coating Two-component iron-mica combination
Colour	Standard: AUMA silver-grey (similar to RAL 7037)
	Option: Available colours on request
Lifetime	500 fail safe operations (ESD cycles) AUMA fail safe units meet or even exceed the lifetime requirements of EN 15714-2 in motor operation. Detailed information can be provided on request.
Further information	
EU Directives	• Electromagnetic Compatibility (EMC): (2014/30/EU) • Machinery Directive: (2006/42/EC)