The City of Winnipeg Tender No. 197-2022

#### **APPENDIX M – DATASHEETS**

						Flov	wm	eter l	nstru	ment			A SHEET		REV.
Ш	K(	iS						Magn	etic		SI	HEET	1	OF	1
l 1					NO.	DAT	TF.	Magn		/ISION		BY	CHK'D	PROC.	APPR
	GRC	UP			0	2022 1				Construction		DG	JP	gn3	gras-
						2022 1	0 00	+	33404 101	CONSTRUCTION	-		- 01		7,-
					+	1					-			<del></del>	-
Pro	ject:		21-0107	-015	-									<del></del>	1
				Serial No.					Loon Mi	ring Diograms		1.01	01-AILD-	F222 001	
TA	G NO:	FIT-	F07703							ring Diagrams:			5-FC-PV0		
۸	-4 NI			Spec No:	4.0404.1	DDID FOO	7 004			SSELINULLIDEL.	0:	_			
Ass	et No:	-		P&ID:	1-0101-1	PPID-F00	7-001		Line ID:		Size:	_		edule:	
Des	cription:	MAGNETIC F	LOWMETER TRA	ANSMITTER WITH LO	OCAL INDI	CATION			Manufac				emens		
			1						Model:	Si	trans F l			M Mag 1	100
$\vdash$	hase Ord							ndor:				Trai	ns-West		
Req	uisition Nu	ımber:					Job	Number:							
	Fluid:		Ferric Chloride												
	Fluid State	):	Liquid												
Ş															
ō	Process D	ata Case (Flow:)		Minimum:			Norma	al (Operatin	g):		Maximum	(Full S	cale):	U	nits:
Ë	Flow:			8				167				792		L	_/hr
Ä	Pressure:			60				60				60		р	sig
8	Temperatu	ıre:		0				20				30			°C
PROCESS CONDITIONS										<u> </u>					
贸	Design Pre	essure:		150		psig	Vapo	or Pressure	Pv:		N/A	Α			
00	Design Te	mperature:		-10 to 50		°C	Visc	osity:			N/A	4		_	
PR	Lower SG			1.39				npressibility	(Z):		N/A	Α		_	
	Higher SG	· ·		1.46		1		cial Condition				N/A			_
	Pipe Mater			PVC		1									
	_														
	Connection	n Size:	1				Mou	inting Orien	tation:					,	
	End Conne	ection:					Mou	inting Kit:							
	End Conne	ection Material:					Flan	ige / Wafer	Rating:	Note 2					
ER	Lining Mat	erial:	Note 2				Flan	ige Type:							
METER	Lining Prof	tector:	Note 2				Flan	ige Material	:						
Σ	Electrode	Туре:	Note 2				Allov	w. Operating	g Velocity:		to				
	Electrode l	Material:	Note 2				Encl	losure Class	3:	NEMA 4X					
	Grounding	Rings:					Elen	nent Model	Number:	Note 2				-	
	Stainless S	Steel Tag:	FIT-F07703				Wet	ted O-Ring	Material:						
	Application	n:					Fill F	Fluid:							
	Type:						Elev	ation:							
~	Enclosure	Class:	NEMA 4X				Sup	pression:							
监	Housing:		Fiberglass-Reinfor	ced Polymide			Instr	ument Ran	ge:		to				
E	Mounting:		Local				Calil	bration Ran	ge:		to				
TRANSMITTER	Signal / Pr	otocol:	Profibus PA (Note:	3)			Con	troller Displa	ay Range:		to				
Ž	Power Sup	oply:	24 VDC				Stati	ic Pressure	Range:		to				
IR	Electrical (	Connection:	4x1/2" NPT				Allov	w. Oper Pre	ssure:		to				
	Accuracy:		0.25%				Allov	w. Oper Ter	mperature:		to				
	Response	Time:					Max	imum Statio	Pressure						
	Element M	laterial:					Man	ufacturer:		Siemens					
							Mod	lel:		Sitran F M Mag S	Series 600	00			
z															
9	Integral Me	eter:					Hydı	rostatic Tes	ting:						
OPTION	Scale:						Mou	inting Brack	ets:						[
O															
				d by the City via RFP 449	-2014, no ali	ternates or	substi	tutes will be	accepted.						
S		tion to be provide													
NOTES	3. Complet	te with option Car	rd Profibus PA Mod	uie											
9															

Γ.						Flov	wm	eter l	nstru	ment		ATA SHEET		REV.
	KI	is						Magn	otic		SHEE	_	OF	1
ı	A				NO.	DAT		Magn		ISION	BY	CHK'D	PROC.	APPR.
	GRC	UP				-		<u> </u>					JAG	APPK.
					0	2022 1	8 05	'	ssued for	Construction	DG	JP	gr-	y"
					-			-						
Pro	oject:		21-0107	-015				-				_		-
									I	. 5: 1		0101 111 0	5001.001	
TA	G NO:	FIT-	F07713	Serial No.						ring Diagrams:	1-	0101-AILD-		
		-		Spec No:						ssel Number:	0:	15-FC-PV		
Ass	et No:			P&ID:	1-0101-1	PPID-F00	7-001		Line ID:		Size: 1		edule:	
Des	cription:	MAGNETIC F	LOWMETER TRA	ANSMITTER WITH LO	CAL INDI	CATION			Manufac			Siemens		
									Model:	Sit	rans FM Ma		M Mag 1	100
$\vdash$	chase Orde						+	ndor:			Т	rans-West		
Req	uisition Nu	ımber:					Job	Number:						
	Fluid:		Ferric Chloride											
	Fluid State	:	Liquid											
S														
Ó	Process Da	ata Case (Flow:)		Minimum:			Norma	al (Operatin	g):		Maximum (Ful	Scale):	U	nits:
ΗC	Flow:			8				167			792		L	_/hr
Ä	Pressure:			60				60			60		p	sig
PROCESS CONDITIONS	Temperatu	ıre:		0				20			30			°C
SS														
Ë	Design Pre	essure:		150		psig	Vapo	or Pressure	Pv:		N/A			
00		mperature:		-10 to 50		°C		osity:			N/A			_
P.	Lower SG			1.39				npressibility	(Z):		N/A			
-	Higher SG			1.46			_	cial Condition			N/	Δ		
	Pipe Mater			PVC			Орс	olar Corraitio	JII.		14/			-
	r ipe iviatei	nai		1 10										
	Connection	n Size:					Мош	inting Orient	tation:					_
	End Conne							inting Kit:						-
		ection Material:					_	nge / Wafer	Pating:	Note 2				-
H.	Lining Mate		Note 2					ige / waiei	rating.	Note 2				
METER							_							
ME	Lining Prot		Note 2				_	nge Material			1.1			_
	Electrode	,,	Note 2					w. Operating		NEMA AV	to			_
	Electrode I		Note 2				+	losure Class		NEMA 4X				_
	Grounding	Rings:					Elen	ment Model	Number:	Note 2				
	Stainless S	Stool Tog:	FIT-F07713				Mot	ted O-Ring	Matarial:					_
			FII-F0// 13				_		Material.					
	Application	1.					+	Fluid:						_
	Type:	-						vation:						
œ	Enclosure	Class:	NEMA 4X				_	pression:						
TRANSMITTER	Housing:		Fiberglass-Reinfor	ced Polymide			_	rument Rang			to			
ŧ	Mounting:		Local					bration Ran			to			
SI	Signal / Pr		Profibus PA (Note:	3)				troller Displa			to			
A	Power Sup		24 VDC					ic Pressure			to			
TR	Electrical C	Connection:	4x1/2" NPT				Allov	w. Oper Pre	ssure:		to			
	Accuracy:		0.25%				Allov	w. Oper Ter	mperature:		to			
	Response	Time:					Max	imum Static	Pressure					
	Element M	laterial:					Man	ufacturer:		Siemens				
							Mod	lel:		Sitran F M Mag S	Series 6000			
z														
9	Integral Me	eter:					Hydi	rostatic Tes	ting:					
OPTION	Scale:						Mou	inting Brack	ets:					
O														
				by the City via RFP 449	-2014, no al	ternates or	substi	tutes will be	accepted.					
S		tion to be provide												
Ë	3. Complet	te with option Ca	rd Profibus PA Mod	ule										
NOTES						·			·				·	

