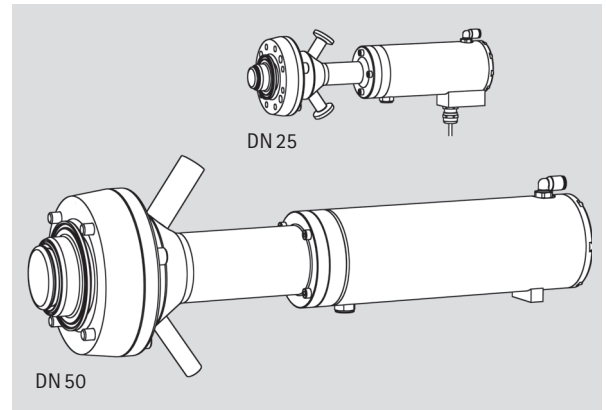


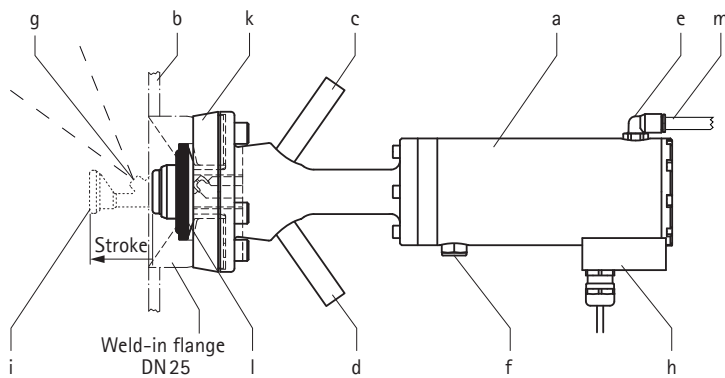
Data sheet Jet CIP valve (Tri-Clamp)

- for internal cleaning of reactors
- available with different jet nozzles and process connections
- efficient cleaning
- self-closing



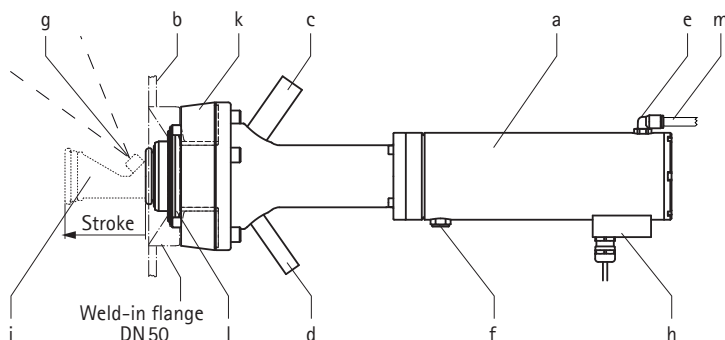
Technical data

Jet CIP valve DN 25



- a Jet CIP valve
- b Vessel wall
- c Inlet CIP / steam
- d Outlet CIP / steam
- e Threaded elbow connector for inlet control air
- f Outlet control air
- g Jet
- h Position indicator (optional) (standard configuration with blind cap)
- i Cleaning piston
- k Intermediate flange
- l Tri-Clamp port with seal
- m Pneumatic hose

Jet CIP valve DN 50



Data sheet

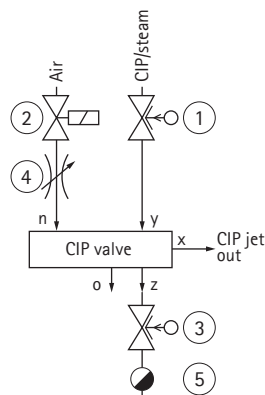
Jet CIP valve (Tri-Clamp)

