

## 3 way ball valve S4

### Electric actuator ER20 GF3 / GF4



symbolic photo

#### **General:**

- Material: PVC-U / PP / PVDF
- Seal material: EPDM / FPM
- Ball seating joint: PTFE
- Dimensions:
  - DN10 (DN15 / d16 / d3/8")
  - DN15 d20 d1/2"
  - DN20 (DN25 / d25 / d3/4")
  - DN25 d32 d1"
  - DN32 (DN40 / d40 / d1 1/4")
  - DN40 d50 d1 1/2"
  - DN50 d63 d2"
- Ball: T- or L-bore

#### **Connector types:**

##### PVC-U

- Solvent socket DIN

##### PP

- Fusion socket DIN

##### PVDF

- Fusion socket DIN

*Further connector types on request*

#### **Operating pressure:**

- PVC-U / PVDF PN16
- PP PN10

#### **Technical Features:**

##### Ball valve

- All sides blocked ball
- Double shaft sealing

##### Electric actuator

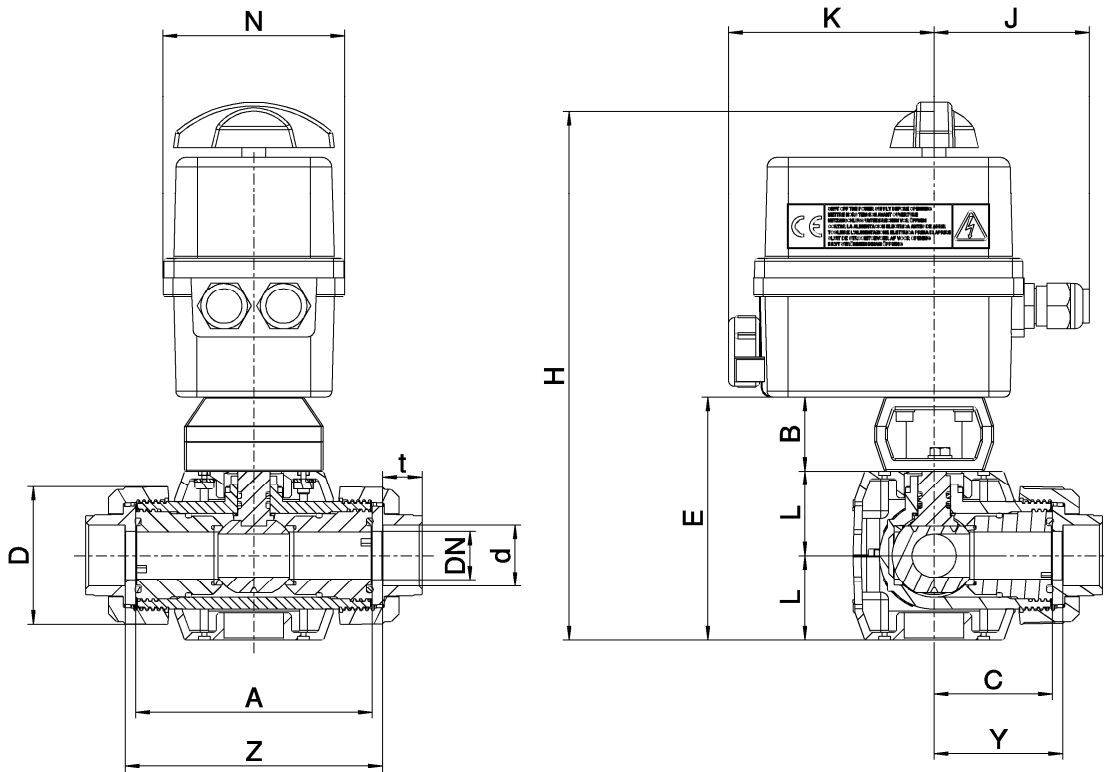
- Visual position indicator
- Manual override
- Protection IP66
- Anti condensation heater
- Electronic torque limiter
- Voltage
  - 15 – 30V AC 50/60 Hz (12 – 48V DC)
  - 100 – 240V AC 50/60 Hz (100 – 350V DC)
- Operating time 12s

This document does not constitute a guarantee, it is for initial information purpose only. The product range is continually upgraded, the designs and types therefore only reflect the state of the art at the time of printing. Subject to technical modifications!