						Flov	wm	eter l	nstru	ment			A SHEET		REV.
Ш	K(	iS						Magn	etic		SI	HEET	1	OF	1
l 1					NO.	DAT	TF.	Magn		/ISION		BY	CHK'D	PROC.	APPR
	GRC	UP			0	2022 1				Construction		DG	JP	gn3	Qr43
						2022 1	0 00	+	33404 101	Construction	-	00	01		-
					+						_			<del></del>	1
Pro	oject:		21-0107	-015							_			<del></del>	1
H				Serial No.					Loon Mi	ring Diagrama		1.04	01-AILD-	F225 001	
TΑ	G NO:	FIT-	F07723	Spec No:						ring Diagrams:			5-FC-PV0		
Λ	-4 NI				4.0404.1	DDID FOO	7 004			essei Number:	0:	_			
Ass	et No:	-		P&ID:	1-0101-1	PPID-F00	7-001		Line ID:		Size:			edule:	ļ
Des	cription:	MAGNETIC F	LOWMETER TRA	ANSMITTER WITH LO	OCAL INDI	CATION			Manufac				emens		
			1				1		Model:	Si	itrans F I			M Mag 1	100
_	chase Orde							ndor:				Tra	ns-West		
Req	uisition Nu	ımber:					Job	Number:							
	Fluid:		Ferric Chloride												
	Fluid State	):	Liquid												
SN															
PROCESS CONDITIONS	Process D	ata Case (Flow:)		Minimum:			Norma	al (Operatin	g):		Maximum	n (Full S	cale):	U	nits:
Ė	Flow:			8				167				792		L	/hr
Ä	Pressure:			60				60				60		р	sig
00	Temperatu	ıre:		0				20				30			°C
SS															
ä	Design Pre	essure:		150		psig	Vapo	or Pressure	Pv:		N/A	A			
00	Design Te	mperature:		-10 to 50		°C	Visc	osity:			N/A	A			
PR	Lower SG			1.39				npressibility	(Z):		N//	A		_	
_	Higher SG			1.46				cial Condition				N/A			
	Pipe Mater			PVC			-								
	Connection	n Size:					Mou	inting Orien	tation:					1	
	End Conne	ection:					Mou	inting Kit:							
	End Conne	ection Material:					Flan	ige / Wafer	Rating:	Note 2					
ER	Lining Mat	erial:	Note 2				Flan	ige Type:							
METER	Lining Prof	tector:	Note 2				Flan	ige Material	:						
Σ	Electrode 1	Туре:	Note 2				Allov	w. Operating	g Velocity:		to	,			
	Electrode I	Material:	Note 2				Encl	losure Class	3:	NEMA 4X					
	Grounding	Rings:					Elen	nent Model	Number:	Note 2					
	Stainless S	Steel Tag:	FIT-F07723					ted O-Ring	Material:						
	Application	1:					Fill F								
	Type:						Elev	ration:							
~	Enclosure	Class:	NEMA 4X				Sup	pression:							
岜	Housing:		Fiberglass-Reinfor	ced Polymide			Instr	ument Ran	ge:		to	)			
E	Mounting:		Local				Calil	bration Ran	ge:		to	•			
TRANSMITTER	Signal / Pr	otocol:	Profibus PA (Note:	3)			Con	troller Displa	ay Range:		to	,			
Ž	Power Sup	oply:	24 VDC				Stati	ic Pressure	Range:		to	•			
R	Electrical (	Connection:	4x1/2" NPT				Allov	w. Oper Pre	ssure:		to	)			
	Accuracy:		0.25%				Allov	w. Oper Ter	mperature:		to	)			
	Response	Time:					Max	imum Statio	Pressure						
	Element M	laterial:					Man	ufacturer:		Siemens					
							Mod	lel:		Sitran F M Mag	Series 600	00			
z															
9	Integral Me	eter:					_	rostatic Tes							
OPTION	Scale:						Mou	inting Brack	ets:						
	4 14 1	oturor 1	wore stand "	I but he City in DED 110	2014 - "	tornst-	out to	tutor							
				d by the City via RFP 449	-∠∪ 14, no ali	ternates or	suDSti	iules WIII De	accepted.						
S		tion to be provide	a by vendor. rd Profibus PA Mod	ula											
NOTES	J. Comple	with option Cal	IG I TOTIDUS PA IVIOO	uio											[
Š															