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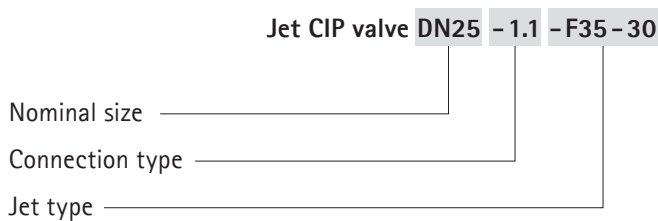
Operating temperature	max. 150°C	max. 302 F
Operating pressure CIP	max. 5 barg	max. 72.5 psi
Control pressure (Control air) suitable for pneumatic hose ø 6x1mm, material PA	4 ... 6 barg	58 ... 87 psi
Operating pressure vessel	max. 6 barg	max. 87 psi
Material (in contact with medium)	316 L	316 L
O-ring (in contact with medium)	EPDM / FEP-Silicone	EPDM / FEP-Silicone
Surface roughness (in contact with medium)	Ra 0.5 µm	Ra 0.5 µm
Weight	DN 25: ~ 4.3 kg DN 50: ~ 10.2 kg	DN 25: ~ 9.5 lb DN 50: ~ 22.5 lb
Suitable for vessel diameter	DN 25: 200 ... 800 mm DN 50: 700 ... 2300 mm	DN 25: 7.87 ... 31.5 inch DN 50: 27.56 ... 90.55 inch
Jet throughput	see characteristics diagram	
Cleaning time	see characteristics diagram	
Mounting orientation	horizontally	

Connections and control valves



- x Process connection
 - y Inlet CIP / steam
 - z Outlet CIP / steam
 - n Inlet control air
 - o Outlet control air
- ① Control valve (NC) inlet CIP / steam
 - ② Control valve (NC) air
 - ③ Control valve (NC) outlet CIP / steam
 - ④ Throttle
 - ⑤ Steam trap

Explanation for type designation



Data sheet

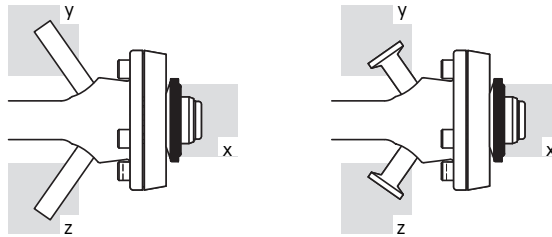
Jet CIP valve (Tri-Clamp)

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Connection type

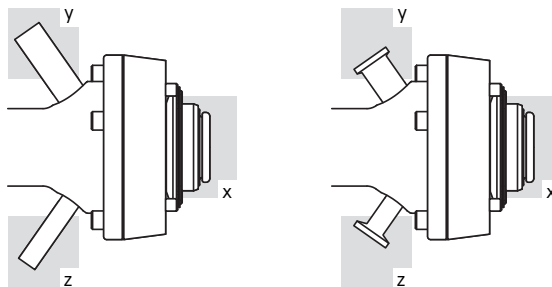
Jet CIP valve DN 25



Connection type	- 3.1	- 3.2
Process connection		
x	for weld-in flange 1.5"-TC50.5	for weld-in flange 1.5"-TC50.5
Inlet CIP/steam	Welding connection 1/2" ¹⁾	Tri-Clamp TC25 1/2" ¹⁾
Outlet CIP/steam	Welding connection 1/2" ¹⁾	Tri-Clamp TC25 1/2" ¹⁾
z		

¹⁾ Imperial ASTM A270

Jet CIP valve DN 50



Connection type	- 4.1	- 4.2
Process connection		
x	for weld-in flange 2.5"-TC77.5	for weld-in flange 2.5"-TC77.5
Inlet CIP/steam	Welding connection 3/4" ¹⁾	Tri-Clamp TC25 3/4" ¹⁾
Outlet CIP/steam	Welding connection 1/2" ¹⁾	Tri-Clamp TC25 1/2" ¹⁾
z		

¹⁾ Imperial ASTM A270

Data sheet

Jet CIP valve (Tri-Clamp)

