

ELECTRIC ACTUATORS E 50 - E 210



E 65 and E 110.

TECHNICAL DATA

Types:	E 50 - E 210
Duty class:	Class C acc. to prEN WI69000095
Valve interface:	EN ISO 5211
Actuation time:	30 s - 180 s
Corrosion protection:	C4 acc. to prEN WI 6900095 tested acc. to EN 600068-2-52
Protection class:	IP 67 acc. to EN IEC 60529
Insulation class:	F
Limit switches:	max. 250 V AC, 3A for DS-Actuators max. 250 V AC, 3A for WS-Actuators max. 24 V DC, 10 A for GS-Actuators
Operation temperature:	-4°F to +158°F
Cable glands:	2 x M20 x 1,5; Ø min = 0.24 inch, Ø max = 0.51 inch
Hand wheel:	15 revolutions for 90°
Hand wheel torque:	71 in/lb for E 50 35 in/lb for E 65 177 in/lb for E 110 205 in/lb for E 160 443 in/lb for E 210

FEATURES

- Robust aluminum body
- Completely ball beared wormgear
- Safe arresting by self-inhibition
- Changeable clutch nuts for mounting on different shaft ends
- Mechanical position indicator disc for an optical control of the valve's position
- Motor with thermic winding protection switch
- Hand wheel enables immediate hand emergency operation if necessary
- Maintenance-free, long life service by continuous lubrication

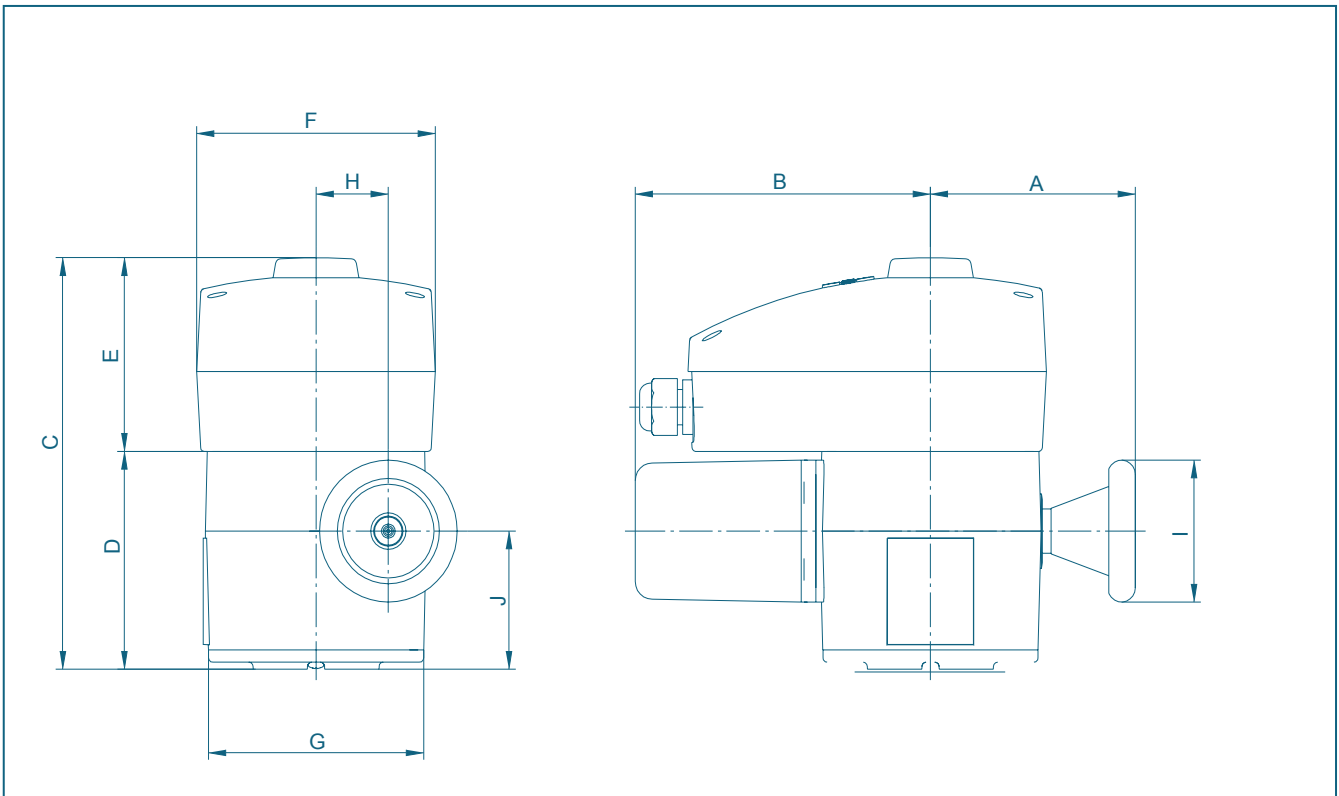
GENERAL APPLICATIONS:

- Water and waste water technology
- Chemical industry
- Car industry
- Civil engineering
- Everywhere applicable, where butterfly valves are installed



E 160 and E 210.