						Flov	wm	eter l	nstru	ment		TA SHEET		REV.
	KI	is						Magn	etic		SHEET	_	OF	1
l	_				NO.	DAT	ΓF	Magn		ISION	BY	CHK'D	PROC.	APPR
	GRC	UP			0	2022 1				Construction	DG	JP	gnes.	gras-
						2022 1	0 00		33404 101	Construction	- 50	01		
		I											+	+
Pro	oject:		21-0107·	-015									+	+
H				Serial No.					Loon Wij	ring Diagrams:	1_	0101-AIFS-	F202-001	
TA	G NO:	FIT-	F08303	Spec No:						ssel Number:		15-SHD-PV		
Δος	et No:			P&ID:	1_0101_0	PPID-F00	8_001		Line ID:				edule:	
/\33	et No.			I QID.	1-0101-1	I I ID-I 00	0-001		Manufac			Siemens	edule.	
Des	cription:	MAGNETIC F	LOWMETER TRA	ANSMITTER WITH LC	CAL INDI	CATION			Model:		rans FMMa		M Mag 1	100
D	-b OI		I				\/	d	wodel.	Sit			ivi iviag i	100
_	chase Orde						Ven				- 11	rans-West		
Req	uisition Nu	imber:					JOD	Number:						
	_													
	Fluid:		Sodium Hydroxide											
	Fluid State	:	Liquid											
NS														
01.		ata Case (Flow:)		Minimum:			Norma	al (Operatin	g):		Maximum (Full	Scale):		Jnits:
듬	Flow:			8				67			792			L/hr
N	Pressure:			60				60			60		ı	psig
PROCESS CONDITIONS	Temperatu	ire:		15				20			30			°C
SS														
Ж	Design Pre	essure:		150		psig	Vapo	or Pressure	Pv:		N/A			
ŏ	Design Te	mperature:		10 to 50		°C	Visc	osity:			36			cР
PR	Lower SG	/ Density:		N/A			Com	pressibility	(Z):		N/A			
	Higher SG	/ Density:		1.53			Spec	cial Condition	n:		N/A	A		
	Pipe Mater	rial		PVC										
	Connection	n Size:					Mou	nting Orien	ation:					
	End Conne	ection:					_	nting Kit:						
	End Conne	ection Material:					_	ge / Wafer	Rating:	Note 2				
ER	Lining Mat	erial:	Note 2				_	ge Type:		Note 2				
METER	Lining Prof		Note 2				_	ge Material	:	Note 2				_
Σ	Electrode		Note 2				_	v. Operating			to			
	Electrode	••	Note 2				_	osure Class		NEMA 4X	10			
	Grounding						_	nent Model		Note 2				_
	Stainless S	Steel Tag:	FIT-F08303				Wett	ted O-Ring	Material:					
	Application	1:					Fill F	luid:						
	Type:						Elev	ation:						
	Enclosure	Class:	NEMA 4X				Supp	pression:						
꼾	Housing:		Fiberglass-Reinford	ced Polymide			_	ument Ran	de:		to			
Ë	Mounting:		Local	*			_	oration Ran			to		-+	
M	Signal / Pr	otocol:	Profibus PA (Note:	3)			_	troller Displa			to			
NS	Power Sup		24 VDC	-/			_	ic Pressure			to		-+	
TRANSMITTER		Connection:	4x1/2" NPT				_	v. Oper Pre					-+	
F		John Collon.	0.25%				_	v. Oper Pre			to		-+	
	Accuracy:	Time	0.25%				_				to		-+	
	Response						_	imum Statio	Piessure	0:				
	Element M	ателат:					_	ufacturer:		Siemens	i cooo			
							Mod	C1.		Sitran F M Mag S	enes budu			
Z	late -						11.							
1	Integral Me	eter:					_	rostatic Tes						
OPTION	Scale:						Mou	nting Brack	ets:					
	4 Mercif	turar and	ware standard -	by the City via DED 110	2014 "	tomot:	ouk-"	hutaa viilli l	0000-4					
				by the City via RFP 449-	-∠∪ 14, ⊓0 alf	terriates or	suDStil	utes WIII De	accepted.					
S		tion to be provide	a by vendor. rd Profibus PA Modu	ıle										
NOTES	3. Comple	with option Cal	a FIUIDUS PA MOU	ai C										
S														[

Г	176	30				Flov	wm	eter l	nstru	ment		TA SHEET		REV.
Н	K(	iS						Magn	etic		SHEET	_	OF	1
'					NO.	DAT	ΓF	Magni		ISION	BY	CHK'D	PROC.	APPR
	GRC	UP			0	2022 1		1		Construction	DG	JP	gnes.	gras-
						2022 1	000	<u>'</u>	33404 101	Construction	- 50	01		- 7,-
		1			1			-					-	-
Pro	oject:		21-0107	-015				-					-	-
H				Serial No.					Loop Wi	ing Diagrama:	1	0101-AIFS-	F202 004	1
TΑ	G NO:	FIT-	F08313	Spec No:						ring Diagrams: ssel Number:		15-SHD-PV		I
Λ	-4 NI- :				4 0404 1	DDID FOO	0.004							
Ass	et No:			P&ID:	1-0101-1	PPID-F00	8-001		Line ID:				edule:	
Des	cription:	MAGNETIC F	LOWMETER TRA	ANSMITTER WITH LC	CAL INDI	CATION			Manufac			Siemens		
			1				1		Model:	Sit	rans FM Ma		M Mag 1	100
$\vdash$	chase Orde						_	idor:			Tı	rans-West		
Req	uisition Nu	ımber:					Job	Number:						
	Fluid:		Sodium Hydroxide											
	Fluid State	t .	Liquid											
SN														
Ō	Process D	ata Case (Flow:)		Minimum:			Norma	al (Operatin	g):		Maximum (Full	Scale):	L	Jnits:
Ë	Flow:			8				67			792			L/hr
Ä	Pressure:			60				60			60		-	psig
S	Temperatu	ıre:		15				20			30			°C
PROCESS CONDITIONS										<u> </u>				
買	Design Pre	essure:		150		psig	Vap	or Pressure	Pv:		N/A			
00	Design Te	mperature:		10 to 50		°C	Visc	osity:			36			сР
PR	Lower SG			N/A			_	pressibility	(Z):		N/A		_	
	Higher SG			1.53			_	cial Condition			N/A	Α		
	Pipe Mater			PVC		1	Ť							
	•									_				
	Connection	n Size:					Mou	nting Orient	ation:					
	End Conne	ection:						nting Kit:						
	End Conne	ection Material:						ge / Wafer	Rating:	Note 2				
METER	Lining Mat		Note 2				_	ge Type:		Note 2				
ET	Lining Prof		Note 2				_	ge Material	:	Note 2				
Σ	Electrode		Note 2				_	w. Operating			to			
	Electrode I	••	Note 2				_	osure Class	•	NEMA 4X				
	Grounding	Rings:					Elen	nent Model	Number:	Note 2				
	Stainless S	Steel Tag:	FIT-F08313				Wet	ted O-Ring	Material:					
	Application	n:					Fill F	luid:						
	Туре:						Elev	ation:						
	Enclosure	Class:	NEMA 4X				Supp	pression:						
H	Housing:		Fiberglass-Reinfor	ced Polymide			Instr	ument Ran	ge:		to			
E	Mounting:		Local				Calil	bration Ran	ge:		to			
SMI	Signal / Pr	otocol:	Profibus PA (Note:	3)			Con	troller Displa	ay Range:		to			
ž	Power Sup	pply:	24 VDC				Stati	ic Pressure	Range:		to			
TRANSMITTER	Electrical C	Connection:	4x1/2" NPT				Allov	w. Oper Pre	ssure:		to			
_	Accuracy:		0.25%				Allov	w. Oper Ter	nperature:		to			
	Response	Time:					Max	imum Static	Pressure					
	Element M	laterial:					Man	ufacturer:		Siemens				
							Mod	el:		Sitran F M Mag S	eries 6000			
Z														
Ō	Integral Me	eter:					Hydi	rostatic Tes	ting:					
OPTION	Scale:						Mou	nting Brack	ets:					
0			•											
				by the City via RFP 449-	2014, no al	ternates or	substi	tutes will be	accepted.					
ıΩ		tion to be provide												
Ë	3. Complet	te with option Car	rd Profibus PA Mod	ule							·			
NOTES														
_														

