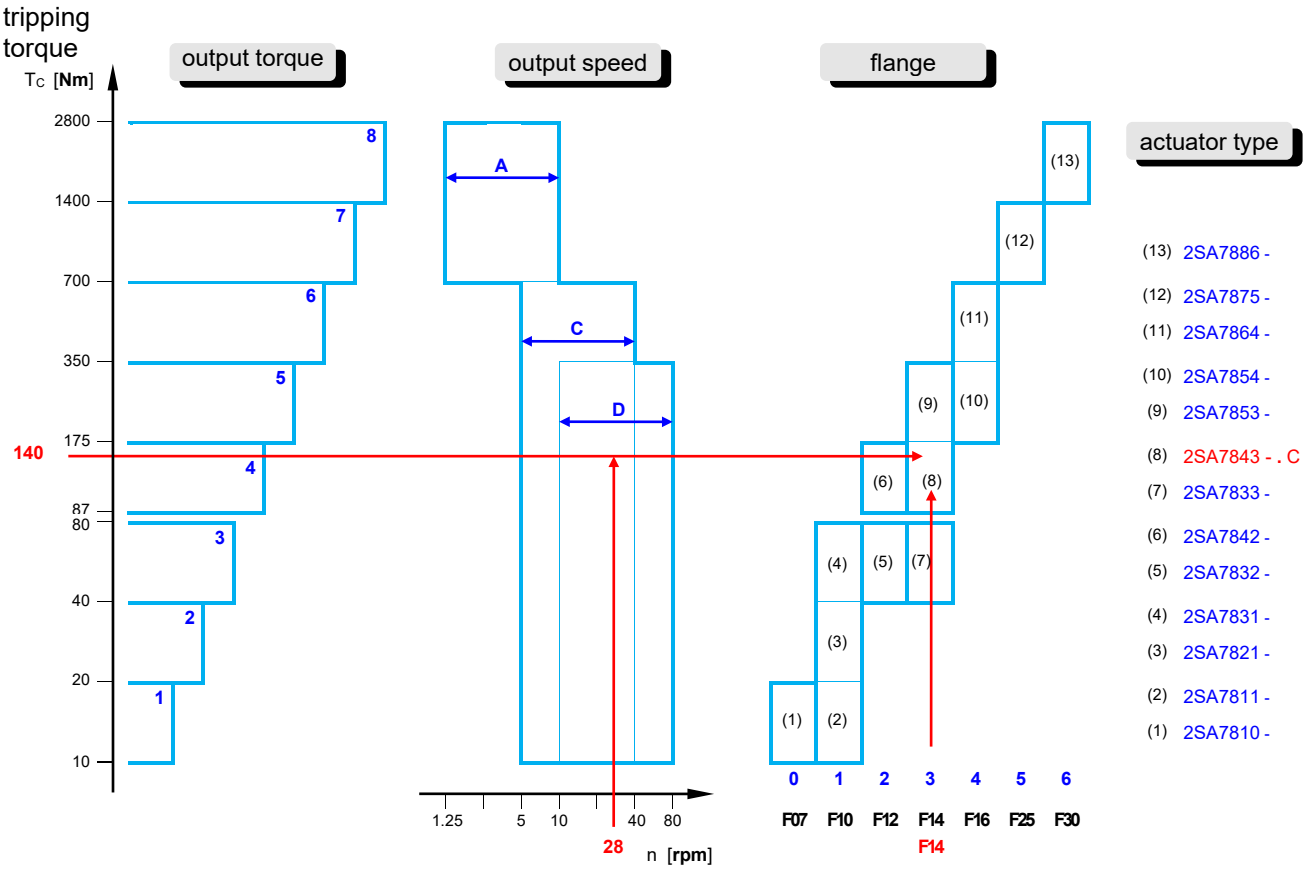
auma®
Solutions for a world in motion

SIPOS AKTORIK
A member of the AUMA Group

seven

Electric rotary actuators for continuous modulating duty

Ordering data



Ordering data

Standard design

- duty classification: continuous modulating duty, class D according to DIN EN ISO 22153
- protection class IP68 acc. to DIN EN 60529
- corrosivity category C5 acc. to DIN EN ISO 22153
- electronic motor protection, automatic phase sequence correction
- start-up current lower than rated current
- line voltage tolerance -10% / +15% in the chosen voltage range, frequency range from 40 to 70 Hz (full torque for voltage fluctuations between –30 % and +15 %)
- permissible ambient temperature: -20°C to +70°C (-4°F to +158°F), (lower / higher temperatures on request)
- electric connection: round plug with screw connection, dust and water-protected when plug withdrawn (double sealed)
- separate mounting of the electronics unit possible
- hand wheel for emergency operation *(disconnected during motor operation!)*
- „non-intrusive“: adjustment/parameterization without opening the actuator
- valve protection through integrated frequency converter: soft start and speed reduction in the end positions
- extremely high modulating accuracy: max. 0.1 to 0.2 % deviation from the overall travel
- continuous settable output speed within the selected speed range (parameterizable on the display in 2.5% increments between 12.5 - 100% $n_{max.}$)
- output speeds independently adjustable for OPEN, CLOSE, Emergency OPEN and Emergency CLOSE
- tripping torques adjustable from 50% to 100% of max. output torque $T_{C\ max.}$ for OPEN and CLOSE in steps of 10%
- travel dependent cut-off continuously adjustable
- 3 reference torque curves of the valve can be stored
- local control with hermetically sealed control knob „Drive Controller“ (optionally lockable)
- operator guidance via display
- external 24 V DC supply for electronics unit possible
- external 24 V DC or 48 V DC supply of the galvanic isolated binary inputs and outputs possible
- galvanic isolation of the analog inputs and outputs
- analog actual position value 0/4 – 20mA
- analog position setpoint (positioner) 0/4 – 20 mA
- communication with COM-SIPOS via USB and Bluetooth possible
- real-time event logging
- 5 years warranty for both gear unit and motor

Order-no.

