



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 3

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO, TX, US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA, OK, US
74015

Item Description: NPS 3 ET 657 Size 45i DVC6200 TopWorx
Switches Factory Mtgs DVC6200/DVC2000

Tag #: FCV-101

Serial #: F002194459

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X032	GAUGE,PRESS,1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT,ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16,DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16,DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		
		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		

Prices subject to change without notice



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Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		
		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
		-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
		-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
		-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
		-18B5796X012	SCREW, COMB PAN HD	4		
		-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
		-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		
		-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
		-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		

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Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
		-18B9610X012	SCREEN	1		
		-1A3303X0012	NUT,HEX ~ 6-32	2		
		-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
		-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		
		-22B9009X022	SPRING,BIAS ~ 657,667/70-100	1		
		-24B0654X032	SPRING,BIAS	1		
		-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
		-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
		-GE19919X022	SPRING, BIAS ~	1		
		-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
		38B6041X152	I/P ASSY/SHROUD	1	963.00	Y
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
VALVE BODY ASSY	9	1U222846172	SEAT RING	1	259.00	Y
	29	1V659605292	RING,BACK-UP	1	78.00	Y
	28	1V659705092	SEAL RING	1	36.00	Y
	3	2U232433272	CAGE,LINEAR	1	825.00	Y
		1V6579X0092	PLUG/STEM,BAL	1	706.00	Y

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LBP Order #: 027D-580815

Item: 3

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Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
VALVE BODY ASSY		-1V322735072	PIN,GROOVE,FLAT END ~ 1/8X0.94	1		
		-1U230535162	STEM,PLUG ~ VSC1L5000,1/2X12.50,3.38THD	1		
		-1V657946172	PLUG,BAL ~ 3 7/16 ORF,1L5000	1		
		RGASKETX202	GASKET SET	1	99.00	Y
		-1R3484X0042	GASKET ~ 4.06X5.16X.03	1		
		-D101589X012	INSTRUCTION SHEET ~ FOR RGASKETX202, X352 & X462	1		
		-16A1940X012	GASKET SHIM ~ 4 1/16 X 4 21/32 X 1/32	1		
		-1R3481X0052	GASKET ~ 4.06X4.47X.03	1		
		-1R348299442	GASKET,SPIRAL WOUND ~ CL600, 4.12X 4.62X0.175PRO	1		
TYPE 657 DIAPHRAGM ACTUATOR	2	2E859502202	DIAPHRAGM	1	110.00	Y
PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales
BONNET 2 13/16 YOKE BOSS,1/2 STEM		RPACKX00022	KIT,REPAIR	1	58.00	Y
		-1F125136042	WASHER,SPCL ~ 1/2 STEM X1.00	1		
		-1F125537012	SPRING,PACKING ~ 1/2 STEM	1		
		-1J872706332	WIPER,UPPER ~ 1/2 STEM	1		
		-1J873235072	PACKING BOX RING ~ 1/2 STEM X 1	1		
		-1R290201012	PACKING,SET ~ 1/2X1	1		
		-D101561X012	INSTRUCTION SHEET ~ FOR RPACKX00012,22,32,342&352	1		

Prices subject to change without notice



Serial Card

FISHER™**LBP Order#:** 027D-580815**CustPO:** 4500890601**Version:** As Created**SerialRange:** F002194459**ShipTo:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Current Location:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Installed At:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Shipped:****Application:** VLVS Assembly Line**SalesPerson:** BRIAN HANEY / MB**Project:****Carrier:** UNASSIGNED-TRUCK-
STD SERVICE**Split:** Y**Pack:** Domestic (WMP
11A1)**Pay:** Prepaid And Add To
Invoice

Item Detail

Item: 3 **Tag:** FCV-101 **Quantity:** 1

VALVE BODY ASSY , BONNET 2 13/16 YOKE BOSS,1/2 STEM , TYPE 657 DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR , TOPWORX SWITCHES AND MOUNTINGS

Item Level Notes

G05 PO#: 4500890601 / PROJECT#: J447CL

F51 Gas, Minimum, FlowMedia=NATURAL GAS (0.65 SG) P1=257.000 psig, dP=72.000 psi T1=157.000 deg F, Cv=40.808
Gas, Normal, FlowMedia=NATURAL GAS (0.65 SG) P1=257.000 psig, dP=72.000 psi T1=157.000 deg F, Cv=101.498
Gas, Maximum, FlowMedia=NATURAL GAS (0.65 SG) P1=257.000 psig, dP=72.000 psi T1=157.000 deg F, Cv=119.990 Design Press=500 psig, Design Temp=250 Deg F

I05 NPS 3 ET 657 Size 45i DVC6200 TopWorx Switches Factory Mtgs DVC6200/DVC2000

Construction Details

ET **Quantity:** 13 IN WCC CL300 RF FLG GLOBE BODY , LINEAR CB-7CU CAGE 1 1/2 TRAV , 416 SST VALVE PLUG & RING 3 7/16 PORT METAL SEAT , B7 BOLTS 2H NUTS , GASKET GRAPH/SST, SPIRAL INC/GRAPH , CARBON FILLED TFE SEAL RING FKM BACKUP RING , 316 SST VALVE STEM 1L5000 VSC , FLOW ARROW & DRIVE SCREW , NAMEPLATE , DESIGN ET PUSH DOWN TO CLOSE, FLOW DOWN , ANSI CL300 HYDRO 1125 PSI/2 MIN , CL4 LEAK TEST 30.2 SCFH FGS 4L5
316 SST PACKING FLANGE STUDS AND NUTS , TFE PACKING,ARRANGEMENT 12A7811 , 316 SST; PTFE FMS 17D7 , STL PLAIN BONNET**657** **Quantity:** 1

NITRILE DIAPHRAGM , SIZE 45I CAST IRON YOKE TAPPED 2 13/16 BOSS , SPRING 1E826127082 RATE=1120 LB/IN , PUSH DOWN TO CLOSE TRAVEL 1 1/2 , STEM SIZE 1/2 , SIZE 45 STD , NAMEPLATE , LUB-1 FMS 27D1 , SIZE 45 , TYPE 657 , 0-33 PSI AIR TO DIAPHRAGM , BENCH SET 6-22 PSI , 60 PSI MAX CASING PRESS

DVC6200 **Quantity:** 1ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-60 PSI/0-4 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT'
MTG, DVC6200 NA, 657/667 W/O MO SIZE 30I-46I , FOR NITRILE INSTRUMENT CONSTRUCTIONS , 38MM TRAVEL FEEDBACK ARRAY KIT , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGELOK FITTINGS , MTG POSITION 1 PER DWG GE52353**67CFR** **Quantity:** 1

1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-60 PSI SPRING,BLUE STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET

TOPWORX DXP **Quantity:** 1

TOPWORX DXP-MX1GN4B VALVETOP SWITCH , VIP MOUNTING KITS

Nameplate

AMB TEMP	-40
INPUT	4-20MA PT-PT
NAMEPLATE	GE90092X0A2
TYPE	DVC6200
BENCH SET><	6-22
BODY><	STL
CASING/CYLINDER MAX PRESS><	60
NAMEPLATE	18A5087X0A2
NAMEPLATE><	12B6508X0A2
NAMEPLATE><	18B9855X0A2
OPER RANGE	0-33
PLUG><	SST
PORT SIZE	3 7/16
PRESS UNITS><	PSI
RATING	CL300/750 PSI CWP
SEAT><	SST
SIZE	3
SIZE	45i
STEM><	SST
TRAVEL	1 1/2
TYPE><	657
TYPE><	ET

Paint						
Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
657	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
ET	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard
TopWorx	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER**Sliding Stem Valve Specification**

Customer: UOP RUSSELL LLC

Vinson Process Controls

Contact: Dennis Paden

Contact: Ron Berte

Customer Reference: UOP RUSSELL, SC6

Sales Office Reference: VVES

Lead Time: 10 WKS

STD PLANT

Item 9

Rev:

Qty: 1

Rev: A

Tags: FCV-101

Date Last Modified: 11/08/2016

Description: NPS 3 ET 667 Size 461 DVC6200 TopWorx Switches

Service Description:

Service:		Positioner Type:	DVC6200, HART Communicating-HC
Size and Type:	NPS 3 ET	Input Signal:	4 to 20 mA dc
Body Style:	Globe	Access:	67CFR Filter/Regulator
Design Temp:	250 deg F	Gauges:	0-60 psig/0-4 bar
Design Press:	500 psig	Action:	Direct
End Connect/In/Out:	CL300/RF Flg/RF Flg	Certification:	FM, Explosion Proof/Intrinsic Safe/Nonincendive
Material:	WCC Steel	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Down	Measure Element:	
Trim Number:	1	Range:	
Cage Matl:	CB7Cu-1 SST	Output:	
Retainer Matl:		Mounting:	
Bushing Matl:		Airset:	
Seat Ring Matl:	S41600 SST	Mounting:	
VALVE PLUG		Transducer:	
Material:	S41600 SST	Input Signal:	
Guiding:	Cage	Output Signal:	
Balance:	Balanced	Action:	
Shutoff Class:	ANSI CL IV	Mounting:	
Port Size:	3 7/16 inch	Airset:	
Characteristic:	Linear	Certifications:	
Stem Material:	S31600 SST	Line In:	3 in, SCH STD
Stem Size:	1/2 inch	Line Out:	3 in, SCH STD
Bonnet Style:	Plain	Insulation:	
Boss Size:	2 13/16	Service Cond:	THROTTLING
Packing:	Single PTFE	Process Fluid:	NATURAL GAS (0.65 SG)
Access:	No		
Bolt, Bonnet:	SA-193-B7 Studs/2H Nuts		
Pack Flg/Bltg:	SST Pkg Flg, SST Studs & Nuts		
Actuator:	Spring & Diaphragm		
Type/Size:	667/461		
Travel:	1 1/2 inch		
Bench Set:	6-22 psi		
Push Down To:	PDTC		
Supply:	Air		
To Actuator:	0 to 33 psig		
Fails Valve:	Open		
Handwheel:	None		
		Max Rated Cv:	148.0

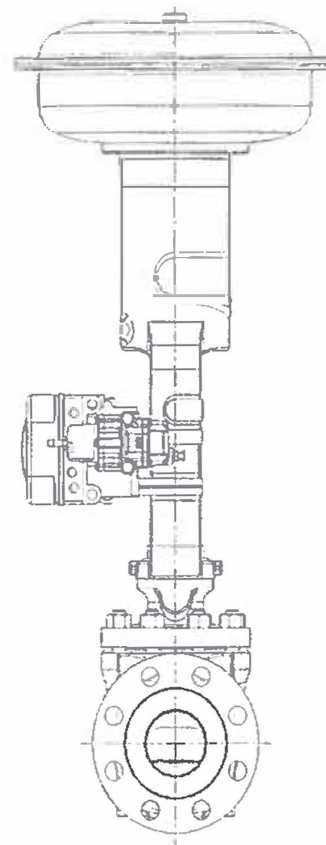
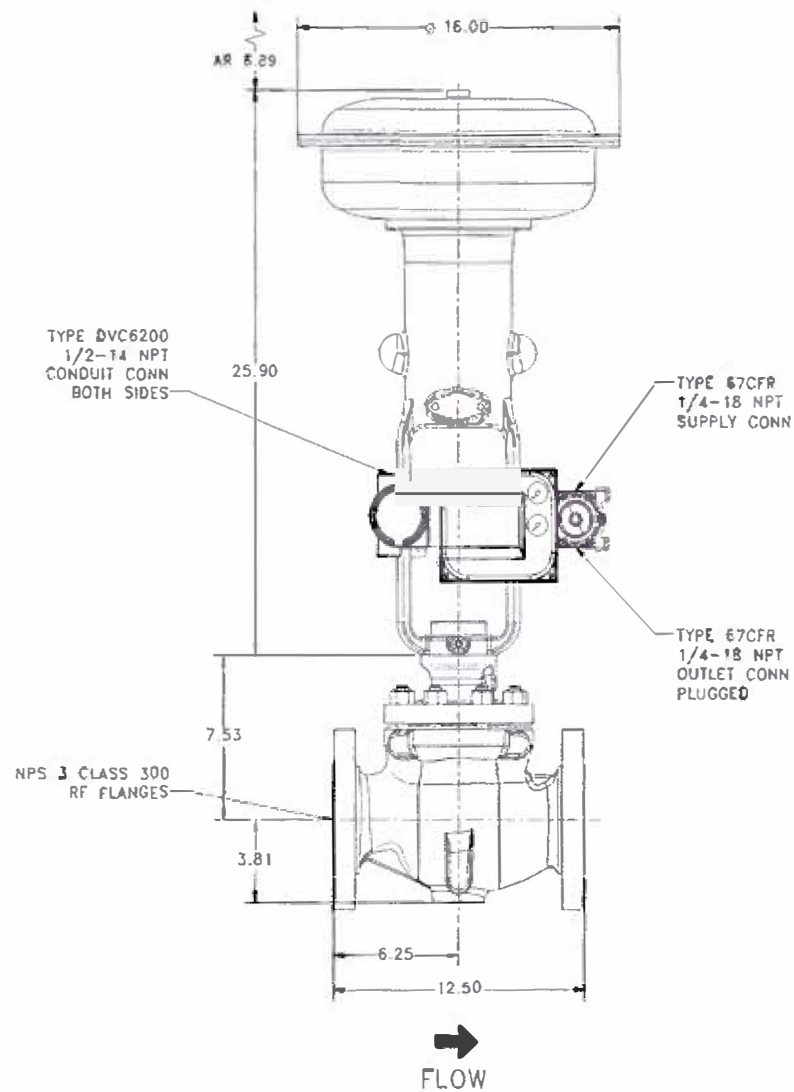
Variable Name	Unit	Minimum	Normal	Maximum	
Mass Flow Rate Gas (w)	lb/h	16816.000	42037.000	49466.000	
Inlet Pressure (P1)	psig	267.000	267.000	267.000	
Pressure Change (dP)	psi	72.000	72.000	72.000	
Inlet Temperature (T1)	deg F	167.000	167.000	167.000	
M / Gg	SG	0.650	0.650	0.650	
Specific heats ratio (gamma)		1.280	1.280	1.280	
Dynamic Viscosity (Mu)	cP	0.010	0.010	0.010	
Sizing Coefficient (Cv)		40.800	101.668	119.781	
% Open		24	68	71	
Valve LpA(LpA Valve 1m)	dB(A)	87	95	96	

NOTES:

1. SST TUBING & FITTINGS
2. INCLUDES TOPWORX DXP-MX1GN4B STEM POSITION TRANSMITTER & SWITCHES.

FEATURES PICTORIALLY TYPICAL

ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS +/- 0.06
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS		FISHER		© Fisher Controls Inc. LLC 2018	
CUST: UOP RUSSELL LLC CUST REF NO: JOB 447, UOP RUSSELL, SC6 STD PLANT FISHER REF NO: 027D-RCB-161121-0190534 TAG NO: FCV-101 PROJECT NAME:				ET VALVE BODY SIZE 3 657 ACTUATOR SIZE 431	
TOTAL CALCULATED WT +/- 10% TOTAL WEIGHT: 203.3 lb UNLESS OTHERWISE SPECIFIED UNIT OF MEASURE: INCH				CUST ITEM: 0009 S.MO SCALE: NONE EMERSON Process Management	
GENERAL ARRANGEMENT				SHEET 1 OF 1	

FISHER**Sliding Stem Valve Specification**Customer: **UOP RUSSELL LLC**

Vinson Process Controls

Contact: **Dennis Paden**Contact: **Ron Berte**

Customer Reference

UOP RUSSELL, SC6Sales Office Reference: **VVES**Lead Time: **10 WKS****STD PLANT**Item **3**

Rev

Qty: **1**Rev **A**Tags: **FCV-141**Date Last Modified: **11/08/2016**Description: **NPS 3 ET 667 Size 451 DVC6200****Service Description**

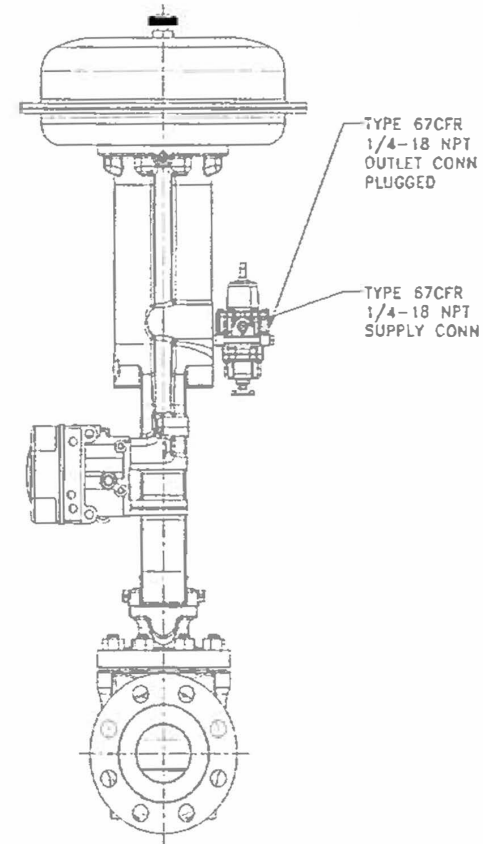
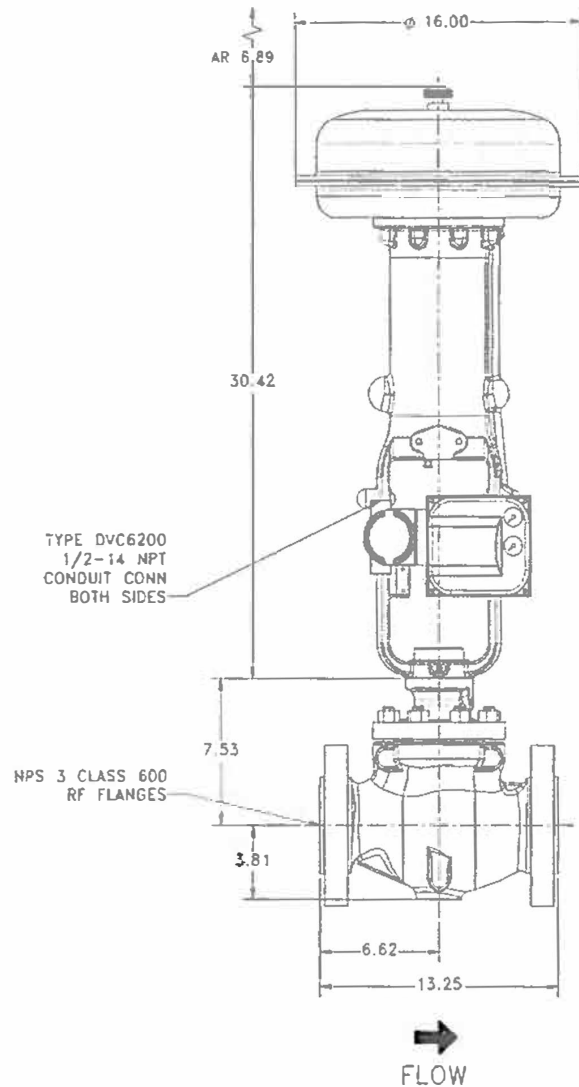
Service		Positioner Type:	DVC6200,HART Communicating-HC
Size and Type:	NPS 3 ET	Input Signal:	4 to 20 mA dc
Body Style:	Globe	Access:	67CFR Filter/Regulator
Design Temp:	150 deg F	Gauges:	0-60 psig/0-4 bar
Design Press:	1100 psig	Action:	Direct
End Connect/In/Out:	CL600/RF Flg/RF Flg	Certification:	FM,Explosion Proof/Intrinsic Safe/Nonincendi
Material:	WCC Steel	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Down	Measure Element:	
Trim Number:	1	Range:	
Cage Matl:	CB7Cu-1 SST	Output:	
Retainer Matl:		Mounting:	
Bushing Matl:		Airset:	
Seat Ring Matl:	S41600 SST	Mounting:	
VALVE PLUG		Transducer:	
Material:	S41600 SST	Input Signal:	
Guiding:	Cage	Output Signal:	
Balance:	Balanced	Action:	
Shutoff Class:	ANSI CL IV	Mounting:	
Port Size:	2 5/16 inch	Airset:	
Characteristic:	Equal Percent	Certifications:	
Stem Material:	S31600 SST	Line In:	4 in, SCH XS
Stem Size:	1/2 inch	Line Out:	4 in, SCH XS
Bonnet Style:	Plain	Insulation:	
Boss Size:	2 13/16	Service Cond:	THROTTLING
Packing:	Single PTFE	Process Fluid:	NATURAL GAS (0.66 SG)
Access:	No		
Bolt, Bonnet:	SA-193-B7 Studs/2H Nuts		
Pack Flg/Bltg:	SST Pkg Flg, SST Studs & Nuts		
Actuator:	Spring & Diaphragm		
Type/Size:	667/451		
Travel:	1 1/8 inch		
Bench Set:	10-30 psi		
Push Down To:	PDTC		
Supply:	Air		
To Actuator:	0 to 33 psig		
Fails Valve:	Close		
Handwheel:	None		
		Max Rated Cv:	70.7

Variable Name	Unit	Minimum	Normal	Maximum
Mass Flow Rate Gas (w)	lb/h	7616.000	18790.000	20878.000
Inlet Pressure (P1)	psig	924.000	924.000	924.000
Pressure Change (dP)	psi	49.000	49.000	49.000
Inlet Temperature (T1)	deg F	80.000	80.000	80.000
M / Gg	SG	0.660	0.660	0.660
Specific heats ratio (gamma)		1.280	1.280	1.280
Dynamic Viscosity (Mu)	cP	0.010	0.010	0.010
Sizing Coefficient (Cv)		9.225	23.316	26.913
% Open		46	66	68
Valve LpA(LpA Valve 1m)	dB(A)	66	63	64

NOTES:**1. SST TUBING & FITTINGS**

FEATURES PICTORIALLY TYPICAL

ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS +/- 0.06 inch
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS		FISHER		© Fisher Controls Int'l. LLC 2018	
CUST: UOP RUSSELL LLC CUST REF NO.: JOB 447, UOP RUSSELL, SC6 STD PLANT FISHER REF NO.: 0270-RCB-161121-0190534 TAG NO.: FCV-141 PROJECT NAME:				ET VALVE BODY SIZE 3 667 ACTUATOR SIZE 451	
TOTAL CALCULATED WT +/- 10% TOTAL WEIGHT: 228.9 lb UNLESS OTHERWISE SPECIFIED UNIT OF MEASURE: INCH				CUST ITEM: 0003 S.NO. SCALE: NONE SHEET 1 OF 1	
Rev DATE DWR Ckd APVE A 21-NOV-16 TDS		GENERAL ARRANGEMENT		EMERSON Process Management	



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 5

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO, TX, US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA, OK, US
74015

Item Description: NPS 1 1/2 ET 667 Size 34i DVC6200 ASCO
Factory Mtgs DVC6200/DVC2000

Tag #: FCV-402A

Serial #: F002194461

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
VALVE BODY ASSY	28	10A4216X012	SEAL RING/SPR,RADIAL	1	106.00	Y
	29	10A4218X012	RING,BACK-UP	1	290.00	Y
	27	10A4220X012	RING,RETAINING,EXT	1	30.00	Y
	7	10A8823X022	STEM,PLUG	1	220.00	Y
	9	1U221939102	SEAT RING	1	622.00	Y
		1V322635072	PIN,GROOVE,FLAT END	1	5.00	Y
	2	22A5941X012	PLUG,BAL	1	589.00	
	3	2U740948932	CAGE,EQ%	1	720.00	Y
		RGASKETX172	GASKET SET	1	73.00	Y
		-1R3098X0052	GASKET ~ 2.38X2.78X.03	1		
		-1R309999442	GASKET,SPIRAL WOUND ~ CL600, 2.56X 3.06X0.175PRO	1		
		-1R3101X0032	GASKET ~ 2.50X3.53X.03	1		

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LBP Order #: 027D-580815

Item: 5

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
VALVE BODY ASSY		-D101586X012	INSTRUCTION SHEET ~ FOR RGASKETX172, X322 & X432	1		
		-16A1937X012	GASKET SHIM ~ 2 1/2 X 3 3/32 X 1/32	1		
BONNET 2 1/8 YOKE BOSS 3/8 STEM		RPACKX00012	KIT,REPAIR	1	41.00	Y
		-1F125236042	WASHER,SPCL ~ 3/8 STEM X0.88	1		
		-1F125437012	SPRING,PACKING ~ 1/4 & 3/8	1		
		-1J872606332	WIPER,UPPER ~ 3/8 STEM	1		
		-1J873135072	PACKING BOX RING ~ 3/8 STEM X 7/8	1		
		-1R290001012	PACKING,SET ~ 3/8X7/8	1		
		-D101561X012	INSTRUCTION SHEET ~ FOR RPACKX00012,22,32,342&352	1		
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X032	GAUGE,PRESS,1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT,ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16,DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16,DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 5

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		
		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		
		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
		-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
		-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
		-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
		-18B5796X012	SCREW, COMB PAN HD	4		
		-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
		-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 5

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
		-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		
		-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
		-18B9610X012	SCREEN	1		
		-1A3303X0012	NUT,HEX ~ 6-32	2		
		-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
		-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		
		-22B9009X022	SPRING,BIAS ~ 657,667/70-100	1		
		-24B0654X032	SPRING,BIAS	1		
		-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
		-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
		-GE19919X022	SPRING, BIAS ~	1		
		-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
		38B6041X152	I/P ASSY/SHROUD	1	963.00	Y
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
DIAPHRAGM ACTUATOR	3	2E669902202	DIAPHRAGM	1	104.00	Y
		R667X000402	KIT,REPAIR	1	11.00	Y
		-1C415706992	O-RING ~ 1 3/8X1 5/8X1/8	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 5

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
DIAPHRAGM ACTUATOR		-1D237506992	O-RING, 3/4 X 1 X 1/8	2		
		-1E801204022	GASKET,TO 302F/150C ~ 3.75X5.75X.03	1		
		R667X000412	KIT REPAIR	1	334.00	Y
		-1E7603X0062	SCREW,CAP,HEX HD ~ 3/8-24X0.88	16		
		-1A3465X0092	NUT,HEX ~ 3/8-24	16		
		-3E8847X0012	STEM,ACTUATOR ~ 667 SIZE 34	1		
		-1E682814012	BUSHING,SEAL ~ 34 & 40	1		
PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales

Prices subject to change without notice



Serial Card

FISHER™**LBP Order#:** 027D-580815**CustPO:** 4500890601**Version:** As Created**SerialRange:** F002194461**ShipTo:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Current Location:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Installed At:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Shipped:****Application:** VLVS ETO Line**SalesPerson:** BRIAN HANEY / MB**Project:****Carrier:** UNASSIGNED-TRUCK-
STD SERVICE**Split:** Y**Pack:** Domestic (WMP
11A1)**Pay:** Prepaid And Add To
Invoice

Item Detail

Item:	5	Tag:	FCV-402A	Quantity:	1
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VALVE BODY ASSY , BONNET 2 1/8 YOKE BOSS 3/8 STEM , DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR , ASCO SOLENOID VALVE & MTG PARTS

Item Level Notes

G05	PO#: 4500890601 / PROJECT#: J447CL
F51	Liquid, Minimum, FlowMedia=HC LIQ P1=909.000 psig, dP=5.000 psi T1=-83.000 deg F, Cv=4.626 Liquid, Normal, FlowMedia=HC LIQ P1=909.000 psig, dP=5.000 psi T1=-83.000 deg F, Cv=11.598 Liquid, Maximum, FlowMedia=HC LIQ P1=909.000 psig, dP=5.000 psi T1=-83.000 deg F, Cv=13.664 Design Press=1100 psig, Design Temp=150 Deg F
I05	NPS 1 1/2 ET 667 Size 34i DVC6200 ASCO Factory Mtgs DVC6200/DVC2000

Construction Details

ET	Quantity:	1
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NPS 1 1/2 CF8M CL600 RF FLG GLOBE BODY , 316 SST ENC EQ PCT CAGE 3/4 TRAVEL , N10276/PTFE GLASS/MOS 2 SPRING LOADED SEAL RING , BOLTING SST SA-193-B8M,STR HARD,LUB/NUT SA-194-8M , GASKET GRAPH/SST, SPIRAL INC/GRAPH , 316 SST VALVE STEM 1L3750 VSC , FLOW ARROW AND DRIVE SCREW , NAMEPLATE STD , DESIGN ET PUSH DOWN TO CLOSE, FLOW DOWN , ANSI CL600 HYDRO 2250 PSI/1 MIN , CL4 LEAK TEST 7.63 SCFH FGS 4L5

316 SST PACKING FLG, STUDS AND NUTS , TFE PACKING,ARRANGEMENT 12A8185 , 316 SST; PTFE FMS 17D7 , 316SST EXT BONNET STYLE 2 , 316 SST

316 COCR-A SEAT/GUIDE PLUG COCR-A RING 1 7/8 PORT, 1L3750, W/O ANTI-EXTRUSION RING

667	Quantity:	1
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NITRILE DIAPHRAGM , SIZE 34I CAST IRON YOKE TAPPED 2 1/8 BOSS , SPRING 1E805127082 RATE=1840 LB/IN , TRAVEL 3/4 , STEM SIZE 3/8 , NAMEPLATE STANDARD , LUB-1 FMS 27D1 , STD SPG ADJUSTOR , STANDARD SERVICE, STANDARD (POWDER COAT PAINT) , TYPE 667 , 0-33 PSI AIR TO DIAPHRAGM , BENCH SET 10-30 PSI , 20 PSI MAX CASING PRESS ABOVE OPERATING RANGE