		is				Flov	νm	eter l	nstru	ment			A SHEET		REV.
	JE	12						Magn				SHEET	1	OF	1
	GRO				NO.	DAT	E		REV	ISION		BY	CHK'D	PROC.	APPR
					0	2022 1	8 05	I	ssued for	Construction		DG	JP	gne2	gnes
Dre	sio ot:		21-0107-	015											
PIC	oject:		21-0107-	015											
ΤΛ.	G NO:	FIT	F08323	Serial No.					Loop Wi	ring Diagrams:		1-0	101-AIFS-	F202-001	
IA	G NO:		FU0323	Spec No:					Line / Ve	ssel Number:		15	S-SHD-PV	04-0818	
Asse	et No:			P&ID:	1-0101-F	PPID-F00	8-001		Line ID:		Size:	15	mm Sch	edule:	
Daa	orintion	MACNETICE	LOWMETER TRAI	NOMITTED WITH I	OCAL INDI	CATION			Manufac	turer:	•	S	iemens		•
Des	cription:	WAGNETICF	LOWINETER TRA	NSMITTER WITH L	OCAL INDI	CATION			Model:	S	itrans	F M Mag	6000 & F	M Mag 11	100
Purc	chase Ord	er:					Ven	dor:	•			Tra	ns-West		
Req	uisition Nu	ımber:					Job	Number:							
	Fluid:		Sodium Hydroxide												
	Fluid State	):	Liquid												
<u>S</u>															
6	Process D	ata Case (Flow:)		Minimum:			Norma	l (Operatin	g):		Maxim	um (Full S	Scale):	Ur	nits:
Ē	Flow:			8				67				792		L	/hr
Ä	Pressure:			60				60				60		р	sig
CONDITIONS	Temperatu	ıre:		15				20				30		,	°C
SS															
Ä	Design Pre	essure:		150		psig	Vapo	or Pressure	Pv:			N/A			
PROCESS	Design Te	mperature:		10 to 50		°C	Visco	osity:				36		- (	cР
PR	Lower SG	/ Density:		N/A			Com	pressibility	(Z):			N/A			
	Higher SG	/ Density:		1.53			Spec	cial Condition	on:			N/A			
	Pipe Mate	rial	PVC		1										
	Connectio	n Size:					Mour	nting Orient	ation:						
	End Conn	ection:					Mour	nting Kit:							
~	End Conn	ection Material:					Flan	ge / Wafer	Rating:	Note 2					
METER	Lining Mat	erial:	Note 2				Flan	ge Type:		Note 2					
Ш	Lining Pro	tector:	Note 2				Flan	ge Material	:	Note 2					
2	Electrode	Туре:	Note 2				Allow	v. Operating	y Velocity:			to			
	Electrode	Material:	Note 2				Encl	osure Class	3:	NEMA 4X		-			
	Grounding	Rings:					Elem	nent Model	Number:	Note 2					
	Stainless S	Steel Tag:	FIT-F08323				Wett	ed O-Ring	Material:						
	Application	n:					Fill F	luid:							
	Type:						Eleva	ation:							
	Enclosure	Class:	NEMA 4X				Supp	ression:							
TRANSMITTER	Housing:		Fiberglass-Reinforce	ed Polymide			Instru	ument Ran	ge:			to			
E	Mounting:		Local				Calib	ration Ran	ge:			to			
<u>N</u>	Signal / Pr	otocol:	Profibus PA (Note3)	)			Cont	roller Displa	ay Range:			to			
Ž	Power Sup	oply:	24 VDC				Stati	c Pressure	Range:			to			
$\mathbb{R}$	Electrical (	Connection:	4x1/2" NPT				Allow	v. Oper Pre	ssure:			to			
_	Accuracy:		0.25%				Allow	v. Oper Ter	nperature:			to			
	Response	Time:					Maxi	mum Static	Pressure			•			
	Element M	laterial:					Manu	ufacturer:		Siemens					
							Mode	el:		Sitran F M Mag	Series 6	3000			
7															
ō	Integral Me	eter:					Hydr	ostatic Tes	ting:						
OPTION	Scale:						Mour	nting Brack	ets:						
0															
	1. Manufa	cturer and models	s were standardized t	by the City via RFP 44	9-2014, no alt	ternates or	substit	utes will be	accepted.						
(0	2. Informa	tion to be provide	d by Vendor.												
邑	3. Comple	te with option Car	rd Profibus PA Modul	le											
NOTES															
2															

		30				Flov	wm	eter l	nstru	ment		TA SHEET		REV.
Ш	K (	is						Magn	etic		SHEET	_	OF	1
					NO.	DAT	TF.	Magn		'ISION	BY	CHK'D	PROC.	APPR
	GRC	DUP			0	2022 1		1		Construction	DG	JP	GM2	gras-
						2022 1	0 00	<del>  '</del>	ssueu ioi	Construction	DG	31	7,-	7,-
					1			-						-
Pro	ject:		21-0107	-015										1
				Serial No.					Loon Wi	ring Diagrama	1 (	) 101-AIFS-	F202 004	
TA	G NO:	FIT-	F87021	Spec No:						ring Diagrams:		80-FC-PV0		
Λ	-4 NI				4 0404 1	DDID FOO	4 004							
Ass	et No:	-		P&ID:	1-0101-1	PPID-F00	4-001		Line ID:				edule:	
Des	cription:	MAGNETIC F	LOWMETER TR	ANSMITTER WITH LO	CAL INDI	CATION			Manufac	turer:		Siemens		
			1						Model:			F M Mag 6	6000	
_	hase Ord							idor:			Tr	ans-West		
Req	uisition Nu	ımber:					Job	Number:						
	Fluid:		Ferric Chloride											
	Fluid State	):	Liquid											
S														
ō	Process D	ata Case (Flow:)		Minimum:			Norma	al (Operatin	g):		Maximum (Full	Scale):	U	nits:
늗	Flow:			3.0				5.4			7.0			L/s
Ä	Pressure:			60				60			60		p	sig
00	Temperatu	ıre:		0				20			30			°C
PROCESS CONDITIONS			·											
Ë	Design Pre	essure:	1	150		psig	Vapo	or Pressure	Pv:		N/A			
00		mperature:		-10 to 50		°C	+	osity:			N/A			
Ř	Lower SG			1.39				pressibility	(Z):		N/A			
	Higher SG			1.46				cial Condition			N/A		l l	
	Pipe Mater			PVC		1	Оро	olar Corraine				•		-
	r ipe mater	nai		1 10										
	Connection	n Size:	ı				Mou	nting Orient	tation:					
	End Conne						_	nting Kit:						_
		ection Material:					_	ge / Wafer	Rating:	Note 2				-
H.	Lining Mat		Note 2					ge Type:	raung.	Note 2				-
METER	Lining Prof		Note 2					ge Material		Note 2				-
≅	Electrode		Note 2				_	w. Operating		Note 2	to			-
	Electrode	••	Note 2				+	osure Class	•	NEMA 4X	10			
	Grounding		110.00 2				_	nent Model		Note 2				
	Stainless S	Steel Tag:	FIT-F87021				Wet	ted O-Ring	Material:					
	Application	n:					Fill F	luid:						
	Type:						Elev	ation:						
	Enclosure	Class:	NEMA 4X				Supp	pression:						
H	Housing:		Fiberglass-Reinfor	ced Polymide			Instr	ument Ran	ge:		to			
F	Mounting:		Local				Calil	bration Ran	ge:		to			
Σ	Signal / Pr	otocol:	Profibus PA (Note	3)			_	troller Displa			to			
SZ	Power Sup		24 VDC				_	ic Pressure			to			
TRANSMITTER		Connection:	4x1/2" NPT					w. Oper Pre			to			
H	Accuracy:		0.25%					w. Oper Ter			to			
	Response	Time <sup>-</sup>					+	imum Static						
	Element M						_	ufacturer:		Siemens				
							Mod			Sitran F M Mag S	eries 6000			
										iii iiiag o				
8	Integral Me	eter:					Hvdi	rostatic Tes	tina:					
OPTION	Scale:						_	nting Brack						
Ō														
	1. Manufac	cturer and models	s were standardized	by the City via RFP 449-	-2014, no alt	ternates or	substi	tutes will be	accepted.					
	2. Informat	tion to be provide	d by Vendor.											
图	3. Complet	te with option Ca	rd Profibus PA Mod	ule										
NOTES														
Z														