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max. torque (running torque at modulating duty)	**tripping torque** adjustable [Nm] [(lbf ft)] >> the minimum value is set as standard (50% $T_{C\ max.}$) << other torque settings - see additional features „**Y01**“	weight ≈ [kg] [(lb)]		list price
15 (11)	**10 – 20** (7-15)	20 (44.1)	**1**	
30 (22)	**20 – 40** (15-30)	22 (48.5)	**2**	
60 (44)	**40 – 80** (30-59)	36 (79.4)	**3**	
125 (92)	**87 – 175** (64-129)	39 (86.0)	**4**	
250 (184)	**175 – 350** (129-258)	70 (154)	**5**	
500 (369)	**350 – 700** (258-516)	70 (154)	**6**	
2000 (1475)	(1033-2065) **1400 - 2800**	137 (302)	**8**	on request

DIN ISO 5210	DIN 3210	**flange size** for the torque ranges [Nm]								without add. cost
F07	-	10-20	20-40						**0**	
F10	**G0**	10-20	20-40	40-80	87-122				**1**	
F12	-			40-80	87-175				**2**	
F14	**G1/2**			40-80	87-175	175-350	350-490		**3**	
F16	**G3**					175-350	350-700		**4**	
F25	**G4**							1400-1960	**5**	
F30	**G5**							1400-2800	**6**	

output shaft form	DIN 1)	**output shaft design** for the torque ranges [Nm] 10 – 20	20 – 40	40 – 80	87 – 175	175 – 350	350 – 700	1400 – 2800	output shaft with		add. cost left side
A	ISO 5210								threaded bush	**0**	
	103 2)								+ acme thread	Order-no. with „ – Z “ + **Y 1 8**	
B1	ISO 5210	without add. cost							big bore/keyw.	**2**	
C	3338								claw coupling	**3**	
B3	ISO 5210								bore w. keyway	**5**	
B2 / B4 3)	ISO 5210								bore w. keyway	9 **H 2 Y**	

1) special output shaft and output shaft design acc. to DIN 3210 on request
2) Extra price for bush with acme screw thread LH according to DIN 103, Part 2, thread nominal diameter as listed in Line 1, pitch according to preferred series The acme screw thread must be expressly stated, e.g. **TR 16 x 4 LH DIN 103**!
3) The special bore must be stated, e.g. **ø 26 with featherkey A8x7 DIN 6885**!

= without add. cost

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output speed [rpm]

speed range ($n_{min.}$ – $n_{max.}$)	for the torque ranges [Nm]							set at [4]	
1.25 – 10							1400-2800	3.5	**A**
5 – 40	10-20	20-40	40-80	87-175	175-350	350-700		14	**C**
10 – 80	10-20	20-40	40-80	87-175	175-350			28	**D**

without add. cost

4) other setting of the output speed - see additional features „**Y07**“

power supply

acceptable voltage tolerance: **-10% / +15%**

voltage range	for the torque ranges [Nm]							
1x [5] **AC 110 – 115 V**	10-20	20-40	40-80					**B**
1x **AC 220 – 230 V**	10-20	20-40	40-80					**D**
3x **AC 190 – 200 V**	10-20 only 5 – 40 rpm	20-40	40-80					**J**
3x **AC 380 – 460 V**	10-20	20-40	40-80	87-175	175-350	350-700	1400-2800	**E**