DVC6200	Quantity:	1
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ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-60 PSI/0-4 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT' MTG, DVC6200 NA, 657/667 W/O MO SIZE 30I-46I , FOR NITRILE INSTRUMENT CONSTRUCTIONS , 19MM TRAVEL FEEDBACK ARRAY KIT , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGELOK FITTINGS , MTG POSITION 1 PER DWG GE52353

67CFR	Quantity:	1
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1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-60 PSI SPRING,BLUE STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET

ACCESSORY_EM_AS	Quantity:	1
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ASCO NO. EF8320G200 24V DC 3-WAY VALVE , SST NIPPLE MTD , DE-ENERGIZE TO VENT

Nameplate

AMB TEMP	-40
INPUT	4-20MA PT-PT
NAMEPLATE	GE90092X0A2
TYPE	DVC6200
BENCH SET><	10-30
BODY><	SST
MAX CSG PRESS ABV OPR RANGE><	20
NAMEPLATE	18A5087X0A2
NAMEPLATE><	12B6508X0A2
NAMEPLATE><	18B9870X0A2
OPER RANGE	0-33
PLUG><	SST/HF
PORT SIZE	1 7/8
PRESS UNITS><	PSI
RATING	CL600/1440 PSI CWP
SEAT><	CO ALLOY
SIZE	1 1/2
SIZE	34i
STEM><	SST
TRAVEL	3/4
TYPE><	667
TYPE><	ET

Paint

Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
667	Standard	See WMP	N/A	Standard	Standard	Standard
ASCO	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
ET	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER

Sliding Stem Valve Specification

Customer: **UOP RUSSELL LLC**

Vinson Process Controls

Contact: **Dennis Paden**Contact: **Ron Berte**

Customer Reference

UOP RUSSELL, SC6Sales Office Reference: **VVES**Lead Time: **19 WKS****STD PLANT**Item: **13**

Rev:

Qty: **1**Rev: **A**Tags: **FCV-402A**Date Last Modified: **11/08/2016**Description: **NPS 1 1/2 ET 667 Size 34i DVC6200 ASCO**

Service Description:

p

Service:		Positioner Type:	DVC6200,HART Communicating-HC
Size and Type:	NPS 1 1/2 ET	Input Signal:	4 to 20 mA dc
Body Style:	Globe	Access:	67CFR Filter/Regulator
Design Temp:	-59 TO +150 F	Gauges:	0-60 psig/0-4 bar
Design Press:	1100 psig	Action:	Direct
End Connect/In/Out:	CL600/RF Flg/RF Flg	Certification:	Explosion Proof/Intrinsic Safe/Nonincendive,FM
Material:	CF8M SST	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Down	Measure Element:	
Trim Number:	27	Range:	
Cage Matl:	S31600 SST/ENC	Output:	
Retainer Matl:		Mounting:	
Bushing Matl:		Airset:	
Seat Ring Matl:	CoCr-A Seat	Mounting:	
VALVE PLUG		Transducer:	
Material:	S31600 SST/CoCr-A Seat/Guide	Input Signal:	
Guiding:	Cage	Output Signal:	
Balance:	Balanced	Action:	
Shutoff Class:	ANSI CL IV	Mounting:	
Port Size:	1 7/8 Inch	Airset:	
Characteristic:	Equal Percent	Certifications:	
Stem Material:	S31600 SST	Line In:	2 in, SCH XS
Stem Size:	3/8 Inch	Line Out:	2 in, SCH XS
Bonnet Style:	Style 2 Extension	Insulation:	
Boss Size:	2 1/8	Service Cond:	THROTTLING
Packing:	Single PTFE	Process Fluid:	HC LIQ
Access:	No		
Bolt, Bonnet:	SA-193-B8M Str Hd Studs/8M Nuts		
PackFlg/Bltg:	SST Pkg Flg, SST Studs & Nuts		
Actuator:	Spring & Diaphragm		
Type/Size:	667/34i		
Travel:	3/4 Inch		
Bench Set:	10-30 psi		
Push Down To:	PDTC		
Supply:	Air		
To Actuator:	0 to 33 psig		
Fails Valve:	Close		
Handwheel:	None		
		Max Rated Cv:	35.8

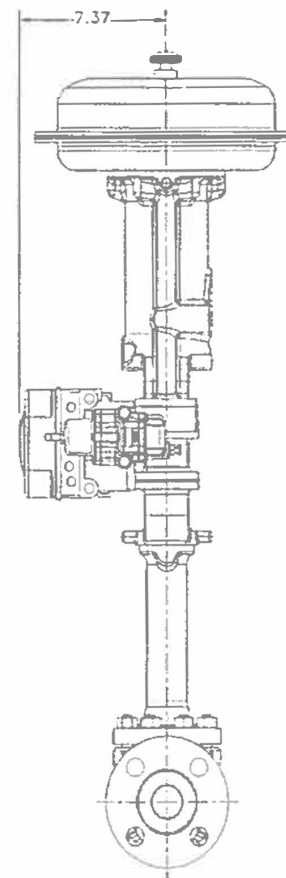
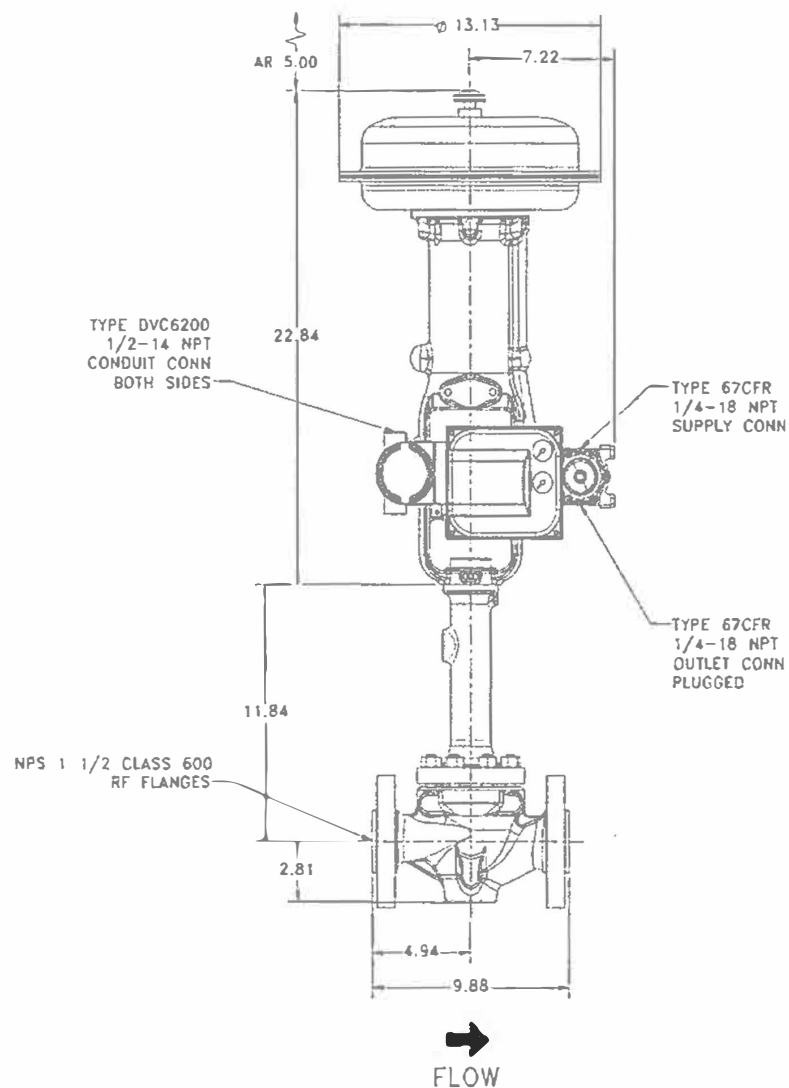
Variable Name	Unit	Minimum	Normal	Maximum
Mass Flow Rate Liquid (wl)	lb/h	3351.000	8377.000	9855.000
Inlet Pressure (P1)	psig	909.000	909.000	909.000
Pressure Change (dP)	psi	5.000	5.000	5.000
Inlet Temperature (T1)	deg F	-83.000	-83.000	-83.000
SG		0.420	0.420	0.420
Dynamic Viscosity (Mu)	cP	0.073	0.073	0.073
Sizing Coefficient (Cv)		4.626	11.598	13.884
% Open		35	61	64

NOTES:

1. SST TUBING & FITTINGS
2. INCLUDED ASCO MODEL EF8320G200 24VDC SOL VVE DE-ENG TO VENT.
3. SPRING LOADED SEAL RING

FEATURES PICTORIALY TYPICAL

ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS +/- 0.06 Inch
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS		FISHER		© Fisher Controls Inc. LLC 2016	
CUST: UOP RUSSELL LLC CUST REF NO.: JOB 447, UOP RUSSELL SC6 STD PLANT FISHER REF NO.: 0270-RCB-161121-0190534 TAG NO.: FCV-402A PROJECT NAME:				ET VALVE BODY SIZE 1 1/2 667 ACTUATOR SIZE 341	
CUST ITEM: 0013				S.NO.	
TOTAL CALCULATED WT +/- 10% TOTAL WEIGHT: 117.3 lb UNLESS OTHERWISE SPECIFIED UNIT OF MEASURE: INCH				SCALE: NONE SHEET NO.	
GENERAL ARRANGEMENT				EMERSON FLOWLINE MANAGEMENT	
				SHEET 1 OF 1	

A



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 4

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO,TX,US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA,OK,US
74015

Item Description: NPS 2 EZ-C 667 Size 45i DVC6200 ASCO
Factory
Mtgs DVC6200/DVC2000

Tag #: FCV-501

Serial #: F002194460

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
BONNET 2 13/16 YOKE BOSS,1/2 STEM	2	13A5755X052	BUSHING	1	79.00	Y
		RPACKX00022	KIT,REPAIR	1	58.00	Y
		-1F125136042	WASHER,SPCL ~ 1/2 STEM X1.00	1		
		-1F125537012	SPRING,PACKING ~ 1/2 STEM	1		
		-1J872706332	WIPER,UPPER ~ 1/2 STEM	1		
		-1J873235072	PACKING BOX RING ~ 1/2 STEM X 1	1		
		-1R290201012	PACKING,SET ~ 1/2X1	1		
		-D101561X012	INSTRUCTION SHEET ~ FOR RPACKX00012,22,32,342&352	1		
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X032	GAUGE,PRESS,1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT,ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 4

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16,DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16,DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		
		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		
		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		
		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 4

Customer PO #: 4500890601

Order Date: 1/24/2019

TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
	-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
	-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
	-18B5796X012	SCREW, COMB PAN HD	4		
	-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
	-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		
	-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
	-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		
	-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
	-18B9610X012	SCREEN	1		
	-1A3303X0012	NUT,HEX ~ 6-32	2		
	-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
	-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		
	-22B9009X022	SPRING,BIAS ~ 657,667/70-100	1		
	-24B0654X032	SPRING,BIAS	1		
	-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
	-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
	-GE19919X022	SPRING, BIAS ~	1		
	-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
	38B6041X152	I/P ASSY/SHROUD	1	963.00	Y

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 4

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
DESIGN EZ-C SIZE 2 FLOW UP	9	24B8559X012	SEAT RING	1	319.00	Y
		15A6637X062	PLUG/STEM ASSY	1	1165.00	
		-15A6637X012	PLUG,EQ% ~ 1 ORF,1L5000,HFS&G	1		
		-10A8840XBD2	STEM,PLUG ~ VSC1L5000,1/2X26.00,3.38THD	1		
		-1D5423X00B2	PIN,GROOVE,TYPE F ~ 1/8X0.81	1		
		25A6687X132	ST RG RET/BUSH ASSY	1	852.00	Y
		-15A6509X022	BUSHING ~ 7/8 X 1 1/2 X 3/4	1		
		-25A6687X022	SEAT RING RETAINER ~ 2	1		
		RGASKETX182	GASKET SET	1	85.00	Y
		-1R329799442	GASKET, SPIRAL WOUND ~ CL600, 3.00X 3.50X0.175PRO	1		
		-1R3299X0042	GASKET ~ 2.94X4.03X.03	1		
		-D101587X012	INSTRUCTION SHEET ~ FOR RGASKETX182, X332 & X442	1		
		-16A1938X012	GASKET SHIM ~ 2 15/16 X 3 17/32 X 1/32	1		
		-1R3296X0042	GASKET ~ 2.88X3.28X.03	1		
TYPE 667 DIAPHRAGM ACTUATOR	3	2E859602202	DIAPHRAGM	1	110.00	Y
		R667X000502	KIT,REPAIR	1	20.00	Y
		-1C5622X0022	O-RING ~ 1 1/8X1 3/8X1/8	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 4

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE 667 DIAPHRAGM ACTUATOR		-1E845404022	GASKET,TO 302F/150C ~ 5.00X7.12X.03	1		
		-1E845806992	O-RING ~ 1 7/8X2 1/8X1/8	1		
		R667X000512	KIT REPAIR	1	464.00	Y
		-1A6751X0102	SCREW,CAP,HEX HD ~ 3/8-24X1.00	20		
		-1A3465X0092	NUT,HEX ~ 3/8-24	20		
		-2J3328X0042	STEM,ACTUATOR ~ 667 SIZE 45	1		
		-1E845714012	BUSHING,SEAL ~ 45-50-60	1		
PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales

Prices subject to change without notice



Serial Card

FISHER™**LBP Order#:** 027D-580815**CustPO:** 4500890601**Version:** As Created**SerialRange:** F002194460**ShipTo:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Current Location:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Installed At:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Shipped:****Application:** VLVS Assembly Line**SalesPerson:** BRIAN HANEY / MB**Project:****Carrier:** UNASSIGNED-TRUCK-
STD SERVICE**Split:** Y**Pack:** Domestic (WMP
11A1)**Pay:** Prepaid And Add To
Invoice

Item Detail

Item:	4	Tag:	FCV-501	Quantity:	1
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DESIGN EZ-C SIZE 2 FLOW UP , BONNET 2 13/16 YOKE BOSS,1/2 STEM , TYPE 667 DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR , ASCO SOLENOID VALVE & MTG PARTS

Item Level Notes

G05	PO#: 4500890601 / PROJECT#: J447CL
F51	Liquid, Minimum, FlowMedia=HC LIQ P1=904.000 psig, dP=704.000 psi T1=-83.000 deg F, Cv=1.774 Liquid, Normal, FlowMedia=HC LIQ P1=904.000 psig, dP=704.000 psi T1=-83.000 deg F, Cv=4.438 Liquid, Maximum, FlowMedia=HC LIQ P1=904.000 psig, dP=704.000 psi T1=-83.000 deg F, Cv=4.932 Design Press=1100 psig, Design Temp=150 Deg F
I05	NPS 2 EZ-C 667 Size 45i DVC6200 ASCO Factory Mtgs DVC6200/DVC2000

Construction Details

EZ-C	Quantity:	1
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316 SST PACKING FLANGE STUDS AND NUTS , TFE PACKING,ARRANGEMENT 12A7811 , 316 SST; PTFE FMS 17D7 , CF8M EXT STYLE 3 BONNET , 316SST/PTFE LIQUID STEM SEAL BUSHING , PLUGGED , DIM A=21
CF8M VALVE BODY 600 RF END CONNECTIONS , CF8M/R30006 SEAT RING RETAINER/BUSHING , S31600 SEAT RING,1 IN PORT , EQ PCT S31600/COCR-A SEAT/GUIDE PLUG,3/4 TRAVEL , N06600/GRAPH FMS 17N3 SPRIAL WOUND GASKET , B8M CL 2 BOLTS/8M NUTS , S20910 STEM,VSC 1L5000 , NAMEPLATE , FLOW UP , HYDRO 1800 PSI/1 MIN , CLIV SEAT LEAK TEST PER FGS 4L5 3.91 SCFH, FLOW UP , ASSEMBLE PER FGS12A42

667	Quantity:	1
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NITRILE DIAPHRAGM , SIZE 45I CAST IRON YOKE TAPPED 2 13/16 BOSS , SPRING 1E826427082 RATE=2240 LB/IN , TRAVEL 3/4 , STEM SIZE 1/2 , STANDARD , LUB-1 FMS 27D1 , STEEL CRPL ACTUATOR STEM , TYPE 667, SIZE 45 , STD SPG ADJUSTOR , STANDARD SERVICE, STANDARD (POWDER COAT PAINT) , TYPE 667 , 0-33 PSI AIR TO DIAPHRAGM , BENCH SET 14-30 PSI , 10 PSI MAX CASING PRESS ABOVE OPERATING RANGE

DVC6200	Quantity:	1
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ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-60 PSI/0-4 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT'
MTG, DVC6200 NA, 657/667 W/O MO SIZE 30I-46I , FOR NITRILE INSTRUMENT CONSTRUCTIONS , 19MM TRAVEL FEEDBACK ARRAY KIT , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGELOK FITTINGS , MTG POSITION 1 PER DWG GE52353

67CFR	Quantity:	1
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1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-60 PSI SPRING,BLUE STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET

ACCESSORY_EM_AS	Quantity:	1
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ASCO NO. EF8320G200 24V DC 3-WAY VALVE , SST NIPPLE MTD , DE-ENERGIZE TO VENT

Nameplate

AMB TEMP	-40
INPUT	4-20MA PT-PT
NAMEPLATE	GE90092X0A2
TYPE	DVC6200
BENCH SET><	14-30
BODY><	SST
BOLT MATL><	B8M CL2
MAX CSG PRESS ABV OPR RANGE><	10
NAMEPLATE><	12B6508X0A2
NAMEPLATE><	12B7851X0A2
NAMEPLATE><	18A5087X0A2
NAMEPLATE><	18B9870X0A2
OPER RANGE	0-33
PLUG><	SST/HF
PORT SIZE	1
PRESS UNITS><	PSI
RATING	1200 CWP PSI
SEAT><	SST
SIZE	2
SIZE	45i
STEM><	SST
TRAVEL	3/4
TYPE><	667
TYPE><	EZ-C

Paint						
Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
667	Standard	See WMP	N/A	Standard	Standard	Standard
ASCO	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
EZ-C	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER**Sliding Stem Valve Specification**Customer: **UOP RUSSELL LLC**

Vinson Process Controls

Contact: **Dennis Paden**Customer Reference: **UOP RUSSELL, SC6**Contact: **Ron Berte**Lead Time: **14 WKS**

STD PLANT

Sales Office Reference: **VVES**Item: **8**Rev: **Qty 1**Rev: **A**Tags: **FCV-501**Date Last Modified: **11/08/2016**Description: **NPS 2 EZ-C 667 Size 451 DVC6200 ASCO**

Service Description:

Service:		Positioner Type:	DVC6200, HART Communicating-HC
Size and Type:	NPS 2 EZ-C	Input Signal:	4 to 20 mA dc
Body Style:	Globe	Access:	67CFR Filter/Regulator
Design Temp:	-132 TO +150 F	Gauges:	0-60 psig/0-4 bar
Design Press:	1100 psig	Action:	Direct
End Connect/In/Out:	CL600/RF Flg/RF Flg	Certification:	FM, Explosion Proof/Intrinsic Safe/Nonincendive
Material:	CF8M SST	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Up	Measure Element:	
Trim Number:		Range:	
Cage Matl:		Output:	
Retainer Matl:	CF8M SST	Mounting:	
Bushing Matl:		Airset:	
Seat Ring Matl:	S31600 SST	Mounting:	
VALVE PLUG		Transducer:	
Material:	S31600 SST/CoCr-A Seat/Guide	Input Signal:	
Guiding:		Output Signal:	
Balance:	Unbalanced	Action:	
Shutoff Class:	ANSI CL IV	Mounting:	
Port Size:	1 Inch	Airset:	
Characteristic:	Equal Percentage	Certifications:	
Stem Material:	S20910 SST	Line In:	4 in, SCH 40S
Stem Size:	1/2 Inch	Line Out:	4 in, SCH 40S
Bonnet Style:	Style 3 Fabricated Extension	Insulation:	
Boss Size:	2 13/16	Service Cond:	THROTTLING
Packing:	Single PTFE	Process Fluid:	HC LIQ
Access:			
Bolt, Bonnet:	SA-193-B8M Str Hd Studs/8M Nuts		
Pack Flg/Bltg:	SST Pkg Flg, SST Studs & Nuts		
Actuator:	Spring & Diaphragm		
Type/Size:	667/451		
Travel:	3/4 Inch		
Bench Set:	14-30 psi		
Push Down To:	PDTC		
Supply:	Air		
To Actuator:	0 to 33 psig		
Fails Valve:	Close		
Handwheel:	None		
		Max Rated Cv:	15.9

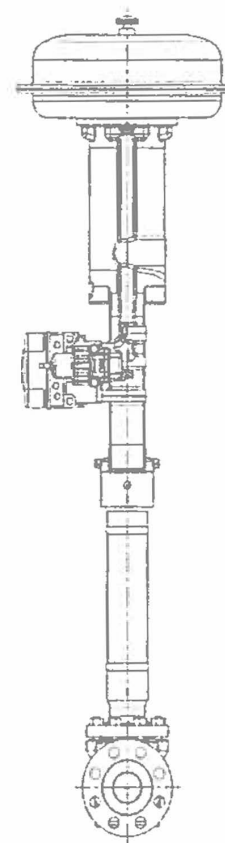
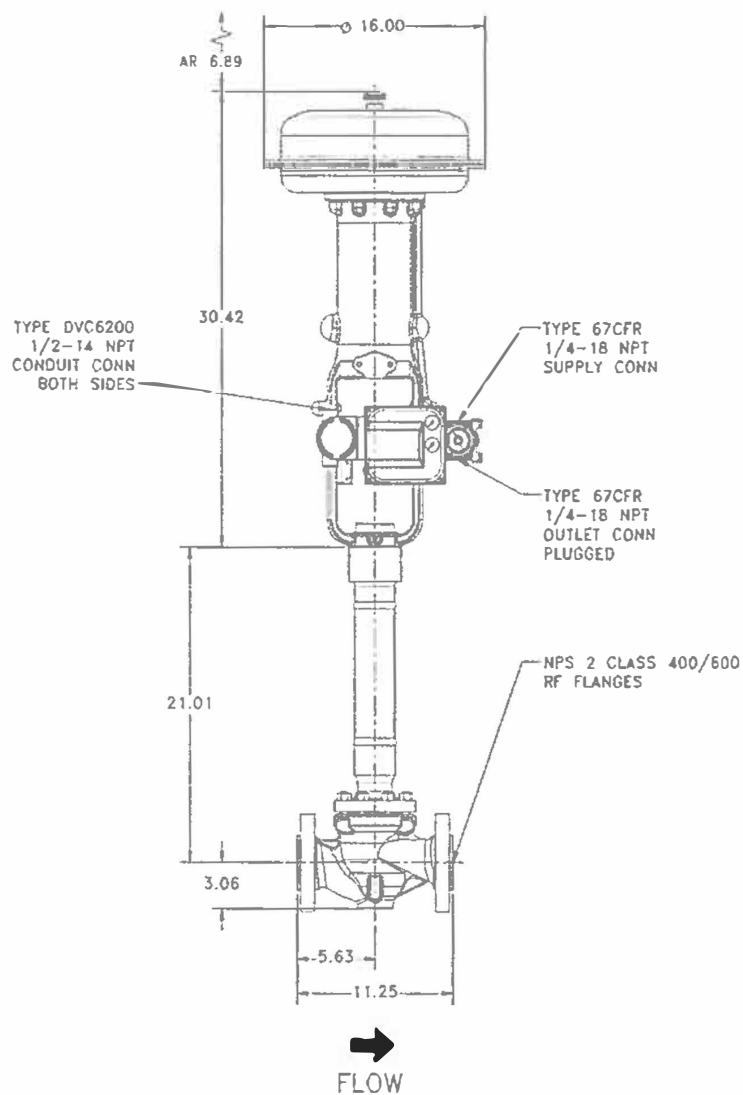
Variable Name	Unit	Minimum	Normal	Maximum
Mass Flow Rate Liquid (wl)	lb/h	10986.000	27466.000	30518.000
Inlet Pressure (P1)	psig	904.000	904.000	904.000
Pressure Change (dP)	psi	704.000	704.000	704.000
Inlet Temperature (T1)	deg F	-83.000	-83.000	-83.000
SG		0.360	0.360	0.360
Dynamic Viscosity (Mu)	cP	0.052	0.052	0.052
Sizing Coefficient (Cv)		1.774	4.438	4.932
% Open		25	53	56

NOTES:

1. SST TUBING & FITTINGS
2. INCLUDED ASCO MODEL EF8320G200 24VDC SOL VVE DE-ENG TO VENT.

FEATURES PICTORIALLY TYPICAL

ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS +/- 0.06 Inch
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS		FISHER		© Fisher Controls Int'l. LLC 2018	
CUST: UOP RUSSELL LLC CUST REF NO.: JOB 447, UOP RUSSELL, SC6 STD PLANT FISHER REF NO.: 027D-RCB-161121-0190534 TAG NO.: FCV-501 PROJECT NAME:				EZ-C VALVE BODY SIZE 2 667 ACTUATOR SIZE 451	
TOTAL CALCULATED WT +/- 10% TOTAL WEIGHT: 195.2 lb UNLESS OTHERWISE SPECIFIED UNIT OF MEASURE: INCH				CUST ITEM: 0002 S.NO.:	
REV. DATE DESIGNED BY 1 21-08-04 6 F.S.				SCALE: NONE DVC NO.	
GENERAL ARRANGEMENT				EMERSON 1 FISHKILL ROAD, FISHKILL, NY 12524 SHEET 1 OF 1	



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 1

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO, TX, US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA, OK, US
74015

Item Description: NPS 3 ET 667 Size 45i DVC6200 ASCO
Factory
Mfrs DVC6200/DVC2000

Tag #: LCV-402

Serial #: F002194457

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
VALVE BODY ASSY	28	10A4206X012	SEAL RING/SPR,RADIAL	1	113.00	Y
	29	10A4208X022	RING,BACK-UP	1	401.00	Y
	27	10A4210X012	RING,RETAINING,EXT	1	25.00	Y
	4	1U124633092	CAGE ADAPTOR	1	214.00	Y
	9	1U222639102	SEAT RING	1	738.00	Y
	5	1U234633092	SEAT RING ADAPTOR	1	820.00	Y
	3	2U741048932	CAGE,EQ%,COATED	1	816.00	Y
		20A4099X092	PLUG/STEM ASSY	1	876.00	
		-1U226435162	STEM,PLUG ~ VSC1L5000,1/2X24.25,3.38THD	1		
		-1V322735072	PIN,GROOVE,FLAT END ~ 1/8X0.94	1		
		-20A4099X012	PLUG,BAL ~ 2 5/16 ORF,1L5000,HFS&G	1		
		RGASKETX272	GASKET SET	1	100.00	Y

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 1

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
VALVE BODY ASSY		-16A1938X012	GASKET SHIM ~ 2 15/16 X 3 17/32 X 1/32	1		
		-1R3296X0042	GASKET ~ 2.88X3.28X.03	1		
		-1R329799442	GASKET,SPIRAL WOUND ~ CL600, 3.00X 3.50X0.175PRO	1		
		-1R3298X0032	GASKET ~ 2.94X3.53X.03	1		
		-1R3481X0052	GASKET ~ 4.06X4.47X.03	1		
		-1R3484X0042	GASKET ~ 4.06X5.16X.03	1		
		-D101596X012	INSTRUCTION SHEET ~ FOR RGASKETX272	1		
BONNET 2 13/16 YOKE BOSS,1/2 STEM		RPACKX00022	KIT,REPAIR	1	58.00	Y
		-1F125136042	WASHER,SPCL ~ 1/2 STEM X1.00	1		
		-1F125537012	SPRING,PACKING ~ 1/2 STEM	1		
		-1J872706332	WIPER,UPPER ~ 1/2 STEM	1		
		-1J873235072	PACKING BOX RING ~ 1/2 STEM X 1	1		
		-1R290201012	PACKING,SET ~ 1/2X1	1		
		-D101561X012	INSTRUCTION SHEET ~ FOR RPACKX00012,22,32,342&352	1		
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X032	GAUGE,PRESS,1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT,ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 1

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-13A1584X072	O-RING ~ 11/16X13/16X1/16,DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16,DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		
		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		
		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		
		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
		-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 1

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
		-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
		-18B5796X012	SCREW, COMB PAN HD	4		
		-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
		-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		
		-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
		-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		
		-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
		-18B9610X012	SCREEN	1		
		-1A3303X0012	NUT,HEX ~ 6-32	2		
		-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
		-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		
		-22B9009X022	SPRING,BIAS ~ 657,667/70-100	1		
		-24B0654X032	SPRING,BIAS	1		
		-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
		-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
		-GE19919X022	SPRING, BIAS ~	1		
		-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
		38B6041X152	I/P ASSY/SHROUD	1	963.00	Y

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 1

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
TYPE 667 DIAPHRAGM ACTUATOR	3	2E859602202	DIAPHRAGM	1	110.00	Y
		R667X000502	KIT,REPAIR	1	20.00	Y
		-1C5622X0022	O-RING ~ 1 1/8X1 3/8X1/8	2		
		-1E845404022	GASKET,TO 302F/150C ~ 5.00X7.12X.03	1		
		-1E845806992	O-RING ~ 1 7/8X2 1/8X1/8	1		
		R667X000512	KIT REPAIR	1	464.00	Y
		-1A6751X0102	SCREW,CAP,HEX HD ~ 3/8-24X1.00	20		
		-1A3465X0092	NUT,HEX ~ 3/8-24	20		
		-2J3328X0042	STEM,ACTUATOR ~ 667 SIZE 45	1		
		-1E845714012	BUSHING,SEAL ~ 45-50-60	1		
PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales

