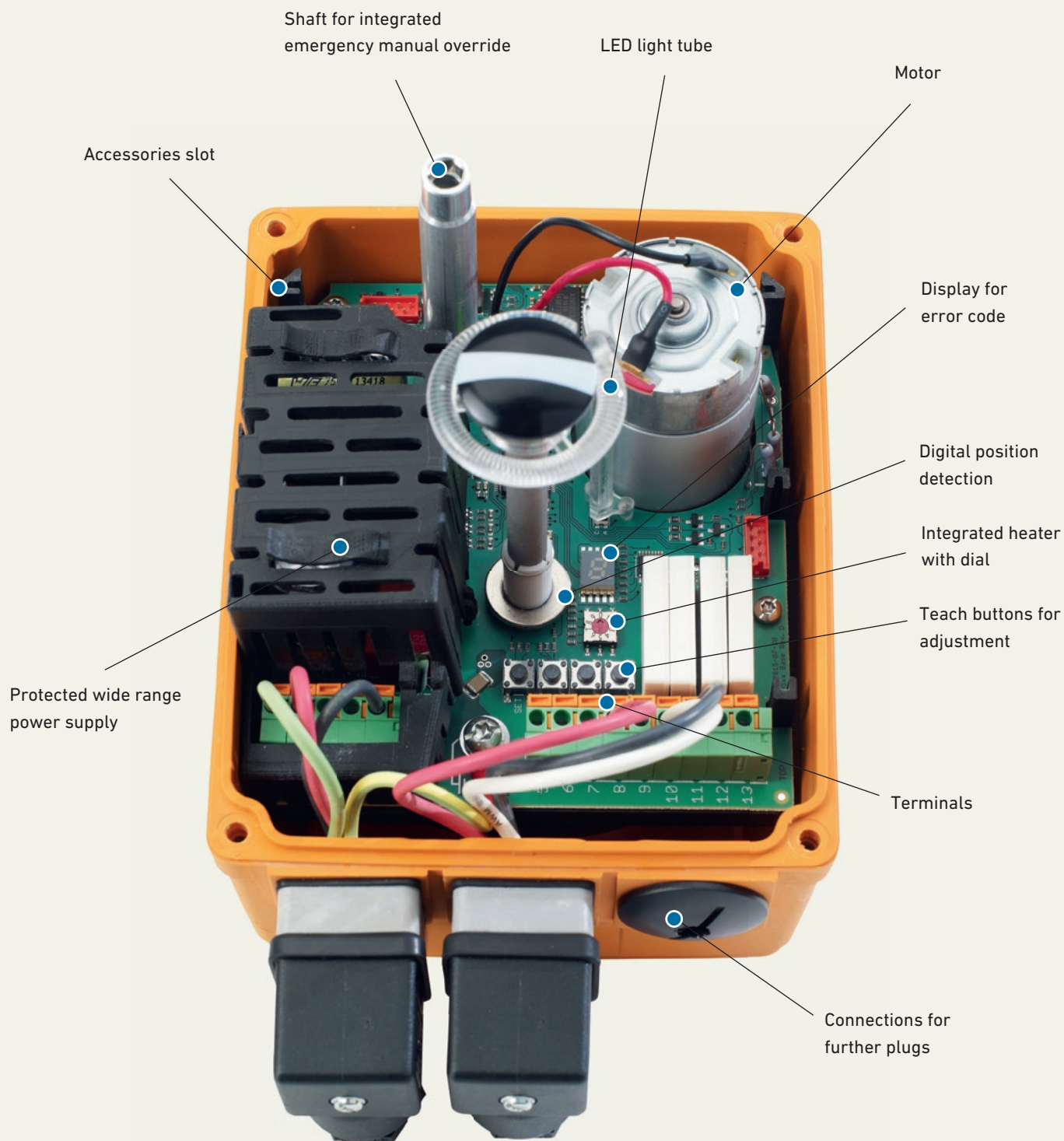


Product Range 2016

Electric Valves & Electric Actuators



Fully packed



Technical details

EA25, EA45, EA120, EA250

Nominal voltage	AC: 100 – 230 V, 50/60 Hz AC/DC: 24 V, 50/60 Hz
Nominal voltage tolerance	± 15%
Protection class	IP 65 (IP67)* according to EN 60529
Pollution degree	2 according to EN 61010-1
Overload protection	Current/time dependent, resetting
Overvoltage category	II
Ambient temperature	-10° to +50 °C
Allowable humidity	Max. 90 % relative humidity, non condensing
Housing material	PP-GF for very good chemical resistance

* When used with cable glands and vertical installation.

