VALVOLE Hofmann by BONINO Engineering

Offer N°	1901331
Offer date	Rev.
Identifier	1901331
Date	13/05/2019 14:22:21
Customer	
Project	Tag no.
Job	

SERVICE CONDITION

Fluid	Water	Critical pressure	bar(a)	220,64
Fluid state	Liquid	Molecular weight	kg/kmol	

		Units	Condition 1	Condition 2	Condition 3	Condition 4
Comments on conditions						
Flow rate	qv	l/min	20,0000	13,0000	5,0000	
Inlet pressure		bar(a)	1,2000	1,2000	1,2000	
Outlet pressure		bar(a)	1,0000	1,0000	1,0000	
Inlet temperature		°C	20,0000	20,0000	20,0000	
Intlet density		kg/m³	998,2157	998,2157	998,2157	
Outtlet density		kg/m³	998,2065	998,2065	998,2065	
Vapor pressure PV		bar(a)	0,0234	0,0234	0,0234	
Viscosity		Pa s	0,0010	0,0010	0,0010	
Isentropic exponent		-				
Required valve Kv		m³/h	2,6809	1,8234	0,7927	
Intlet flow speed		m/s	1,0610	0,6897	0,2653	
Outlet flow speed		m/s	1,0610	0,6897	0,2653	
Travel		%	67,6601	57,8076	36,5150	
Predicted SPL		dB(A)	20,0305	20,0000	20,0000	

LINE

Pipe line size	Inlet	DN 20
	Outlet	DN 20

VALVE

Code		
Size		DN 20
Rating		
Characteristic		Equal percentage
Kvs	straight way	m³/h 9,50
Kvs	angle way	m³/h
Valve type		☐ 2 way ☐ 3 way use mixing ☐ 3 way use diverting
Working	2 way	☐ Norm. Close ☐ Norm. Open
Working	3 way	☐ NC straight way — Mixing use / Mixing plug (Shut off on straight way) ☐ NO straight way — Mixing use / Mixing plug (Shut off on angle way) ☐ NC straight way — Divert. use / Mixing Plug (Shut off on straight way) ☐ NO straight way — Divert. use / Mixing Plug (Shut off on angle way) ☐ NC straight way — Divert. use / Divert. Plug (Shut off on straight way) ☐ NO straight way — Divert. use / Divert. Plug (Shut off on angle way)
Stage		No
number of stage	Tot.Qty	Inside body / Flange / Dump Tube
Shut off	bar	
Max. temperature	°C	
Seal		☐ Soft class VI ☐ Metal class IV ☐ Metal class VI
Body material		
Bonnet material		
Trim material		
Inlet connection		DN 20
Outlet connection		DN 20
Flange face to face	mm	
Flanges drilling according to		
Seat Diameter	mm	
Type of Bonnet		☐ Standard ☐ Finned extension ☐ Extended
Stem sealing type		☐ Stuffing box ☐ Bellow seal + safety stuffing box
Packing material		☐ PTFE ☐ PTFE+FPM ☐ PTFE+EPDM ☐ GRAPHITE+PTFE ☐ GRAPHITE ☐ VACUUM
Materials not accepted in contact with the fluid		
TA-LUFT		☐ Yes ☐ No

Zone _____ Mark _____

ACTUATOR

Actuator type	☐ PNEUMATIC ☐ ELECTRIC
Actuator code	
Operation mode	☐ ON/OFF ☐ Modulating
Supply	☐ 2,5 bar ☐ 3,5 bar ☐ 6 bar
Nominal drive signal	☐ 0,42-1,03 bar ☐ 0,63-1,24 bar ☐ 0,84-2,07 bar ☐ 1,5-2,7 bar ☐ 1,5-3,2 bar ☐ 1,6-3,2 bar
Handwheel	☐ Yes ☐ No
Quick-exhaust	☐ Yes ☐ No
Opening time valve	
Closing Time valve	

POSITIONER

Positioner code

☐ Pneumatic - input _____ psi

☐ Analogic - input _____ mA

☐ Digital — ☐ Input 4-20 mA ☐ Input profibus ☐ Input fieldbus — protocol _____

☐ Feedback 4-20 mA

☐ 2 Endswitches built in positioner

☐ With gauges

Zone _____ Mark _____

SOLENOID VALVE

Voltage

Function

☐ 1 solenoid valve before positioner (13744_M) ☐ NC ☐ NO

☐ 1 solenoid valve after positioner (13744_V) ☐ NC ☐ NO

☐ 1 solenoid valve to choose control signal

☐ NC — Solenoid energized air trough positioner (Regulation) / Solenoid not energized air direct to servocontrol — 24271C

☐ NC — Solenoid energized air direct to servocontrol / Solenoid not energized air trough positioner (Regulation) — 24271A

☐ 1 solenoid valve before positioner + 1 solenoid valve after positioner to choose signal

☐ Both solenoid energized air trough positioner (Regulation) . / Both solenoid not energized air direct to servocontrol. — 14231C

☐ Both solenoid energized air direct to servocontrol / Both solenoid not energized air trough positioner (regulation — 14231A

☐ Solenoid before energized + solenoid after not energized, air trough positioner (Regulation) . / Solenoid before not energized + solenoid after energized, air direct to servocontrol. — 14231

Zone _____ Mark _____

AIR SET

Filter regulator	☐ Yes ☐ No
Air filter material	☐ AL.+Plastic ☐ S.S.316
Booster	☐ Yes ☐ No
Lockup	☐ Yes ☐ No
Tubing material	☐ Rilsan ☐ S.S.304/316+Brass ☐ S.S.304/316 ☐ Copper

SWITCHES

Switch Type	☐ Mech. ☐ Proximity ☐ Inductive
Switching position	☐ Open ☐ Close ☐ Both

Zone _____ Mark _____

NOTES

Predicted SPL according to : IEC 60534-8-4 (2015)