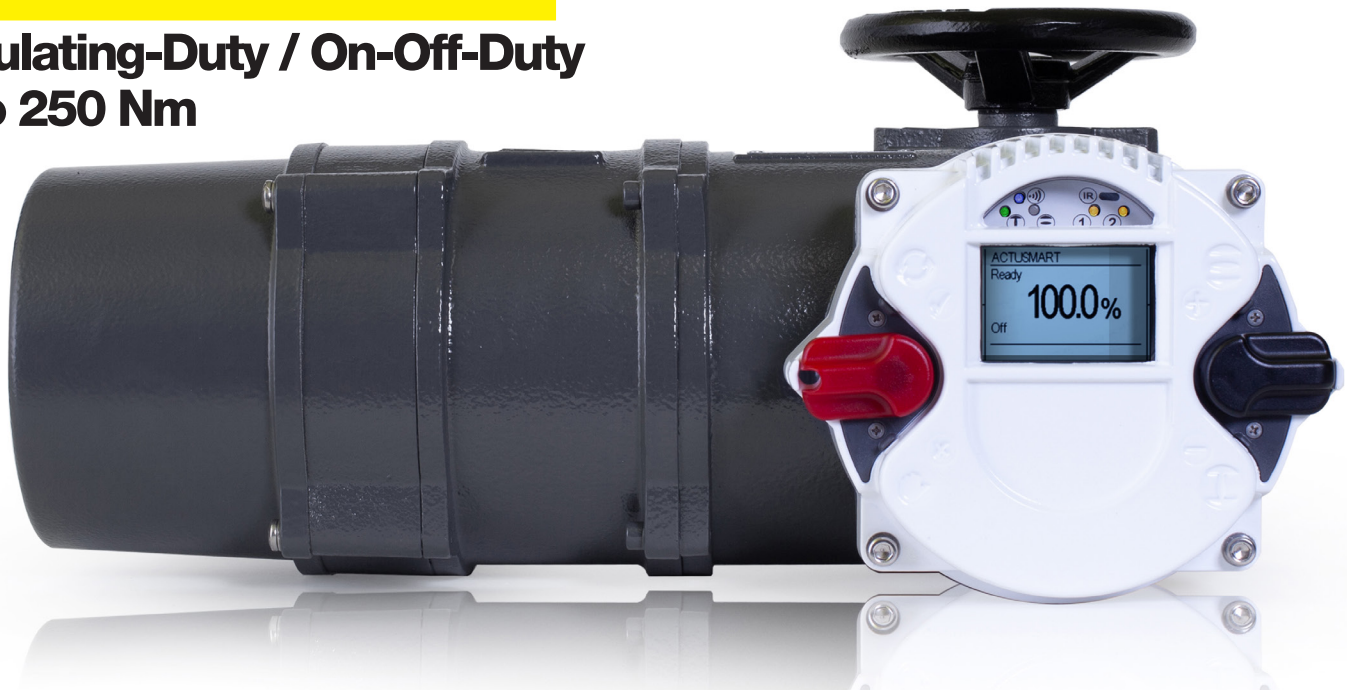
SCHIEBEL

cm series

issue Februar 2023

Multiturn Actuator

Modulating-Duty / On-Off-Duty up to 250 Nm



Power supply
AC: 1phase 100VAC…240VAC 50/60Hz +/-10%
DC: 24VDC +/-10% 3-phase: 380...480VAC 50/60Hz +-10%

Motor
PM-motor Controlled via BLDC motor control board
Isolation class F

Operation mode
CMxx: ON/OFF duty S2-15min & class A and B rCMxx: Modulating duty S4-1200 cycles/hour with 40% duty cycle & class C

Local control
Selector switch LOCAL-OFF-REMOTE - lockable
Control switch OPEN-STOP-CLOSE Large LC-display for detailed visualization of status information & parameters - different languagues selectable Red display backlight for alarms 5 RGB LEDs for status indication & control information Cover lid with display in 90° steps rotatable Bluetooth & infrared interface for data exchange and actuator control with Android App or Windows PC