0540-05g TB/Reg. 14

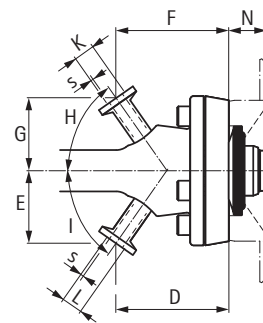
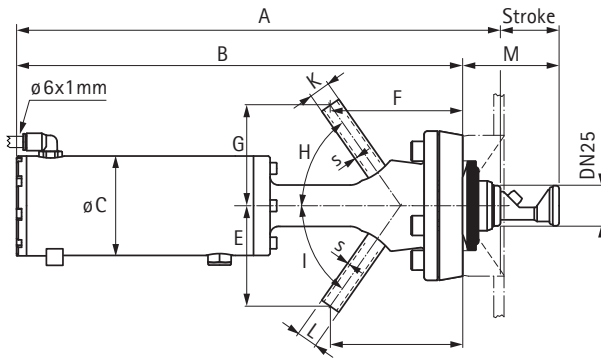
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Dimensions

DN 25

-3.1

-3.2



Connection type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H/I [°]	Stroke [mm]	Kxs [mm]	Lxs [mm]	M [mm]	N [mm]
DN25 -3.1	292	269	60	80	61	80	61	55	31	12.7x1.65	12.7x1.65	54	23
DN25 -3.2	292	269	60	68	43.8	68	44	55	31	12.7x1.65	12.7x1.65	54	23

Connection type	A [inch]	B [inch]	C [inch]	D [inch]	E [inch]	F [inch]	G [inch]	H/I [°]	Stroke [inch]	Kxs [inch]	Lxs [inch]	M [inch]	N [inch]
DN25 -3.1	11.50	10.60	2.36	3.15	2.40	3.15	2.40	55	1.22	0.5x0.065	0.5x0.065	2.12	0.90
DN25 -3.2	11.50	10.60	2.36	2.67	1.72	2.67	1.72	55	1.22	0.5x0.065	0.5x0.065	2.12	0.90

Data sheet

Jet CIP valve (Tri-Clamp)

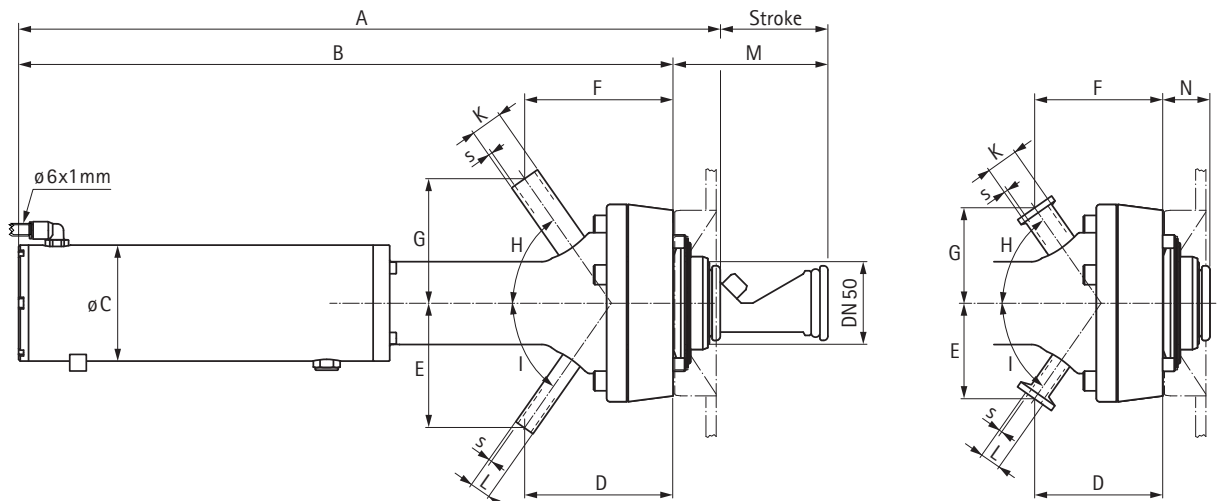
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DN 50

