

Item No. / Qty	1		4		Ref. No.		
Tag No.	XCV12,22,32,42				Purchaser	AEU	
Service					End user	AEU	
					Project		
<b>&lt;Control valve&gt;</b>					<b>&lt;Remarks&gt;</b>		
Model	HTS				SV0201-008 Seat leakage: IEC, JIS Class VI		
Description	Top-Guided Single Seated Control Valves				SV0601-001 Air piping Connection: 1/4 NPT		
Body/Port size (in.)	2		2		SV0602-009 Air piping: Stainless steel (304ss) tube. Joint: Double-bite Joint.(316ss)		
Conn. Size. / Rated CV			50				
Rating / Conn. Type	ANSI300		RF				
Body material	A351CF8				SV0801-E01 Material certificate in English. Scope: valve body and bonnet		
Trim material	SUS316+SOFT SEAT						
Flow characteristic	EQ%						
Bonnet	EXT-1 (-45 to -17 degC)						
Actuator / Handle	PSA6R				Smooth Face:Flange Face 3.2 to 6.3µmRa		
Action	AIR TO OPEN						
Gland packing / Grease	V-PTFE						
Gasket	V543				0% to 100% within 7sec, 100% to 0% within 7sec		
Air supply / Spring range	350kPa		200-290kPa		Customer requested 'No need Water free treatment'		
Seat leakage	CLASS VI						
Color: Body/Diaph./Yoke	Non Painting	M10B5/10	M10B5/10				
Paint	Standard						
<b>&lt;Accessories&gt;</b>							
Positioner	AVP300-FSD3A-1DYL-X						
Structure	FM Explosionproof & Flameproof, 1/4 NPT, 1/2 NPT						
Input signal	4-20 mADC						
Regulator	KZ03-2B-XX						1
Regulator2							
Limit switch	VCX5001						1
Action	Full Close on						
Solenoid valve							
Action / Power							
Unit name							
Booster	IL100-N02						1
Air lock valve							
<b>&lt;Process data&gt;</b>							
Fluid name/Phase	Hydrogen			GAS			
	MAX	NOR	MIN	Unit			
Flow rate	8363	8019	4163	m3/h(N)			
Inlet pressure	2330	2330	2330	kPaA			
Outlet pressure				kPaA			
Differential press.	13.4	13.4	1680	kPa			
Shut-off press.		2500		kPa			
Temperature	-20	-20	-20	degC			
Density/Gravity(Liq)				g/cm3			
Density/Gravity(G,V)	2.02	2.02	2.02	MW			
Viscosity				mPa-s			
Flash				%			
Calculated CV	50.42	48.35	3.246				
Travel	100	97	18	%			
Outlet velocity	0.03972	0.03809	0.07047	Mach			
Predictive SPL	50	50	87	dBA			
					<b>HPG</b>		
					Strength Calc. Shee		
					<b>&lt;Piping spec.&gt;</b>		
					Design	2700	kPaA
					Temp.	-20	degC
					Size	2	2
					Sch No.	40	40
					Thickness	3.9	3.9
					<b>Yamatake Corporation</b>		

Item No. / Qty	2		4		Ref. No.	
Tag No.	XCV13,23,33,43				Purchaser	AEU
Service					End user	AEU
					Project	
<b>&lt;Control valve&gt;</b>					<b>&lt;Remarks&gt;</b>	
Model	HTS				SV0201-008 Seat leakage: IEC, JIS Class VI	
Description	Top-Guided Single Seated Control Valves				SV0601-001 Air piping Connection: 1/4 NPT	
Body/Port size (in.)	3		3		SV0602-009 Air piping: Stainless steel (304ss) tube. Joint: Double-bite Joint.(316ss)	
Conn. Size. / Rated CV			125			
Rating / Conn. Type	ANSI300		RF			
Body material	A351CF8				SV0801-E01 Material certificate in English. Scope: valve body and bonnet	
Trim material	SUS316+SOFT SEAT					
Flow characteristic	EQ%					
Bonnet	EXT-1 (-45 to -17 degC)					
Actuator / Handle	PSA6R				Smooth Face:Flange Face 3.2 to 6.3µmRa	
Action	AIR TO OPEN					
Gland packing / Grease	V-PTFE					
Gasket	V543					
Air supply / Spring range	400kPa		200-340kPa		0% to 100% within 7sec, 100% to 0% within 7sec	
Seat leakage	CLASS VI				Customer requested 'No need water free treatment'	
Color: Body/Diaph./Yoke	Non Painting	M10B5/10	M10B5/10			
Paint	Standard					
<b>&lt;Accessories&gt;</b>						
Positioner	AVP300-CSD3A-1DYL-X					
Structure	ATEX Flameproof, 1/4 NPT, M20x1.5					
Input signal	4-20 mADC					
Regulator	KZ03-2B-XX			1		
Regulator2						
Limit switch	VCX5001			1		
Action	Full Close on					
Solenoid valve						
Action / Power						
Unit name						
Booster	IL100-N02			1		
Air lock valve						
<b>&lt;Process data&gt;</b>						
Fluid name/Phase	Hydrogen			GAS		
	MAX	NOR	MIN	Unit		
Flow rate	39669	21097	3000	m3/h(N)		
Inlet pressure	1712	865	700	kPaA		
Outlet pressure				kPaA		
Differential press.	245	237	535	kPa		
Shut-off press.	2500			kPa		
Temperature	-20	-20	-20	degC		
Density/Gravity(Liq)				g/cm3		
Density/Gravity(G,V)	2.02	2.02	2.02	MW		
Viscosity				mPa-s		
Flash				%		
Calculated CV	69.78	56.75	7.772			
Travel	67	59	18	%		
Outlet velocity	0.1322	0.1643	0.08892	Mach		
Predictive SPL	87	96	89	dBA		
<b>HPG</b>						
Strength Calc. Shee						
<b>&lt;Piping spec.&gt;</b>						
Design	2780			kPaA		
Temp.	-20			degC		
Size	2		2			
Sch No.	40		40			
Thickness	3.9		3.9			
<b>Yamatake Corporation</b>						