	176	30				Flov	wm	eter l	nstru	ment		TA SHEET		REV.
Ш	K(	iS						Magn	etic		SHEET	_	OF	1
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	GRC	UP			0	2022 1		1		Construction	DG	JP	GM2	QM3
						2022 1	0 00	'	33404 101	OONSH GOHOLI	- 50	01		
		ı			1							+		+
Pro	oject:		21-0107	-015								+		+
				Serial No.					Loon Wi	ring Diagrama	1 /	     101-AIFS	F202 001	
TA	G NO:	FIT-	F87031	Spec No:						ring Diagrams:		80-FC-PV0		
Λ	-4 NI=-				4 0404 1	DDID FOO	4 004							
Ass	et No:			P&ID:	1-0101-1	PPID-F00	4-001		Line ID:				edule:	
Des	cription:	MAGNETIC F	LOWMETER TR	ANSMITTER WITH LO	CAL INDI	CATION			Manufac	turer:		Siemens		
									Model:			F M Mag 6	6000	
_	chase Orde						Ven				Tr	ans-West		
Req	uisition Nu	ımber:					Job	Number:						
	Fluid:		Ferric Chloride											
	Fluid State	t .	Liquid											
S														
0	Process D	ata Case (Flow:)		Minimum:			Norma	al (Operating	g):		Maximum (Full	Scale):	U	Inits:
ЫT	Flow:			3.0				5.4			7.0			L/s
Ž	Pressure:			60				60			60		ļ.	osig
PROCESS CONDITIONS	Temperatu	ire:		0				20			30			°C
SS														
甾	Design Pre	essure:		150		psig	Vap	or Pressure	Pv:		N/A			
00	Design Te	mperature:		-10 to 50		°C	Visc	osity:			N/A			
PR	Lower SG	/ Density:		1.39			Com	pressibility	(Z):		N/A			
	Higher SG			1.46				cial Condition			N/A	λ.	1	
	Pipe Mater			PVC		1								_
	Connection	n Size:	1				Mou	nting Orient	ation:					
	End Conne	ection:					Mou	nting Kit:						
	End Conne	ection Material:					Flan	ge / Wafer	Rating:	Note 2				
H	Lining Mat	erial:	Note 2				Flan	ge Type:		Note 2				
METER	Lining Prof	tector:	Note 2				Flan	ge Material		Note 2				
Σ	Electrode		Note 2				_	v. Operating			to			
	Electrode I	Material:	Note 2				Encl	osure Class	s:	NEMA 4X			I	
	Grounding	Rings:					Elen	nent Model	Number:	Note 2				
	Stainless S	Steel Tag:	FIT-F87031				Wet	ted O-Ring	Material:					
	Application	1:					Fill F	luid:						
	Type:						Elev	ation:						
- 1	Enclosure	Class:	NEMA 4X				Supp	pression:						
Ë	Housing:		Fiberglass-Reinfor	ced Polymide			Instr	ument Ran	ge:		to			
E	Mounting:		Local				Calil	oration Ran	ge:		to			
ΝS	Signal / Pr	otocol:	Profibus PA (Note	3)			Con	troller Displa	ay Range:		to			
N <sub>S</sub>	Power Sup	pply:	24 VDC				Stati	ic Pressure	Range:		to			
TRANSMITTER		Connection:	4x1/2" NPT					v. Oper Pre			to			
_	Accuracy:		0.25%				Allov	v. Oper Ter	nperature:		to			
	Response	Time:					Max	imum Static	Pressure					
	Element M	laterial:					Man	ufacturer:		Siemens				
							Mod	el:		Sitran F M Mag S	eries 6000			
Z														
Ō	Integral Me	eter:					Hydi	rostatic Tes	ting:					
OPTION	Scale:						Mou	nting Brack	ets:					
0														
				by the City via RFP 449-	-2014, no ali	ternates or	substi	tutes will be	accepted.					
ιΩ		tion to be provide												
Ĭ	3. Complet	te with option Car	rd Profibus PA Mod	ule		·		·		-				
NOTES														
_														