-4.1

-4.2



Connection type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H/I [°]	Stroke [mm]	Kxs [mm]	Lxs [mm]	M [mm]	N [mm]
DN50 -4.1	423.5	396	70	91	75	91	75	55	65	19.05x1.65	12.7x1.65	92.5	27.5
DN50 -4.2	423.5	396	70	78.5	57.6	78.5	57.5	55	65	19.05x1.65	12.7x1.65	92.5	27.5

Connection type	A [inch]	B [inch]	C [inch]	D [inch]	E [inch]	F [inch]	G [inch]	H/I [°]	Stroke [inch]	Kxs [inch]	Lxs [inch]	M [inch]	N [inch]
DN50 -4.1	16.67	15.6	2.75	3.58	2.95	3.58	2.95	55	2.56	0.75x0.065	0.5x0.065	3.63	1.08
DN50 -4.2	16.67	15.6	2.75	3.09	2.26	3.09	2.26	55	2.56	0.75x0.065	0.5x0.065	3.63	1.08

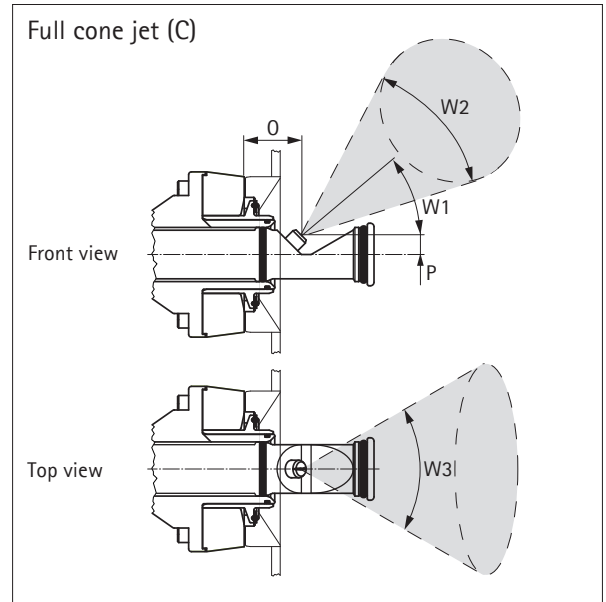
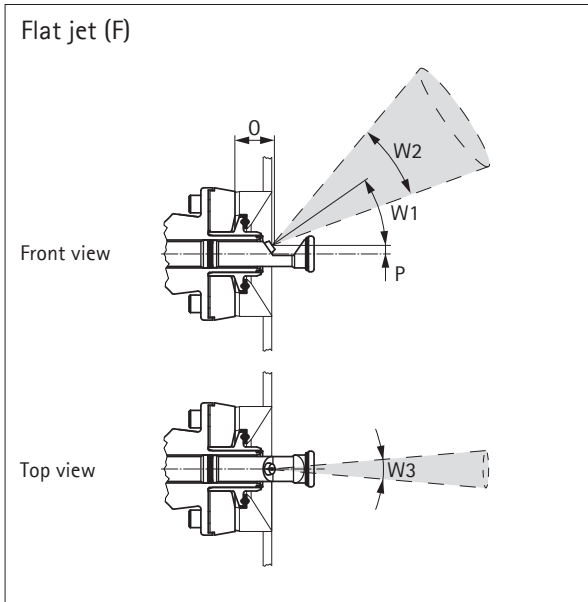
Data sheet

Jet CIP valve (Tri-Clamp)