	EA25	EA45	EA120	EA250
Nominal power	AC: 35 VA at 100–230 V AC/DC: 40 VA at 24 V	AC: 55 VA at 100–230 V AC/DC: 60 VA at 24 V	AC: 50 VA at 100–230 V AC/DC: 55 VA at 24 V	AC: 60 VA at 100–230 V AC/DC: 65 VA at 24 V
Nominal torque Mdn (peak)	10 (25) Nm	20 (45) Nm	60 (120) Nm	100 (250) Nm
Duty cycle	100%	50%	50%	35%
Cycle time s/90° at Mdn.	5 s	6 s	15 s	20 s
Flange fitting	F05	F05	F07	F07
Tested cycles (at 20 °C and Mdn)	250 000	100 000	100 000	75 000
Weight	2,1 kg	2,2 kg	3,6 kg	5,0 kg
Actuating angle	Max. 355°, set to 90°			



Electric actuator type EA25/45/120/250



EA25/45



EA120



EA250

Model:

- Heating element, position feedback (Open/Close/ Middle)

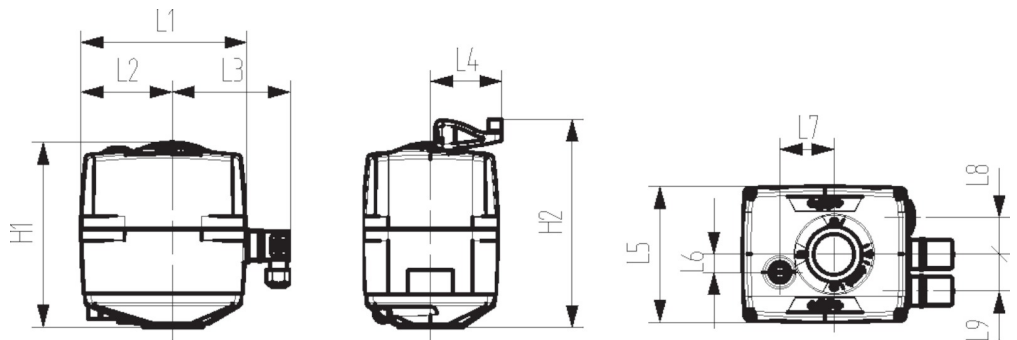
Option:

- Optional accessories: Fail-safe return unit, Monitoring board, Position controller, Profibus DP board

*with adapter 198 000 587 F05 / WS 11, 198 204 057 F05 / WS 14

Type of actuator	Voltage	Torque nominal	Torque maximal	Interfaces	Code
EA25	100 -230V AC	10 Nm	25 Nm	F05* (WS 11/14)	198 153 182
EA25	24V AC/DC	10 Nm	25 Nm	F05* (WS 11/14)	198 153 183
EA45	100 -230V AC	20 Nm	45 Nm	F05* (WS 11/14)	198 153 184
EA45	24V AC/DC	20 Nm	45 Nm	F05* (WS 11/14)	198 153 185
EA120	100 -230V AC	60 Nm	120 Nm	F07 (WS17)	198 153 186
EA120	24V AC/DC	60 Nm	120 Nm	F07 (WS17)	198 153 187
EA250	100 -230V AC	100 Nm	250 Nm	F07 (WS17)	198 153 188
EA250	24V AC/DC	100 Nm	250 Nm	F07 (WS17)	198 153 189

Type of actuator	H1 (mm)	H2 (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)	L9 (mm)
EA25	167	188	150	82.5	107	64.3	122	16	49	33	33
EA25	167	188	150	82.5	107	64.3	122	16	49	33	33
EA45	167	188	150	82.5	107	64.3	122	16	49	33	33
EA45	167	188	150	82.5	107	64.3	122	16	49	33	33
EA120	190	212	150	82.5	107	64.3	122	16	49	33	33
EA120	190	212	150	82.5	107	64.3	122	16	49	33	33
EA250	200	221	150	82.5	107	64.3	122	16	49	33	33
EA250	200	221	150	82.5	107	64.3	122	16	49	33	33





Accessory for electric actuators type 25/45/120/250

Model:

- All accessory can be retrofitted
- Accessory works with 100-230V and 24V version

Material	Description	Code
Fail-safe return unit integrated	Moves actuator in pre-defined safe position upon power loss, integrated battery pack	199 190 601
Fail-safe return unit external	Moves actuator in pre-defined safe position upon power loss, voltage supply implemented externally	199 190 604
Positioner	Continuous actuator control, 4-20mA or 0-10 V Input and 4-20 mA Feedback	199 190 603
Monitoring	Parameter monitoring. Generates alarm upon reaching its set limitations. Prevents water hammers or indicates maintenance need for valve	199 190 602
Profibus DP	Enables the actuator to be connected to a Profibus DP-V0 network	199 190 605
Diagnostic Tool	Enables to read from the actuator main board and check configurations	199 190 600

Product Configurator

Create your own actuator...