						Flov	νm	eter l	nstrui	ment		TA SHEET		REV.
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Pro	oject:		21-0107	_015										
	.,		21-0107	-010										
ТΔ	G NO:	FIT.	W08801	Serial No.					Loop Wir	ring Diagrams:	1-0	)101-AIFS-	F202-001	
<u>''</u>	O 140.	111-	7700001	Spec No:					Line / Ve	ssel Number:	8	0-SHD-PV	04-0800	
Ass	et No:			P&ID:	1-0101-F	PPID-F00	5-001		Line ID:	;	Size: 80	mm Sch	edule:	
Des	cription:	MAGNETIC F	I OWMETER TRA	ANSMITTER WITH LO	CAL INDI	CATION			Manufact	turer:	(	Siemens		
D00	onpuon.	WAREHOT	LOWING TER TIV	WOMITTER WITH EO	ONE III	0,111011			Model:		Sitrans	F M Mag 6	000	
Puro	chase Orde	er:					Ven	idor:			Tra	ans-West		
Req	uisition Nu	ımber:					Job	Number:						
	Fluid:		Sodium Hydroxide											
	Fluid State	e:	Liquid											
S														
Ó	Process D	ata Case (Flow:)		Minimum:			Norma	al (Operatin	g):	1	Maximum (Full	Scale):	U	nits:
Ę	Flow:			3.0				5.4			7.0			L/s
Ä	Pressure:			60				60			60		p	osig
$\circ$	Temperatu	ıre:		15				20			30			°C
SS														
買	Design Pre	essure:		150		psig	Vap	or Pressure	Pv:		N/A			
PROCESS CONDITIONS	Design Te	mperature:		10 to 50		°C	Visc	osity:			36			сР
PR	Lower SG	/ Density:		N/A			Com	pressibility	(Z):		N/A			
	Higher SG	/ Density:		1.53			Spe	cial Condition	n:		N/A			
	Pipe Mater	rial		PVC										
	Connection	n Size:					Mou	nting Orient	ation:					
	End Conne	ection:					Mou	nting Kit:						
~	End Conne	ection Material:					Flan	ge / Wafer	Rating:	Note 2				
METER	Lining Mat	erial:	Note 2				Flan	ge Type:		Note 2				
Ē	Lining Prof	tector:	Note 2				Flan	ge Material	:	Note 2				
2	Electrode '	Туре:	Note 2				Allov	w. Operating	g Velocity:		to			
	Electrode I	Material:	Note 2				Encl	osure Class	3:	NEMA 4X				
	Grounding	Rings:					Elen	nent Model	Number:	Note 2				
	Stainless S	Steel Tag:	FIT-W08801				Wet	ted O-Ring	Material:					
	Application	n:					Fill F	Fluid:						
	Type:						Elev	ation:						
	Enclosure	Class:	NEMA 4X				Supp	pression:						
Ë	Housing:		Fiberglass-Reinfor	ced Polymide			Instr	ument Ran	ge:		to			
TRANSMITTER	Mounting:		Local				Calil	bration Ran	ge:		to			
SM	Signal / Pr	otocol:	Profibus PA (Note:	3)			Con	troller Displa	ay Range:		to			
ž	Power Sup	oply:	24 VDC				Stati	ic Pressure	Range:		to			
7	Electrical C	Connection:	4x1/2" NPT				Allov	w. Oper Pre	ssure:		to			
_	Accuracy:		0.25%				Allov	w. Oper Ter	nperature:		to			
	Response	Time:					Max	imum Static	Pressure					
	Element M	laterial:					Man	ufacturer:		Siemens				
							Mod	el:		Sitran F M Mag S	eries 6000			
7														
Ō	Integral Me	eter:					Hydi	rostatic Tes	ting:					
OPTION	Scale:						Mou	nting Brack	ets:				-	
0														
	1. Manufa	cturer and models	s were standardized	by the City via RFP 449-	2014, no alt	ternates or	substi	tutes will be	accepted.					
(0	2. Informat	tion to be provide	d by Vendor.										-	
邑	3. Complet	te with option Ca	rd Profibus PA Mode	ule									-	
NOTES													-	
2														
								-						