Prices subject to change without notice



Serial Card

FISHER™

LBP Order#: 027D-580815

CustPO: 4500890601

Version: As Created

SerialRange: F002194457

ShipTo: UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015

Current Location: UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015

Installed At: UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015

Shipped:

Application: VLVS ETO Line

SalesPerson: BRIAN HANEY / MB

Project:

Carrier: UNASSIGNED-TRUCK-
STD SERVICE

Split: Y

Pack: Domestic (WMP
11A1)

Pay: Prepaid And Add To
Invoice

Item Detail

Item: 1	Tag: LCV-402	Quantity: 1
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VALVE BODY ASSY , BONNET 2 13/16 YOKE BOSS,1/2 STEM , TYPE 667 DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR , ASCO SOLENOID VALVE & MTG PARTS , OPTIONAL AND MISCELLANEOUS NAMEPLATES

Item Level Notes

G05 PO#: 4500890601 / PROJECT#: J447CL

F51 Liquid, Minimum, FlowMedia=HC LIQ P1=785.000 psig, dP=575.000 psi T1=-30.000 deg F, Cv=4.593 Liquid, Normal, FlowMedia=HC LIQ P1=785.000 psig, dP=575.000 psi T1=-30.000 deg F, Cv=11.491 Liquid, Maximum, FlowMedia=HC LIQ P1=785.000 psig, dP=575.000 psi T1=-30.000 deg F, Cv=12.749 Design Press=1100 psig, Design Temp=150 Deg F

I05 NPS 3 ET 667 Size 45i DVC6200 ASCO Factory Mtgs DVC6200/DVC2000

F10 ECX5-9C/SPECIAL: HYDRO 2100 PSI/2 MIN

ACK DE-RATE BODY PER COMP A

Construction Details

ET	Quantity: 1
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NPS 3 CF8M CL600 RF FLG GLOBE BODY , RING & CAGE ADAPTOR - 316 , EQUAL % 316 SST/ENC HT CAGE 1 1/8 TRAV , 316 SST/HF SEAT/GUIDE PLUG COCR-A RING 2 5/16 PORT , BOLTING SST SA-193-B8M,STR HARD LUB/NUT SA-194-8M , GASKET GRAPH/SST, SPIRAL INC/GRAPH , N10276/PTFE GLASS/MOS 2 SPRING LOADED SEAL RING , 316 SST VALVE STEM 1L5000 VSC , FLOW ARROW & DRIVE SCREW , NAMEPLATE , DESIGN ET PUSH DOWN TO CLOSE, FLOW DOWN , SPECIAL CLASS/HYDRO -- SEE F10 NOTE , CL4 LEAK TEST 15.3 SCFH FGS 4L5
316 SST PACKING FLANGE STUDS AND NUTS , TFE PACKING,ARRANGEMENT 12A7811 , 316 SST; PTFE FMS 17D7 , CF8M EXT BONNET STYLE 2 , CL150-600; CF8M MATL; SIZE 2 - 3; EXT STYLE 2

667	Quantity: 1
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NITRILE DIAPHRAGM , SIZE 45I CAST IRON YOKE TAPPED 2 13/16 BOSS , SPRING 1E826327082 RATE=1870 LB/IN , TRAVEL 1 1/8 , STEM SIZE 1/2 , STANDARD , LUB-1 FMS 27D1 , STEEL CRPL ACTUATOR STEM , TYPE 667, SIZE 45 , STD SPG ADJUSTOR , STANDARD SERVICE, STANDARD (POWDER COAT PAINT) , TYPE 667 , 0-33 PSI AIR TO DIAPHRAGM , BENCH SET 10-30 PSI , 10 PSI MAX CASING PRESS ABOVE OPERATING RANGE

DVC6200	Quantity: 1
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ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-60 PSI/0-4 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT'
MTG, DVC6200 NA, 657/667 W/O MO SIZE 30I-46I , FOR NITRILE INSTRUMENT CONSTRUCTIONS , 38MM TRAVEL FEEDBACK ARRAY KIT , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGELOK FITTINGS , MTG POSITION 1 PER DWG GE52353

67CFR

Quantity: 1

1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-60 PSI SPRING,BLUE STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET

ACCESSORY_EM_AS

Quantity: 1

ASCO NO. EF8320G200 24V DC 3-WAY VALVE , SST NIPPLE MTD , DE-ENERGIZE TO VENT
REMOVE ANSI CL MARKS,ATTACH N/P TO BODY-BONNET FLG

Nameplate	
BOLT MATL><	B8M CL2
NAMEPLATE	12B7851X0A2
AMB TEMP	-40
INPUT	4-20MA PT-PT
NAMEPLATE	GE90092X0A2
TYPE	DVC6200
BENCH SET><	10-30
BODY><	SST
MAX CSG PRESS ABV OPR RANGE><	10
NAMEPLATE	18A5087X0A2
NAMEPLATE><	12B6508X0A2
NAMEPLATE><	18B9870X0A2
OPER RANGE	0-33
PLUG><	SST/HF
PORT SIZE	2 5/16
PRESS UNITS><	PSI
RATING	1370 PSI CWP/1370 PSI @ 150 F
SEAT><	CO ALLOY
SIZE	3
SIZE	45i
STEM><	SST
TRAVEL	1 1/8
TYPE><	667
TYPE><	ET

Paint						
Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
667	Standard	See WMP	N/A	Standard	Standard	Standard
ASCO	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
ET	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER**Sliding Stem Valve Specification**Customer: **UOP RUSSELL LLC**Contact: **Dennis Paden**

Customer Reference:

UOP RUSSELL, SC6

Vinson Process Controls

Contact: **Ron Berte**Sales Office Reference: **VVES**Lead Time: **14 WKS****STD PLANT**Item: **12**

Rev:

Qty: **1**Rev: **A**Tags: **LCV-402**Date Last Modified: **11/08/2016**Description: **NPS 2 EZ 667 Size 45i DVC6200 ASCO****Service Description:**

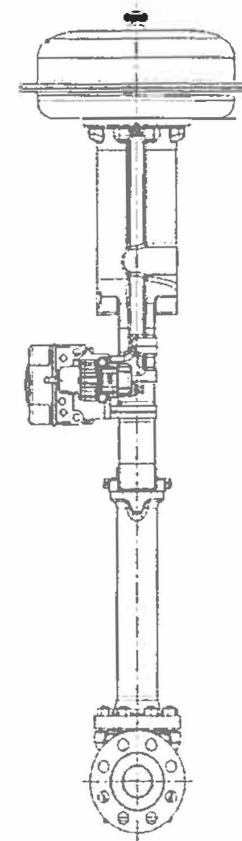
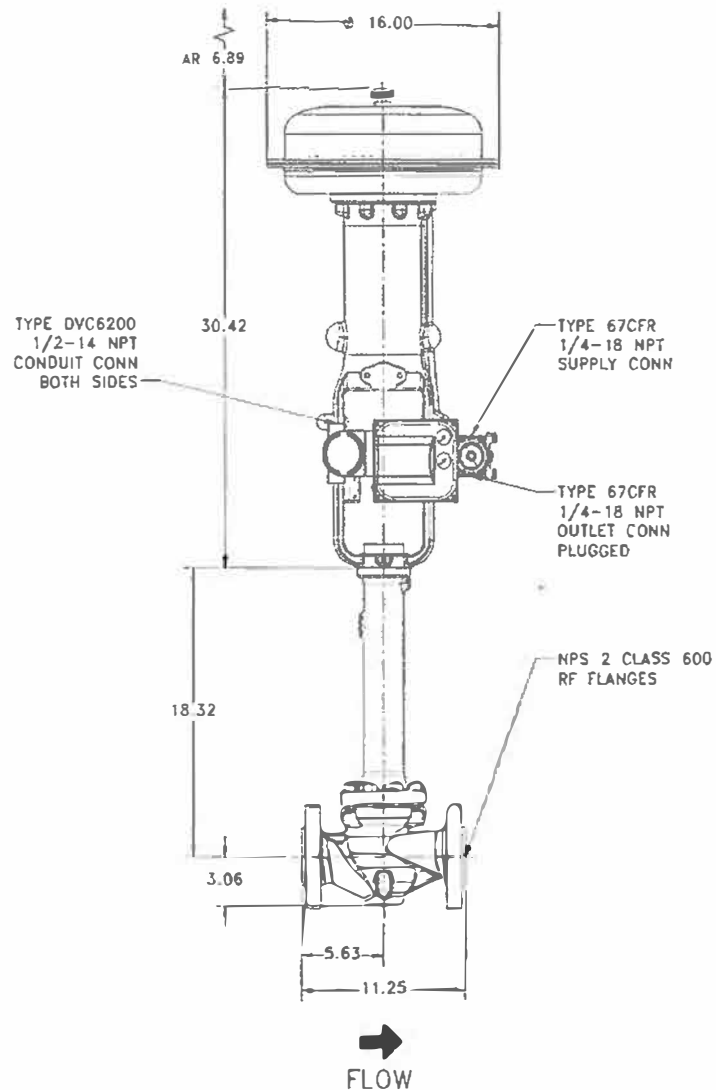
Service:		Positioner Type:	DVC6200,HART Communicating-HC
Size and Type:	NPS 2 EZ	Input Signal:	4 to 20 mA dc
Body Style:	Globe	Access:	67CFR Filter/Regulator
Design Temp:	-69 TO +150 F	Gauges:	0-60 psig/0-4 bar
Design Press:	1100 psig	Action:	Direct
End Connect/In/Out:	CL600/RF Flg/RF Flg	Certification:	FM,Explosion Proof/Intrinsic Safe/Nonincendive
Material:	CF8M SST	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Up	Measure Element:	
Trim Number:	127	Range:	
Cage Matl:		Output:	
Retainer Matl:	CF8M SST	Mounting:	
Bushing Matl:	R30006 Cobalt Alloy	Airset:	
Seat Ring Matl:	S31600 SST/CoCr-A Seat	Mounting:	
VALVE PLUG		Transducer:	
Material:	S31600 SST/CoCr-A Seat/Guide	Input Signal:	
Guiding:	Post	Output Signal:	
Balance:	Unbalanced	Action:	
Shutoff Class:	ANSI CL IV	Mounting:	
Port Size:	1 Inch	Airset:	
Characteristic:	Equal Percent	Certifications:	
Stem Material:	S31600 SST	Line In:	4 In, SCH XS
Stem Size:	1/2 Inch	Line Out:	4 In, SCH XS
Bonnet Style:	Style 2 Extension	Insulation:	
Boss Size:	2 13/16	Service Cond:	THROTTLING
Packing:	Single PTFE	Process Fluid:	HC LIQ
Access:	No		
Bolt, Bonnet:	SA-193-B8M Str Hd Studs/8M Nuts		
PackFig/Bltg:	SST Pkg Flg, SST Studs & Nuts		
Actuator:	Spring & Diaphragm		
Type/Size:	667/45i		
Travel:	3/4 Inch		
Bench Set:	14-30 psi		
Push Down To:	PDTC		
Supply:	Air		
To Actuator:	0 to 33 psig		
Falls Valve:	Close		
Handwheel:	None		
		Max Rated Cv:	15.9

Variable Name	Unit	Minimum	Normal	Maximum
Mass Flow Rate Liquid (wt)	lb/h	22338.000	55845.000	62050.000
Inlet Pressure (P1)	psig	909.000	909.000	909.000
Pressure Change (dP)	psi	694.000	694.000	694.000
Inlet Temperature (T1)	deg F	-83.000	-83.000	-83.000
SG		0.420	0.420	0.420
Dynamic Viscosity (Mu)	cP	0.073	0.073	0.073
Sizing Coefficient (Cv)		2.616	6.547	7.277
% Open		38	64	67

NOTES:**1. SST TUBING & FITTINGS****2. INCLUDED ASCO MODEL EF8320G200 24VDC SOL VVE****DE-ENG TO VENT.**

FEATURES PICTORIALLY TYPICAL

ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS +/- 0.06 Inch
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS		FISHER		© Fisher Controls Int'l. LLC 2016	
CUST: UOP RUSSELL LLC CUST REF NO.: JOB 447, UOP RUSSELL, SC6 STD PLANT FISHER REF NO.: 027D-RCB-161121-0190534 TAG NO.: LCV-402 PROJECT NAME:				EZ VALVE BODY SIZE 2 667 ACTUATOR SIZE 451	
TOTAL CALCULATED Wt +/- 10% TOTAL WEIGHT: 198 lb UNLESS OTHERWISE SPECIFIED UNIT OF MEASURE: INCH				CUST ITEM: 0012 S.NO. SCALE: NONE DATE: 21-Nov-16 DES: JPS APPR:	
GENERAL ARRANGEMENT				EMERSON Process Management SHEET 1 OF 1	



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 2

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO, TX, US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA, OK, US
74015

Item Description: NPS 2 HPS 667 Size 45i DVC6200 ASCO
Factory
Mtgs DVC6200/DVC2000

Tag #: LCV-404

Serial #: F002194458

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales
BONNET 2 13/16 YOKE BOSS, 1/2 STEM		RPACKX00022	KIT, REPAIR	1	58.00	Y
		-1F125136042	WASHER, SPCL ~ 1/2 STEM X1.00	1		
		-1F125537012	SPRING, PACKING ~ 1/2 STEM	1		
		-1J872706332	WIPER, UPPER ~ 1/2 STEM	1		
		-1J873235072	PACKING BOX RING ~ 1/2 STEM X 1	1		
		-1R290201012	PACKING, SET ~ 1/2X1	1		
		-D101561X012	INSTRUCTION SHEET ~ FOR RPACKX00012,22,32,342&352	1		
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X032	GAUGE, PRESS, 1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT, ELASTOMER	1	113.00	Y

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 2

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16,DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16,DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		
		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		
		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		
		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 2

Customer PO #: 4500890601

Order Date: 1/24/2019

TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
	-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
	-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
	-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
	-18B5796X012	SCREW, COMB PAN HD	4		
	-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
	-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		
	-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
	-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		
	-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
	-18B9610X012	SCREEN	1		
	-1A3303X0012	NUT,HEX ~ 6-32	2		
	-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
	-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		
	-22B9009X022	SPRING,BIAS ~ 657,667/70-100	1		
	-24B0654X032	SPRING,BIAS	1		
	-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
	-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
	-GE19919X022	SPRING, BIAS ~	1		
	-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
	38B6041X152	I/P ASSY/SHROUD	1	963.00	Y

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 2

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
DESIGN HP SERIES VALVE BODY ASSEMBLY, SIZE 2 (50 MM) INCH CLASS 900/1500	4	23B0174X012	SEAT RING	1	594.00	Y
	2	37B2839X012	CAGE,LINEAR	1	1686.00	Y
		12B7100X032	GASKET SET,HP	1	181.00	Y
		-12B6755X012	GASKET,SPIRAL WOUND ~ CL1500, 2.25X 2.75X.175	1		
		-12B6756X012	GASKET,SPIRAL WOUND ~ CL1500, 2.66X 3.44X0.175	1		
		19A5980X092	PLUG/STEM,M-FORM	1	1321.00	Y
		-19A5980X042	PLUG,M-FORM ~ 3/4PORT,1L5000	1		
		-1B599635072	PIN,GROOVE,TYPE F ~ 1/8X0.94	1		
		-1N8210X0092	STEM,PLUG ~ VSC1L5000,1/2X14.50,3.38THD	1		
TYPE 667 DIAPHRAGM ACTUATOR	3	2E859602202	DIAPHRAGM	1	110.00	Y
		R667X000502	KIT,REPAIR	1	20.00	Y
		-1C5622X0022	O-RING ~ 1 1/8X1 3/8X1/8	2		
		-1E845404022	GASKET,TO 302F/150C ~ 5.00X7.12X.03	1		
		-1E845806992	O-RING ~ 1 7/8X2 1/8X1/8	1		
		R667X000512	KIT REPAIR	1	464.00	Y
		-1A6751X0102	SCREW,CAP,HEX HD ~ 3/8-24X1.00	20		
		-1A3465X0092	NUT,HEX ~ 3/8-24	20		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 2

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE 667 DIAPHRAGM ACTUATOR		-2J3328X0042	STEM,ACTUATOR ~ 667 SIZE 45	1		
		-1E845714012	BUSHING,SEAL ~ 45-50-60	1		

Prices subject to change without notice



Serial Card

FISHER™**LBP Order#:** 027D-580815**CustPO:** 4500890601**Version:** As Shipped**SerialRange:** F002194458**ShipTo:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Current Location:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Installed At:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Shipped:** 02/22/2019**Application:** VLVS Assembly Line**SalesPerson:** BRIAN HANEY / MB**Project:****Carrier:** UNASSIGNED-TRUCK-
STD SERVICE**Split:** Y**Pack:** Domestic (WMP
11A1)**Pay:** Prepaid And Add To
Invoice

Item Detail

Item:	2	Tag:	LCV-404	Quantity:	1
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DESIGN HP SERIES VALVE BODY ASSEMBLY, SIZE 2 (50 MM) INCH CLASS 900/1500 , BONNET 2 13/16 YOKE BOSS,1/2 STEM , TYPE 667 DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR , ASCO SOLENOID VALVE & MTG PARTS

Item Level Notes

G05	PO#: 4500890601 / PROJECT#: J447CL
F51	Liquid, Minimum, FlowMedia=HC LIQ P1=545.000 psig, dP=325.000 psi T1=154.0000 deg F, Cv=1.614 Liquid, Normal, FlowMedia=HC LIQ P1=545.000 psig, dP=325.000 psi T1=154.0000 deg F, Cv=4.035 Liquid, Maximum, FlowMedia=HC LIQ P1=545.000 psig, dP=325.000 psi T1=154.0000 deg F, Cv=4.484 Design Press=1440 psig, Design Temp=200 Deg F
I05	NPS 2 HPS 667 Size 45i DVC6200 ASCO Factory Mtgs DVC6200/DVC2000

Construction Details

HPS	Quantity:	1
SIZE 2 RTJ FLG WCC STL BODY , S17400 DRILLED HOLE CAGE , S41600 SEAT RING 3/4 PORT , DESIGN HPS S41600 MICRO FORM PLUG , S20910 1/2 STEM 1L5000 VSC , N06600/GRAPH GASKETS , B7 BOLTS 2H NUTS , LUB 3 NEVER-SEEZ , NAMEPLATE , EQ PCT CHARACTERISTIC 3/4 TRAV PDTCT FLOW UP , CLASS 1500 HYDRO 5625 PSI/2 MIN , CLASS IV LEAK TEST PER FGS 4L5 2.19 SCFH WCC STL STD BONNET , SST PKG FLG,B8M BOLTING,STL YOKE LOCKNUT , SINGLE PTFE PKG,ARRANGE 12A7811 , PTFE SINGLE PKG PARTS		
667	Quantity:	1
NITRILE DIAPHRAGM , SIZE 45I CAST IRON YOKE TAPPED 2 13/16 BOSS , SPRING 1E825827082 RATE=2770 LB/IN , TRAVEL 3/4 , STEM SIZE 1/2 , STANDARD , LUB-1 FMS 27D1 , STEEL CRPL ACTUATOR STEM , TYPE 667, SIZE 45 , STD SPG ADJUSTOR , STANDARD SERVICE, STANDARD (POWDER COAT PAINT) , TYPE 667 , 0-33 PSI AIR TO DIAPHRAGM , BENCH SET 10-30 PSI , 10 PSI MAX CASING PRESS ABOVE OPERATING RANGE		
DVC6200	Quantity:	1
ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-60 PSI/0-4 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT' MTG, DVC6200 NA, 657/667 W/O MO SIZE 30I-46I , FOR NITRILE INSTRUMENT CONSTRUCTIONS , 19MM TRAVEL FEEDBACK ARRAY KIT , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGelok FITTINGS , MTG POSITION 1 PER DWG GE52353		
67CFR	Quantity:	1
1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-60 PSI SPRING,BLUE STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET		
ACCESSORY_EM_AS	Quantity:	1
ASCO NO. EF8320G200 24V DC 3-WAY VALVE , SST NIPPLE MTD , DE-ENERGIZE TO VENT		

Nameplate

AMB TEMP	-40
INPUT	4-20MA PT-PT
NAMEPLATE	GE90092X0A2
TYPE	DVC6200
BENCH SET><	10-30
BODY><	STL
MAX CSG PRESS ABV OPR RANGE><	10
NAMEPLATE	18A5087X0A2
NAMEPLATE><	12B6508X0A2
NAMEPLATE><	18B9870X0A2
OPER RANGE	0-33
PLUG><	SST
PORT SIZE	3/4
PRESS UNITS><	PSI
RATING	CL1500/3750 PSI CWP
SEAT><	SST
SIZE	2
SIZE	45i
STEM><	SST
TRAVEL	3/4
TYPE><	667
TYPE><	HPS

Paint

Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
667	Standard	See WMP	N/A	Standard	Standard	Standard
ASCO	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
HPS	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER**Sliding Stem Valve Specification**Customer: **UOP RUSSELL LLC**

Vinson Process Controls

Contact: **Dennis Padon**Contact: **Ron Berte**

Customer Reference:

UOP RUSSELL, SC6Sales Office Reference: **VVES**Lead Time: **12 WKS****STD PLANT**Item: **14** Rev: Qty: **1** Rev: **A**Tags: **LCV-404**Date Last Modified: **11/08/2016**Description: **NPS 2 HPS 667 Size 45L DVC6200 ASCO**

Service Description:

Service:		Positioner Type:	DVC6200, HART Communicating-HC
Size and Type:	NPS 2 HPS	Input Signal:	4 to 20 mA dc
Body Style:	Globe	Access:	67CFR Filter/Regulator
Design Temp:	200 F	Gauges:	0-60 psig/0-4 bar
Design Press:	1440 psig	Action:	Direct
End Connect/In/Out:	2 CL900/CL1500/RTJ Flg/RTJ Flg	Certification:	FM, Explosion Proof/Intrinsic Safe/Nonincendive
Material:	WCC Steel	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Up	Measure Element:	
Trim Number:	201A	Range:	
Cage Matl:	S17400 SST	Output:	
Retainer Matl:		Mounting:	
Bushing Matl:		Airset:	
Seat Ring Matl:	S41600 SST	Mounting:	
VALVE PLUG		Transducer:	
Material:	S41600 SST	Input Signal:	
Guiding:	Cage	Output Signal:	
Balance:	Unbalanced	Action:	
Shutoff Class:	ANSI CL IV	Mounting:	
Port Size:	3/4 Inch	Airset:	
Characteristic:	Micro Form (Eq Pct)	Certifications:	
Stem Material:	S20910 SST	Line In:	3 in, SCH XS
Stem Size:	1/2 Inch	Line Out:	3 in, SCH XS
Bonnet Style:	Plain	Insulation:	
Boss Size:	2 13/16	Service Cond:	THROTTLING
Packing:	Single PTFE	Process Fluid:	HC LIQ
Access:			
Bolt, Bonnet:	SA-193-B7 Studs/2H Nuts		
Pack Flg/Bltg:	SST Pkg Flg, SST Studs & Nuts		
Actuator:	Spring & Diaphragm		
Type/Size:	667/45i		
Travel:	3/4 Inch		
Bench Set:	10-30 psi		
Push Down To:	PDTC		
Supply:	Air		
To Actuator:	0 to 33 psig		
Fails Valve:	Close		
Handwheel:	None		
		Max Rated Cv:	11.9

Variable Name	Unit	Minimum	Normal	Maximum
Mass Flow Rate Liquid (wl)	lb/h	11478.000	28696.000	33760.000
Inlet Pressure (P1)	psig	645.000	645.000	645.000
Pressure Change (dP)	psi	325.000	325.000	325.000
SG		0.460	0.460	0.460
Dynamic Viscosity (Mu)	cP	0.079	0.079	0.079
Sizing Coefficient (Cv)		1.877	4.693	5.522
% Open		46	71	74

NOTES:

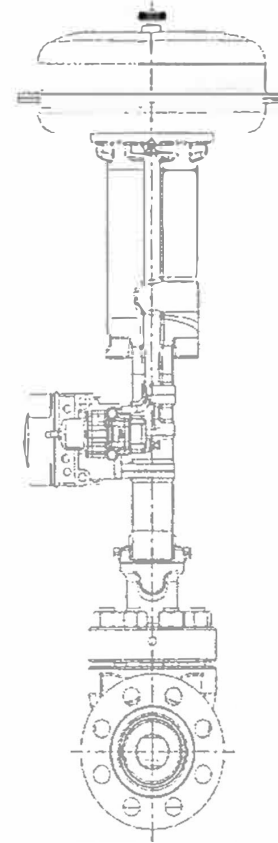
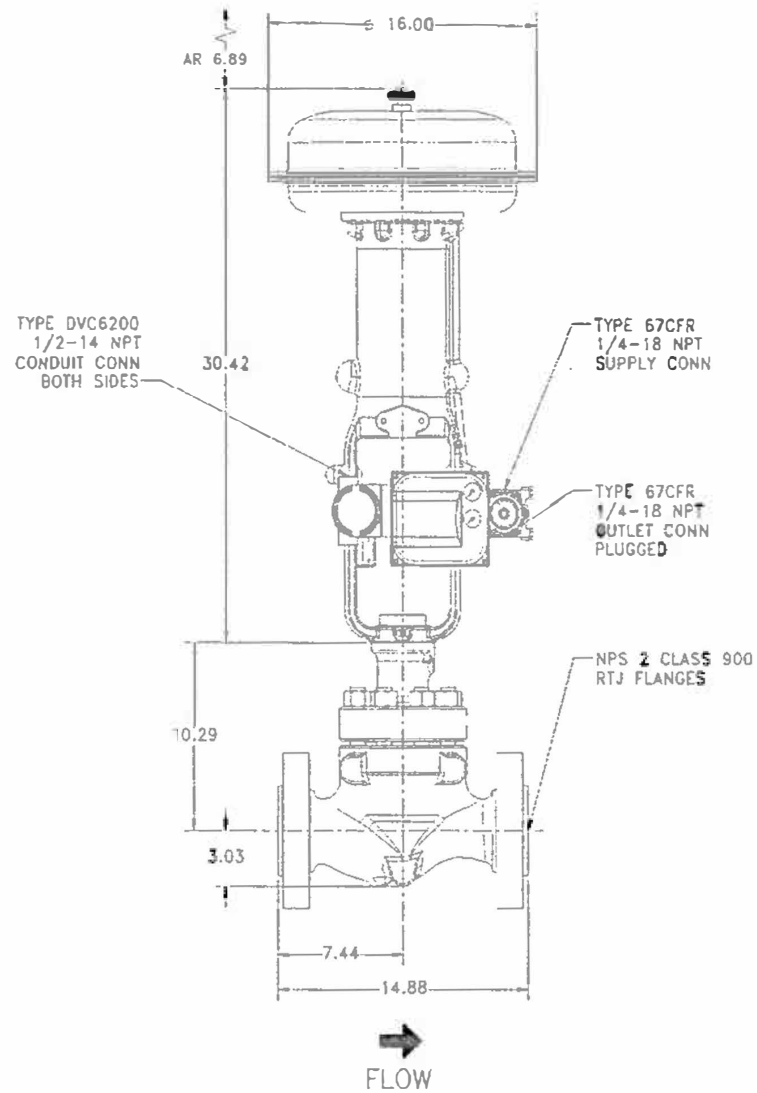
1. SST TUBING & FITTINGS

2. INCLUDED ASCO MODEL EF8320G200 24VDC SOL VVE

DE-ENG TO VENT.