Electric Actuator

- T01 EA11 24V with Cable Plug
- T02 EA11 100-230V with Cable Plug
- T07 EA25 24V with Cable Plug
- T08 EA25 100-230V with Cable Plug
- T09 EA120 24V with Cable Plug
- T10 EA120 100-230V with Cable Plug
- T11 EA250 24V with Cable Plug
- T12 EA250 100-230V with Cable Plug



Angle (Open/ Close)

- W45 45°
- W90 90°
- W180 180°

Middle Position

- W17 No
- W18 Yes

Colour Assignment Feedback

- W20 Open = rot
- W21 Open = grün

Position Feedback

- W23 Open/ Close
- W24 Open/ Close/ Middle
- W25 Middle

Wiring Feedback

- W26 NC
- W28 NO

Heating Threshold

- W29 5°
- ... [5° steps]
- W37 45°

Failsafe Return unit

- W39 Integrated (Battery powered)
- W40 External (no Battery - 24V needed)

Accessory

- W42 Positioner
- W43 Monitoring
- W44 Profibus

Setting Positioner

- W46 BCD = 0
- ...
- W55 BCD = 9

Setting Motor Current

- W56 BCD = 0
- ...
- W65 BCD = 9

Setting Cycle Time Extension

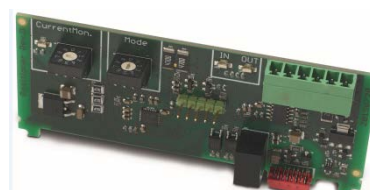
- W66 BCD = 0
- ...
- W75 BCD = 9

Setting Cycle Time Monitoring

- W76 BCD = 0
- ...
- W85 BCD = 9

Setting Cycle Counter

- W86 BCD = 0
- ...
- W96 BCD = 9



T08 W90 W17 W20 W23 W26 W29 W39 W42 W46 W65 - - - =



Valve combinations

Ball Valves 546/543



DN10 – DN50 3/8 – 2 inch	EA25
DN65 2 ½ inch	EA45
DN80 / 100 3 – 4 inch	EA120

Butterfly Valves 567/578



DN50 / 65 2 – 2 ½ inch	EA45
DN80 – DN200 3 – 8 inch	EA120
DN250 / 300 10 – 12 inch	EA250

Electr. Valves	Type old	Type new
Ball Valve 546	130 – 135	179 – 184
Ball Valve 543	185 – 188	167 – 170
Butterfly Valve 567/578	140 – 144	145 – 147

Actuator old	Actuator new
EA11	
EA21	EA25
-	EA45
EA31	EA120
EA42	EA250

Code Interface

Ball Valve Type 546

Dimension	Actuator	Multifunctional module Empty (MFM)	Adapter	Manual override (optional)
DN10-15	EA25	167482680	198150556	198000500
DN20-25	EA25	167482681	198150557	198000500
DN32-40	EA25	167482682	198150558	198000501
DN50	EA25	167482683	198150559	198000501
DN65	EA45	167482684	198000943	
DN80	EA120	167482684	198000601	198000623
DN100	EA120	167482685	198000602	198000624

Ball Valve Type 543

Dimension	Actuator	Multifunctional module Empty (MFM) – Vertical	Multifunctional module Empty (MFM)- Horizontal
DN10-15	EA25	167484945	167484941
DN20-25	EA25	167484946	167484942
DN32-40	EA25	167484947	167484943
DN50	EA25	167484948	167484944

Butterfly Valve

Dimension	Actuator	Adapter Without manual override	Adapter with Manual override
DN50/65	EA45	198000943	
DN80	EA120	198000601	198000623
DN100	EA120	198000602	198000624
DN125	EA120	198000602	198000624
DN150	EA120	198000599	198000625
DN200	EA120	198000603	198000627
DN250	EA250	198000732	
DN300	EA250	198000732	