Remote control
5 binary inputs 24VDC: Open - Stop - Close - Emergency Open - Emergency Close, free programmable, 24VDC rated voltage with common ground potential, inputs with jumpers configurable in groups with separated commons

Status signals
8 binary outputs 24VDC: Ready - Open - Closed - Opening - Closing - Torque - Local - Remote, free programmable, 24VDC supply, max. load 0,5A/channel

Explosion protection
Protection class Ex II 2 G Ex de IIC T4
Certifications ATEX, IECEx, NEC

Features
Free programmable step mode control for open and close
4 intermediate positions definable Actuator torque adjustable beetween 25-100% from max. torque Alternative menu structure available Different user levels selectable Counter values for preventive Maintanance notification

Valve connection
Flange and output shaft according ISO 5210

Electric connectors
Power connection via 6pole screw plug Han6E+PE
Control and status signals via 24pole screw plug Han24E
Metric cable entries for cable glands, closed with dummy glands
Ex-design: terminal block

Ambient temperature
-25°C up to +60°C, extended temperature range on request

Enclosure protection
IP67 according EN 60 529, IP68 on request

Corrosion protection
K2 (C2) for installation in aggressive atmosphere, C3 up to C5 on request

Color
RAL7024 - graphite grey, all others on request

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Size		(r)CM03	(r)CM06	(r)CM12	(r)CM25
Torque range 1phase or 3phase, free adjustable	Nm	8-32	19-64	32-125	64-250
Torque range 24VDC, up to 5rpm with 20rpm	Nm	8-32	16-55	--	--
Max. torque S4-operation	Nm	16	32	64	125
Max. torque S9-operation	Nm	10	20	30	60
Speed range 1ph or 3ph, free adjustable	rpm	1-72	1-64	1-60	1-32
Speed range 24VDC, free adjustable	rpm	1,0-20	1,0-20	--	--
Travel sensor range	Turns	0,25-105	0,25-105 | 1-300	0,25-105 | 1-300	0,25-105 | 0,25-1600
Valve flange	ISO 5210	F07 / F10	F10	F10	F14
Output drive	ISO 5210 / DIN 3210 / DIN 3338	A / Am / B / B1 / BSo / C / CSo / D / E-DO / DO / E / B3 / ESo / X			
Weight	kg	11,5	17,5	22	29
Motor	M	Brushless DC motor controlled by integrated control unit			
Power factor	cos ϕ	> 0,95			
Power supply 1ph (Standard)		1phase 100VAC…240VAC 50/60Hz +/-10%			
Nominal current @1x230VAC	A	1,47A (16Nm / 72rpm)	2,17A (20Nm / 60rpm)	3,8A (40Nm / 70rpm)	3,8A (80Nm/32rpm)
Power supply 3ph (Option)		AC: 3phase 380...480VAC 50/60Hz +/-10%			
Nominal current @3x400VAC	A	0,46A (16Nm / 72rpm)	0,9A (32Nm / 60rpm)	1,4A (64Nm/60rpm)	1,4A (64Nm/60rpm)
Power supply 24VDC (Option)		DC: 24VDC +/-10%		--	--
Nominal current	A	4,6A (10Nm / 20rpm)	9,2A (32Nm / 20rpm)	--	--

Sofware Options	Code
0/4-20 mA position transmission, galvanic separated (no signal isolator required), signal configurable as current sink	ER
Positioner for actuator control with 0/4-20 mA signal from PLC, passiv, potential isolation from thre remaining electronic	SR
PID positioner for two 0/4-20 mA input signals (target value, external actual value, configurable as activ or current sink signal)	PID
Actuator KKS / TAG on display (max. 15 digits)	ID
Customer parametrization (customer specific parametrization of binary input- and output signals in accordance with customer specific wiring diagram	KP
Torque curve - torque in relation to the stroke	AP
Logic operations of input and output signals	VIRT
KVS valve characteristics - Flow in relation to the position of the actuator	VK
Speed characteristics - speed in relation to the stroke	SC
Advanced service and maintenance capabilities	ADSM
Automatic partial and full stroke test	ST
Multiport valve support - Intermediate positioning	MPIP