without add. cost

5) output speed range reduced to 5-20 rpm

position recording

niP (non-intrusive position encoder), without mechanical position indicator,
with contactless position detection (without battery), data stored in non-volatile memory,
resolution 0.0005 %,
position indication via progress bar and additional value indication [%] on the display — **2**

without add. cost

spindle protection tube (dimensions from top of gearbox housing)

version	for the torque ranges [Nm] 10 – 20	20 – 40	40 – 80	87 – 175	175 – 350	350 – 700	1400 – 2800	
without	retrofitting not possible!			without add. cost				**0**
standard	230 mm (9.1”)		320 mm (12.6”)			320 mm (12.6”)		**1**
special length	470 mm (18.5”)		710 mm (28”)			710 mm (28”)		**2**
prepared [6]								**3**

add. cost left side

6) recommended for mounting on gate valve

electronics unit with local control station

HiMod — 5 binary inputs 24/48 V DC (OPEN, CLOSE, STOP, EMERGENCY, Mode),
8 binary outputs 24/48 V DC,
1 analog input 0/4 – 20 mA (positioner),
1 analog output 0/4 – 20 mA (actual position value),
multicolor graphic display with menu navigation and status indication (in many languages) — **4**

without add. cost

add-ons for the electronics unit

without hardware extension	**A**	
relay board with 8 outputs	**B**	
PROFIBUS DP single channel	**C**	
PROFIBUS DP double channel	**D**	
MODBUS RTU single channel	**E**	
MODBUS RTU double channel	**F**	
HART	**J**	
HART + relay board	**K**	
MODBUS TCP/IP single channel	**M**	
PROFINET incl. acyclic services	**R**	
PROFINET with system redundancy S2 and acyclic services	**S**	

add. cost

= without add. cost

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software-function			add. cost
	positioner	B	
	process controller	C	
	positioner + travel dependent output speed adjustment	E	
	positioner + external analog output speed setpoint	G	
	positioner with split-range functionality	H	
	positioner + travel dependent freely adjustable positioning times	K	
	process controller + travel dependent freely adjustable positioning times	L	

Additional features (Order-no. with „**-Z**“)

			add. cost
adjustment/parameterization according to customer request			
tripping torque set to	➔ state: **... Nm** in direction OPEN and **... Nm** in direction CLOSE >> set to 50 % of $T_{C\ max.}$ as standard <<	Y01	
output speed set to	➔ state: **... rpm** (in 2.5% increments of $n_{max.}$) >> set to 35% of $n_{max.}$ as standard <<	Y07	
further adjustment/parameterization		Y11	
customer specific software-programming		Y99	
specific supply of the inputs and outputs			
OPEN and CLOSE binary inputs internally supplied with 120 V AC >> Relay board has only 5 instead of 8 outputs <<		C63	
analog position value externally supplied with 24V DC (passive analog output)		C67	
fieldbus			
PROFINET connection via RJ45 plug		C13	
fieldbus connection (PROFIBUS/MODBUS) via FO in line/star topology, 1 channel		C17	
PROFIBUS connection via FO in loop topology, 1 channel		C18	
separate mounting installation kit including mounting bracket and tubular steel stirrup (lead ends are prepared for plug in) >> other versions with cable lengths up to 150 m (492 ft) on request <<			
connecting cable with connection plug hoods for electronics unit and gear unit are completely assembled ➔ state: length of cable **R7.**		S41	
connecting cable shielded 3 m (9.8 ft)		R70	
connecting cable shielded 5 m (16.4 ft)		R71	
connecting cable shielded 10 m (32.8 ft)		R72	
customer-plate and product documentation (standard product documentation: operating instructions German and rating-plate German/English)			
customer-plate	with freely definable text	B00	
other language	operating instructions monolingual, rating-plate foreign-language/English: **AR** (B65), **CS** (B55), **DA** (B62), **EL** (B60), **EN** (B49), **ES** (B51), **FI** (B54), **FR** (B50), **IT** (B52), **NL** (B67), **NO** (B66), **PL** (B57), **PT** (B64), **RO** (B59), **RU** (B53), **SK** (B61), **SV** (B56), **TR** (B63), **ZH** (B58)	B..	
other paint (standard version: 80 µm thick-film coating in silver-gray (similar to RAL 7037) according to DIN EN ISO 22153 (DIN EN ISO 12944-2), corrosivity category C5)			
very high corrosion protection, corrosivity category C5 with long protection time		L38	on request
top coat of paint for color other than RAL 7037	➔ also state: color RAL	Y35	

>> other additional features on request! <<

= without add. cost

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