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Jet type



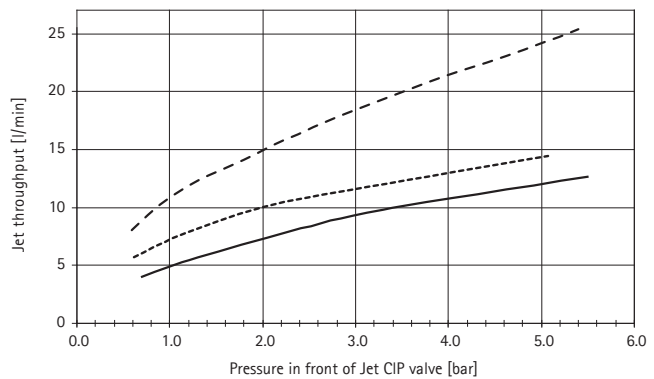
Jet type		W1	W2	W3	O [mm (inch)]	P [mm (inch)]
DN25	-F35-30 (Flat jet)	35°	30°	~2-10°	25.2 (0.99)	5.9 (0.23)
	-F45-45 (Flat jet)	45°	45°	~2-10°	29 (1.14)	6.8 (0.27)
	-F55-60 (Flat jet)	55°	60°	~2-10°	31 (1.22)	7 (0.28)
DN50	-F35-30 (Flat jet)	35°	30°	~5-11°	32.4 (1.28)	13.2 (0.52)
	-F45-45 (Flat jet)	45°	45°	~5-11°	40 (1.57)	14 (0.55)
	-F55-60 (Flat jet)	55°	60°	~5-11°	40.4 (1.6)	13.8 (0.54)
	-C45-60 (Full cone jet)	45°	60°	~55-90°	42 (1.65)	15.4 (0.61)

Characteristics

Jet throughput

Volumetric flow through nozzles

- Jet CIP valve DN50 30°/45°/60° flat jet
- Jet CIP valve DN50 60° full cone jet
- Jet CIP valve DN25 30°/45°/60° flat jet



Data sheet

Jet CIP valve (Tri-Clamp)

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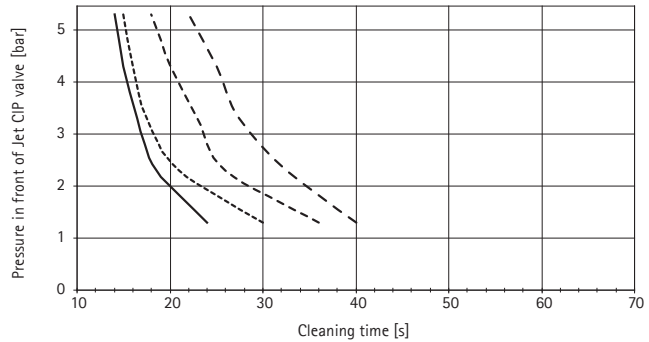
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Jet CIP valve DN25

Cleaning time

45° flat jet (~12.6l/min / 5 bar)

- Distance 2.0m
- Distance 1.5m
- Distance 1m
- Distance 0.5m

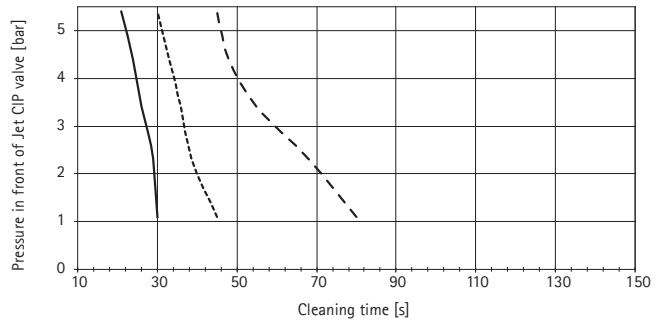


Jet CIP valve DN50

Cleaning time

45° flat jet (~25.3l/min / 5 bar)

