SECTION – C – rev0

TECHNICAL SPECIFICATIONS OF STORES AND DRAWINGS.

Technical Specifications for Supply, Factory Acceptance Tests and Site Acceptance Test of ISO DN-500-F Electro Pneumatic Gate Valve

Sr. No.	Required specification	
1	No. of valve for procurement	02
2	Valve operating pressure range	1 x 10^{-9} mbar to 1 bar
3	Valve opening	500 (mm)
4	Flange connection	ISO-F 500 on both side
5	Body material	SS 304
6	Seal- Bonnet	Metal
7	Seal - Gate	Viton
8	Feedthrough	bellow feedthrough
9	Actuator	Pneumatic double acting cylinder
10	Differential pressure at opening	≤ 20 mbar
11	Differential pressure on gate plate	≤ 1 bar in either direction
12	Solenoid	Should be provided
13	Position indicator	Should be provided
14	Operating temperature	≤ 150 C (valve body)
15	Leak rate (body)	≤ 10^{-9} mbar l/s
16	Leak rate (gate)	≤ 10^{-9} mbar l/s from both side against full atmospheric pressure differential
17	Leak rate of gate seal	In case of power failure ≤ 10^{-9} mbar l/s In case of pneumatic air failure ≤ 10^{-9} mbar l/s
18	Mounting	Horizontal or vertical
19	Solenoid	230 volts (AC) 50 Hz
20	Power failure protection	In case of power failure If valve opened – should be closed If valve closed – should remain closed
21	Pneumatic air failure protection	In case of pneumatic air failure If valve closed – should remain closed
22	Position indicator contact rating	PFC contact
23	closing/opening time	< 10 s
24	Duty cycle until first service	≥ 10000

Other requirements:

- Vendor must provide comply statement for the technical specifications along with offer.
- Gate Valves should be tested as per specification, prior to despatch.

- Test certificate should be provided along with the material.
- The vendor should agree for service support for ISO-F 500 Gate valves for minimum 5 years.

Acceptance test: acceptance of valve will be followed by below mentioned successful tests carried out by vendor's representative at IPR site.

- Valve opening and closing time should be less than 10 S.
- Position indicator should indicate proper position of valve
- Valve body leak rate ≤ 10^{-9} mbar l/s by vacuum method
- Valve gate plate leak rate ≤ 10^{-9} mbar l/s from both side of gate plate
- Valve gate seal leak rate ≤ 10^{-9} mbar l/s in case of power failure and pneumatic air failure.
- Power failure protection checking (If valve is open and power failure then Valve should be closed in case of power failure)
- Pneumatic air failure checking (If valve is closed and pneumatic air failure then valve should remain closed in case of pneumatic air failure)

Compliance Sheet

Compliance Statement for Supply, Factory Acceptance Tests and Site Acceptance Test of ISO DN-500-F Electro Pneumatic Gate Valve

Vendor must filled and submit the compliance statement with official seal and signature with offer.

Sr. No.	IPR's Required specification		Vendor's reply
1	Valve operating pressure range	1 x 10^{-9} mbar to 1 bar	
2	Valve opening	500 (mm)	
3	Flange connection	ISO-F 500 on both side	
4	Body material	SS 304	
5	Seal- Bonnet	Metal	
6	Seal - Gate	Viton	
7	Feedthrough	bellow feedthrough	
8	Actuator	Pneumatic double acting cylinder	
9	Differential pressure at opening	≤ 20 mbar	
10	Differential pressure on gate plate	≤ 1 bar in either direction	
11	Solenoid	Should be provided	
12	Position indicator	Should be provided	
13	Operating temperature	≤ 150 C (valve body)	
14	Leak rate (body)	≤ 10^{-9} mbar l/s	
15	Leak rate (gate)	≤ 10^{-9} mbar l/s from both side	
16	Leak rate of gate seal	In case of power failure ≤ 10^{-9} mbar l/s In case of pneumatic air failure ≤ 10^{-9} mbar l/s	
17	Mounting	Horizontal or vertical	
18	Solenoid	230 volts (AC) 50 Hz	
19	Power failure protection	If valve is open and power failure then Valve should be closed in case of power failure	
20	Pneumatic air failure protection	If valve is closed and pneumatic air failure then valve should remain closed in case of pneumatic air failure	
21	Position indicator contact rating	PFC contact	
22	closing/opening time	< 10 s	
23	Duty cycle until first service	≥ 10000	
24	Gate Valves should be tested as per specification, prior to despatch.		
25	Test certificate should be provided along with the material.		
26	The vendor should agree for service		

	support for ISO-F 500 Gate valves for minimum 5 years.		

Authorised Signatory

Official Seal

Date :-