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**Dimensions:**



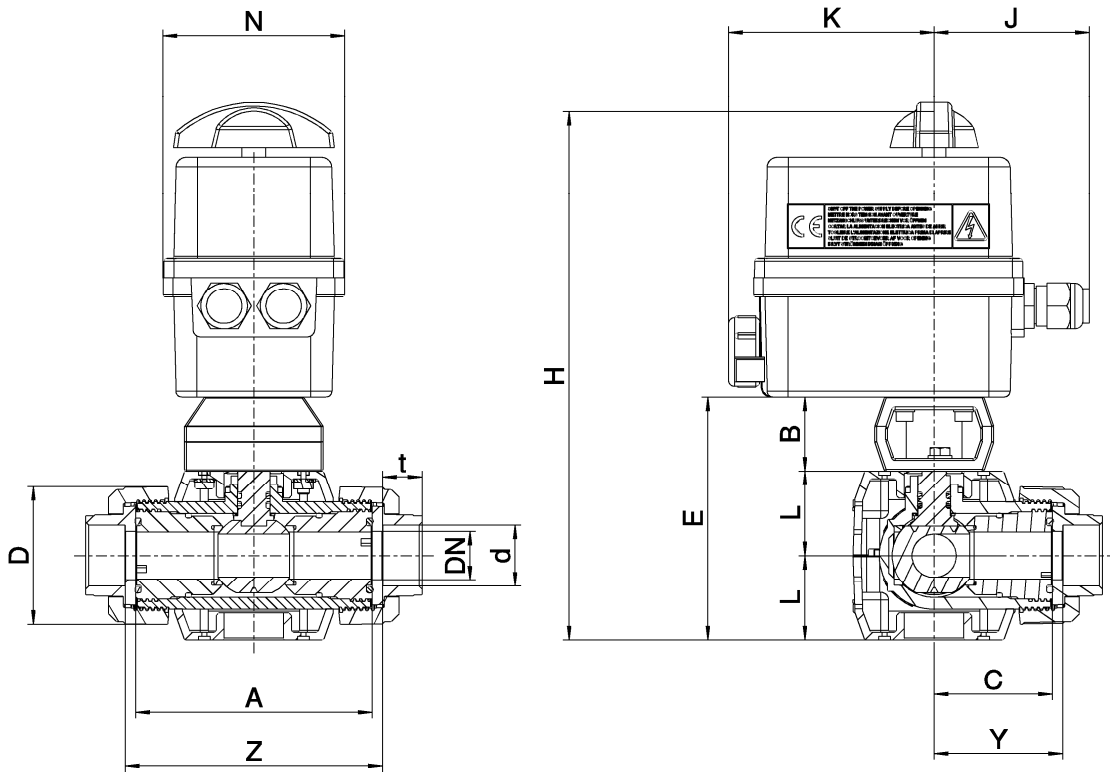
**3 way ball valve S4 PVC-U ER20 GF3 / GF4**  
**Connector types**  
 PVC-U solvent socket

	DN	10	15	20	25	32	40	50
	d	16	20	25	32	40	50	63
<b>Ball valve PVC-U</b>	A	100	100	120	120	162	162	181
	B	38	38	38	38	48	48	48
	C	50	50	60	60	81	81	90,5
	D	53	53	70	70	101	101	124,5
	E	105	105	122	122	160	160	178
	H	257	257	274	274	312	312	330
	L	33,5	33,5	42	42	56	56	65
	Y	53	53	63	63,5	84,5	85,5	96,5
	Z	106	106	126	126	169	171	192
t	16,5	16,5	20	22,5	27,5	31,5	38,5	
PN	16	16	16	16	16	16	16	
<b>actuator</b>	J	79	79	79	79	79	79	79
	K	107	107	107	107	107	107	107
	N	92	92	92	92	92	92	92

dimensions in mm

### 3 way ball valve S4

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### 3 way ball valve S4 PP ER20 GF3 / GF4