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	<b>(G</b>													SHEET	<b>T-LIT-F07</b> 1	301 OF	<b>0</b>
	W	3				10			onic Le	evel Me		1					
	GROU					10.	DATE				ISION			BY	CHK'D	PROC.	APPR
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D			04 0407 /	045													
Pro	ject:		21-0107-														
TA	3 NO:	LIT-	F07301	Serial No						Loop Wi		-		1-01	TK-F07		
Asse	et No:			Spec No: P&ID:	1-0	101-F	PPID-F004	-001		Line ID:	ssein		Size	»:		edule:	
										Manufac	turer:	l			emens		
Des	cription:		ULTR	ASONIC LEVEL T	RANSMI	HER				Model:				Sitrar	Probe LI	J	
_	hase Order:							Vend						Tra	ns-West		
Req	uisition Num	ber:						Job I	Number:								
	Fluid:							F	erric Chlori	de							
	Fluid State:							- ''	Liquid	uc .							
SN			Min:			Norn	mal (Operatir	ng):				Max (Full S	cale)			U	nits
CONDITIONS	Flow:																
	Pressure:			60		-			60					60			sig
ő	Temperature			0					20					30			С
	Design Press	sure:		150			psig	Tank	Top Style:					Flat			
PROCESS	Design Temp	erature:		-10 to 50			°C		Bottom Sty	le:				Flat			
Š	Vessel Heigh	essel Height: 10.6 meters						Width	ı / Diametei	r:	4.3 m	eters				<u> </u>	
풉	Fluid Dielectri	uid Dielectric Constant: N/A						Highe	er Viscosity		N/A						
	Level Empty:	vel Empty: 0 meters						_	ent Temper					20			C
	Level Full: Special Cond	lition	10.6 meters N/A					Area	Classificati	on:	Non I	Hazardous,	Corro	sive			_
	Special Corid	illion.	IN/A														
	Transducer T	уре:		Ultrasonic				Rated	d Temperat	ure:							
	Measuremen							Rated	d Pressure:								
H	Body Materia			Note 2				+	Il Type:								_
TRANSDUCER	Flange Mater Element Mate			Note 2				+	e Length:								
ISD	Vessel I.D.	orial.		Note 2				+	uit Connec	tion:							$\dashv$
ZAN.	Measuremen	t Range:		0 - 10.5 mete	ers				Test Categ								
Ë	Mounting Pos	sition:		Vertical				Ambie	ent Temper	ature:							
	Processs Cor	nnection:		50MM (2") NF				Manu	facturer:					Siemer			
	Connection M	Material:		Fibre Glass	:			Mode	d:		ш			Sitrans Pro	be LU		
	Function:			Transmitte				Appro	oval(s):					CSA			
<u>~</u>	Mounting:			Local (Note:	2)			Moun	ting Kit:			Flange a	adapt	er for mating	80mm AN	Si flange	
E	Enclosure Cla	ass:		NEMA 4X				Cable	Entries:					2 x 1/2" N	NPT		
LIMS	Display: LCD Display						-	r Wiring:					Profibus	PA			
RANSMITTER	Case Materia	d:		To be filled-out by				_	ne Calculat	ion:				Yes			
TRA	Output: ProfibusPA  Communication Protocol: ProfibusPA					SS Ta						0.15%	)				
	Range:								-,-					5.1070			
				by the City via RFP 4	49-2014, n	o alte	rnates or su	bstitute	es will be a	ccepted.							
S	2. Information	to be provide	d by Vendor.														
NOTES																	
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Pro	ject:		21-0107-0	015	$\vdash$												
= 4	2.110		E07404	Serial No	_		ļ			Loop Wi	ring D	iagrams:		1-01	101-AIFS-	F202-001	
IA	G NO:	LII-	F07401	Spec No:						Line / Ve	ssel N	Number:			TK-F07	740	
Ass	et No:			P&ID:	1-0	101-F	PPID-F004-	-001		Line ID:			Size	<b>:</b> :	Sch	edule:	
Des	cription:		ULTR	ASONIC LEVEL T	RANSMIT	TER	8			Manufac	turer:				iemens		
										Model:					n Probe Ll	J	
_	hase Orde							Vendo						Tra	ns-West		
Req	uisition Nu	mber:						Job N	umber:								
	Fluid:							For	ric Chlori	de							
	Fluid State:							1 61	Liquid	-							-1
	July State								9010								
S			Min:			Norn	nal (Operatin	ng):				Max (Full S	cale)	:		U	nits
NO	Flow:																
E	Pressure:			60					60					60		р	sig
K	Temperatu	re		0					20					30		•	°C
PROCESS CONDITIONS																	
SS	Design Pre			150			psig		op Style:					Flat			
S	Design Ter			-10 to 50			°C	_	ottom Sty					Flat			_
RO		/essel Height: 10.6 meters luid Dielectric Constant: N/A						_	Diamete			neters					_
ட		luid Dielectric Constant: N/A evel Empty: 0 meters						_	Viscosity		N/A			20			°C
	Level Full:	ty:	10.6 meters						nt Temper		Non	Hazardous,	Corre	20			C
	Special Co	ndition:	N/A					Alea C	iassilicati	011.	INOIT	i iazai uous,	COITC	23146			-
	Transduce	r Type:		Ultrasonic				Rated 7	Temperat	ure:							
	Measureme	ent Type:						Rated I	Pressure:								
æ	Body Mater	rial		Note 2				Signal	Туре:								
TRANSDUCER	Flange Mat			Note 2				Freque	ncy:								
ŭ	Element Ma	aterial:		Note 2				Cable I									
NS	Vessel I.D.							_	t Connec								
2€	Measureme			0 - 10.5 mete	rs				est Categ								
	Mounting P	Connection:		Vertical 50MM (2") NF	)T			Manufa	nt Temper	ature:				Siemer	16		-
	Connection			Fibre Glass				Model:						Sitrans Pro			
	Commoduor	- Matorial.		T ISTO CIACO				model.						Old direction	20 20		
	Function:			Transmitter				Approv	al(s):					CSA			
Ж	Mounting:			Local (Note 2	2)			Mountii	ng Kit:			Flange	adapt	er for mating	g 80mm AN	Si flange	
TRANSMITTER	Enclosure (	Class:		NEMA 4X				Cable I	Entries:					2 x 1/2" N	NPT		
M	Display:			LCD Display				Power						Profibus	PA		_
NS	Case Material: To be filled-out by \				Vendor				Calculat	ion:				Yes			_
Ϋ́	Output: ProfibusPA  Communication Protocol: ProfibusPA							SS Tag						0.450			_
_		auon Protocol:		ProfibusPA				Accura	су:					0.15%	)		
	Range:																
	1. Manufac	turer and models	s were standardized	by the City via RFP 4	49-2014. n	o alte	rnates or sub	ostitutes	will be a	ccepted.							
		ion to be provide		· · ·						•							
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Pro	ject:		21-0107-0	015	-												
_				Serial No						Loop Wir	ina Di	agrams:		1-01	I 101-AIFS-	F204-001	
TA	G NO:	LIT-	W08101	Spec No:						Line / Ve					TK-F08		
Ass	et No:			P&ID:	1-0	101-F	PPID-F005-	-001		Line ID:			Size	:	Sch	edule:	
Doo	orintion		LILTD	ASONIC LEVEL T	DANGMI	TTED	)			Manufact	urer:			Si	iemens		
Des	cription:		ULTRA	ASONIC LEVEL T	KANSIVII	IIER	`			Model:				Sitrar	n Probe Ll	J	
Puro	hase Orde	er:						Vend	or:					Tra	ns-West		
Req	uisition Nu	ımber:						Job N	lumber:								
	Fluid:							Sod	ium Hydro	xide							_
	Fluid State:	:							Liquid								
			le.														
PROCESS CONDITIONS			Min:			Norn	mal (Operatin	ng):				Max (Full S	cale)	:		Ui	nits
8	Flow:		-			1			00							$-\!\!\!\!+\!\!\!\!\!-$	
	Pressure:			60					60					60			sig
O	Temperatu	re		15					20					30			°C
SC	Design Dro	and the same of th		150			noia	Topk T	Fon Chilos		ı			Flat			-
SS	Design Pre			10 to 50			psig °C		Fop Style: Bottom Sty	ilo:				Flat		_	
C		esign Temperature: 10 to 50 essel Height: 4.8 meters							/ Diameter		3.7 m	etere		i iat			-
٦ <del>٣</del>		essel Height: 4.8 meters uid Dielectric Constant: N/A							Viscosity		3.7 111	eters		1.53			P.
_		uid Dielectric Constant: N/A evel Empty: 0 meters						_	nt Temper					20			C
	Level Full:	.,.	4.8 meters						Classificati		Non F	Hazardous,	Corro				_
	Special Co	ndition:	N/A					7 11 001 0	, accomoda			ruzur uouo,	00	,,,,,,			
	Transduce	r Type:		Ultrasonic				Rated	Temperat	ure:						,	
	Measureme	ent Type:						Rated	Pressure:								
œ	Body Mater	rial		Note 2				Signal	Type:								
TRANSDUCER	Flange Mat	terial:		Note 2				Freque	ency:								
DO	Element Ma	aterial:		Note 2				Cable	Length:								
NS	Vessel I.D.							Condu	it Connec	tion:							
₽	Measureme			0 - 4.8 mete	rs				est Categ								
_	Mounting P			Vertical				Ambie	nt Temper	ature:							
		Connection:		50MM (2") NF					acturer:					Siemer			_
	Connection	n Material:		Fibre Glass				Model						Sitrans Pro	be LU		_
	Fuer-ti-			T '''				A	ual(s):					00:			
	Function:		-	Transmitter				Appro				Elenas	ndon+	CSA er for mating		Qi flores	
TRANSMITTER	Mounting: Enclosure (	Class:		Local (Note:	۷)			_	ing Kit: Entries:			riange a	auapī	er for mating 2 x 1/2" N		oi lialige	
E		Class.			· · · · · · · · · · · · · · · · · · ·				Wiring:					Profibus			$\dashv$
SM	Display: LCD Display								e Calculat	ion:				Yes	FA		-
Ϋ́	Case Material: To be filled-out by \ Output: ProfibusPA							SS Ta		1011.				163			-
TR.	Communication Protocol: ProfibusPA							Accura						0.15%			-1
	Range:			TOIDUSEA				, .oour						0.1070	•		
	.9																
	1. Manufac	turer and models	s were standardized t	by the City via RFP 4	49-2014, n	o alte	rnates or sub	bstitute	s will be a	ccepted.							
		ion to be provide		· •		-				-						-	
ES		· ·	*														
NOTES																	
Z																	