- Distance 4m
- Distance 3m
- Distance 2m

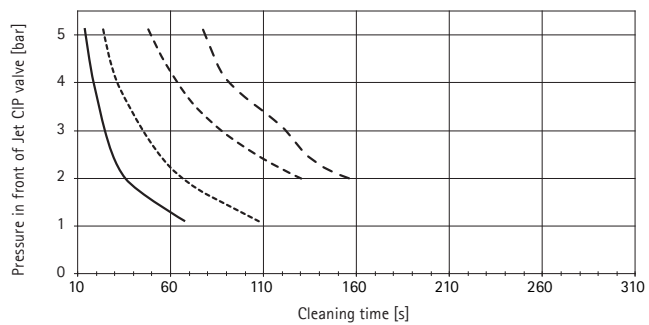


Jet CIP valve DN50

Cleaning time

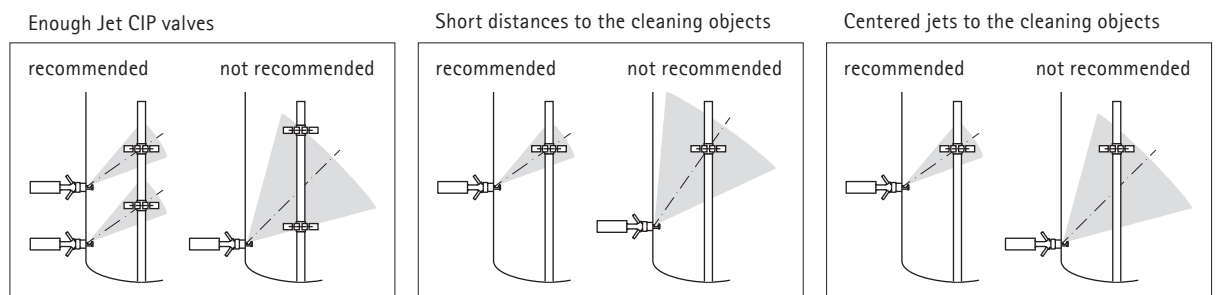
60° full cone jet (~14.4l/min / 5 bar)

- Distance 2.0m
- Distance 1.5m
- Distance 1m
- Distance 0.5m



Test situation: • Cleaning of protein dissolved in water, dried on stainless steel.
• Cleaning with cold water.

Deviations may occur in practice. Bioengineering cannot assume any liability for this data.



Not recommended arrangements results in insufficient cleaning.

Data sheet

Jet CIP valve (Tri-Clamp)

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Jet CIP valve ¹⁾

Order no.

Jet CIP valve DN25 -3.1 - F35 - 30	112450.1
Jet CIP valve DN25 -3.1 - F45 - 45	112450.2
Jet CIP valve DN25 -3.1 - F55 - 60	112450.3
Jet CIP valve DN25 -3.2 - F35 - 30	112449.1
Jet CIP valve DN25 -3.2 - F45 - 45	112449.2
Jet CIP valve DN25 -3.2 - F55 - 60	112449.3
Jet CIP valve DN50 - 4.1 - F35 - 30 ²⁾	112465.1
Jet CIP valve DN50 - 4.1 - F45 - 45 ²⁾	112465.2
Jet CIP valve DN50 - 4.1 - F55 - 60 ²⁾	112465.3
Jet CIP valve DN50 - 4.1 - V45 - 60 ²⁾	112465.4
Jet CIP valve DN50 - 4.2 - F35 - 30 ²⁾	112466.1
Jet CIP valve DN50 - 4.2 - F45 - 45 ²⁾	112466.2
Jet CIP valve DN50 - 4.2 - F55 - 60 ²⁾	112466.3
Jet CIP valve DN50 - 4.2 - V45 - 60 ²⁾	112466.4

¹⁾ incl. accessories except weld-in flange

²⁾ Jet CIP valve DN50 are to be mounted with Bioengineering weld-in flange 2.5"-TC77.5

Documentation

Order no.