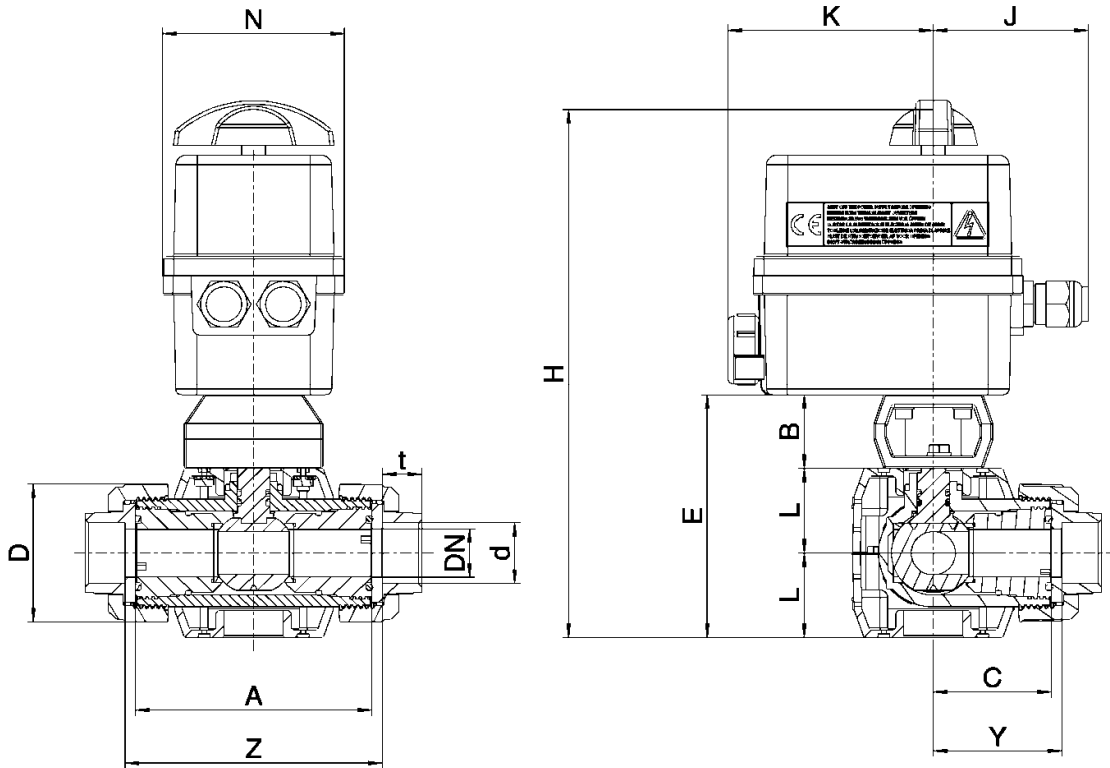
Connector types  
PP fusion socket

	DN	10	15	20	25	32	40	50
	d	16	20	25	32	40	50	63
Ball valve PP	A	98	98	118	118	159	159	177
	B	38	38	38	38	48	48	48
	C	49	49	59	59	79,5	79,5	88,5
	D	53	53	71	71	100	100	120,5
	E	105	105	122	122	160	160	178
	H	257	257	274	274	312	312	330
	L	33,5	33,5	42,5	42,5	56,5	56,5	65
	Y	55	53,5	65,5	66	89,5	91	104
	Z	136	136	163	163	220	229	263
	t	13	14,5	16,5	18	20,5	23,5	27,5
	PN	10	10	10	10	10	10	10
actuator	J	79	79	79	79	79	79	79
	K	107	107	107	107	107	107	107
	N	92	92	92	92	92	92	92

dimensions in mm

### 3 way ball valve S4

Electric actuator ER20 GF3 / GF4



### 3 way ball valve S4 PVDF ER20 GF3 / GF4

Connector types  
PVDF fusion socket

	DN	10	15	20	25	32	40	50
	d	16	20	25	32	40	50	63
Ball valve PVDF	A	98	98	117	117	158	158	176
	B	38	38	38	38	48	48	48
	C	49	49	59	59	79	79	88
	D	52,5	52,5	70	70	98,5	98,5	118
	E	105	105	122	122	160	160	178
	H	257	257	274	274	312	312	330
	L	33,5	33,5	42,5	42,5	56,5	56,5	65
	Y	55	53,5	65,5	66	89,5	90,5	103,5
	Z	136	136	162	167	219	228	262
	t	13	14,5	16,5	18	20,5	23,5	27,5
	PN	16	16	16	16	16	16	16
actuator	J	79	79	79	79	79	79	79
	K	107	107	107	107	107	107	107
	N	92	92	92	92	92	92	92