FEATURES PICTORIALLY TYPICAL

ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS ± 0.06 Inch
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS		FISHER		©Fisher Controls Int'l LLC 2016	
CUST: UOP RUSSELL LLC CUST REF NO.: JOB 445, UOP RUSSELL, SC6 STD PLANT FISHER REF NO.: 0270-RCB-160811-0184180 TAG NO.: LCV-404 PROJECT NAME:				HPS VALVE BODY SIZE 2 667 ACTUATOR SIZE 451	
CUST ITEM: D014				S.N.D.:	
TOTAL CALCULATED WT $\pm 10\%$ TOTAL WEIGHT: 272.8 lb UNLESS OTHERWISE SPECIFIED UNIT OF MEASURE: INCH		REV	DATE	BY	CHKD. APP'D.
		4	12-Aug-16	SBS	
GENERAL ARRANGEMENT		EMERSON		Process Management	
		SCALE: NONE		SHEET 1 OF 1	

FISHER**Sliding Stem Valve Specification**Customer: **UOP RUSSELL LLC**Contact: **Dennis Paden**

Customer Reference:

UOP RUSSELL, SC6

Vinson Process Controls

Contact: **Ron Berte**Sales Office Reference: **VVES**Lead Time: **10 WKS****STD PLANT**Item: **1**

Rev:

Qty: **1**Rev: **A**Tags: **LCV-441A**Date Last Modified: **11/08/2016**Description: **NPS 1 D4 846**

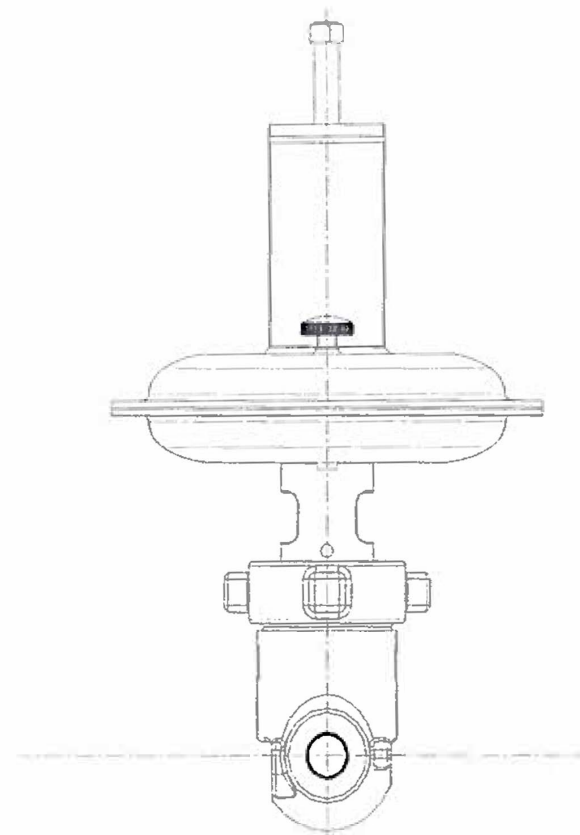
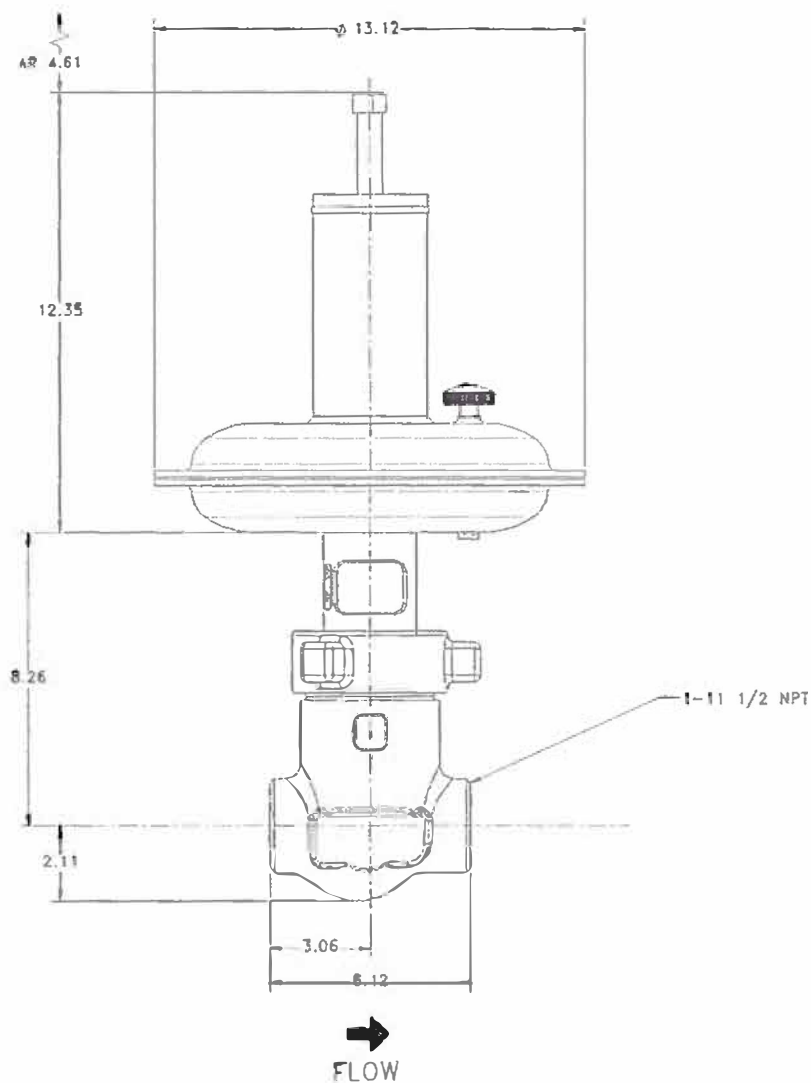
Service Description:

Service:		Positioner Type:	
Size and Type:	NPS 1 D4	Input Signal:	
Body Style:	Globe	Access:	None
Design Temp:	150 F	Gauges:	
Design Press:	1100 psig	Action:	
End Connect/In/Out:	4250 psi @ 100 Deg F/NPT/NPT	Certification:	
Material:	LCC Steel 20B101	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Up	Measure Element:	
Trim Number:	S17400 SST H1150 Tungsten Carbide	Range:	
Cage Matl:		Output:	
Retainer Matl:		Mounting:	
Bushing Matl:		Airset:	
Seat Ring Matl:	S17400 SST DBL H1150/ST Carbide	Mounting:	
VALVE PLUG		Transducer:	846
Material:	S17400 SST DBL H1150/ST Carbide	Input Signal:	4 to 20 mA dc
Guiding:	Post	Output Signal:	0.5 to 33 psig
Balance:		Action:	Direct
Shutoff Class:	ANSI CL IV	Mounting:	Casing
Port Size:	1/4 inch	Airset:	67CFR Filter/Regulator
Characteristic:	Micro-Form (Eq Pct)	Certifications:	Exp. Proof/Intrinsically Safe/Non-Incendive/Dust Ignition, FM and CSA
Stem Material:	S20910 SST	Line In:	1 in, SCH 160
Stem Size:		Line Out:	1 in, SCH 160
Bonnet Style:	Standard	Insulation:	
Boss Size:		Service Cond:	ON-OFF
Packing:	Live Loaded PTFE	Process Fluid:	WASTE
Access:			
Bolt, Bonnet:			
PackFlg/Bltg:			
Actuator:	DIAPH		
Type/Size:	D4/40		
Travel:	3/4 inch		
Bench Set:			
Push Down To:	PDTC		
Supply:	AIR		
To Actuator:	0-30, 0-33, 0-35, 0-50 or 6-30 psig		
Fails Valve:	CLOSED		
Handwheel:	None		
		Max Rated Cv:	1.76

Variable Name	Unit	Minimum	Normal	Maximum
Volumetric Flow Rate Liquid (Ql)	gpm(US)	2.000	5.000	10.000
Inlet Pressure (P1)	psig	900.000	900.000	900.000
Pressure Change (dP)	psi	880.000	880.000	880.000
SG		0.990	0.990	0.990
Dynamic Viscosity (Mu)	cP	0.530	0.530	0.530
Sizing Coefficient (Cv)		0.069	0.172	0.345
% Open		5	31	52

NOTES:**1. SST TUBING & FITTINGS**

FEATURES PICTORIALY TYPICAL ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS +/- 0.06 INCH
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS					FISHER		© Fisher Controls Inc. LLC 2018		
CUST: UOP RUSSELL LLC CUST REF NO.: JOB 447, UOP RUSSELL, SC6 STD PLANT FISHER REF NO.: 0270-RCB-161121-0190534 TAG NO.: LCV-441A PROJECT NAME:					D4 VALVE BODY SIZE 1 ACTUATOR SIZE 40				
					CUST ITEM: 0001		S.NO.:		
TOTAL CALCULATED WT +/- 10% TOTAL WEIGHT: 66.7 lb UNLESS OTHERWISE SPECIFIED UNIT OF MEASURE: INCH					REV	DATE	DRW	CHKD	SPE
					A	21-Nov-16	195		
					GENERAL ARRANGEMENT				
					 EMERSON. Process Management		SCALE: NONE SPL. NO. REV		
							SHEET 1 OF 1		

FISHER

Sliding Stem Valve Specification

Customer: UOP RUSSELL LLC

Contact: Dennis Paden

Customer Reference:

STD PLANT

Item: 2

Tags: LCV-441B

Description: NPS 1 D4 846

UOP RUSSELL, SC6

Rev

Qty: 1

Vinson Process Controls

Contact: Ron Berte

Sales Office Reference: VVES

Lead Time: 10 WKS

Rev: A

Date Last Modified: 11/08/2016

Service Description:

Service		Positioner Type:	
Size and Type:	NPS 1 D4	Input Signal:	
Body Style:	Globe	Access:	None
Design Temp:	150 F	Gauges:	
Design Press:	1100 psig	Action:	
End Connect/In/Out:	4250 psi @ 100 Deg F/NPT/NPT	Certification:	
Material:	LCC Steel 20B101	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Up	Measure Element:	
Trim Number:	S17400 SST H1150 Tungsten Carbide	Range:	
Cage Matl:		Output:	
Retainer Matl:		Mounting:	
Bushing Matl:		Airset:	
Seat Ring Matl:	S17400 SST DBL H1150/ST Carbide	Mounting:	
VALVE PLUG		Transducer:	846
Material:	S17400 SST DBL H1150/ST Carbide	Input Signal:	4 to 20 mA dc
Guiding:	Post	Output Signal:	0.6 to 33 psig
Balance:		Action:	Direct
Shutoff Class:	ANSI CL IV	Mounting:	Casing
Port Size:	1/4 inch	Airset:	67CFR Filter/Regulator
Characteristic:	Micro-Form (Eq Pct)	Certifications:	FM and CSA, Exp. Proof/Intrinsically Safe/Non-Incendive/Dust Ignition
Stem Material:	S20910 SST	Line In:	1 in, SCH 160
Stem Size:		Line Out:	1 in, SCH 160
Bonnet Style:	Standard	Insulation:	
Boss Size:		Service Cond:	ON-OFF
Packing:	Live Loaded PTFE	Process Fluid:	WASTE
Access:			
Bolt, Bonnet:			
PackFlg/Bltg:			
Actuator:	DIAPH		
Type/Size:	D4/40		
Travel:	3/4 inch		
Bench Set:			
Push Down To:	PDTC		
Supply:	AIR		
To Actuator:	0-30, 0-33, 0-35, 0-50 or 6-30 psig		
Falls Valve:	CLOSED		
Handwheel:	None		
		Max Rated Cv:	1.75

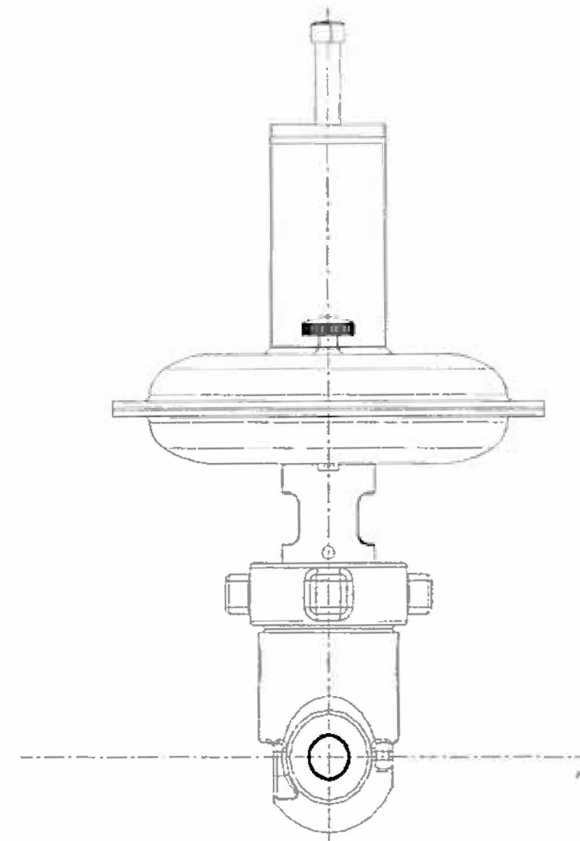
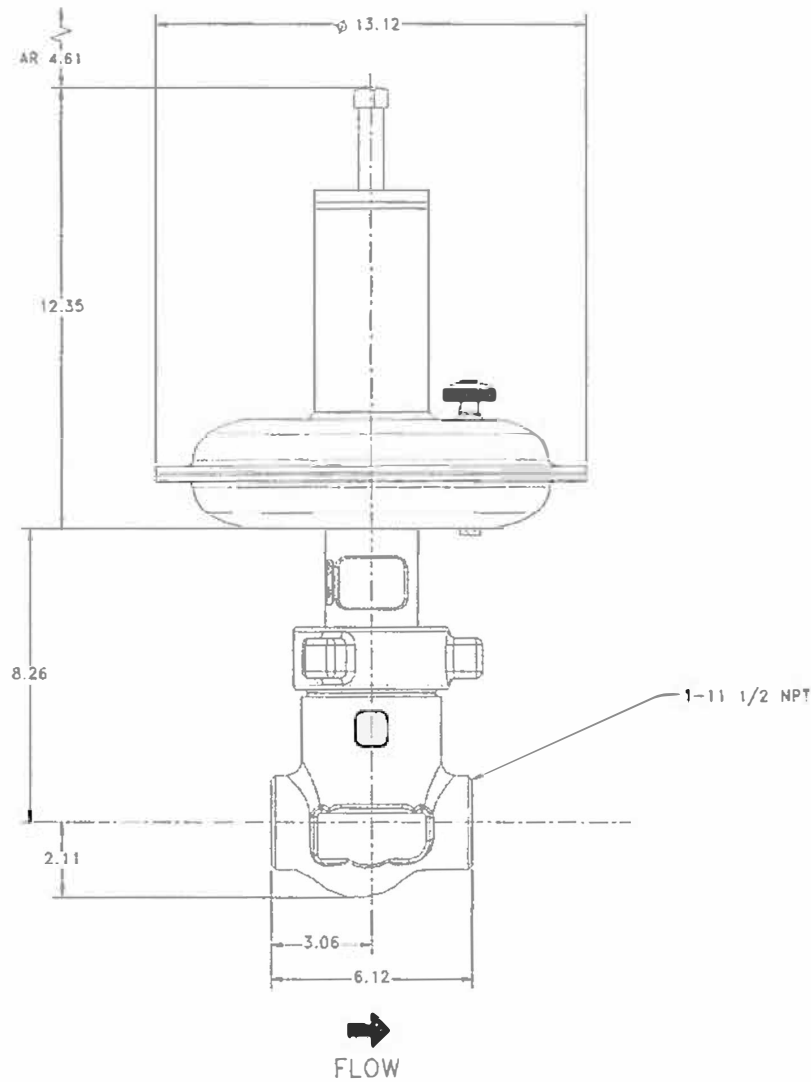
Variable Name	Unit	Minimum	Normal	Maximum
Volumetric Flow Rate Liquid (Ql)	gpm(US)	2.000	5.000	10.000
Inlet Pressure (P1)	psig	900.000	900.000	900.000
Pressure Change (dP)	psi	880.000	880.000	880.000
SG		0.990	0.990	0.990
Dynamic Viscosity (Mu)	cP	0.530	0.530	0.530
Sizing Coefficient (Cv)		0.069	0.172	0.345
% Open		5	31	52

NOTES:

1. SST TUBING & FITTINGS

FEATURES PICTORIALLY TYPICAL

ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS +/- 0.06 INCH
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS		FISHER		© Fisher Controls Int. LLC 2016	
CUST: UOP RUSSELL LLC CUST REF NO.: JOB 447, UOP RUSSELL, SC6 STD PLANT FISHER REF NO.: 027D-RCB-161121-0190534 TAG NO.: LCV-441B PROJECT NAME:				D4 VALVE BODY SIZE 1 ACTUATOR SIZE 40	
TOTAL CALCULATED WT +/- 10% TOTAL WEIGHT: 66.7 lb UNLESS OTHERWISE SPECIFIED UNIT OF MEASURE: INCH				CUST ITEM: 0002 S.NO.	
REV. DATE SWR CDS APVR 1 21-Nov-16 FGS				SCALE: NONE REC NO.	
GENERAL ARRANGEMENT				EMERSON Process Management SHEET 1 OF 1	

FISHER**Sliding Stem Valve Specification**Customer: **UOP RUSSELL LLC**

Vinson Process Controls

Contact: **Dennis Paden**Contact: **Ron Berte**

Customer Reference:

UOP RUSSELL, SC6Sales Office Reference: **VVES**Lead Time: **10 WKS****STD PLANT**Item: **4**

Rev:

Qty: **1**Rev. **A**Tags: **LCV-447**Date Last Modified: **11/08/2016**Description: **NPS 1 D4 846**

Service Description:

Service:		Positioner Type:	
Size and Type:	NPS 1 D4	Input Signal:	
Body Style:	Globe	Access:	None
Design Temp:	150 F	Gauges:	
Design Press:	1100 psig	Action:	
End Connect/In/Out:	4250 psi @ 100 Deg F/NPT/NPT	Certification:	
Material:	LCC Steel 20B101	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Up	Measure Element:	
Trim Number:	S17400 SST H1150 Tungsten Carbide	Range:	
Cage Matl:		Output:	
Retainer Matl:		Mounting:	
Bushing Matl:		Airset:	
Seat Ring Matl:	S17400 SST DBL H1150/ST Carbide	Mounting:	
VALVE PLUG		Transducer:	846
Material:	S17400 SST DBL H1150/ST Carbide	Input Signal:	4 to 20 mA dc
Guiding:	Post	Output Signal:	0.5 to 33 psig
Balance:		Action:	Direct
Shutoff Class:	ANSI CL IV	Mounting:	Casing
Port Size:	1/4 Inch	Airset:	67CFR Filter/Regulator
Characteristic:	Micro-Form (Eq Pct)	Certifications:	FM and CSA,Exp. Proof/Intrinsically Safe/Non-Incendive/Dust Ignition
Stem Material:	S20910 SST	Line In:	1 in, SCH 160
Stem Size:		Line Out:	1 in, SCH 160
Bonnet Style:	Standard	Insulation:	
Boss Size:		Service Cond:	ON-OFF
Packing:	Live Loaded PTFE	Process Fluid:	WASTE
Access:			
Bolt, Bonnet:			
PackFlg/Bltg:			
Actuator:	DIAPH		
Type/Size:	D4/40		
Travel:	3/4 Inch		
Bench Set:			
Push Down To:	PDTC		
Supply:	AIR		
To Actuator:	0-30, 0-33, 0-35, 0-50 or 6-30 psig		
Fails Valve:	CLOSED		
Handwheel:	None		
		Max Rated Cv:	1.76

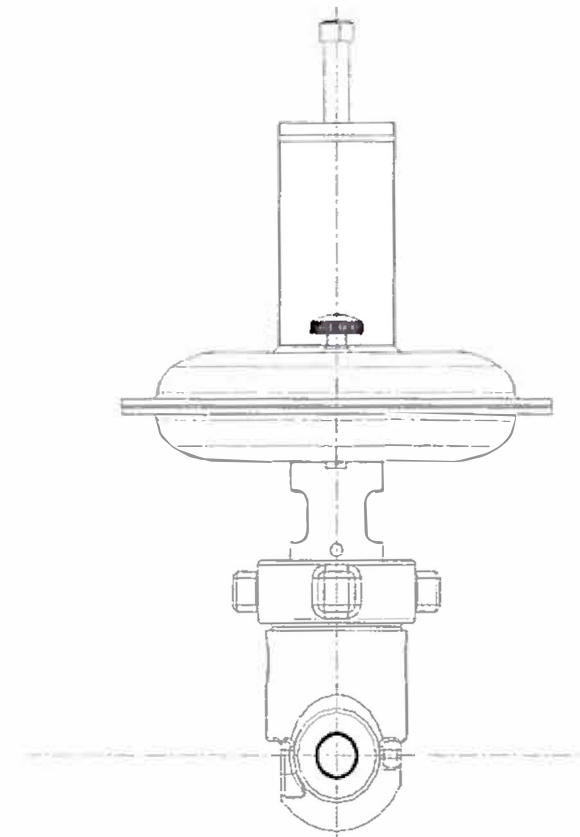
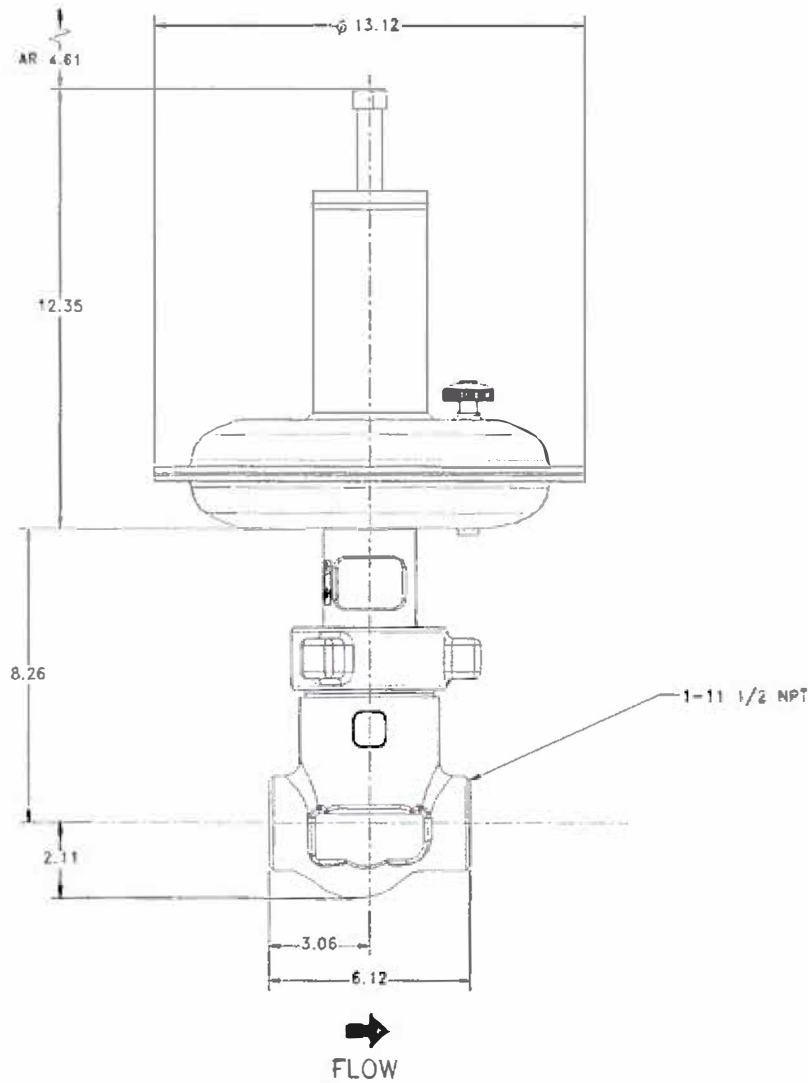
Variable Name	Unit	Minimum	Normal	Maximum	
Volumetric Flow Rate Liquid (Ql)	gpm(US)	2.000	6.000	10.000	
Inlet Pressure (P1)	psig	900.000	900.000	900.000	
Pressure Change (dP)	psi	880.000	880.000	880.000	
SG		0.990	0.990	0.990	
Dynamic Viscosity (Mu)	cP	0.530	0.530	0.530	
Sizing Coefficient (Cv)		0.069	0.172	0.345	
% Open		5	31	82	

NOTES:

1. SST TUBING & FITTINGS

FEATURES PICTORIALLY TYPICAL

ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS +/- 0.06 INCH
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS		FISHER		© Fisher Controls Inc. LLC 2018	
CUST: UOP RUSSELL LLC CUST REF NO.: JOB 447, UOP RUSSELL, SC6 STD PLANT FISHER REF NO.: 0270-RCB-161121-0190534 JAG NO: LCV-447 PROJECT NAME:				D4 VALVE BODY SIZE 1 ACTUATOR SIZE 40	
TOTAL CALCULATED WT +/- 10% TOTAL WEIGHT: 66.7 lb UNLESS OTHERWISE SPECIFIED UNIT OF MEASURE: INCH				CUST ITEM: 0304 S.NO.:	
GENERAL ARRANGEMENT				SCALE: NONE SHEET 1 OF 1	
EMERSON				A	



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 12

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO, TX, US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA, OK, US
74015

Item Description: NPS 4 ET 667 Size 45i DVC6200 TopWorx
Switches ASCO Factory Mtgs
DVC6200/DVC2000

Tag #: PCV-402B

Serial #: F002194483

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
DESIGN E SERIES WHISPER III VALVE BODY, NPS 4		10A4223X012	SEAL RING/SPR,RADIAL	1	287.00	Y
	29	10A4224X022	RING,BACK-UP	1	1278.00	Y
	27	10A4225X012	RING,RETAINING,EXT	1	65.00	Y
		1U222939102	SEAT RING	1	1476.00	Y
	7	1U2307X0012	STEM,PLUG	1	1237.00	
	8	1V322735072	PIN,GROOVE,FLAT END	1	5.00	Y
		21A0187X012	PLUG,BAL	1	1667.00	
		32B6301X012	CAGE,WHISPER III,A1	1	10387.00	Y
		RGASKETX212	GASKET SET	1	117.00	Y
		-1J5047X0062	GASKET ~ 5.00X5.47X.03	1		
		-1R372299442	GASKET,SPIRAL WOUND ~ CL600, 5.06X 5.56X0.175PRO	1		
		-1R3724X0042	GASKET ~ 5.00X6.09X.03	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 12

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
DESIGN E SERIES WHISPER III VALVE BODY, NPS 4		-D101590X012	INSTRUCTION SHEET ~ FOR RGASKETX212, X362 & X472	1		
		-16A1941X012	GASKET SHIM ~ 5 X 5 19/32 X 1/32	1		
BONNET 2 13/16 YOKE BOSS, 1/2 STEM		RPACKX00022	KIT, REPAIR	1	58.00	Y
		-1F125136042	WASHER, SPCL ~ 1/2 STEM X1.00	1		
		-1F125537012	SPRING, PACKING ~ 1/2 STEM	1		
		-1J872706332	WIPER, UPPER ~ 1/2 STEM	1		
		-1J873235072	PACKING BOX RING ~ 1/2 STEM X 1	1		
		-1R290201012	PACKING, SET ~ 1/2X1	1		
		-D101561X012	INSTRUCTION SHEET ~ FOR RPACKX00012,22,32,342&352	1		
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X032	GAUGE, PRESS, 1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT, ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16, DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16, DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 12

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		
		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		
		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
		-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
		-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
		-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
		-18B5796X012	SCREW, COMB PAN HD	4		
		-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
		-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 12

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
		-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		
		-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
		-18B9610X012	SCREEN	1		
		-1A3303X0012	NUT,HEX ~ 6-32	2		
		-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
		-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		
		-22B9009X022	SPRING,BIAS ~ 657,667/70-100	1		
		-24B0654X032	SPRING,BIAS	1		
		-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
		-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
		-GE19919X022	SPRING, BIAS ~	1		
		-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
		38B6041X152	I/P ASSY/SHROUD	1	963.00	Y
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
TYPE 667 DIAPHRAGM ACTUATOR	3	2E859602202	DIAPHRAGM	1	110.00	Y
		R667X000502	KIT,REPAIR	1	20.00	Y
		-1C5622X0022	O-RING ~ 1 1/8X1 3/8X1/8	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 12

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE 667 DIAPHRAGM ACTUATOR		-1E845404022	GASKET,TO 302F/150C ~ 5.00X7.12X.03	1		
		-1E845806992	O-RING ~ 1 7/8X2 1/8X1/8	1		
		R667X000512	KIT REPAIR	1	464.00	Y
		-1A6751X0102	SCREW,CAP,HEX HD ~ 3/8-24X1.00	20		
		-1A3465X0092	NUT,HEX ~ 3/8-24	20		
		-2J3328X0042	STEM,ACTUATOR ~ 667 SIZE 45	1		
		-1E845714012	BUSHING,SEAL ~ 45-50-60	1		
PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales

Prices subject to change without notice



Serial Card

FISHER™**LBP Order#:** 027D-580815**CustPO:** 4500890601**Version:** As Created**SerialRange:** F002194483**ShipTo:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Current Location:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Installed At:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Shipped:****Application:** VLVS ETO Line**SalesPerson:** BRIAN HANEY / MB**Project:****Carrier:** UNASSIGNED-TRUCK-
STD SERVICE**Split:** Y**Pack:** Domestic (WMP
11A1)**Pay:** Prepaid And Add To
Invoice

Item Detail

Item: 12	Tag: PCV-402B	Quantity: 1
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DESIGN E SERIES WHISPER III VALVE BODY, NPS 4 , BONNET 2 13/16 YOKE BOSS,1/2 STEM , TYPE 667 DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR , ASCO SOLENOID VALVE & MTG PARTS , TOPWORX SWITCHES AND MOUNTINGS

Item Level Notes

G05	PO#: 4500890601 / PROJECT#: J447CL
F51	Gas, NEW MIN, FlowMedia=HC VAPOR P1=909.000 psig, dP=709.000 psi T1=20.000 deg F, Cv=17.326 Gas, NEW NORM, FlowMedia=HC VAPOR P1=909.000 psig, dP=709.000 psi T1=20.000 deg F, Cv=32.519 Gas, NEW MAX 1/2" TR, FlowMedia=HC VAPOR P1=909.000 psig, dP=709.000 psi T1=20.000 deg F, Cv=56.417 Gas, 4, FlowMedia=HC VAPOR P1=909.000 psig, dP=709.000 psi T1=20.000 deg F, Cv=57.000 Design Press=1100 psig, Design Temp=150 Deg F
I05	NPS 4 ET 667 Size 45i DVC6200 TopWorx Switches ASCO Factory Mtgs DVC6200/DVC2000

Construction Details

ET	Quantity: 1
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NPS 4 CL600 RF FLG CF8M GLOBE BODY , N06600/GRAPHITE SPL WND GSKT S31600 GRAPHITE GSKT , B8M CL2 BOLTS 8M NUTS , S20910 1/2 VALVE STEM VSC 1L5000 , FLOW ARROW & DRIVE SCREW , NAMEPLATE , DESIGN ET PDTC FLOW UP , ASME CLASS 600 HYDRO 2250 PSI/2 MIN , CLASS IV LEAK TEST PER FGS 4L5 44 SCFH 316 SST PACKING FLANGE STUDS AND NUTS , TFE PACKING,ARRANGEMENT 12A7811 , 316 SST; PTFE FMS 17D7 , CF8M EXT BONNET STYLE 2 , CL150-600; CF8M MATL; SIZE 4; EXT STYLE 2