Product Configurator

Create your own ball valve

Operation

Manual Valve

Electric Actuator

Pneumatic Actuator

Variant Type

A01 Ball Valve 2-Way

A02 Linear Ball Valve 2-Way

Material

B01 PVC-U

B02 PVC-C

B03 ABS

B05 PP-H

B15 PVDF

Diameter

C05 d16 DN10 3/8"

C06 d20 DN15 1/2"

C07 d25 DN20 3/4"

C08 d32 DN25 1"

C09 d40 DN32 1 1/4"

C10 d50 DN40 1 1/2"

C11 d63 DN50 2"

C12 d75 DN65 2 1/2"

C13 d90 DN80 3"

C14 d110 DN100 4"

Treatment

D01 Standard PTFE Ball Seal

D02 Oil-Free PTFE Ball Seal

D03 Silicone-Free/Paint Compatible PTFE Ball Seal (ASTM)

D04 Silicone-Free/Paint Compatible PVDF Ball Seal (ISO)

Sealmaterial

E01 EPDM

E02 FPM

E03 FPM

Threaded Inserts

F02 With Threaded Inserts

Endings*

G01 PVC-U Solvent Cement Socket ISO

...

G80 PVC-U PVC-U Valve End blank

Mounting plate

L02 With Mounting Plate

Multi-Functional Module (MFM)

I01 Standard Interface

I02 Empty Multi-Functional Module

I03 Multi-Functional Module with 2 Limit Switches Ag, Ni

I04 Multi-Functional Module with 2 Limit Switches Au

I05 Multi-Functional Module with 2 Inductive Switches Namur

I06 Multi-Functional Module with 2 Inductive Switches PNP

I07 Multi-Functional Module with 2 Inductive Switches NPN

Manual Operation

K01 Standard Lever Red

K02 Standard Lever Black

K11 Multi-Functional/Ratched Lever Red

*Endings

G01	PVC-U Solvent Cement Socket ISO
G02	PVC-U Solvent Cement Socket JIS
G03	PVC-U Solvent Cement Socket ASTM
G04	PVC-U Solvent Cement Socket BS
G05	PVC-U Solvent Cement Spigot ISO
G06	PVC-U Threaded Socket ISO Rp
G07	PVC-U Threaded Socket ISO Rp Reinforced
G08	PVC-U Threaded Socket ISO/JIS Rc
G09	PVC-U Threaded Socket ASTM NPT
G11	PVC-C Solvent Cement Socket ISO
G12	PVC-C Solvent Cement Socket JIS
G13	PVC-C Solvent Cement Socket ASTM
G14	PVC-C Solvent Cement Spigot ISO
G15	PVC-C Threaded Socket ISO Rp
G16	PVC-C Threaded Socket ISO Rp Reinforced
G17	PVC-C Threaded Socket ASTM NPT
G20	ABS Solvent Cement Socket ISO
G21	ABS Solvent Cement Socket BS
G22	ABS Threaded Socket ISO Rp
G23	ABS Threaded Socket ISO Rp Reinforced
G30	PP-H Fusion Socket ISO
G32	PP-H Socket fusion Spigot ISO
G33	PP-H Threaded Socket ISO Rp Reinforced
G34	PP-H Threaded Socket ASTM NPT Reinforced
G35	PP-H Butt fusion Spigot SDR11 ISO IR-PLUS
G36	PP-H Butt fusion Spigot SDR17.6 ISO
G37	PP-H Butt fusion Spigot lang SDR11 ISO
G40	PE-100 Fusion Socket ISO
G41	PE-100 Butt fusion Spigot SDR11 ISO
G42	PE-100 Butt fusion Spigot SDR17.6 ISO
G43	PE-100 Butt fusion Spigot lang SDR11 ISO
G44	PE-100 Butt fusion Spigot lang SDR17.6 ISO
G46	PP-R Butt fusion Spigot SDR11 ISO
G50	PVDF Fusion Socket ISO
G51	PVDF Socket fusion Spigot ISO
G52	PVDF Butt fusion Spigot SDR11 ISO IR-PLUS
G53	PVDF Threaded Socket ASTM NPT
G60	Fixed Flange PVC-U gerillt metrisch
G61	Fixed Flange PVC-U flach ISO
G62	Fixed Flange PVC-U JIS
G63	Fixed Flange PP-H gerillt ISO
G64	Fixed Flange PVDF ISO
G70	Backing Flange PVC-U ISO
G70150	Backing Flange PVC-U ISO d160 DN150
G71	Backing Flange PVC-U ANSI
G71150	Backing Flange PVC-U ANSI 6" DN150
G72PVCU	Backing Flange PP-Stahl ISO with PVC-U Endings
G72PVCU150	Backing Fl. PP-Stahl ISO d160 DN150 with PVC-U Endings
G72PVDF	PVDF Backing Flange PP-Stahl ISO with PVDF Endings
G72PPH	PPH Backing Flange PP-Stahl ISO with PP-H Endings
G72PPH150	PPH150 Backing Fl. PP-Stahl ISO d160 DN150 with PP-H Endings
G72PVCC	PVCC Backing Flange PP-Stahl ISO with PVC-C Endings
G73PVCU	PVCU Backing Flange PP-Stahl ANSI with PVC-U Endings
G73PVCU150	PVCU150 Backing Fl. PP-Stahl ANSI 6" DN150 with PVC-U Endings
G73PPH	PPH Backing Flange PP-Stahl ANSI with PP-H Endings
G73PPH150	PPH150 Backing Fl. PP-Stahl ANSI 6" DN150 with PP-H Endings
G73PVCC	PVCC Backing Flange PP-Stahl ANSI with PVC-C Endings
G73PVDF	PVDF Backing Flange PP-Stahl ANSI with PVDF Endings
G76	Backing Flange PP-GF JIS with PVDF Endings
G77	Backing Flange PP-GF JIS with PP-H Endings
G78PVCU	PVCU Backing Flange PVC-U JIS with PVC-U Endings
G78PVCU150	PVCU150 Backing Fl. PVC-U JIS d160 DN150 with PVC-U Endings
G78PPH	PPH Backing Flange PP-GF JIS with PP-H Endings
G78PPH150	PPH150 Backing Fl. PP-GF JIS d160 DN150 with PP-H Endings
G80 PVC-U	PVC-U Valve End blank
G01	