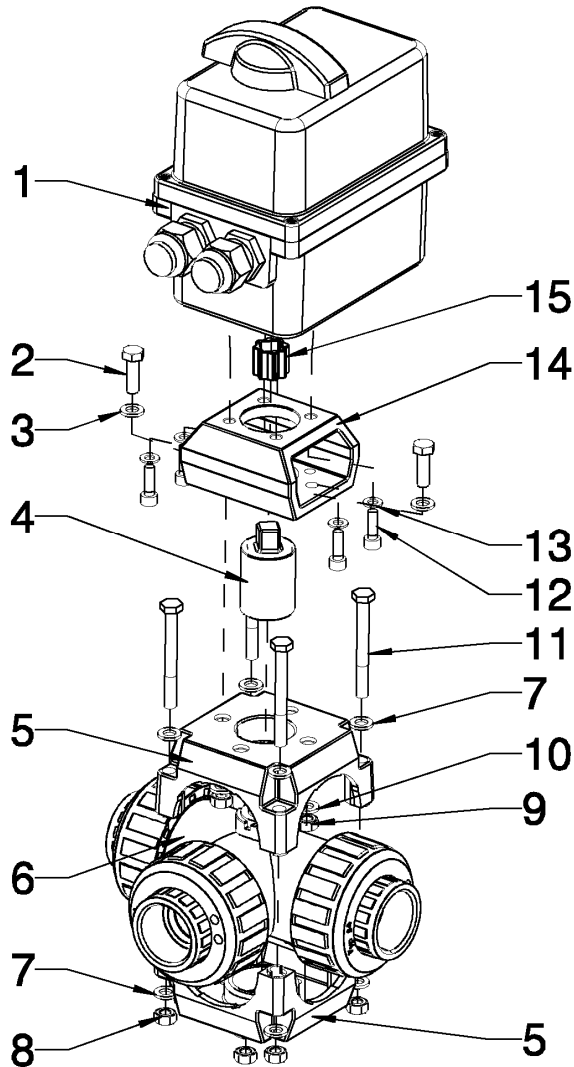
dimensions in mm

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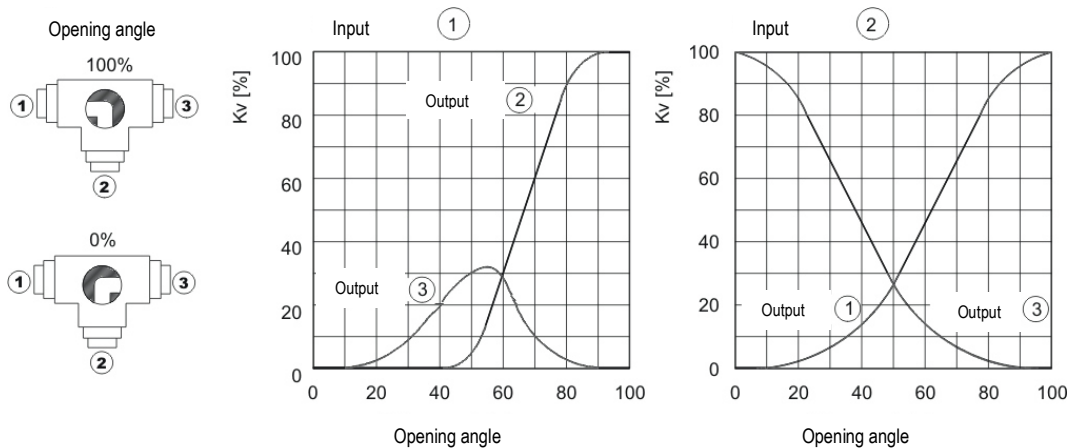
**Exploded drawing:**

1. Electric actuator ER20
2. Hexagon screw
3. Washer
4. Clutch
5. Valve bracket
6. 3 way ball valve
7. Washer
8. Hexagon nut
9. Hexagon nut
10. Washer
11. Hexagon screw
12. Hexagon socket screw
13. Toothed washer
14. Console
15. Reduction