S31600/ENC WHISPER III A1 CHARACTERIZED CAGE 2 TRAVEL

S31600 COCR-A S&G PLUG ALLOY 6 SEAT RING 4 3/8 PORT

N10276/PTFE GLASS/MOS 2 SPRING LOADED SEAL RING

667	Quantity: 1
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NITRILE DIAPHRAGM , SIZE 45I CAST IRON YOKE TAPPED 2 13/16 BOSS , SPRING 1E827227082 RATE=1050 LB/IN , TRAVEL 2 IN , STEM SIZE 1/2 , STANDARD , LUB-1 FMS 27D1 , STEEL CRPL ACTUATOR STEM , TYPE 667, SIZE 45 , STD SPG ADJUSTOR , STANDARD SERVICE, STANDARD (POWDER COAT PAINT) , TYPE 667 , 0-33 PSI AIR TO DIAPHRAGM , BENCH SET 11-31 PSI , 10 PSI MAX CASING PRESS ABOVE OPERATING RANGE

DVC6200	Quantity: 1
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ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-60 PSI/0-4 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT'

MTG, DVC6200 NA, 657/667 W/O MO SIZE 30I-46I , FOR NITRILE INSTRUMENT CONSTRUCTIONS , 50MM TRAVEL FEEDBACK ARRAY KIT , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGelok FITTINGS , MTG POSITION 1 PER DWG GE52353

67CFR

Quantity: 1

1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-60 PSI SPRING,BLUE STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET

TOPWORX DXP

Quantity: 1

ASCO NO. EF8320G200 24V DC 3-WAY VALVE , SST NIPPLE MTD , DE-ENERGIZE TO VENT
TOPWORX DXP-MX1GN4B VALVETOP SWITCH , VIP MOUNTING KITS

Nameplate	
AMB TEMP	-40
INPUT	4-20MA PT-PT
NAMEPLATE	GE90092X0A2
TYPE	DVC6200
BENCH SET><	11-31
BODY><	SST
MAX CSG PRESS ABV OPR RANGE><	10
NAMEPLATE	18A5087X0A2
NAMEPLATE><	12B6508X0A2
NAMEPLATE><	18B9870X0A2
OPER RANGE	0-33
PLUG><	SST/HF
PORT SIZE	4 3/8
PRESS UNITS><	PSI
RATING	CL600/1440 PSI CWP
SEAT><	CO ALLOY
SIZE	4
SIZE	45i
STEM><	SST
TRAVEL	2
TYPE><	667
TYPE><	ET

Paint						
Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
667	Standard	See WMP	N/A	Standard	Standard	Standard
ASCO	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
ET	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard
TopWorx	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER**Sliding Stem Valve Specification**Customer: **UOP RUSSELL LLC**

Vision Process Controls

Contact: **Dennis Paden**Contact: **Ron Berte**

Customer Reference:

UOP RUSSELL, SC6Sales Office Reference: **VVES**Lead Time: **20 WKS****STD PLANT**Item: **10**

Rev:

Qty: **1**Rev: **A**Tags: **PCV-402B**Date Last Modified: **11/08/2016**Description: **NPS 4 ET 667 Size 45i DVC6200 TopWorx Switches ASCO****Service Description:**

Service:		Positioner Type:	DVC6200,HART Communicating-HC
Size and Type:	NPS 4 ET	Input Signal:	4 to 20 mA dc
Body Style:	Globe	Access:	67CFR Filter/Regulator
Design Temp:	-67 TO +150F	Gauges:	0-60 psig/0-4 bar
Design Press:	1100 psig	Action:	Direct
End Connect/In/Out:	CL600/RF Flg/RF Flg	Certification:	FM,Explosion Proof/Intrinsic Safe/Nonincendive
Material:	CF8M SST	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Up	Measure Element:	
Trim Number:	312G	Range:	
Cage Matl:	S31600 SST/ENC	Output:	
Retainer Matl:		Mounting:	
Bushing Matl:		Airset:	
Seat Ring Matl:	R30006 Cobalt Alloy	Mounting:	
VALVE PLUG		Transducer:	
Material:	S31600 SST/CoCr-A Seat/Guide	Input Signal:	
Guiding:	Cage	Output Signal:	
Balance:	Balanced	Action:	
Shutoff Class:	ANSI CL IV	Mounting:	
Port Size:	4 3/8 Inch	Airset:	
Characteristic:	Whisper III (Linear)	Certifications:	
Stem Material:	S20910 SST	Line In:	8 In, SCH 80
Stem Size:	1/2 Inch	Line Out:	8 In, SCH 80
Bonnet Style:	Style 2 Extension	Insulation:	
Boss Size:	2 13/16	Service Cond:	THROTTLING
Packing:	Single PTFE	Process Fluid:	HC VAPOR
Access:	No		
Bolt, Bonnet:	SA-193-B8M Str Hd Studs/8M Nuts		
PackFlg/Bltg:	SST Pkg Flg, SST Studs & Nuts		
Actuator:	Spring & Diaphragm		
Type/Size:	667/45i		
Travel:	2 Inch		
Bench Set:	11-31 psi		
Push Down To:	PDTC		
Supply:	Air		
To Actuator:	0 to 33 psig		
Fails Valve:	Close		
Handwheel:	None		
		Max Rated Cv:	57 CV

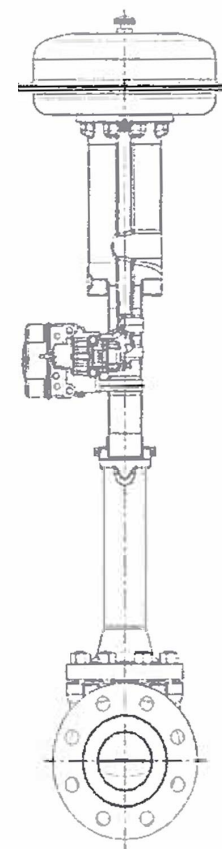
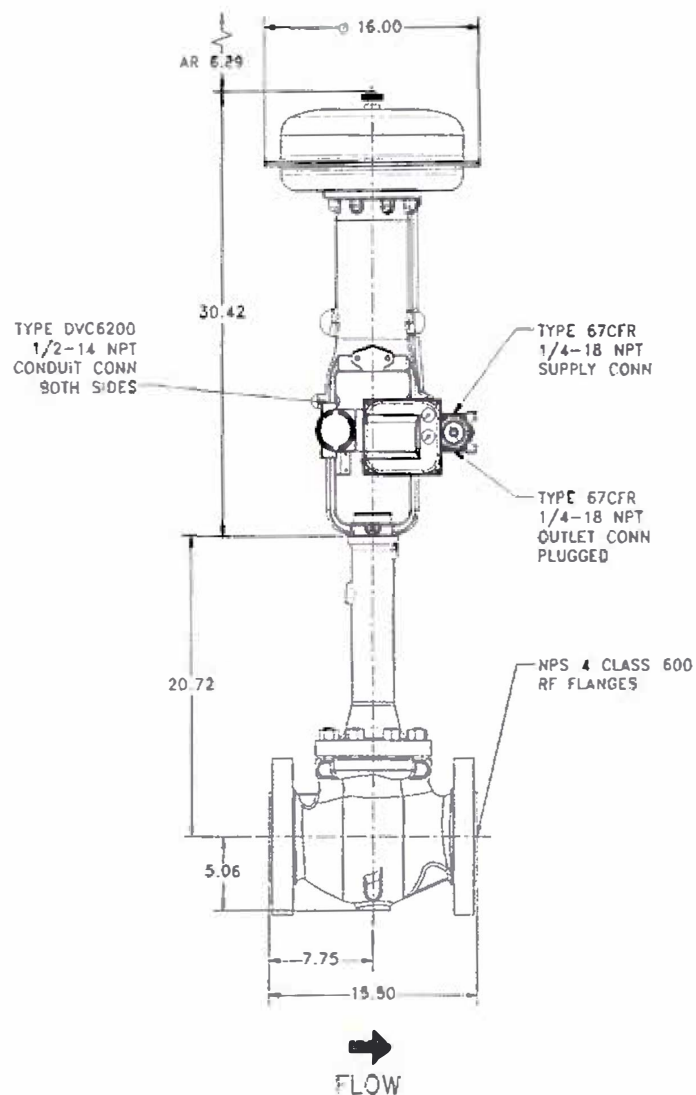
Variable Name	Unit	NEW MIN	NEW NORM	NEW MAX 1/2" TR	4
Mass Flow Rate Gas (w)	lb/h	34772.000	65200.000	112800.000	113964.819
Inlet Pressure (P1)	psig	909.000	909.000	909.000	909.000
Pressure Change (dP)	psi	709.000	709.000	709.000	709.000
Inlet Temperature (T1)	deg F	20.000	20.000	20.000	20.000
M / Gg	SG	0.700	0.700	0.700	0.700
Specific heats ratio (gamma)		1.280	1.280	1.280	1.280
Dynamic Viscosity (Mu)	cP	0.010	0.010	0.010	0.010
Sizing Coefficient (Cv)		17.326	32.619	56.417	57.000
% Open		74	89	99	100
Valve LpA(LpA Valve 1m)	dB(A)	81	86	91	91

NOTES:

1. SST TUBING & FITTINGS
2. INCLUDES TOPWORX DXP-MX1GN4B STEM POSITION TRANSMITTER & SWITCHES.
3. INCLUDES ASCO EF8320G200 24VDC SOL VVE JE-ENG TO VENT.
4. SPRING LOADED SEAL RING

FEATURES PICTORIALY TYPICAL

ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS +/- 0.06 Inch
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS		FISHER		©Fisher Controls Int'l, LLC 2016	
CUST: UOP RUSSELL LLC CUST REF NO: JOB 447, UOP RUSSELL SC6 STD PLANT FISHER REF NO: 027D-RCB-161121-0190534 TAG NO: PCV-402B PROJECT NAME:				ET VALVE BODY SIZE 4 667 ACTUATOR SIZE 451	
TOTAL CALCULATED WT +/- 10% TOTAL WEIGHT: 316.1 lb UNLESS OTHERWISE SPECIFIED UNIT OF MEASURE: INCH				CUST ITEM: 0010 S.N.O.: SCALE: NONE DATE: 10/1/16 BY:	
GENERAL ARRANGEMENT				EMERSON Process Management SHEET 1 OF 1 A	



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 13

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO, TX, US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA, OK, US
74015

Item Description: NPS 2 EZ 667 Size 40i DVC6200 ASCO
Factory
Mtgs DVC6200/DVC2000

Tag #: PCV-481A

Serial #: F002194484

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
DESIGN EZ PUSH DOWN TO CLOSE	9	16A3353X052	SEAT RING	1	296.00	Y
	3	25A6687X092	ST RG RET/BUSH ASSY	1	625.00	Y
		16A3336X062	PLUG/STEM,M-FORM	1	461.00	Y
		-1U388935162	STEM,PLUG ~ VSC1L5000,1/2X11.50,3.38THD	1		
		-16A3336X052	PLUG,M-FORM ~ 3/4 ORF,1L5000	1		
		-1D5423X00B2	PIN,GROOVE,TYPE F ~ 1/8X0.81	1		
		RGASKETX182	GASKET SET	1	85.00	Y
		-1R329799442	GASKET, SPIRAL WOUND ~ CL600, 3.00X 3.50X0.175PRO	1		
		-1R3299X0042	GASKET ~ 2.94X4.03X.03	1		
		-D101587X012	INSTRUCTION SHEET ~ FOR RGASKETX182, X332 & X442	1		
		-16A1938X012	GASKET SHIM ~ 2 15/16 X 3 17/32 X 1/32	1		
		-1R3296X0042	GASKET ~ 2.88X3.28X.03	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 13

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
BONNET 2 13/16 YOKE BOSS, 1/2 STEM		RPACKX00022	KIT, REPAIR	1	58.00	Y
		-1F125136042	WASHER, SPCL ~ 1/2 STEM X1.00	1		
		-1F125537012	SPRING, PACKING ~ 1/2 STEM	1		
		-1J872706332	WIPER, UPPER ~ 1/2 STEM	1		
		-1J873235072	PACKING BOX RING ~ 1/2 STEM X 1	1		
		-1R290201012	PACKING, SET ~ 1/2X1	1		
		-D101561X012	INSTRUCTION SHEET ~ FOR RPACKX00012,22,32,342&352	1		
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X032	GAUGE, PRESS, 1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT, ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16, DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16, DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		
		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 13

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		
		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
		-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
		-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
		-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
		-18B5796X012	SCREW, COMB PAN HD	4		
		-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
		-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		
		-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
		-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 13

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
		-18B9610X012	SCREEN	1		
		-1A3303X0012	NUT,HEX ~ 6-32	2		
		-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
		-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		
		-22B9009X022	SPRING,BIAS ~ 657,667/70-100	1		
		-24B0654X032	SPRING,BIAS	1		
		-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
		-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
		-GE19919X022	SPRING, BIAS ~	1		
		-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
		38B6041X152	I/P ASSY/SHROUD	1	963.00	Y
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
DIAPHRAGM ACTUATOR	3	2E669902202	DIAPHRAGM	1	104.00	Y
		R667X000402	KIT,REPAIR	1	11.00	Y
		-1C415706992	O-RING ~ 1 3/8X1 5/8X1/8	1		
		-1D237506992	O-RING, 3/4 X 1 X 1/8	2		
		-1E801204022	GASKET,TO 302F/150C ~ 3.75X5.75X.03	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 13

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
DIAPHRAGM ACTUATOR		R667X000422	KIT REPAIR	1	400.00	Y
		-1E7603X0062	SCREW,CAP,HEX HD ~ 3/8-24X0.88	16		
		-1A3465X0092	NUT,HEX ~ 3/8-24	16		
		-2E8209X0042	STEM,ACTUATOR ~ 667 SIZE 40	1		
		-1E682814012	BUSHING,SEAL ~ 34 & 40	1		
PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales

Prices subject to change without notice



Serial Card



LBP Order#: 027D-580815

CustPO: 4500890601

Version: As Created

SerialRange: F002194484

ShipTo: UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015

Current Location: UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015

Installed At: UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015

Shipped:

Application: VLVS Assembly Line

SalesPerson: BRIAN HANEY / MB

Project:

Carrier: UNASSIGNED-TRUCK-
STD SERVICE

Split: Y

Pack: Domestic (WMP
11A1)

Pay: Prepaid And Add To
Invoice

Item Detail

Item: 13	Tag: PCV-481A	Quantity: 1
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DESIGN EZ PUSH DOWN TO CLOSE , BONNET 2 13/16 YOKE BOSS,1/2 STEM , DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR , ASCO SOLENOID VALVE & MTG PARTS

Item Level Notes

G05 PO#: 4500890601 / PROJECT#: J447CL

F51 Gas, Minimum, FlowMedia=NATURAL GAS (0.65 SG) P1=185.000 psig, dP=100.000 psi T1=104.000 deg F, Cv=0.950
Gas, Normal, FlowMedia=NATURAL GAS (0.65 SG) P1=185.000 psig, dP=100.000 psi T1=104.000 deg F, Cv=2.474
Gas, Maximum, FlowMedia=NATURAL GAS (0.65 SG) P1=185.000 psig, dP=100.000 psi T1=104.000 deg F, Cv=2.697
Gas, 4, FlowMedia=NATURAL GAS (0.65 SG) P1=185.000 psig, dP=35.000 psi T1=104.000 deg F, Cv=10.200
Design Press=400 psig, Design Temp=150 Deg F

I05 NPS 2 EZ 667 Size 40i DVC6200 ASCO Factory Mtgs DVC6200/DVC2000

Construction Details

EZ	Quantity: 1
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316 SST PACKING FLANGE STUDS AND NUTS , TFE PACKING,ARRANGEMENT 12A7811 , 316 SST; PTFE FMS 17D7 , STL PLAIN BONNET
2 IN WCC CL300 RF FLG GLOBE BODY , CB7CU-1 H1150 SEAT RING RET,17-4PH H900 BUSHING , 416 SST SEAT RING 3/4 ORIFICE , 416 SST M-FORM PLUG , GASKET GRAPH/SST, SPIRAL INC/GRAPH , B7 BOLTS 2H NUTS , 316 SST VALVE STEM VSC 1L5000 , FISHER NAMEPLATE , FLOW ARROW , ASME CL300 HYDRO 1125 PSI/1 MIN , 3/4 TRAVEL,CL4 LEAK TEST 2.47 SCFH FGS 4L5 , FLOW UP

667	Quantity: 1
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NITRILE DIAPHRAGM , SIZE 40I CAST IRON YOKE TAPPED 2 13/16 BOSS , SPRING 1E805127082 RATE=1840 LB/IN , TRAVEL 3/4 , STEM SIZE 1/2 , NAMEPLATE STANDARD , LUB-1 FMS 27D1 , STD SPG ADJUSTOR , STANDARD SERVICE, STANDARD (POWDER COAT PAINT) , TYPE 667 , 0-33 PSI AIR TO DIAPHRAGM , BENCH SET 10-30 PSI , 20 PSI MAX CASING PRESS ABOVE OPERATING RANGE

DVC6200	Quantity: 1
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ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-60 PSI/0-4 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT'
MTG, DVC6200 NA, 657/667 W/O MO SIZE 30I-46I , FOR NITRILE INSTRUMENT CONSTRUCTIONS , 19MM TRAVEL FEEDBACK ARRAY KIT , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGelok FITTINGS , MTG POSITION 1 PER DWG GE52353

67CFR	Quantity: 1
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1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-60 PSI SPRING,BLUE STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET

ACCESSORY_EM_AS	Quantity: 1
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ASCO NO. EF8320G200 24V DC 3-WAY VALVE , SST NIPPLE MTD , DE-ENERGIZE TO VENT

Nameplate

AMB TEMP	-40
INPUT	4-20MA PT-PT
NAMEPLATE	GE90092X0A2
TYPE	DVC6200
BENCH SET><	10-30
BODY><	STL
MAX CSG PRESS ABV OPR RANGE><	20
NAMEPLATE	18A5087X0A2
NAMEPLATE><	12B6508X0A2
NAMEPLATE><	18B9870X0A2
OPER RANGE	0-33
PLUG><	SST
PORT SIZE	3/4
PRESS UNITS><	PSI
RATING	CL300/750 PSI CWP
SEAT><	SST
SIZE	2
SIZE	40i
STEM><	SST
TRAVEL	3/4
TYPE><	667
TYPE><	EZ

Paint

Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
667	Standard	See WMP	N/A	Standard	Standard	Standard
ASCO	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
EZ	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER

Sliding Stem Valve Specification

Customer: **UOP RUSSELL LLC**Contact: **Dennis Padon**

Customer Reference:

UOP RUSSELL, SC6

Vinson Process Controls

Contact: **Ron Berte**Sales Office Reference: **VVES**Lead Time: **10 WKS****STD PLANT**Item: **17**

Rev:

Qty: **1**Rev: **A**Tags: **PCV-481A**Date Last Modified: **11/08/2016**Description: **NPS 1 1/2 EZ 667 Size 34I DVC6200 ASCO**Service Description:

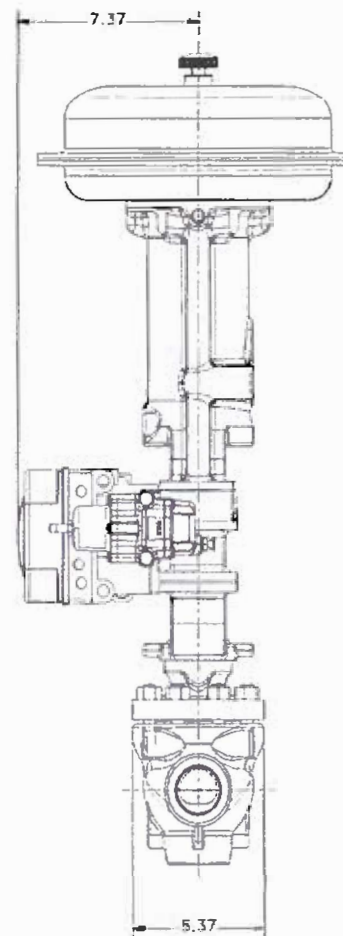
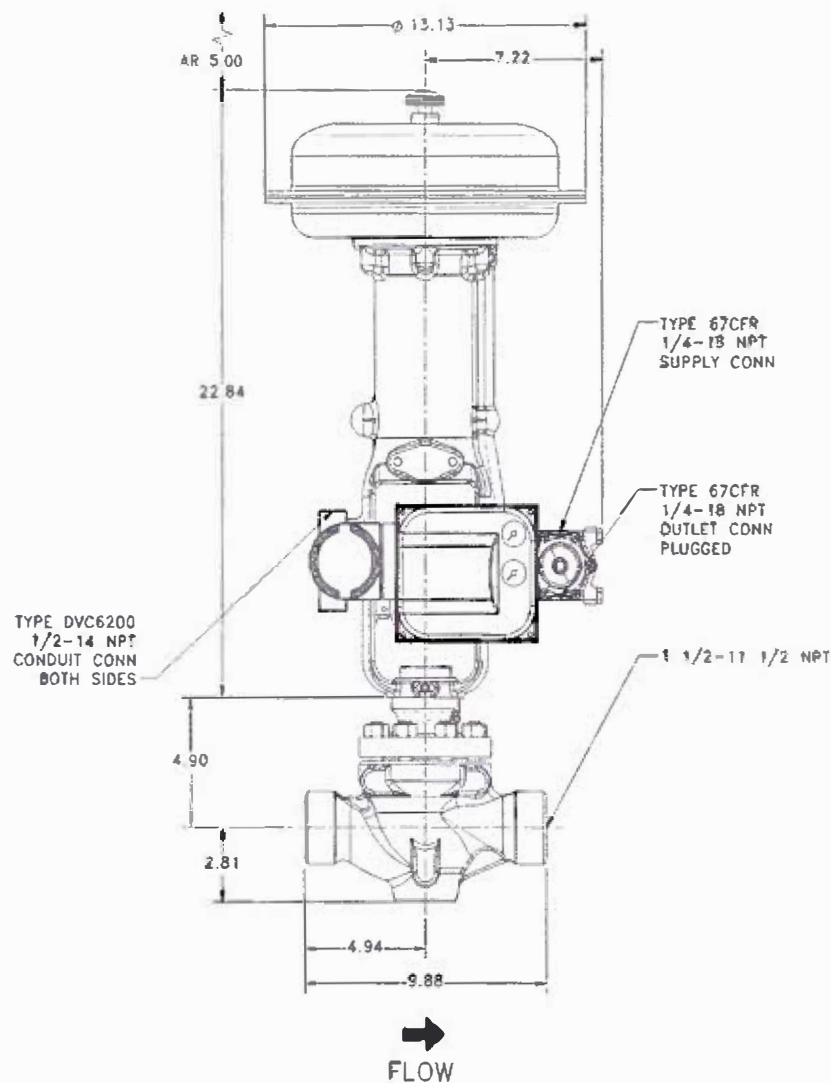
Service Size and Type:	NPS 1 1/2 EZ	Positioner Type:	DVC6200, HART Communicating -HC
Body Style:	Globe	Input Signal:	4 to 20 mA dc
Design Temp:	150 deg F	Access:	67CFR Filter/Regulator
Design Press:	400 psig	Gauges:	0-60 psig/0-4 bar
End Connect/In/Out:	CL600/NPT/NPT	Action:	Direct
Material:	WCC Steel	Certification:	FM, Explosion Proof/Intrinsic Safe/Nonincendive
Ports:	1	Controller Type:	
Flow Direction:	Up	Action:	
Trim Number:	101	Measure Element:	
Cage Matl:		Range:	
Retainer Matl:	CB7Cu-1 SST	Output:	
Bushing Matl:	S17400 SST	Mounting:	
Seat Ring Matl:	S41600 SST	Airset:	
VALVE PLUG		Mounting:	
Material:	S41600 SST	Transducer:	
Guiding:	Post	Input Signal:	
Balance:	Unbalanced	Output Signal:	
Shutoff Class:	ANSI CL IV	Action:	
Port Size:	3/4 Inch	Mounting:	
Characteristic:	Micro-Form (Eq Pct)	Airset:	
Stem Material:	S31600 SST	Certifications:	
Stem Size:	3/8 Inch	Line In:	3 in, SCH STD
Bonnet Style:	Plain	Line Out:	3 in, SCH STD
Boss Size:	2 1/8	Insulation:	
Packing:	Single PTFE	Service Cond:	THROTTLING
Access:	No	Process Fluid:	NATURAL GAS (0.65 SG)
Bolt, Bonnet:	SA-193-B7 Studs/2H Nuts		
Pack Flg/Bltg:	SST Pkg Flg, SST Studs & Nuts		
Actuator:	Spring & Diaphragm		
Type/Size:	667/34I		
Travel:	3/4 Inch		
Bench Set:	10-30 psi		
Push Down To:	PDTC		
Supply:	Air		
To Actuator:	0 to 33 psig		
Fails Valve:	Close		
Handwheel:	None		
		Max Rated Cv:	10.2

Variable Name	Unit	Minimum	Normal	Maximum	4
Mass Flow Rate Gas (w)	lb/h	340.000	849.000	943.000	2681.955
Inlet Pressure (P1)	psig	185.000	185.000	185.000	185.000
Pressure Change (dP)	psi	100.000	100.000	100.000	35.000
Inlet Temperature (T1)	deg F	104.000	104.000	104.000	104.000
M / Gg	SG	0.640	0.640	0.640	0.640
Specific heats ratio (gamma)		1.280	1.280	1.280	1.280
Dynamic Viscosity (Mu)	cP	0.010	0.010	0.010	0.010
Sizing Coefficient (Cv)		0.950	2.474	2.697	10.200
% Open		28	53	55	

NOTES:**1. SST TUBING & FITTINGS****2. INCLUDED ASCO MODEL EF8320G200 24VDC SOL VVE****DE-ENG TO VENT.**

FEATURES PICTORIALLY TYPICAL

ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS +/- 0.06 Inch
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS

FISHER

Fisher Controls Inc. © 2016

CUST: UOP RUSSELL LLC
CUST REF NO: JOB 447 UOP RUSSELL, SC6 STD PLANT
FISHER REF NO: 0270-RCB-161121-0190534
TAG NO: PCV-481A
PROJECT NAME:

E2 VALVE BODY SIZE 1 1/2
66" ACTUATOR SIZE 341

TOTAL CALCULATED WT +/- 10%
TOTAL WEIGHT: 99.9 lb
UNLESS OTHERWISE SPECIFIED
UNIT OF MEASURE: INCH

REV	DATE	OWN	CHKD	APPR
1	11/01/16	FDS		

CUST ITEM: 0017

S.NO.