A01 B01 C08 D01 E01 F02 G01 L02 I01 K01 =

Ball valves, electric

Type 179 - 184

Type 179 – 184 ball valves are based on the type 546 ball valve and the EA25 (DN10 – DN50), EA45 (DN65) or EA120 (DN80 – DN100) electric actuator. The 179 – 184 series is designed for applications with special process requirements.

Ball valve, electric	Actuator electric	Ball valve, hand-operated	Dimensions	Materials	Standards
Type 179	EA25/45/120	Type 546	DN10 – DN100	PVC-U, PVC-C, ABS	ISO/DIN
Type 180	EA25/45/120	Type 546	DN10 – DN100	PP	ISO/DIN
Type 181	EA25/45/120	Type 546	DN10 – DN100	PVDF	ISO/DIN
Type 182	EA25/45/120	Type 546	DN10 – DN100	PVC-U, PVC-C	ASTM/ANSI
Type 183	EA25/45/120	Type 546	DN10 – DN100	PVC-U	BS
Type 184	EA25/45/120	Type 546	DN10 – DN100	PVC-U	JIS

Type 167 - 170

Type 167 – 170 ball valves are based on the type 543 ball valve and the EA25 electric actuator.

Ball valve, electric	Actuator electric	Ball valve, hand-operated	Dimensions	Materials	Standards
Type 167	EA25	Type 543 horizontal	DN10 – DN50	PVC-U, ABS	ISO/DIN, ASTM/ANSI, JIS
Type 168	EA25	Type 543 horizontal	DN10 – DN50	PP	ISO/DIN
Type 170	EA25	Type 543 vertical	DN10 – DN50	PVC-U	ISO/DIN, JIS

Butterfly valves, electric

Type 145 - 147

The type 145 electric butterfly valve is intended for wafer style installation and is adaptable to a variety of applications. With the optional positioner, its functional options range from a simple open/close valve to a precise flow control device.

The type 146/147 electric butterfly valve is intended for lug type or wafer style installation and is adaptable to a variety of applications. With the optional positioner, its functional options range from a simple open/close valve to a precise flow control device.

Butterfly valve, electric	Actuator, electric	Butterfly valve, hand-operated	Dimensions	Materials	Standards
Type 145	EA45/120/250	Type 567	DN50 – DN300	All	All standards
Type 146	EA45/120/250	Type 578	DN50 – DN300	All	ISO/DIN
Type 147	EA45/120/250	Type 578	DN50 – DN300	All	ASTM/ANSI