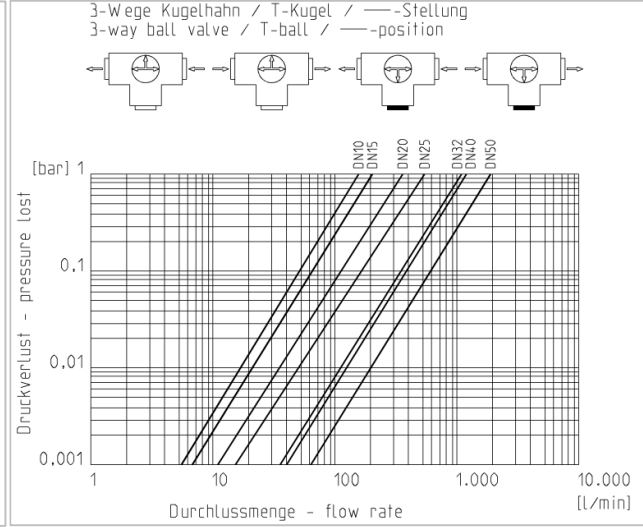
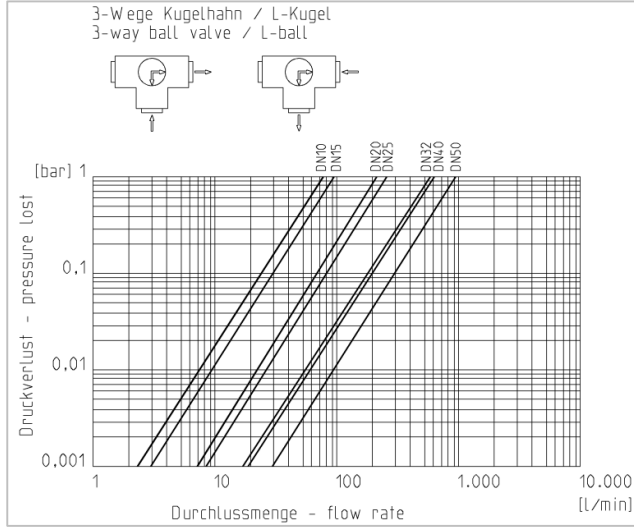
**Diagrams:**

**Flow characteristics**



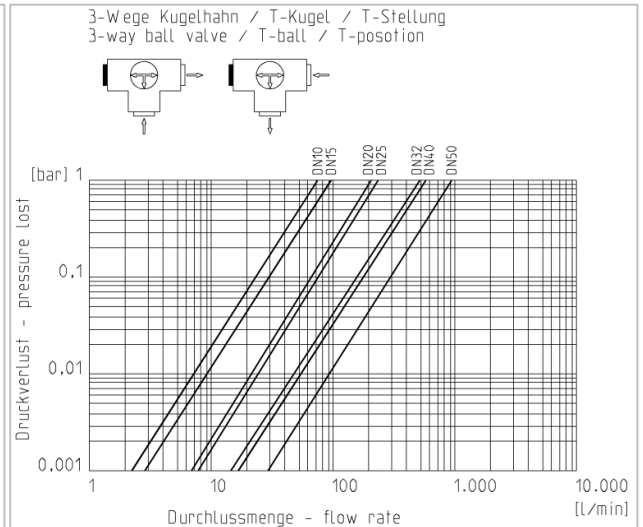
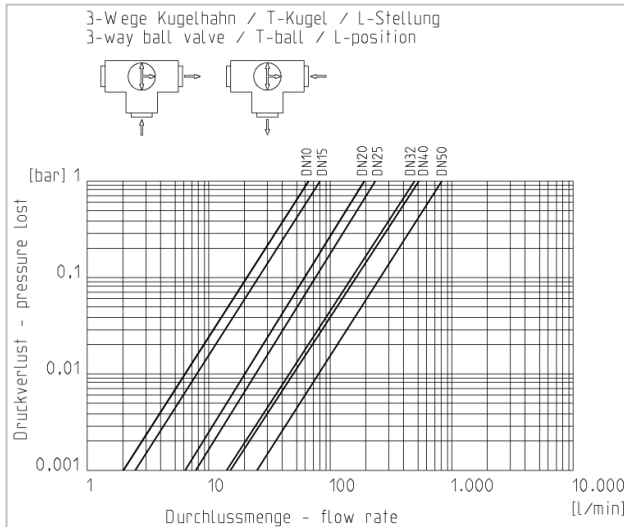
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#### Pressure loss diagram