DIMENSIONS E 50 - E 210



Type	Dimensions [in]										Weight [lb]
	A	B	C	D	E	F	G	H	I	J	
E 50	4.33	5.87	8.27	4.84	3.43	4.88	4.96	1.65	3.15	2.87	11.00
E 65	4.69	6.77	9.25	4.84	4.41	5.47	4.92	1.65	3.15	3.07	15.40
E 110	5.35	9.72	10.12	5.71	4.41	5.47	5.91	2.28	4.92	3.46	30.90
E 160	6.18	11.02	11.10	6.69	4.41	5.47	6.89	3.50	7.87	4.41	55.10
E 210	8.30	13.90	10.80	6.40	4.40	5.50	9.40	4.90	12.40	3.30	88.20

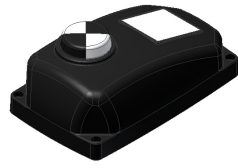
Subject to change without notice

FEATURES

Valve interface: EN ISO 5211

Type	E 50 WS	E 65 WS	E 65 DS	E 65 GS	E 110 WS	E 110 DS	E 110 GS	E 160 WS	E 160 DS	E 160 GS	E 210 DS
Actuation time from 0° - to 90°	25 s	6 s	6 s	6 s	12 s	12 s	6 s	24 s	24 s	12 s	24 s
Rated torque	354 in/lb	885 in/lb	885 in/lb	885 in/lb	3540 in/lb	3540 in /lb	3186 in/lb	8851 in/lb	8851 in/lb	7081 in/lb	30978 in/lb
Rated current	0,15 A	0,7 A	0,3 A	5 A	1,3 A	1,0 A	8,8 A	1,3 A	1,0 A	8,8 A	1 A
Starting current	0,18 A	1,0 A	0,3 A	8,0 A	2 A	1,8 A	12,5 A	2 A	1,8 A	12,5 A	3,2 A
Power consumption	0,04 kW	0,16 kW	0,09 kW	0,08 kW	0,26 kW	0,22 kW	0,4 kW	0,26 kW	0,22 kW	0,4 kW	0,54 kW
Rated voltage	230 V	230 V	400 V	24 V	230 V	400 V	24 V	230 V	400 V	24 V	400 V
Frequency	50 Hz	50 Hz	50 Hz	-	50 Hz	50 Hz	-	50 Hz	50 Hz	-	50 Hz
Duty cycle	30 %	30 %	30%	30%	30%	30%	30 %	30%	30%	30%	30%
Protection class	IP 67	IP 67	IP 67	IP 67	IP 67	IP 76	IP 67	IP 67	IP 67	IP 67	IP 67

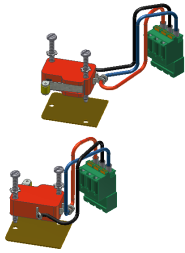
OPTIONS



Cover plate with position indicator (E 50)



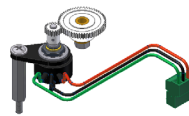
Cover plate with position indicator (E 65 - E 210)



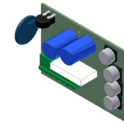
Additional volt-free limit switches



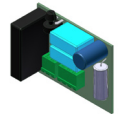
Current feedback 4-20 mA



Potentiometer 1000 Ω



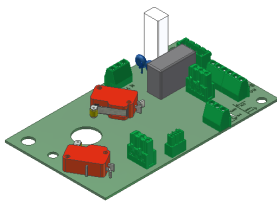
Torque control



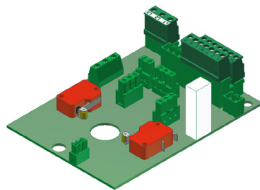
Timer



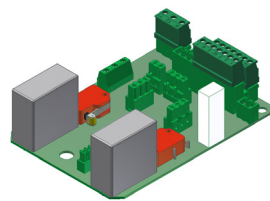
Conector terminals



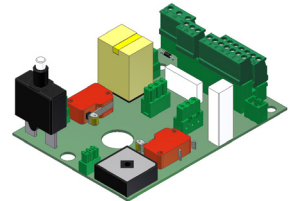
E 50 - 230 V AC



400 V AC



230 V AC



24 V DC



Switch box with cable glands



E 50



E 65



E 110



E 160



E 210

CERTIFICATE



Declaration of conformity

CE

We, **EBRO ARMATUREN**
Gebr. Bröer GmbH, Karlstraße 8, 58135 Hagen, Germany

declare in our sole responsibility, that the electric quarter-turn actuators of the E-series,

E50 WS	E 65 WS	E 110 WS	E 160 WS	
	E 65 DS	E 110 DS	E 160 DS	E 210 DS
	E 65 GS	E 110 GS	E 160 GS	

and the enhanced unit box system

M71-WS-XXX-40 and **M71-DS-XXX-40** and **M71-GS-XXX-40**

this declaration is valid for, fulfil the requirements of the guideline rights of the european member states about EMC directive (89/336/EWG) and the low voltage directive 73/23/EWG (NSR).

For assessment of these products related to electromagnetic compatibility and low voltage directive following standards have been consulted:

EN 50178 : 1997
EN 61010 -1 : 1993 for low voltage directive

EN 55011 : 1998
EN 61000 for EMC directive

As manufacturer of these products, we declare additionally, that following standards according to machinery directive 89/392/EWG have been consulted:

EN ISO 5211
EN 60068-2-52
EN IEC 60529 acc. to machinery directive 89/392/EWG

The starting is not permitted till it is ensured, that the complete machine, where EBRO quarter-turn actuators are installed, fulfil the guidelines of directive 89/392/EWG.

Hagen, dated 22.07.2008


Dipl.-Ing. H. Konopatzki, Technical director