EMERSON
Process Management

SCALE: NONE

SHEET 1 OF 1

A



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 10

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO, TX, US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA, OK, US
74015

Item Description: NPS 6 ET 657 Size 70i DVC6200 Factory Mtgs
DVC6200/DVC2000

Tag #: PCV-501B

Serial #: F002194481

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
VALVE BODY ASSY	28	10A2643X022	SEAL RING/SPR,RADIAL	1	464.00	Y
	9	1U508039102	SEAT RING	1	3081.00	Y
	3	2U806748932	CAGE,EQ%	1	4133.00	Y
		21A8443X242	PLUG/STEM,SPG LOADED	1	7415.00	
		-1U507135162	STEM,PLUG ~ VSC1L7500,3/4X20.00,4.25THD	1		
		-21A8443X012	PLUG,BAL ~ 7 ORF,1L7500,HFS&G	1		
		-1V326035072	PIN,GROOVE,FLAT END ~ 3/16X1.06	1		
		RGASKETX222	GASKET SET	1	295.00	Y
		-1U5081X0052	GASKET ~ 7.69X9.17X.03	1		
		-1U508599442	GASKET,SPIRAL WOUND ~ CL600, 7.75X 8.50X0.175PRO	1		
		-1U5086X0032	GASKET ~ 7.88X8.47X.03	1		
		-D101591X012	INSTRUCTION SHEET ~ FOR RGASKETX222, X372 & X482	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 10

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
VALVE BODY ASSY		-16A1942X012	GASKET SHIM ~ 7 11/16 X 8 17/32 X 1/32	1		
BONNET 3 9/16 YOKE BOSS, 3/4 STEM		RPACKX00032	KIT,REPAIR	1	101.00	Y
		-1F125036042	Washer, Spcl, 3/4 Stem x 1.38	1		
		-1F125637012	SPRING,PACKING ~ 3/4 STEM	1		
		-1J872806332	WIPER,UPPER ~ 3/4 STEM	1		
		-1J873335072	PACKING BOX RING ~ 3/4 STEM X 1 3/8	1		
		-1R290401012	PACKING,SET ~ 3/4X1 3/8	1		
		-D101561X012	INSTRUCTION SHEET ~ FOR RPACKX00012,22,32,342&352	1		
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X032	GAUGE,PRESS,1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT,ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16,DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16,DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		
		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 10

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		
		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		
		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
		-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
		-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
		-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
		-18B5796X012	SCREW, COMB PAN HD	4		
		-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
		-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		
		-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 10

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		
		-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
		-18B9610X012	SCREEN	1		
		-1A3303X0012	NUT,HEX ~ 6-32	2		
		-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
		-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		
		-22B9009X022	SPRING,BIAS ~ 657,667/70-100	1		
		-24B0654X032	SPRING,BIAS	1		
		-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
		-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
		-GE19919X022	SPRING, BIAS ~	1		
		-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
		38B6041X152	I/P ASSY/SHROUD	1	963.00	Y
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
TYPE 657 DIAPHRAGM ACTUATOR	2	2N126902202	DIAPHRAGM	1	115.00	Y
PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales

Prices subject to change without notice



Serial Card

FISHER™**LBP Order#:** 027D-580815**CustPO:** 4500890601**Version:** As Created**SerialRange:** F002194481**ShipTo:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Current Location:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Installed At:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Shipped:****Application:** VLVS Assembly Line**SalesPerson:** BRIAN HANEY / MB**Project:****Carrier:** UNASSIGNED-TRUCK-
STD SERVICE**Split:** Y**Pack:** Domestic (WMP
11A1)**Pay:** Prepaid And Add To
Invoice

Item Detail

Item: 10	Tag: PCV-501B	Quantity: 1
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VALVE BODY ASSY , BONNET 3 9/16 YOKE BOSS, 3/4 STEM , TYPE 657 DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR

Item Level Notes

G05	PO#: 4500890601 / PROJECT#: J447CL
F51	Gas, Minimum, FlowMedia=HC GAS P1=909.000 psig, dP=5.000 psi T1=-10.0000 deg F, Cv=40.199 Gas, Normal, FlowMedia=HC GAS P1=909.000 psig, dP=5.000 psi T1=-10.0000 deg F, Cv=100.485 Gas, Maximum, FlowMedia=HC GAS P1=909.000 psig, dP=5.000 psi T1=-10.0000 deg F, Cv=126.293 Design Press=1100 psig, Design Temp=150 Deg F
I05	NPS 6 ET 657 Size 70i DVC6200 Factory Mtgs DVC6200/DVC2000

Construction Details

ET	Quantity: 1
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6 IN WCC CL600 RF FLG GLOBE BODY , 316 SST ENC EQ PCT CAGE 2 IN TRAV , 316/HF S/G PLUG COCR-A RING 7 IN PORT , 316 SST VALVE STEM VSC 1L7500 , B7 BOLTS 2H NUTS , GASKET GRAPH/SST, SPIRAL INC/GRAPH , N10276/PTFE GLASS/MOS 2 SPRING LOADED SEAL RING , FLOW ARROW & DRIVE SCREW , NAMEPLATE , DESIGN ET PUSH DOWN TO CLOSE, FLOW DOWN , ANSI CL600 HYDRO 2250 PSI/3 MIN , CL4 LEAK TEST 89.9 SCFH FGS 4L5 316 SST PACKING FLANGE, STUDS AND NUTS , TFE PACKING,ARRANGEMENT 12A8170 , 316 SST; PTFE FMS 17D7; SINGLE PACKING , WCC EXT BONNET STYLE 1 , CLASS 125-600; EXTENSION STYLE 1 - SIZE 2-6; EXTENSION STYLE 2 - SIZE 2-3; WCC & LCC

657	Quantity: 1
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NITRILE DIAPHRAGM , YOKE SIZE 70i IRON TAPPED 3 9/16 BOSS , SPRING 1N128427082 RATE=1260 LB/IN , PUSH DOWN TO CLOSE TRAVEL 2 IN , STEM SIZE 3/4 , SIZE 70, TRAVEL 7/16 THRU 2 INCH , NAMEPLATE , LUB-1 FMS 27D1 , TYPE 657 PDTC , 0-33 PSI AIR TO DIAPHRAGM , BENCH SET 6-17 PSI , 65 PSI MAX CASING PRESS

DVC6200	Quantity: 1
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ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-60 PSI/0-4 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT' MTG, DVC6200 NA, 657/667 W/O MO SIZE 50i&60i , FOR NITRILE INSTRUMENT CONSTRUCTIONS , 50MM TRAVEL FEEDBACK ARRAY KIT , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGELOK FITTINGS , MTG POSITION 1 PER DWG GE52353

67CFR	Quantity: 1
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1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-60 PSI SPRING,BLUE STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET

Nameplate

INPUT	4-20MA PT-PT
NAMEPLATE	GE90092X0A2
TYPE	DVC6200
BENCH SET><	6-17
BODY><	STL
CASING/CYLINDER MAX PRESS><	65
NAMEPLATE	18A5087X0A2
NAMEPLATE><	12B6508X0A2
NAMEPLATE><	18B9855X0A2
OPER RANGE	0-33
PLUG><	SST/HF
PORT SIZE	7
PRESS UNITS><	PSI
RATING	CL600/1500 PSI CWP
SEAT><	CO ALLOY
SIZE	6
SIZE	70i
STEM><	SST
TRAVEL	2
TYPE><	657
TYPE><	ET

Paint						
Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
657	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
ET	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER**Sliding Stem Valve Specification**Customer: **UOP RUSSELL LLC**

Vinson Process Controls

Contact: **Dennis Paden**Contact: **Ron Berte**

Customer Reference:

UOP RUSSELL, SC6Sales Office Reference: **VVES**Lead Time: **20 WKS****STD PLANT**Item: **11**

Rev:

Qty: **1**Rev: **A**Tags: **PCV-501B**Date Last Modified: **11/08/2016**Description: **NPS 6 ET 657 Size 70i DVC6200**

Service Description:

Service:		Positioner Type:	DVC6200, HART Communicating-HC
Size and Type:	NPS 6 ET	Input Signal:	4 to 20 mA dc
Body Style:	Globe	Access:	67CFR Filter/Regulator
Design Temp:	-7 TO + 150 F	Gauges:	0-60 psig/0-4 bar
Design Press:	1100 psig	Action:	Direct
End Connect/In/Out:	CL600/RF Flg/RF Flg	Certification:	FM, Explosion Proof/Intrinsic Safe/Nonincendive
Material:	WCC Steel	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Down	Measure Element:	
Trim Number:	27	Range:	
Cage Matl:	S31600 SST/ENC	Output:	
Retainer Matl:		Mounting:	
Bushing Matl:		Airset:	
Seat Ring Matl:	CoCr-A Seat	Mounting:	
VALVE PLUG		Transducer:	
Material:	S31600 SST/CoCr-A Seat/Guide	Input Signal:	
Guiding:	Cage	Output Signal:	
Balance:	Balanced	Action:	
Shutoff Class:	ANSI CL IV	Mounting:	
Port Size:	7 inch	Airset:	
Characteristic:	Equal Percent	Certifications:	
Stem Material:	S31600 SST	Line In:	6 in, SCH 40
Stem Size:	3/4 inch	Line Out:	6 in, SCH 40
Bonnet Style:	Style 1 Extension	Insulation:	
Boss Size:	3 9/16	Service Cond:	THROTTLING
Packing:	Single PTFE	Process Fluid:	HC GAS/LIQUID
Access:	No		
Bolt, Bonnet:	SA-193-B7 Studs/2H Nuts		
Pack Flg/Bltg:	SST Pkg Flg, SST Studs & Nuts		
Actuator:	Spring & Diaphragm		
Type/Size:	657/70i		
Travel:	2 inch		
Bench Set:	6-17 psi		
Push Down To:	PDTC		
Supply:	Air		
To Actuator:	0 to 33 psig		
Fails Valve:	Open		
Handwheel:	None		
		Max Rated Cv:	394.0

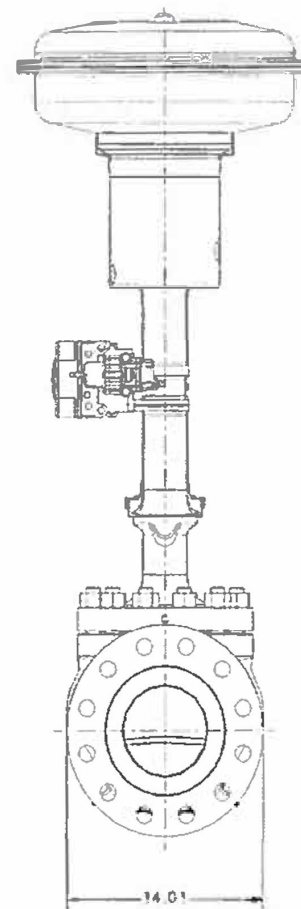
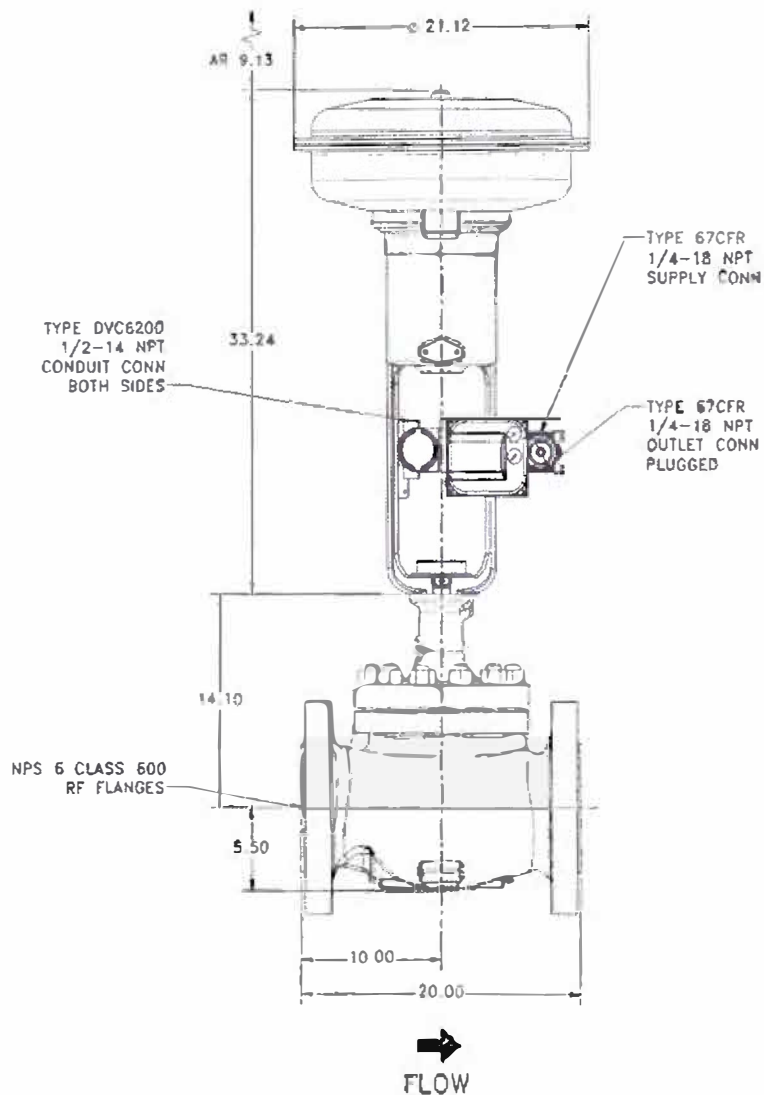
Variable Name	Unit	Minimum	Normal	Maximum	
Mass Flow Rate Gas (w)	lb/h	8693.000	21732.000	26667.000	
Mass Flow Rate Liquid (wl)	lb/h	2294.000	6734.000	6746.000	
Inlet Pressure (P1)	psig	909.000	909.000	909.000	
Pressure Change (dP)	psi	5.000	5.000	5.000	
Sizing Coefficient (Cv)		56.148	140.366	165.126	
% Open		35	66	60	

NOTES:

1. SST TUBING & FITTINGS
2. SPRING LOADED SEAL RING

FEATURES PICTORIALLY TYPICAL

ORIENTATION MAY DIFFER



FACE TO FACE TOLERANCE IS ± 0.06 Inch
AR = ACTUATOR REMOVAL CLEARANCE

DIMENSIONS CERTIFIED CORRECT BY FISHER CONTR Q.S.		FISHER		© Fisher Controls Int. LLC 2016	
CUST: UOP RUSSELL LLC			ET VALVE BODY SIZE 8		
CUST REF NO: JOB 447, UOP RUSSELL SC6 STD PLANT			657 ACTUATOR SIZE 701		
FISHER REF NO: D27D-RCB-161121-0190534					
TAG NO: PCV-501B					
PROJECT NAME:					
CUST ITEM: 0011			S.M.O.:		
TOTAL CALCULATED WT $\pm 10\%$			SCALE: NONE		
TOTAL WEIGHT: 668.1 lb			S.M.O. NO.		
UNLESS OTHERWISE SPECIFIED			REV		
UNIT OF MEASURE: INCH			A		
GENERAL ARRANGEMENT			EMERSON Process Management		
			SHEET 1 OF 1		



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 11

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO, TX, US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA, OK, US
74015

Item Description: NPS 3 ET 667 Size 45i DVC6200 Factory Mtgs
DVC6200/DVC2000

Tag #: PCV-501C

Serial #: F002194482

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X032	GAUGE,PRESS,1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT,ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16,DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16,DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		
		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 11

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		
		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
		-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
		-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
		-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
		-18B5796X012	SCREW, COMB PAN HD	4		
		-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
		-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		
		-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
		-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 11

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
		-18B9610X012	SCREEN	1		
		-1A3303X0012	NUT,HEX ~ 6-32	2		
		-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
		-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		
		-22B9009X022	SPRING,BIAS ~ 657,667/70-100	1		
		-24B0654X032	SPRING,BIAS	1		
		-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
		-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
		-GE19919X022	SPRING, BIAS ~	1		
		-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
		38B6041X152	I/P ASSY/SHROUD	1	963.00	Y
BONNET 2 13/16 YOKE BOSS,1/2 STEM		RPACKX00022	KIT,REPAIR	1	58.00	Y
		-1F125136042	WASHER,SPCL ~ 1/2 STEM X1.00	1		
		-1F125537012	SPRING,PACKING ~ 1/2 STEM	1		
		-1J872706332	WIPER,UPPER ~ 1/2 STEM	1		
		-1J873235072	PACKING BOX RING ~ 1/2 STEM X 1	1		
		-1R290201012	PACKING,SET ~ 1/2X1	1		
		-D101561X012	INSTRUCTION SHEET ~ FOR RPACKX00012,22,32,342&352	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 11

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
VALVE BODY ASSY	9	1U222846172	SEAT RING	1	259.00	Y
	29	1V659605292	RING,BACK-UP	1	78.00	Y
	28	1V659705092	SEAL RING	1	36.00	Y
	3	2U232133272	CAGE,EQ%	1	825.00	Y
		1V6579X0092	PLUG/STEM,BAL	1	706.00	Y
		-1V322735072	PIN,GROOVE,FLAT END ~ 1/8X0.94	1		
		-1U230535162	STEM,PLUG ~ VSC1L5000,1/2X12.50,3.38THD	1		
		-1V657946172	PLUG,BAL ~ 3 7/16 ORF,1L5000	1		
		RGASKETX202	GASKET SET	1	99.00	Y
		-1R3484X0042	GASKET ~ 4.06X5.16X.03	1		
		-D101589X012	INSTRUCTION SHEET ~ FOR RGASKETX202, X352 & X462	1		
		-16A1940X012	GASKET SHIM ~ 4 1/16 X 4 21/32 X 1/32	1		
		-1R3481X0052	GASKET ~ 4.06X4.47X.03	1		
		-1R348299442	GASKET,SPIRAL WOUND ~ CL600, 4.12X 4.62X0.175PRO	1		
TYPE 667 DIAPHRAGM ACTUATOR	3	2E859602202	DIAPHRAGM	1	110.00	Y
		R667X000502	KIT,REPAIR	1	20.00	Y
		-1C5622X0022	O-RING ~ 1 1/8X1 3/8X1/8	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 11

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE 667 DIAPHRAGM ACTUATOR		-1E845404022	GASKET,TO 302F/150C ~ 5.00X7.12X.03	1		
		-1E845806992	O-RING ~ 1 7/8X2 1/8X1/8	1		
		R667X000512	KIT REPAIR	1	464.00	Y
		-1A6751X0102	SCREW,CAP,HEX HD ~ 3/8-24X1.00	20		
		-1A3465X0092	NUT,HEX ~ 3/8-24	20		
		-2J3328X0042	STEM,ACTUATOR ~ 667 SIZE 45	1		
		-1E845714012	BUSHING,SEAL ~ 45-50-60	1		
PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales

Prices subject to change without notice



Serial Card

FISHER™**LBP Order#:** 027D-580815**CustPO:** 4500890601**Version:** As Created**SerialRange:** F002194482**ShipTo:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Current Location:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Installed At:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Shipped:****Application:** VLVS Assembly Line**SalesPerson:** BRIAN HANEY / MB**Project:****Carrier:** UNASSIGNED-TRUCK-
STD SERVICE**Split:** N**Pack:** Domestic (WMP
11A1)**Pay:** Prepaid And Add To
Invoice

Item Detail

Item: 11	Tag: PCV-501C	Quantity: 1
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VALVE BODY ASSY , BONNET 2 13/16 YOKE BOSS,1/2 STEM , TYPE 667 DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR

Item Level Notes

G05	PO#: 4500890601 / PROJECT#: J447CL
F51	Gas, Minimum, FlowMedia=RESIDUE GAS P1=185.000 psig, dP=155.000 psi T1=104.000 deg F, Cv=18.934 Gas, Normal, FlowMedia=RESIDUE GAS P1=185.000 psig, dP=155.000 psi T1=104.000 deg F, Cv=48.260 Gas, Maximum, FlowMedia=RESIDUE GAS P1=185.000 psig, dP=155.000 psi T1=104.000 deg F, Cv=50.585 Design Press=400 psig, Design Temp=150 Deg F
I05	NPS 3 ET 667 Size 45i DVC6200 Factory Mtgs DVC6200/DVC2000

Construction Details

ET	Quantity: 1
-----------	--------------------

3 IN WCC CL300 RF FLG GLOBE BODY , EQUAL % CB-7CU CAGE 1 1/2 TRAV , 416 SST VALVE PLUG & RING 3 7/16 PORT METAL SEAT , B7 BOLTS 2H NUTS , GASKET GRAPH/SST, SPIRAL INC/GRAPH , CARBON FILLED TFE SEAL RING FKM BACKUP RING , 316 SST VALVE STEM 1L5000 VSC , FLOW ARROW & DRIVE SCREW , NAMEPLATE , DESIGN ET PUSH DOWN TO CLOSE, FLOW DOWN , ANSI CL300 HYDRO 1125 PSI/2 MIN , CL4 LEAK TEST 28.9 SCFH FGS 4L5 316 SST PACKING FLANGE STUDS AND NUTS , TFE PACKING,ARRANGEMENT 12A7811 , 316 SST; PTFE FMS 17D7 , STL PLAIN BONNET

667	Quantity: 1
------------	--------------------

NITRILE DIAPHRAGM , SIZE 45I CAST IRON YOKE TAPPED 2 13/16 BOSS , SPRING 1E826827082 RATE=1400 LB/IN , TRAVEL 1 1/2 , STEM SIZE 1/2 , STANDARD , LUB-1 FMS 27D1 , STEEL CRPL ACTUATOR STEM , TYPE 667, SIZE 45 , STD SPG ADJUSTOR , STANDARD SERVICE, STANDARD (POWDER COAT PAINT) , TYPE 667 , 0-33 PSI AIR TO DIAPHRAGM , BENCH SET 10-30 PSI , 10 PSI MAX CASING PRESS ABOVE OPERATING RANGE

DVC6200	Quantity: 1
----------------	--------------------

ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-60 PSI/0-4 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT' MTG, DVC6200 NA, 657/667 W/O MO SIZE 30I-46I , FOR NITRILE INSTRUMENT CONSTRUCTIONS , 38MM TRAVEL FEEDBACK ARRAY KIT , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGELOK FITTINGS , MTG POSITION 1 PER DWG GE52353

67CFR	Quantity: 1
--------------	--------------------

1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-60 PSI SPRING,BLUE STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET

Nameplate

INPUT

NAMEPLATE

TYPE

BENCH SET><

BODY><

MAX CSG PRESS ABV OPR RANGE><

NAMEPLATE

NAMEPLATE><

NAMEPLATE><

OPER RANGE

PLUG><

PORT SIZE

PRESS UNITS><

RATING

SEAT><

SIZE

SIZE

STEM><

TRAVEL

TYPE><

TYPE><

4-20MA PT-PT

GE90092X0A2

DVC6200

10-30

STL

10

18A5087X0A2

12B6508X0A2

18B9870X0A2

0-33

SST

3 7/16

PSI

CL300/750 PSI CWP

SST

3

45i

SST

1 1/2

667

ET

Paint						
Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
667	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
ET	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER**Sliding Stem Valve Specification**

Customer: UOP RUSSELL LLC

Contact: Dennis Paden

Customer Reference:

UOP RUSSELL, SC6

Vinson Process Controls

Contact: Ron Berte

Sales Office Reference: VVES

Lead Time: 10 WKS

STD PLANT

Item: 6

Rev:

Qty: 1

Rev: A

Tags: PCV-501C

Date Last Modified: 11/08/2016

Description: NPS 3 ET 667 Size 45I DVC6200

Service Description:

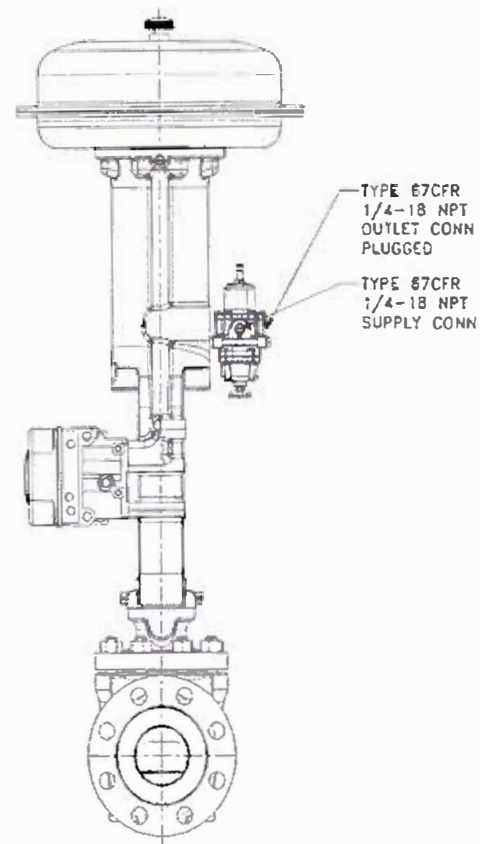
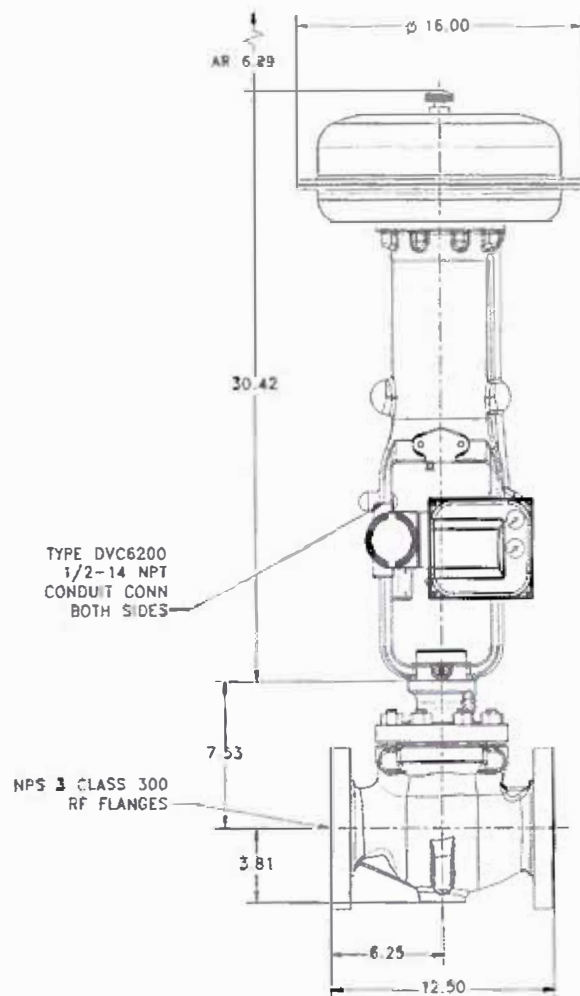
Service:		Positioner Type:	DVC6200, HART Communicating-HC
Size and Type:	NPS 3 ET	Input Signal:	4 to 20 mA dc
Body Style:	Globe	Access:	67CFR Filter/Regulator
Design Temp:	150 deg F	Gauges:	0-60 psig/0-4 bar
Design Press:	400 psig	Action:	Direct
End Connect/In/Out:	CL300/RF Flg/RF Flg	Certification:	FM, Explosion Proof/Intrinsic Safe/Nonincendive
Material:	WCC Steel	Controller Type:	
Ports:	1	Action:	
Flow Direction:	Down	Measure Element:	
Trim Number:	1	Range:	
Cage Matl:	CB7Cu-1 SST	Output:	
Retainer Matl:		Mounting:	
Bushing Matl:		Airset:	
Seat Ring Matl:	S41600 SST	Mounting, a:	
VALVE PLUG		Transducer:	
Material:	S41600 SST	Input Signal:	
Guiding:	Cage	Output Signal:	
Balance:	Balanced	Action:	
Shutoff Class:	ANSI CL IV	Mounting:	
Port Size:	3 7/16 Inch	Airset:	
Characteristic:	Equal Percent	Certifications:	
Stem Material:	S31600 SST	Line In:	4 in, SCH STD
Stem Size:	1/2 Inch	Line Out:	4 in, SCH STD
Bonnet Style:	Plain	Insulation:	
Boss Size:	2 13/16	Service Cond:	THROTTLING
Packing:	Single PTFE	Process Fluid:	RESIDUE GAS
Access:	No		
Bolt, Bonnet:	SA-193-B7 Studs/2H Nuts		
Pack Flg/Bltg:	SST Pkg Flg, SST Studs & Nuts		
Actuator:	Spring & Diaphragm		
Type/Size:	667/45I		
Travel:	1 1/2 Inch		
Bench Set:	10-30 psi		
Push Down To:	PDTG		
Supply:	Air		
To Actuator:	0 to 33 psig		
Fails Valve:	Close		
Handwheel:	None		
		Max Rated Cv:	136.0

Variable Name	Unit	Minimum	Normal	Maximum	
Mass Flow Rate Gas (w)	lb/h	6794.000	16984.000	17878.000	
Inlet Pressure (P1)	psig	185.000	185.000	185.000	
Pressure Change (dP)	psi	155.000	155.000	155.000	
Inlet Temperature (T1)	deg F	104.000	104.000	104.000	
M / Gg	SG	0.640	0.640	0.640	
Specific heats ratio (gamma)		1.280	1.280	1.280	
Dynamic Viscosity (Mu)	cP	0.010	0.010	0.010	
Sizing Coefficient (Cv)		18.882	48.763	51.368	
% Open		42	62	64	
Valve LpA (LpA Valve 1m)	dB(A)	93	101	102	

NOTES:

1. SST TUBING & FITTINGS

FEATURES PICTORALLY TYPICAL ORIENTATION MAY DIFFER



DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS

FISHER

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CUST: UOP RUSSELL LLC
CUST REF NO.: JOB 447, UOP RUSSELL, SC8 STD PLANT
FISHER REF NO.: 027D-RCB-161121-0190534
TAG NO.: PCV-501C
PROJECT NAME:

ET VALVE BODY SIZE 3
687 ACTUATOR SIZE 451

CUST ITEM: 0006

S.NO:

TOTAL CALCULATED WT +/- 10%
TOTAL WEIGHT: 220 lb
UNLESS OTHERWISE SPECIFIED
UNIT OF MEASURE: INCH

REV	DATE	BY	CHKD	APVE
1	21-Nov-16	FDS		
GENERAL ARRANGEMENT				



SCALE: NONE

CAD NO:

SHEET 1 OF 1

A

FACE TO FACE TOLERANCE IS +/- 0.06 INCH
AR = ACTUATOR REMOVAL CLEARANCE



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 6

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO, TX, US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA, OK, US
74015

Item Description: NPS 8 V200 2052 Size 3 DVC6200 Factory
Mtgs
DVC6200/DVC2000

Tag #: TCV-201A

Serial #: F002194462

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
DESIGN V150, V200, V300, SS-256, SS-260 ROTARY BALL VALVE, SIZE 8, 1 1/4 SHAFT	9	11B0717X012	SHAFT,FOLLOWER	1	256.00	Y
	7	11B0738X012	PIN,GROOVE,TYPE 24	1	16.00	Y
	16	12A8951X022	PACKING,SET	1	33.00	Y
	4	12B9532X012	KEY,TAPER,W/HEAD	1	63.00	Y
	39	16A6086X012	PACKING BOX RING	1	20.00	Y
	10	27B7775X012	BEARING,LINED,COMP	2	116.00	Y
	6	37B2508X022	DRIVE SHAFT	1	850.00	Y
	2	GE11074X282	VEE-BALL,CAM CONTOUR	1	1384.00	Y
		RV150X00C52	KIT,REPAIR	1	761.00	Y
		-11B0693X032	GASKET ~ 7.62X10.62X.01	1		
		-13A2645X072	SEAL,BALL ~ 8 V150/V200/V300	1		
		-13B8412X012	SCREW,CAP,HEX SOCKET ~ 3/8-16X0.62 BUTTON HEAD	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 6

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
DESIGN V150, V200, V300, SS-256, SS-260 ROTARY BALL VALVE, SIZE 8, 1 1/4 SHAFT		-1A3756X0012	WASHER,PLAIN,TYPE A ~ 3/8,.44X1.00X.08	2		
		-1A352638982	SCREW,CAP,HEX HD ~ 5/16-18X1.00	2		
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X032	GAUGE,PRESS,1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT,ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16,DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16,DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		
		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		
		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 6