Data sheet	
Operation instructions	58064

Data sheet

Jet CIP valve (Tri-Clamp)

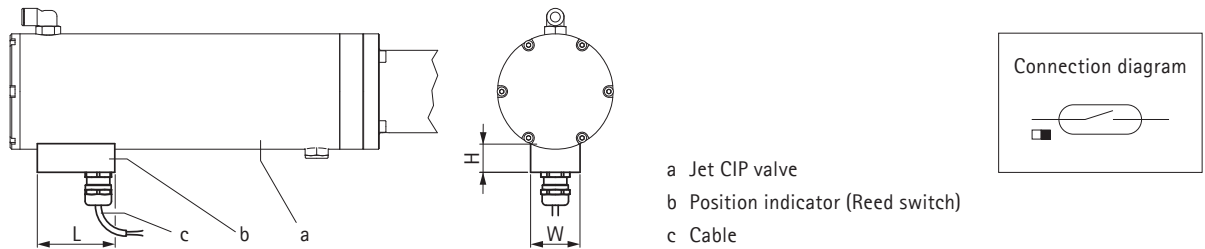
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Options

Position indicator

Indicates plunger position (extended/retracted). Available together with the Jet CIP valve or as a retrofit kit.



Technical data

L x W x H	47 x 30 x 17 mm	1.85 x 1.18 x 0.67 inch
Switching capacity	10W	10W
Current switching	max. 0.5 A	max. 0.5 A
Voltage switching	200 VDC	200 VDC
Material	304	304
Surface roughness	Ra 1.6	Ra 1.6
Cable	Silicone SIHF 2x0.5mm ² , without plug	Silicone SIHF 2x0.5mm ² , without plug
IP protection	IP 67	IP 67

	Order no.
Position Indicator DN 25, cable length 2 m	44076.3
Position Indicator DN 25, cable length 5 m	44076.6
Position Indicator DN 50, cable length 2 m	44076.2
Position Indicator DN 50, cable length 5 m	44076.5

Weld-in flange for Jet CIP valve DN 25	Order no.
1.5"-TC 50.5/H 25/Thread 5/16"-18 UNF (see data sheet '0141-03 TB Weld-in flange Tri-Clamp')	112577

Weld-in flange for Jet CIP valve DN 50	Order no.
2.5"-TC 77.5/H 25/Thread 5/16"-18 UNF (see data sheet '0141-03 TB Weld-in flange Tri-Clamp')	112578

Extended documentation ¹⁾	Order no.
Material certificate EN 10204-3.1 /USP /FDA	
Jet CIP valve DN25-3.1	57919.1
Jet CIP valve DN25-3.2	57919.2
Jet CIP valve DN50-4.1	57919.3
Jet CIP valve DN50-4.2	57919.4

Data sheet

Jet CIP valve (Tri-Clamp)

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Material certificate EN 10204-3.1 /USP /FDA

Weld logs

Surface reports

Jet CIP valve DN25-3.1	57920.1
Jet CIP valve DN25-3.2	57920.2
Jet CIP valve DN50-4.1	57920.3
Jet CIP valve DN50-4.2	57920.4

¹⁾ only for materials and surfaces in contact with product

Spare parts

O-ring set	Order no.
O-ring set for Jet CIP valve DN 25	56793
O-ring set for Jet CIP valve DN 50	52307

Tri-Clamp seal for Jet CIP valve DN25	Order no.
Tri-Clamp seal TC 50.5 /EPDM	56488
Tri-Clamp seal (1/2") TC 25 /EPDM	56470

Tri-Clamp seal for Jet CIP valve DN50	Order no.
Tri-Clamp seal TC 77.5 /EPDM	56497
Tri-Clamp seal (1/2") TC 25 /EPDM	56470
Tri-Clamp seal (3/4") TC 25 /EPDM	56472

Threaded elbow connector 1/8"	Order no.
for Jet CIP valve DN 25 and DN 50	54821