DN10	DN15	DN20	DN25	DN32	DN40	DN50	Pressure loss	DN10	DN15	DN20	DN25	DN32	DN40	DN50
2,4	2,9	6,9	8,3	17,8	19,3	29,4	<b>0,001 bar</b>	5,3	6,5	11,4	16,3	35,6	40	61,3
75	93	218	261	562	610	930	<b>1 bar</b>	166	207	360	515	1127	1265	1940

l/min

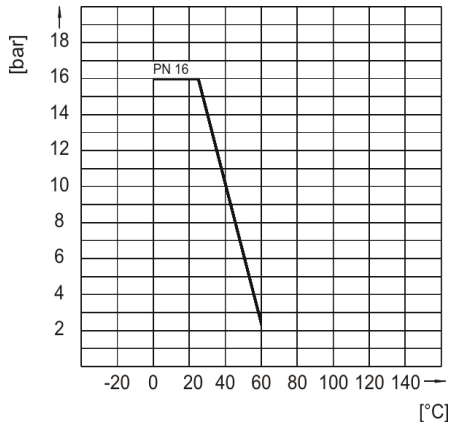


DN10	DN15	DN20	DN25	DN32	DN40	DN50	Pressure loss	DN10	DN15	DN20	DN25	DN32	DN40	DN50
2	2,5	6,2	7,6	15	16	25,5	<b>0,001 bar</b>	2,3	2,9	6,6	7,6	15,5	17,6	29,1
64	80	195	240	473	507	805	<b>1 bar</b>	72	90	210	240	490	555	920

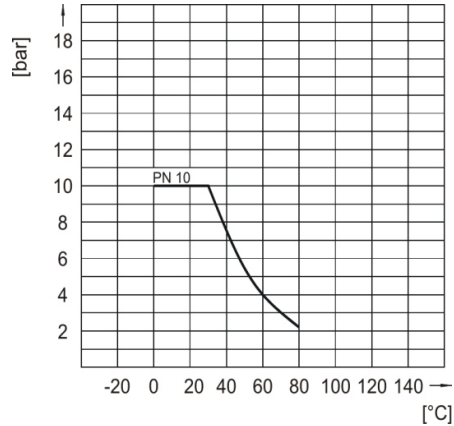
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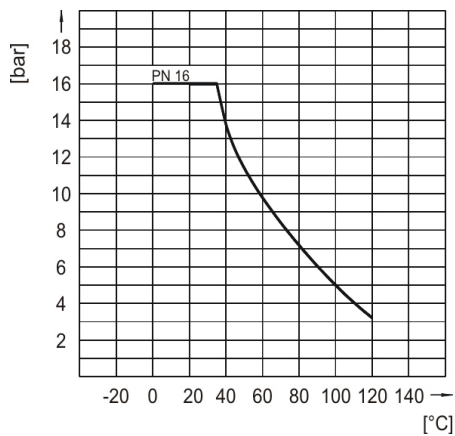
Pressure-temperature-diagram – PVC-U



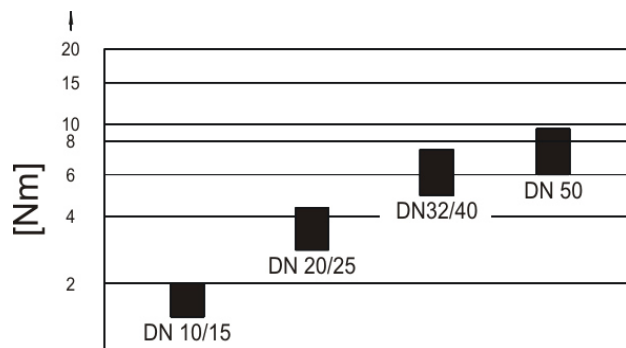
Pressure-temperature-diagram – PP



Pressure-temperature-diagram – PVDF



Torque



Technical data electric actuator

Electric actuator	
Type	ER20
Torque	20Nm
Voltage	<b>15-30V 50/60Hz (12-48V DC)</b> <b>100-240V 50/60Hz (100 – 350V DC)</b>
Operating time	12s
Power	15W
ISO flange	F03-F04-F05
Star drive nut	14
Duration	50%
Rotation angle	GF3 → 0 – 180° GF4 → 360°
Protection	IP66
Ambient temperature	-10°C bis +55°C