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
		-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
		-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
		-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
		-18B5796X012	SCREW, COMB PAN HD	4		
		-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
		-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		
		-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
		-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		
		-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
		-18B9610X012	SCREEN	1		
		-1A3303X0012	NUT,HEX ~ 6-32	2		
		-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
		-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 6

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-22B9009X022	SPRING, BIAS ~ 657,667/70-100	1		
		-24B0654X032	SPRING, BIAS	1		
		-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
		-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
		-GE19919X022	SPRING, BIAS ~	1		
		-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
		38B6041X152	I/P ASSY/SHROUD	1	963.00	Y
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
TYPE 2052 SPRING AND DIAPHRAGM ACTUATOR	11	GE34829X012	DIAPHRAGM	1	331.00	Y
	48	GE50440X012	GUIDE ASSEMBL	1	208.00	Y
		GE34956X012	BUSHING, LINED, DU	1	283.00	Y
PRESSURE REGULATOR 1/4, TYPES 67CF, 67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales

Prices subject to change without notice



Serial Card

FISHER™**LBP Order#:** 027D-580815**CustPO:** 4500890601**Version:** As Shipped**SerialRange:** F002194462**ShipTo:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Current Location:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Installed At:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Shipped:** 02/18/2019**Application:** VLVS Assembly Line**SalesPerson:** BRIAN HANEY / MB**Project:****Carrier:** UNASSIGNED-TRUCK-
STD SERVICE**Split:** Y**Pack:** Domestic (WMP
11A1)**Pay:** Prepaid And Add To
Invoice

Item Detail

Item: 6 **Tag:** TCV-201A **Quantity:** 1

DESIGN V150, V200, V300, SS-256, SS-260 ROTARY BALL VALVE, SIZE 8, 1 1/4 SHAFT , TYPE 2052 SPRING AND DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR

Item Level Notes

G05 PO#: 4500890601 / PROJECT#: J447CL

F51 Gas, Minimum, FlowMedia=INLET GAS P1=929.000 psig, dP=5.000 psi T1=114.000 deg F, Cv=225.142 Gas, Normal, FlowMedia=INLET GAS P1=929.000 psig, dP=5.000 psi T1=114.000 deg F, Cv=450.531 Gas, Maximum, FlowMedia=INLET GAS P1=929.000 psig, dP=5.000 psi T1=114.000 deg F, Cv=474.272 Design Press=1100 psig, Design Temp=150 Deg F

I05 NPS 8 V200 2052 Size 3 DVC6200 Factory Mtgs DVC6200/DVC2000

Construction Details

V200 **Quantity:** 1

NPS 8 V200 WCC CL600 VALVE BODY W/O TAP , ISA-75.08.02 FACE TO FACE WCC PROTECTOR RING , CG8M CRPL VEE BALL R30006 TAPER KEY , S20910 1 1/4 IN SPLINED SHAFT , PEEK BEARINGS , GTB GRAFOIL GASKETS , TCM PLUS FMS 17F56 BALL SEAL , PTFE/CARBON PTFE FMS 17D7 PACKING,ARRANGE 14A9779 , SST PACKING BOX PARTS,B8M CL2 BOLTING , STL ACTUATOR BOLTING , NAMEPLATE , ASME CL600 HYDRO 2250 PSI/3 MIN , FORWARD FLOW , V200 SER B , BALL ROTATES COUNTER CLOCKWISE TO CLOSE , SEAT LEAK CLASS VI 26 BBL/MIN PER FGS 12B15

2052 **Quantity:** 1

SIZE 3 , WITHOUT TOP MOUNTED HANDWHEEL , NITRILE DIAPHRAGM , SINGLE SPRING , STYLE F MOUNTING , 1 1/4 INCH SHAFT , ADJUSTABLE TRAVEL STOP , 18-8 SST TRAVEL INDICATOR, SCALE & SCREWS , 18-8 SST STD SCREWS , WARNING LABEL , NAMEPLATE & LABEL WITH 18-8 SST SCREWS , RH MTG STYLE A, CCW TO CLOSE, PDTC , ACTUATOR MOUNTING POSITION 1 , TRAVEL 90 DEG ROTATION , OPERATING PRESSURE 2 BAR (29 PSI)

DVC6200 **Quantity:** 1

ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-60 PSI/0-4 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT' WITH MOUNTING KIT , FOR NITRILE INSTRUMENT CONSTRUCTIONS , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGELOK FITTINGS

67CFR **Quantity:** 1

1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-60 PSI SPRING,BLUE STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET

Nameplate

AMB TEMP

-40

INPUT

4-20MA PT-PT

NAMEPLATE	GE90092X0A2
TYPE	DVC6200
ACTION	PDTC
BALL/DISC><	SST/PL
BODY><	STL
NAMEPLATE	12B6400X0A2
NAMEPLATE	GE40787X0A2
OPERATING PRESSURE><	2 BARG (29 PSIG)
RATING	CL600
ROTATION>DEG<	90
SEAT><	COMP
SHAFT><	SST
SIZE	3
SIZE	8
TAG	-
TYPE><	V200 SER B

Paint						
Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
2052	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard
V200	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER

Rotary Valve Specification

Customer: **UOP RUSSELL LLC**

Vinson Process Controls

Contact: **Donnis Paden**Contact: **Ron Berte**

Customer Reference:

UOP RUSSELL, SC6Sales Office Reference: **VVES**Lead Time: **10 WKS****STD PLANT**Item: **5**

Rev:

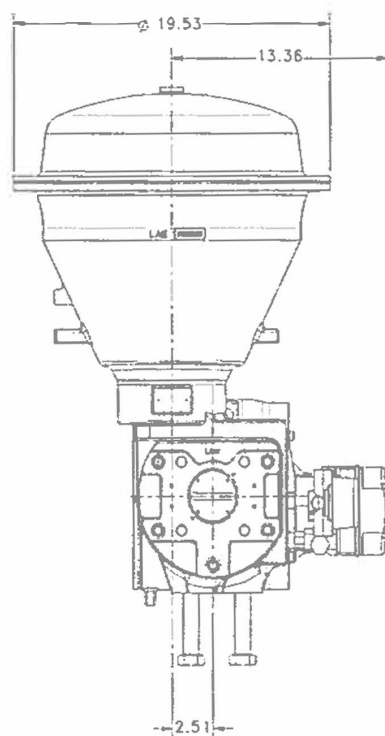
Qty: **1**Rev: **A**Tags: **TCV-201A**Date Last Modified: **11/08/2016**Description: **NPS 8 V200 2052 Size 3 DVC6200****Service Description**

Service:		Positioner Type:	DVC6200,HART Communicating-HC
Size and Type:	NPS 8 V200	Input Signal:	4 to 20 mA dc
Body Style:	Ball Flangeless	Access:	67CFR Filter/Regulator
Design Temp:	160 deg F	Gauges:	0-60 psig/0-4 bar
Design Press:	1100 psig	Action:	Direct
End Connect/In/Out:	CL600 RF Flg Compatible RF Flg	Certification:	Explosion Proof/Intrinsic Safe/Non-Incendive,FM
Material:	WCC Steel	Controller Type:	
Flow Direction:	Forward	Action:	
Trim Number:		Measure Element:	
Retainer Matl:	WCC Steel	Range:	
Bushing/Bearing Matl:	PEEK/PTFE	Output:	
Seal/Liner Matl:	TCM Plus	Mounting:	
Disk/Ball Matl:	CG8M SST/CRPL	Airset:	
Shutoff Class:	ANSI CL VI	Mounting:	
Port Size:	Full	Transducer:	
Characteristic:	Modified Equal Percent	Input Signal:	
Stem Material:	S20910 SST	Output Signal:	
Stem Size:	1 1/4 inch	Action:	
Bonnet Style:	None	Mounting:	
Packing:	PTFE	Airset:	
PackFlg/Bltg:	SA-193-B8M Str Hd Studs/8M Nuts	Certifications:	
Actuator:	Spring & Diaphragm	Line In:	8 in, SCH XS
Type/Size:	2052/3	Line Out:	8 in, SCH XS
Travel:	90 Deg	Insulation:	
Bench Set:		Service Cond:	THROTTLING
Push Down To:	Push Down to Close	Process Fluid:	INLET GAS
Supply:	Air		
To Actuator:	2.0 barg (29 psig)		
Fails Valve:	Open		
Mounting:	Right Hand,Pos 1		
Handwheel:	None		
		Max Rated Cv:	1750.0

Variable Name	Unit	Minimum	Normal	Maximum	
Mass Flow Rate Gas (w)	lb/h	62577.000	125154.000	131741.000	
Inlet Pressure (P1)	psig	929.000	929.000	929.000	
Pressure Change (dP)	psi	5.000	5.000	5.000	
Inlet Temperature (T1)	deg F	114.000	114.000	114.000	
M / Gg	SG	0.790	0.790	0.790	
Specific heats ratio (gamma)		1.250	1.250	1.250	
Dynamic Viscosity (Mu)	cP	0.010	0.010	0.010	
Sizing Coefficient (Cv)		225.168	450.603	474.319	
Deg. Open		42	59	60	
Valve LpA(LpA Valve 1m)	dB(A)	< 60	61	61	

NOTES:**SST TUBING & FITTINGS****ACTR INCLUDES ADJUSTABLE TRAVEL STOPS TO BE SET BY END USER.**

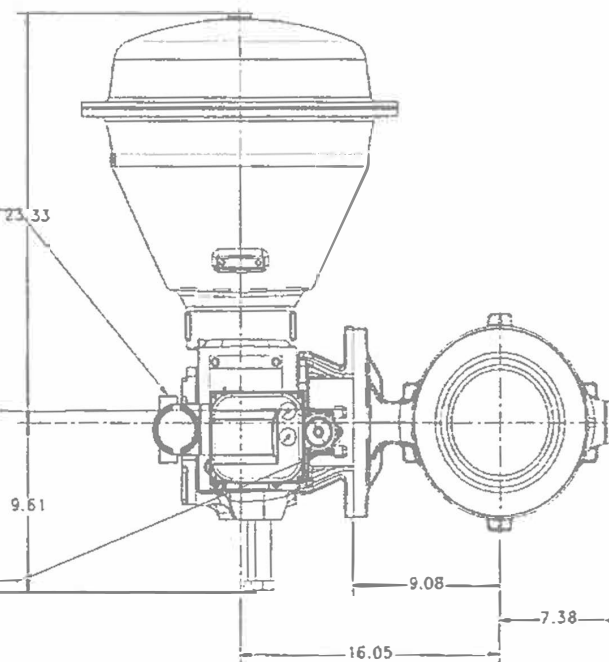
FEATURES PICTORIALLY TYPICAL ORIENTATION MAY DIFFER



TYPE DVC6200
1/2-14 NPT
CONDUIT CONN
BOTH SIDES

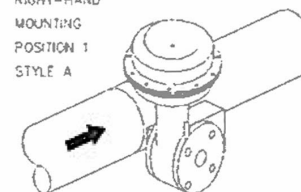
TYPE 67CFR
1/4-18 NPT
SUPPLY CONN

TYPE 67CFR
1/4-18 NPT
OUTLET CONN
PLUGGED

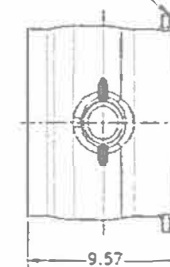


ACTUATOR ORIENTATION

RIGHT-HAND
MOUNTING
POSITION 1
STYLE A



BODY COMPATIBLE WITH
NPS 8 CLASS 600
RF FLANGES



DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS

FISHER

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CUST: UOP RUSSELL LLC
CUST REF NO.: JOB 447, UOP RUSSELL, SC6 STD PLANT
FISHER REF NO.: 027D-RCB-161121-0190534
TAG NO.: TCV-201A
PROJECT NAME:

V200 VALVE BODY SIZE 8
2052 ACTUATOR SIZE 3

CUST ITEM: 0005

S.M.O.

TOTAL CALCULATED Wt +/- 10%
TOTAL WEIGHT: 412.2 lb
UNLESS OTHERWISE SPECIFIED
UNIT OF MEASURE: INCH

REV	DATE	SWN	CHK'D	APVE
A	21-Nov-16	FDS		
GENERAL ARRANGEMENT				

EMERSON
Process Management

SCALE: NONE

DATE: 05/17

SHEET 1 OF 1

05/17

A



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 7

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO, TX, US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA, OK, US
74015

Item Description: NPS 6 V200 2052 Size 2 DVC6200 Factory
Mtgs
DVC6200/DVC2000

Tag #: TCV-201B

Serial #: F002194478

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
SIZE 6 V150, V200, V300, SS-256, SS-260 ROTARY BALL VALVE ASSY, 1" SHAFT	9	11B0733X012	SHAFT, FOLLOWER	1	198.00	Y
	16	12A8832X022	PACKING, SET, 1X1 3/	1	33.00	Y
	4	12B9531X012	KEY, TAPER, W/HEAD	1	54.00	Y
	39	16A6085X012	PACKING BOX RING	1	16.00	Y
	7	18A6138X012	PIN, GROOVE, TYPE 24	1	11.00	Y
	10	27B7136X012	BEARING, LINED, COMP	2	82.00	Y
	6	37B2751X022	DRIVE SHAFT	1	680.00	Y
	2	GE11073X312	VEE-BALL, CAM CONTOUR	1	1048.00	Y
		RV150X00C42	KIT, REPAIR	1	589.00	Y
		-11B0681X032	GASKET ~ 6.28X8.34X.01	1		
		-13A2619X102	SEAL, BALL ~ 6	1		
		-13B8412X012	SCREW, CAP, HEX SOCKET ~ 3/8-16X0.62 BUTTON HEAD	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 7

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
SIZE 6 V150, V200, V300, SS-256, SS-260 ROTARY BALL VALVE ASSY, 1" SHAFT		-1A3756X0012	WASHER,PLAIN,TYPE A ~ 3/8,.44X1.00X.08	2		
		-1A352638982	SCREW,CAP,HEX HD ~ 5/16-18X1.00	2		
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X012	GAUGE,PRESS,1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT,ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16,DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16,DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		
		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		
		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 7

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
		-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
		-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
		-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
		-18B5796X012	SCREW, COMB PAN HD	4		
		-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
		-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		
		-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
		-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		
		-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
		-18B9610X012	SCREEN	1		
		-1A3303X0012	NUT,HEX ~ 6-32	2		
		-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
		-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 7

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-22B9009X022	SPRING, BIAS ~ 657,667/70-100	1		
		-24B0654X032	SPRING, BIAS	1		
		-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
		-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
		-GE19919X022	SPRING, BIAS ~	1		
		-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
		38B6041X152	I/P ASSY/SHROUD	1	963.00	Y
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
TYPE 2052 SPRING AND DIAPHRAGM ACTUATOR	11	GE31917X012	DIAPHRAGM	1	199.00	Y
		GE32316X012	BUSHING, LINED, DU	1	59.00	Y
PRESSURE REGULATOR 1/4, TYPES 67CF, 67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales

Prices subject to change without notice



Serial Card

FISHER™**LBP Order#:** 027D-580815**CustPO:** 4500890601**Version:** As Shipped**SerialRange:** F002194478**ShipTo:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Current Location:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Installed At:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Shipped:** 02/04/2019**Application:** VLVS Assembly Line**SalesPerson:** BRIAN HANEY / MB**Project:****Carrier:** UNASSIGNED-TRUCK-
STD SERVICE**Split:** Y**Pack:** Domestic (WMP
11A1)**Pay:** Prepaid And Add To
Invoice

Item Detail

Item: 7 **Tag:** TCV-201B **Quantity:** 1

SIZE 6 V150, V200, V300, SS-256, SS-260 ROTARY BALL VALVE ASSY, 1" SHAFT, TYPE 2052 SPRING AND DIAPHRAGM ACTUATOR, TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER, MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK, PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR

Item Level Notes

G05 PO#: 4500890601 / PROJECT#: J447CL

F51 Gas, Minimum, FlowMedia=INLET GAS P1=805.000 psig, dP=50.000 psi T1=85.000 deg F, Cv=41.508 Gas, Normal, FlowMedia=INLET GAS P1=805.000 psig, dP=50.000 psi T1=85.000 deg F, Cv=103.756 Gas, Maximum, FlowMedia=INLET GAS P1=805.000 psig, dP=50.000 psi T1=85.000 deg F, Cv=115.373 Design Press=1100 psig, Design Temp=150 Deg F

I05 NPS 6 V200 2052 Size 2 DVC6200 Factory Mtgs DVC6200/DVC2000

Construction Details

V200 **Quantity:** 1

NPS 6 V200 WCC CL600 VALVE BODY W/O TAPPING, ISA S75.08.02 FACE TO FACE WCC PROTECTOR RING, CG8M CRPL VEE BALL R30006 TAPER KEY, S20910 1 IN CL600 SPLINED SHAFT, PEEK BEARINGS, GTB GRAFOIL GASKETS, TCM PLUS FMS 17F56 BALL SEAL, PTFE/CARBON PTFE FMS 17D7 PACKING,ARRANGE 14A9778, SST PACKING BOX PARTS,B8M CL2 BOLTING, STL ACTUATOR BOLTING, NAMEPLATE, ASME CL600 HYDRO 2250 PSI/3 MIN, FORWARD FLOW, V200 SER B, BALL ROTATES COUNTER CLOCKWISE TO CLOSE, SEAT LEAK CLASS VI 17 BBL/MIN PER FGS 12B15

2052 **Quantity:** 1

SIZE 2, WITHOUT TOP MOUNTED HANDWHEEL, NITRILE DIAPHRAGM, DUAL SPRING, STYLE F MOUNTING, 1 INCH SHAFT, ADJUSTABLE TRAVEL STOP, 18-8 SST TRAVEL INDICATOR, SCALE & SCREWS, 18-8 SST STD SCREWS, WARNING LABEL, NAMEPLATE & LABEL WITH 18-8 SST SCREWS, RH MTG STYLE A, CCW TO CLOSE, PDTC, ACTUATOR MOUNTING POSITION 1, TRAVEL 90 DEG ROTATION, OPERATING PRESSURE 4 BAR (58 PSI)

DVC6200 **Quantity:** 1

ALUM HOUSING B, 1/4 NPT PRESSURE CONN, I/P ASSY W/SAPPHIRE ORIFICE, ALUM MODULE BASE, ALUM TERM BOX, NON-GAS CERT, NITRILE, NITRILE RELAY C, STD BLEED, COMMON PARTS, PWB WITHOUT OPTIONS, FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE, 0-160 PSI/0-11 BAR GAUGES (QTY 2), TYPE DVC6200 SINGLE DIR ACTING CONTROLLER, 4-20 MADC PT-PT INPUT, HC-HART COMMUNICATING FUNCTIONALITY LEVEL, HART REVISION 5, PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G, PWB DIP CONFIG 'PT-PT' WITH MOUNTING KIT, FOR NITRILE INSTRUMENT CONSTRUCTIONS, INTEGRAL MOUNTED FILTER REGULATOR, FACTORY MOUNTED, 3/8 316/316L SST TUBING 316SST SWAGELOK FITTINGS

67CFR **Quantity:** 1

1/4 ALUM BODY W/BRASS DRAIN, FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP, VALVE ASSY, NITRILE/NITRILE/BRASS, NITRILE DIAPH W/ RELIEF, STD BONNET, SQ HD ADJ SCREW, 0-125 PSI SPRING,RED STRIPE, INSTRUCTION MANUAL, TYPE 67CFR, REGAL GRAY, VENT OVER OUTLET, DRAIN PLUG UNDER OUTLET

Nameplate

AMB TEMP

-40

INPUT

4-20MA PT-PT

NAMEPLATE	GE90092X0A2
TYPE	DVC6200
ACTION	PDTC
BALL/DISC><	SST/PL
BODY><	STL
NAMEPLATE	12B6400X0A2
NAMEPLATE	GE40787X0A2
OPERATING PRESSURE><	4 BARG (58 PSIG)
RATING	CL600
ROTATION>DEG<	90
SEAT><	COMP
SHAFT><	SST
SIZE	2
SIZE	6
TAG	-
TYPE><	V200 SER B

Paint						
Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
2052	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard
V200	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER

Rotary Valve Specification

Customer: UOP RUSSELL LLC

Contact: Dennis Paden

Customer Reference

UOP RUSSELL, SC6

Vinson Process Controls

Contact: Ron Berte

Sales Office Reference VVES

Lead Time 10 WKS

STD PLANT

Item: 7

Rev:

Qty: 1

Rev: A

Tags: TCV-201B

Date Last Modified: 11/08/2016

Description: NPS 6 V200 2052 Size 2 DVC6200

Service Description

Service		Positioner Type:	DVC6200,HART Communicating-HC
Size and Type	NPS 6 V200	Input Signal:	4 to 20 mA dc
Body Style	Ball Flangeless	Access:	67CFR Filter/Regulator
Design Temp:	150 deg F	Gauges:	0-160 psig/0-11 bar
Design Press:	1100 psig	Action:	Direct
End Connect/In/Out:	CL600 RF Flg Compatible RF Flg Compatible	Certification:	Explosion Proof/Intrinsic Safe/Non-Incendive,FM
Material:	WCC Steel	Controller Type:	
Flow Direction:	Forward	Action:	
Trim Number:		Measure Element:	
Retainer Matl:	WCC Steel	Range:	
Bushing/Bearing Matl:	PEEK/PTFE	Output:	
Seal/Liner Matl:	TCM Plus	Mounting:	
Disk/Ball Matl:	CG6M SST/CRPL	Airset:	
Shutoff Class:	ANSI CL VI	Mounting:	
Port Size:	Full	Transducer:	
Characteristic:	Modified Equal Percent	Input Signal:	
Stem Material:	S20910 SST	Output Signal:	
Stem Size:	1 inch	Action:	
Bonnet Style:	None	Mounting:	
Packing:	PTFE	Airset:	
Pack Flg/Bltg:	SA-193-B8M Str Hd Studs/8M Nuts	Certifications:	
Actuator:	Spring & Diaphragm	Line In:	6 in, SCH XS
Type/Size:	2052/2	Line Out:	6 in, SCH XS
Travel:	90 Deg	Insulation:	
Bench Set:		Service Cond:	THROTTLING
Push Down To:	Push Down to Close	Process Fluid:	INLET GAS
Supply:	Air		
To Actuator:	4.0 barg (58 psig)		
Fails Valve:	Open		
Mounting:	Right Hand, Pos 1		
Handwheel:	None		
		Max Rated Cv:	1080.0

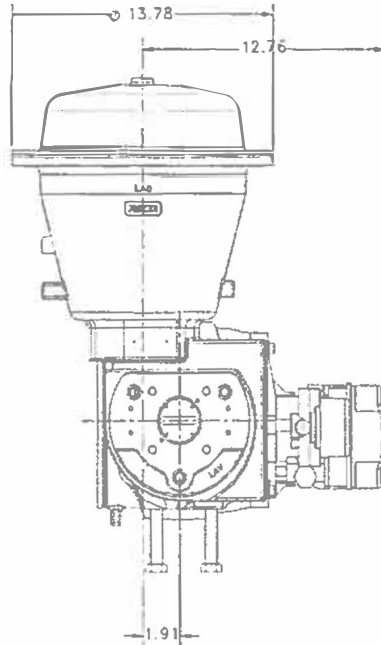
Variable Name	Unit	Minimum	Normal	Maximum	
Mass Flow Rate Gas (w)	lb/h	30037.000	75092.000	83436.000	
Inlet Pressure (P1)	psig	929.000	929.000	929.000	
Pressure Change (dP)	psi	54.000	54.000	54.000	
Inlet Temperature (T1)	deg F	114.000	114.000	114.000	
M / Gg	SG	0.790	0.790	0.790	
Specific heats ratio (gamma)		1.250	1.250	1.250	
Dynamic Viscosity (Mu)	cP	0.010	0.010	0.010	
Sizing Coefficient (Cv)		32.448	81.281	90.313	
Deg. Open		17	28	30	
Valve LpA(LpA Valve 1m)	dB(A)	76	80	80	

NOTES:

SST TUBING & FITTINGS

2052 ACTR COMES STD WITH ADJUSTABLE STOPS.

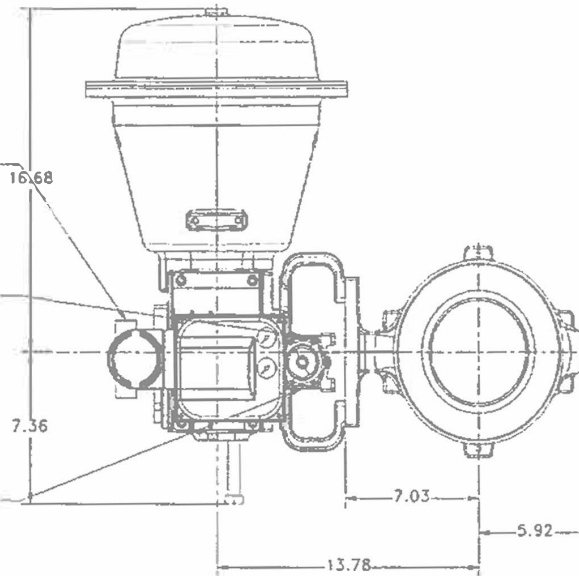
FEATURES PICTORIALLY TYPICAL ORIENTATION MAY DIFFER



TYPE DVC6200
1/2-14 NPT
CONDUIT CONN
BOTH SIDES

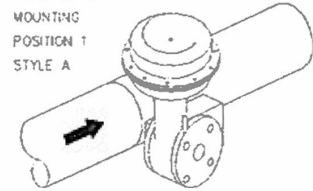
TYPE 67CFR
1/4-18 NPT
SUPPLY CONN

TYPE 67CFR
1/4-18 NPT
OUTLET CONN
PLUGGED

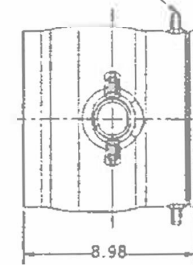


ACTUATOR ORIENTATION

RIGHT-HAND
MOUNTING
POSITION 1
STYLE A



BODY COMPATIBLE WITH
NPS 6 CLASS 600
RF-FLANGES



DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS

FISHER

© Fisher Controls Int. LLC 2018

CUST: UOP RUSSELL LLC
CUST REF NO.: JOB 447, UOP RUSSELL, SC6 STD PLANT
FISHER REF NO.: 0270-RC6-161121-0190534
TAG NO.: TCV-2018
PROJECT NAME:

Y200 VALVE BODY SIZE 6
2052 ACTUATOR SIZE 2

CUST ITEM: 0007

S.NO.

TOTAL CALCULATED WT +/- 10%
TOTAL WEIGHT: 227.6 lb
UNLESS OTHERWISE SPECIFIED
UNIT OF MEASURE: INCH

REV. DATE SWR CHG. APPR.
1 1 1 1 1 1
GENERAL ARRANGEMENT

EMERSON
Fisher Controls International, Inc.

SCALE: NONE
SHEET 1 OF 1



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 8

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO, TX, US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA, OK, US
74015

Item Description: NPS 4 V200 2052 Size 1 DVC6200 Factory
Mtgs
DVC6200/DVC2000

Tag #: TCV-501A

Serial #: F002194479

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
SIZE 4 V150, V200, V300, SS- 256 ROTARY BALL VALVE ASSY, 3/4 SHAFT	9	11B0728X012	SHAFT,FOLLOWER	1	98.00	Y
	16	12A8995X022	PACKING,SET	1	33.00	Y
	4	12B9530X012	KEY,TAPER,W/HEAD	1	41.00	Y
	39	16A6084X012	PACKING BOX RING	1	6.00	Y
	10	17B7142X012	BEARING,LINED,COMP	2	61.00	Y
	7	18A6135X012	PIN,GROOVE,TYPE 24	1	5.00	Y
	2	37B1866X672	VEE-BALL,SKIRTED	1	917.00	Y
	6	37B2506X022	DRIVE SHAFT	1	340.00	Y
		RV150X0HD32	KIT,REPAIR	1	750.00	Y
		-11B0672X052	GASKET ~ 4.84X6.19X.01	1		
		-11B4671X012	WASHER,PLAIN,TYPE A ~ 5/16,.38X.88X.08	2		
		-13B8413X012	SCREW,CAP,HEX SOCKET ~ 5/16-18X0.50 BUTTON HEAD	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 8

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
SIZE 4 V150, V200, V300, SS-256 ROTARY BALL VALVE ASSY, 3/4 SHAFT		-13B8414X012	SCREW,CAP,HEX SOCKET ~ 1/4-20X0.50 BUTTON HEAD	2		
		-24B4761X012	SPRING,WAVE ~ 3 3/4X4 7/32X.030	1		
		-28B0265X012	RADIAL SEAL ~ 3 3/4X4X1/8	1		
		-34B4767X012	SEAL,BALL ~ 4,METAL SLEEVE	1		
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X012	GAUGE,PRESS,1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT,ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16,DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16,DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		
		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		
		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 8

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-1E455338992	RING,E ~ 1/4	2		
		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		
		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
		-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
		-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
		-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
		-18B5796X012	SCREW, COMB PAN HD	4		
		-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
		-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		
		-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
		-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		
		-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
		-18B9610X012	SCREEN	1		
		-1A3303X0012	NUT,HEX ~ 6-32	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 8

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		
		-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		
		-22B9009X022	SPRING,BIAS ~ 657,667/70-100	1		
		-24B0654X032	SPRING,BIAS	1		
		-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
		-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
		-GE19919X022	SPRING, BIAS ~	1		
		-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
		38B6041X152	I/P ASSY/SHROUD	1	963.00	Y
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
TYPE 2052 SPRING AND DIAPHRAGM ACTUATOR	11	GE28042X012	DIAPHRAGM	1	73.00	Y
		GE27672X012	BUSHING,LINED,DU	1	16.00	Y
PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales

Prices subject to change without notice



Serial Card

FISHER™**LBP Order#:** 027D-580815**CustPO:** 4500890601**Version:** As Shipped**SerialRange:** F002194479**ShipTo:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Current Location:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Installed At:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Shipped:** 02/04/2019**Application:** VLVS Assembly Line**SalesPerson:** BRIAN HANEY / MB**Project:****Carrier:** UNASSIGNED-TRUCK-
STD SERVICE**Split:** Y**Pack:** Domestic (WMP
11A1)**Pay:** Prepaid And Add To
Invoice

Item Detail

Item:	8	Tag:	TCV-501A	Quantity:	1
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SIZE 4 V150, V200, V300, SS-256 ROTARY BALL VALVE ASSY, 3/4 SHAFT , TYPE 2052 SPRING AND DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR

Item Level Notes

G05 PO#: 4500890601 / PROJECT#: J447CL

F51 Liquid, Minimum, FlowMedia=THERMINOL 55 P1=35.000 psig, dP=10.000 psi T1=200.000 deg F, Cv=51.582 Liquid, Normal, FlowMedia=THERMINOL 55 P1=35.000 psig, dP=10.000 psi T1=200.000 deg F, Cv=132.414 Liquid, Maximum, FlowMedia=THERMINOL 55 P1=35.000 psig, dP=10.000 psi T1=200.000 deg F, Cv=148.256 Design Press=150 psig, Design Temp=400 Deg F

I05 NPS 4 V200 2052 Size 1 DVC6200 Factory Mtgs DVC6200/DVC2000

Construction Details

V200	Quantity:	1
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NPS 4 V200 WCC CL150 VALVE BODY W/O TAPPING , ISA S75.08.02 FACE TO FACE WCC PROTECTOR RING , CG8M CRPL VEE BALL R30006 TAPER KEY , S20910 3/4 IN SPLINED SHAFT , PEEK BEARINGS , GTB GRAFOIL GASKETS , CF10SMNN HD SEAL , PTFE/CARBON FILLED PTFE PACKING,ARRANGE 14A9777 , SST PACKING BOX PARTS B8M CLASS 2 BOLTING , STL ACTUATOR BOLTING , NAMEPLATE , ASME CL150 HYDRO 450 PSI/2 MIN , FORWARD FLOW , V200 SER B , BALL ROTATES COUNTER CLOCKWISE TO CLOSE , SEAT LEAK CLASS IV 67 SCFH PER FGS 4L5

2052	Quantity:	1
-------------	------------------	---

SIZE 1 , WITHOUT TOP MOUNTED HANDWHEEL , NITRILE DIAPHRAGM , DUAL SPRING , STYLE F MOUNTING , 3/4 INCH SHAFT , ADJUSTABLE TRAVEL STOP , 18-8 SST TRAVEL INDICATOR, SCALE & SCREWS , 18-8 SST STD SCREWS , WARNING LABEL , NAMEPLATE & LABEL WITH 18-8 SST SCREWS , RH MTG STYLE B, CCW TO CLOSE, PDTO , ACTUATOR MOUNTING POSITION 1 , TRAVEL 90 DEG ROTATION , OPERATING PRESSURE 4 BAR (58 PSI)

DVC6200	Quantity:	1
----------------	------------------	---

ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-160 PSI/0-11 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT' WITH MOUNTING KIT , FOR NITRILE INSTRUMENT CONSTRUCTIONS , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGELOK FITTINGS

67CFR	Quantity:	1
--------------	------------------	---

1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-125 PSI SPRING,RED STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET

Nameplate

AMB TEMP	-40
INPUT	4-20MA PT-PT
NAMEPLATE	GE90092X0A2

TYPE	DVC6200
ACTION	PDTO
BALL/DISC><	SST/PL
BODY><	STL
NAMEPLATE	12B6400X0A2
NAMEPLATE	GE40787X0A2
OPERATING PRESSURE><	4 BARG (58 PSIG)
RATING	CL150
ROTATION>DEG<	90
SEAT><	SST
SHAFT><	SST
SIZE	1
SIZE	4
TAG	-
TYPE><	V200 SER B

Paint						
Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
2052	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard
V200	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER

Rotary Valve Specification

Customer: **UOP RUSSELL LLC**Contact: **Dennis Paden**

Customer Reference:

UOP RUSSELL, SC6

Vinson Process Controls

Contact: **Ron Berte**Sales Office Reference: **VVES**Lead Time: **10 WKS****STD PLANT**Item: **15**

Rev:

Qty: **1**Rev: **A**Tags: **TCV-501A**Date Last Modified: **11/08/2016**Description: **NPS 3 V200 2052 Size 1 DVC6200**

Service Description:

Service:		Positioner Type:	DVC6200,HART Communicating-HC
Size and Type:	NPS 3 V200	Input Signal:	4 to 20 mA dc
Body Style:	Ball Flangeless	Access:	67CFR Filter/Regulator
Design Temp:	400 deg F	Gauges:	0-160 psig/0-11 bar
Design Press:	150 psig	Action:	Direct
End Connect/In/Out:	CL150 RF Flg Compatible RF Flg Compatible	Certification:	Explosion Proof/Intrinsic Safe/Non-Incendive,FM
Material:	WCC Steel	Controller Type:	
Flow Direction:	Forward	Action:	
Trim Number:		Measure Element:	
Retainer Mat:	WCC Steel	Range:	
Bushing/Bearing Mat:	PEEK/PTFE	Output:	
Seal/Liner Mat:	CF10SMnN SST	Mounting:	
Disk/Ball Mat:	CG8M SST/CRPL	Airset:	
Shutoff Class:	ANSI CL IV	Mounting:	
Port Size:	Full	Transducer:	
Characteristic:	Modified Equal Percent	Input Signal:	
Stem Material:	S20910 SST	Output Signal:	
Stem Size:	3/4 Inch	Action:	
Bonnet Style:	None	Mounting:	
Packing:	PTFE	Airset:	
PackFlg/Bltg:	SA-193-B8M Str Hd Studs/8M Nuts	Certifications:	
Actuator:	Spring & Diaphragm	Line In:	6 in, SCH STD
Type/Size:	2052/1	Line Out:	6 in, SCH STD
Travel:	90 Deg	Insulation:	
Bench Set:		Service Cond:	THROTTLING
Push Down To:	Push Down to Open	Process Fluid:	THERMINOL 55
Supply:	Air		
To Actuator:	4.0 barg (58 psig)		
Fails Valve:	Close		
Mounting:	Right Hand,Pos 1		
Handwheel:	None		
		Max Rated Cv:	387.0

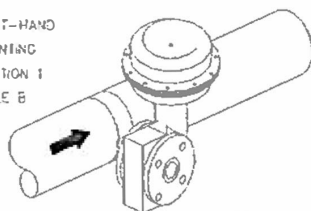
Variable Name	Unit	Minimum	Normal	Maximum
Mass Flow Rate Liquid (wt)	lb/h	20683.000	51708.000	60833.000
Inlet Pressure (P1)	psig	35.000	35.000	35.000
Pressure Change (dP)	psi	10.000	10.000	10.000
Inlet Temperature (T1)	deg F	200.000	200.000	200.000
SG		0.830	0.830	0.830
Dynamic Viscosity (Mu)	cP	3.310	3.310	3.310
Sizing Coefficient (Cv)		14.370	36.159	42.668
Deg. Open		22	34	37

NOTES:

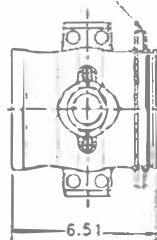
1. SST TUBING & FITTINGS

ACTUATOR ORIENTATION

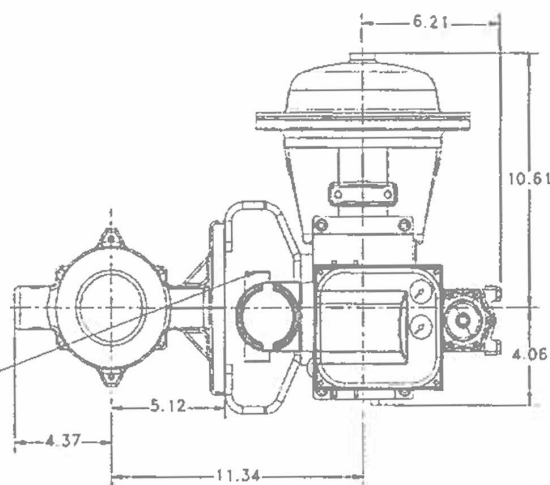
RIGHT-HAND
MOUNTING
POSITION 1
STYLE B



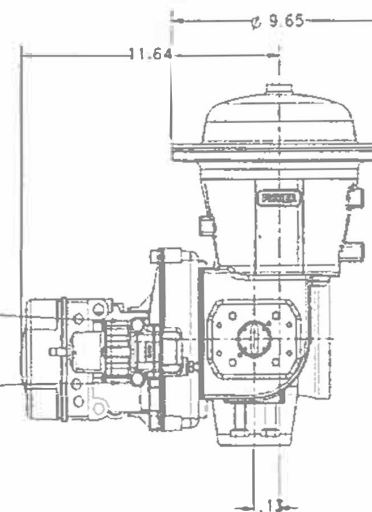
BODY COMPATIBLE WITH
NPS 3 CLASS 150
RF FLANGES



TYPE DVC6200
1/2-14 NPT
CONDUIT CONN
BOTH SIDES



TYPE 67CFR
1/4-18 NPT
SUPPLY CONN
TYPE 67CFR
1/4-18 NPT
OUTLET CONN
PLUGGED



DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS

FISHER

© Fisher Controls Int. LLC 2018

CUST: UOP RUSSELL LLC
CUST REF NO.: JOB 447, UOP RUSSELL SC6 STD PLANT
FISHER REF NO.: 027D-RCB-161121-0190534
TAG NO: TCV-501A
PROJECT NAME:

V200 VALVE BODY SIZE 3
2052 ACTUATOR SIZE 1

CUST ITEM: 0015

S.W.O.

TOTAL CALCULATED WT +/- 10%
TOTAL WEIGHT: 86.4 lb
UNLESS OTHERWISE SPECIFIED
UNIT OF MEASURE: INCH

REV	DATE	ISSUED BY	APPROVED
1	21-Nov-18	EDS	
GENERAL ARRANGEMENT			

EMERSON

SCALE: NONE

DWG NO

SHEET 1 OF 1

A



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 9

Customer PO #: 4500890601

Order Date: 1/24/2019

Bill To:

UOP RUSSELL LLC
C/O HONEYWELL INTERNATIONAL INC
PO BOX 981762
EL PASO,TX,US
79998-1762

Ship To:

UOP RUSSELL LLC
760 W MAIN PKWY
CATOOSA,OK,US
74015

Item Description: NPS 3 V200 2052 Size 1 DVC6200 Factory
Mtgs
DVC6200/DVC2000

Tag #: TCV-501B

Serial #: F002194480

Item Qty: 1

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
DESIGN V150, V200, V300, SS-256 ROTARY BALL VALVE BODY, SIZE 3, 3/4 SHAFT	9	11B0728X012	SHAFT,FOLLOWER	1	98.00	Y
	16	12A8995X022	PACKING,SET	1	33.00	Y
	4	12B9530X012	KEY,TAPER,W/HEAD	1	41.00	Y
	39	16A6084X012	PACKING BOX RING	1	6.00	Y
	10	17B7142X012	BEARING,LINED,COMP	2	61.00	Y
	7	18A6135X012	PIN,GROOVE,TYPE 24	1	5.00	Y
	2	34B8330X572	VEE-BALL,SKIRTED	1	510.00	Y
	6	37B2506X022	DRIVE SHAFT	1	340.00	Y
		RV150X0HD22	KIT,REPAIR	1	632.00	Y
		-11B0660X042	GASKET ~ 4.12X5.00X.01	1		
		-13B8414X012	SCREW,CAP,HEX SOCKET ~ 1/4-20X0.50 BUTTON HEAD	2		
		-18B0264X012	RADIAL SEAL ~ 3X3 3/16X3/32	1		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 9

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
DESIGN V150, V200, V300, SS-256 ROTARY BALL VALVE BODY, SIZE 3, 3/4 SHAFT		-1A8518X0012	WASHER,PLAIN,TYPE A ~ 1/4,.31X.73X.06	2		
		-24B4760X012	SPRING,WAVE ~ 3X3 13/32X.030	1		
		-34B4766X012	SEAL,BALL ~ 3,METAL SLEEVE	1		
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER	47	18B7713X012	GAUGE,PRESS,1-INCH	2	34.00	Y
	24	38B5786X132	RELAY ASSEMBLY	1	422.00	Y
		19B5402X012	KIT,ELASTOMER	1	113.00	Y
		-10A3802X012	O-RING ~ 13/16X15/16X1/16	1		
		-12B4131X012	BOOT	2		
		-13A1584X072	O-RING ~ 11/16X13/16X1/16,DASH NO 017	1		
		-18B5820X022	O-RING ~ 3 1/2X3 5/8X1/16,DASH NO 43	1		
		-1H8762X0012	O-RING ~ 2 1/2X2 11/16X3/32	1		
		-38B9583X012	SEAL ~ DVC6000 SERIES, NITRILE	1		
		-39B0478X012	RELAY SEAL ~ NITRILE MATERIAL	1		
		-1D6825X0052	O-RING ~ 3/16X5/16X1/16	3		
		-1V389006992	O-RING ~ 1/4X3/8X1/16	1		
		-18B6035X022	SEAL,SCREEN ~ 120 MESH, FLUORO MATERIAL	1		
		19B5403X012	KIT,MISC SMALL HDWRE	1	125.00	Y
		-29B3448X012	VENT ASSEMBLY ~ 3/8-18NPT	1		
		-1E455338992	RING,E ~ 1/4	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 9

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-11A6514X022	SCREW,MACH,PAN HD ~ 8-32X0.56 NON STD THD RELIEF	2		
		-11B9076X032	SCREW,CAP,HEX SOCKET ~ M6X16-8.8	1		
		-14B1426X012	SPRING,TORSION ~	1		
		-14B1554X012	SPACER ~ .145X.250X.38	1		
		-14B3147X022	RETAINER,WIRE ~ 6-32X0.31	2		
		-14B6701X012	SCREW,MACH,FLAT HD ~ 6-32X.75	1		
		-14B6976X012	WASHER,PLAIN ~ .188X.375X.05	1		
		-14B6978X012	SCREW,CAP,HEX SOCKET ~ 8-32X0.75	1		
		-16A6711X032	NUT,SQ ~ 8-32UNC-2B	1		
		-18A7020X022	RING,RETAINING,INT ~ 5005-62-H	3		
		-18B5796X012	SCREW, COMB PAN HD	4		
		-18B7715X012	SCREW,CAP,HEX SOCKET ~ M3X0.5X12	4		
		-18B9571X022	SCREW,MACH,PAN HD ~ 10-24X.62,SLOTTED,CROSS RECESS	4		
		-18B9573X012	SCREW,CAP,HEX SOCKET ~ M8X1.25X16	3		
		-18B9574X012	SCREW,MACH,PAN HD ~ 6-32X1.38,SLOTTED,CROSS RECESS	3		
		-18B9594X012	SCREW,SET,HEX SOCKET ~ M3X0.5-6GX10	3		
		-18B9610X012	SCREEN	1		
		-1A3303X0012	NUT,HEX ~ 6-32	2		
		-1A4988X0012	WASHER,PLAIN ~ 0.27X.50X.03	2		

Prices subject to change without notice



Recommended Spare Parts Lists for Fisher Control Valves



LBP Order #: 027D-580815

Item: 9

Customer PO #: 4500890601

Order Date: 1/24/2019

Component Name	Find #	Part #	Part Name	Qty	List Price/ EA USD	Quick Ship
TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER		-1N10183X022	SCREW,MACH,PAN HD ~ 8-32X0.38	2		
		-22B9009X022	SPRING,BIAS ~ 657,667/70-100	1		
		-24B0654X032	SPRING,BIAS	1		
		-28B4165X012	TEST POINT ~ TERMINAL STRIP	2		
		-61000580X12	WASHER LOCK NO. 6 SPLIT	2		
		-GE19919X022	SPRING, BIAS ~	1		
		-GG06490X012	SPRING, BIAS ~ DVC6030 SERIES	1		
		38B6041X152	I/P ASSY/SHROUD	1	963.00	Y
MOUNTING KITS FOR LINKAGELESS NON- CONTACT FEEDBACK		1E591406992	O-Ring, 5/8 x 13/16 x 3/3	1	6.00	Y
TYPE 2052 SPRING AND DIAPHRAGM ACTUATOR	11	GE28042X012	DIAPHRAGM	1	73.00	Y
		GE27672X012	BUSHING,LINED,DU	1	16.00	Y
PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR		Replacement Subassembly	AIRSET/ACCESSORY	1	Call Sales	Call Sales

Prices subject to change without notice



Serial Card

FISHER™**LBP Order#:** 027D-580815**CustPO:** 4500890601**Version:** As Shipped**SerialRange:** F002194480**ShipTo:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Current Location:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Installed At:** UOP RUSSELL LLC,
760 W MAIN PKWY,
CATOOSA,OK
74015**Shipped:** 02/28/2019**Application:** VLVS Assembly Line**SalesPerson:** BRIAN HANEY / MB**Project:****Carrier:** UNASSIGNED-TRUCK-
STD SERVICE**Split:** Y**Pack:** Domestic (WMP
11A1)**Pay:** Prepaid And Add To
Invoice

Item Detail

Item: 9 **Tag:** TCV-501B **Quantity:** 1

DESIGN V150, V200, V300, SS-256 ROTARY BALL VALVE BODY, SIZE 3, 3/4 SHAFT , TYPE 2052 SPRING AND DIAPHRAGM ACTUATOR , TYPE DVC6200 SERIES DIGITAL VALVE CONTROLLER , MOUNTING KITS FOR LINKAGELESS NON-CONTACT FEEDBACK , PRESSURE REGULATOR 1/4, TYPES 67CF,67CFR

Item Level Notes

G05 PO#: 4500890601 / PROJECT#: J447CL

F51 Liquid, Minimum, FlowMedia=THERMINOL 55 P1=35.000 psig, dP=10.000 psi T1=300.000 deg F, Cv=26.382 Liquid, Normal, FlowMedia=THERMINOL 55 P1=35.000 psig, dP=10.000 psi T1=300.000 deg F, Cv=67.434 Liquid, Maximum, FlowMedia=THERMINOL 55 P1=35.000 psig, dP=10.000 psi T1=300.000 deg F, Cv=75.405 Design Press=150 psig, Design Temp=400 Deg F

I05 NPS 3 V200 2052 Size 1 DVC6200 Factory Mtgs DVC6200/DVC2000

Construction Details

V200 **Quantity:** 1

SIZE 3 V200 WCC CL150 VALVE BODY W/O TAP , ISA S75.04 FACE TO FACE WCC PROTECTOR RING , CG8M CRPL VEE BALL R30006 TAPER KEY , S20910 3/4 IN SPLINED SHAFT , PEEK BEARINGS , GTB GRAFOIL GASKETS , CF10SMNN HD SEAL , PTFE/CARBON FILLED PTFE PACKING ARRANGE 14A9777 , SST PACKING BOX PARTS,B8M CL2 BOLTING , STL ACTUATOR BOLTING , NAMEPLATE , ANSI CL150 HYDRO 450 PSI/2 MIN , FORWARD FLOW , V200 SER B , BALL ROTATES COUNTER CLOCKWISE TO CLOSE , SEAT LEAK CLASS IV 46 SCFH PER FGS 4L5

2052 **Quantity:** 1

SIZE 1 , WITHOUT TOP MOUNTED HANDWHEEL , NITRILE DIAPHRAGM , DUAL SPRING , STYLE F MOUNTING , 3/4 INCH SHAFT , ADJUSTABLE TRAVEL STOP , 18-8 SST TRAVEL INDICATOR, SCALE & SCREWS , 18-8 SST STD SCREWS , WARNING LABEL , NAMEPLATE & LABEL WITH 18-8 SST SCREWS , RH MTG STYLE A, CCW TO CLOSE, PDTC , ACTUATOR MOUNTING POSITION 1 , TRAVEL 90 DEG ROTATION , OPERATING PRESSURE 4 BAR (58 PSI)

DVC6200 **Quantity:** 1

ALUM HOUSING B, 1/4 NPT PRESSURE CONN , I/P ASSY W/SAPPHIRE ORIFICE , ALUM MODULE BASE , ALUM TERM BOX, NON-GAS CERT, NITRILE , NITRILE RELAY C, STD BLEED , COMMON PARTS , PWB WITHOUT OPTIONS , FM: EXPL PROOF & INTRINSICALLY SAFE, NON-INCENDIVE , 0-160 PSI/0-11 BAR GAUGES (QTY 2) , TYPE DVC6200 SINGLE DIR ACTING CONTROLLER , 4-20 MADC PT-PT INPUT , HC-HART COMMUNICATING FUNCTIONALITY LEVEL , HART REVISION 5 , PERFORM MFG PROCEDURES OUTLINED IN IMP10T1G , PWB DIP CONFIG 'PT-PT' WITH MOUNTING KIT , FOR NITRILE INSTRUMENT CONSTRUCTIONS , INTEGRAL MOUNTED FILTER REGULATOR , FACTORY MOUNTED , 3/8 316/316L SST TUBING 316SST SWAGELOK FITTINGS

67CFR **Quantity:** 1

1/4 ALUM BODY W/BRASS DRAIN , FILTER ELEMENT,POLYETHYLENE 5 MICRON,180F MAX TEMP , VALVE ASSY, NITRILE/NITRILE/BRASS , NITRILE DIAPH W/ RELIEF , STD BONNET , SQ HD ADJ SCREW , 0-125 PSI SPRING,RED STRIPE , INSTRUCTION MANUAL , TYPE 67CFR , REGAL GRAY , VENT OVER OUTLET , DRAIN PLUG UNDER OUTLET

Nameplate

AMB TEMP -40

INPUT 4-20MA PT-PT

NAMEPLATE GE90092X0A2

TYPE	DVC6200
ACTION	PDTC
BALL/DISC><	SST/PL
BODY><	STL
NAMEPLATE	12B6400X0A2
NAMEPLATE	GE40787X0A2
OPERATING PRESSURE><	4 BARG (58 PSIG)
RATING	CL150
ROTATION>DEG<	90
SEAT><	SST
SHAFT><	SST
SIZE	1
SIZE	3
TAG	-
TYPE><	V200 SER B

Paint						
Type	Paint Procedure Number	Color	P57-Paint Spl	Paint Spec	Coating/Paint	Temp Limits
2052	Standard	See WMP	N/A	Standard	Standard	Standard
DVC6200	Standard	See WMP	N/A	Standard	Standard	Standard
MTGDVCNC	Standard	See WMP	N/A	Standard	Standard	Standard
V200	Standard	See WMP	N/A	Standard	Standard	Standard

FISHER

Rotary Valve Specification

Customer: **UOP RUSSELL LLC**

Vinson Process Controls

Contact: **Dennis Paden**Contact: **Ron Berte**

Customer Reference:

UOP RUSSELL, SC6Sales Office Reference: **VVES**Lead Time: **10 WKS****STD PLANT**Item: **16**

Rev:

Qty: **1**Rev: **A**Tags: **TCV-501B**Date Last Modified: **11/08/2016**Description: **NPS 2 V200 2052 Size 1 DVC6200**

Service Description:

Service:		Positioner Type:	DVC6200,HART Communicating-HC
Size and Type:	NPS 2 V200	Input Signal:	4 to 20 mA dc
Body Style:	Ball Flangeless	Access:	67CFR Filter/Regulator
Design Temp:	400 deg F	Gauges:	0-160 psig/0-11 bar
Design Press:	150 psig	Action:	Direct
End Connect/In/Out:	CL150/300/600 RF Flg Compatible RF Flg	Certification:	Explosion Proof/Intrinsic Safe/Non-Incendive,FM
Material:	WCC Steel	Controller Type:	
Flow Direction:	Forward	Action:	
Trim Number:		Measure Element:	
Retainer Matl:	CG8M SST	Range:	
Bushing/Bearing Matl:	PEEK/PTFE	Output:	
Seal/Liner Matl:	CF10SMnN SST	Mounting:	
Disk/Ball Matl:	CG8M SST/CRPL	Airset:	
Shutoff Class:	ANSI CL IV	Mounting:	
Port Size:	Full	Transducer:	
Characteristic:	Modified Equal Percent	Input Signal:	
Stem Material:	S20910 SST	Output Signal:	
Stem Size:	5/8 Inch	Action:	
Bonnet Style:	None	Mounting:	
Packing:	PTFE	Airset:	
PackFlg/Bltg:	SA-193-B8M Str Hd Studs/8M Nuts	Certifications:	
Actuator:	Spring & Diaphragm	Line In:	4 in, SCH STD
Type/Size:	2052/1	Line Out:	4 in, SCH STD
Travel:	90 Deg	Insulation:	
Bench Set:		Service Cond:	THROTTLING
Push Down To:	Push Down to Close	Process Fluid:	THERMINOL55
Supply:	Air		
To Actuator:	4.0 barg (58 psig)		
Fails Valve:	Open		
Mounting:	Right Hand,Pos 1		
Handwheel:	None		

Max Rated Cv: **122.0**

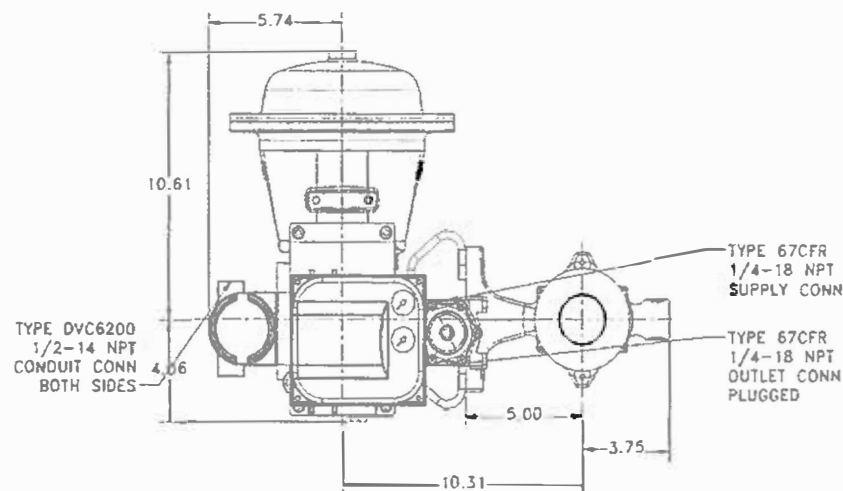
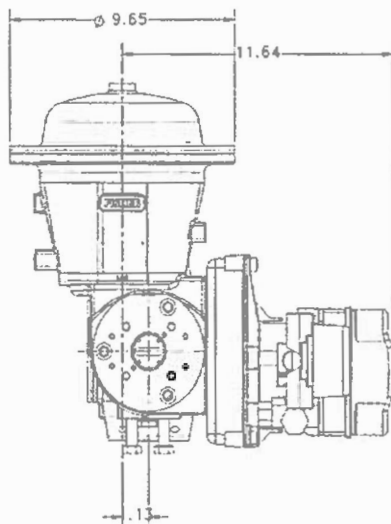
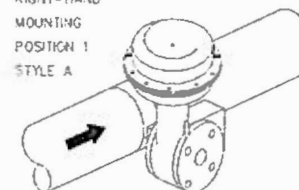
Variable Name	Unit	Minimum	Normal	Maximum
Mass Flow Rate Liquid (wl)	lb/h	10400.000	26000.000	30688.000
Inlet Pressure (P1)	psig	35.000	35.000	35.000
Pressure Change (dP)	psi	10.000	10.000	10.000
Inlet Temperature (T1)	deg F	200.000	200.000	200.000
SG		0.790	0.790	0.790
Dynamic Viscosity (Mu)	cP	1.310	1.310	1.310
Sizing Coefficient (Cv)		7.409	18.686	22.071
Deg. Open		31	44	47

NOTES:**1. SST TUBING & FITTINGS**

FEATURES PICTORIALLY TYPICAL ORIENTATION MAY DIFFER

ACTUATOR ORIENTATION

RIGHT-HAND
MOUNTING
POSITION 1
STYLE A



BODY COMPATIBLE WITH
NPS 2 CLASS 150/600
RF FLANGES



DIMENSIONS CERTIFIED CORRECT BY FISHER CONTROLS

FISHER

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CUST: UOP RUSSELL LLC
CUST REF NO.: JOB 447, UOP RUSSELL, SC6 STD PLANT
FISHER REF NO.: 0270-RCB-161121-0190534
TAG NO.: TCV-501B
PROJECT NAME:

V200 VALVE BODY SIZE 2
2052 ACTUATOR SIZE 1

CUST ITEM: 0016

S.NO.

TOTAL CALCULATED Wt +/- 10%
TOTAL WEIGHT: 79.5 lb
UNLESS OTHERWISE SPECIFIED
UNIT OF MEASURE: INCH

REV	DATE	CHKD	APPV
1	21-Nov-16	FDS	
GENERAL ARRANGEMENT			

EMERSON
Process Management

SCALE: NONE

SEC NO

SHEET 1 OF 1

A