								Leve	el Ele	ement					A SHEET		REV.
	<b>(</b> G									evel Met				SHEET	T <b>-LIT-W0</b> 8	0F	<b>0</b>
	V				N	IO.	DATE		nic Le	REVI				BY	CHK'D	PROC.	APPR.
	GROU					0	2022 18	_	14	ssued for C		rtion		DG	JP	GAB	GAB
					$\vdash$	0	2022 10	00	- 1,	33404 101 0	20113ti do	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		ВО	01		
Pro	ject:		21-0107-0	015													
ΤΛ	G NO:	LIT	W08201	Serial No	-		*	•		Loop Wiri	ing Diag	rams:		1-01	01-AIFS-	F204-001	!
IA	3 NO.	LII-	VVU02U1	Spec No:						Line / Ves	ssel Nun	nber:			TK-F08	320	
Ass	et No:			P&ID:	1-0	101-F	PPID-F005-	-001		Line ID:		5	Size			edule:	
Des	cription:		ULTR	ASONIC LEVEL T	RANSMIT	ΓΤER	2			Manufactu	urer:				emens		
										Model:					Probe Ll	<u> </u>	
_	hase Orde							Vendo						Trai	ns-West		
Req	uisition Nu	imber:						Job Nu	ımber:								
	Fluid:							Sodii	m Hydro	vide							
	Fluid State:							Codic	Liquid	Aluc							
	r raid State	•							Liquid								
S						Norn	mal (Operatin	ng):			Ma	ax (Full So	ale):			U	nits
NO	Flow:			3.0			, ,	-				`					
Ě	Pressure:			60				(	60					60		р	sig
	Temperature								20					30			С
PROCESS CONDITIONS																	
SS	Design Pre	essure:			psig	Tank To	p Style:					Flat					
Ö	Design Ter	mperature:			°C	Tank B	ottom Sty	le:				Flat					
Š	Vessel Hei	ght:				Width /	Diameter	r:	3.7 mete	ers							
<u>a</u>								Higher	Viscosity	:				1.53			:P
	Design Temperature: 10 to 50  Vessel Height: 4.8 meters  Fluid Dielectric Constant: N/A  Level Empty: 0 meters  Level Full: 4.8 meters								t Temper					20		°	С
	Vessel Height:         4.8 meters           Fluid Dielectric Constant:         N/A           Level Empty:         0 meters           Level Full:         4.8 meters							Area Cl	assificati	on:	Non Haz	zardous, C	orro	sive			
	Vessel Height: 4.8 meters  Fluid Dielectric Constant: N/A  Level Empty: 0 meters  Level Full: 4.8 meters  Special Condition: N/A  Transducer Type: Ultrasonic																
	Level Empty: 0 meters  Level Full: 4.8 meters  Special Condition: N/A							_	_		_	_					_
	Level Full: 4.8 meters  Special Condition: N/A							Rated 1	emperat	ure:							
									ressure:								
~	Body Mater			Note 2				Signal <sup>-</sup>									
TRANSDUCER	Flange Mat	terial:		Note 2				Freque									
Ž	Element Ma	aterial:		Note 2				Cable L	ength:								
IS/	Vessel I.D.							Condui	Connec	tion:							
RA RA	Measureme			0 - 4.8 meter	s			NDE Te	st Categ	ory:							
F	Mounting P			Vertical				Ambien	t Temper	ature:				·			
		Connection:		50MM (2") NF				Manufa	cturer:					Siemen			
	Connection	n Material:		Fibre Glass				Model:						Sitrans Prol	be LU		
	Function:			Transmitter				Approx	al(e).					CSA			
~	Mounting:			Local (Note 2	2)			Approv				Flange 20	lante	er for mating	ι 80mm ΔΝ	Si flange	
TRANSMITTER	Enclosure (	Class:		NEMA 4X	-/			Cable E				. runge at	-upit	2 x 1/2" N		nange	
E	Display:	Oldoo.		LCD Display	/			Power						Profibus			
SM	Case Material: To be filled-out by								Calculat	ion:				Yes			
AN	Output: ProfibusPA							SS Tag									
TR		ation Protocol:		ProfibusPA				Accura						0.15%	1		
	Range:																
	1. Manufac	turer and models	were standardized	by the City via RFP 4	49-2014, n	o alte	rnates or sub	stitutes	will be a	ccepted.							
S	2. Informati	ion to be provide	d by Vendor.											-			
Ë																	
NOTES																	
	1																



#### EQUIPMENT DATASHEET

 DATA SHEET NO.
 REV.

 DST-P-F0770,P-F0771,P-F0772
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NO.	DATE	REVISION		BY	CHK'D	APPR.
0	2022-05-18	ISSUED FOR CONSTRUCTION		JP	RIC	JS
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PROJECT: NEWPCC
INTERIM PHOSPHOROUS REMOVAL

Junction box shall be mounted directly on the skid.

EQUIPMENT NO. P-F0770, P-F0771, P-F0772 DESCRIPTION: FERRIC CHLORIDE METERING PUMPS Vendor to Verify/Specify Rev. GENERAL Number Required: Three (3) Type: Gear Type Pump Duty: Continuous, Duty/Standby PROCESS DATA Fluid: Ferric Chloride Corrosive Compounds: <1 рΗ 37-42% Composition: % wt/wt Flowing Temperature: °C 20 Specific Gravity at Flow Temp.: 1.39-1.46 Viscosity at Flow Temp.: ср N/A Vapor Pressure at Flow Temp.: N/A psia HYDRAULIC DATA Condition: Minimum Flow **Normal Flow** Maximum Flow Flow Capacity: I/hr 167 Suction Pressure: (Note 1) psig 16.7 16.7 16.7 NPSH Available: m 4.2 4.2 4.2 Design Cutoff Pressure: 100 100 100 psig Design Total Head Required: 27 27 31 m Operating Pressure: psig 80 80 80 NPSH Required: m 0.6 0.6 0.6 1750 Pump Speed rpm 300 600 o % of Full Rated Speed % 17% 34% 100% CONSTRUCTION Casing: PVDF Connection, flange rating: 150# o Packing or Seal: Sealess 0 Gears: Carbon-reinforced PTFE Impeller Diameter: Basis of Design: Pulsafeeder Eclipse, E12KLEF-X or approved equal as per Section B8. Manufacturer, Model No.: O Pump Size: 3/4" x 3/4" (20mm x 20mm) o Drive Configuration: Seal-less mag drive o Pump Full Speed rpm 1750 DRIVER Variable (Note 2) Variable or Constant Speed Inverter Duty electric motor Horsepower and RPM Rating: hp 0.5 Motor Rated Speed rpm 1800 575V / 3PH / 60 Hz Electric Characteristics: O Motor Enclosure: TEFC (Note 3) Service Factor: 1.25 BASE Pump shall be mounted and factory assembled on triplex skid with all associated piping and components. Stand alone frame shall be HSS tubing. Frame shall be painted with chemical resistant paint. All backboards for mounting of piping and components shall be HDPE. Base Type: 1 Suction pressure is dependent on height of fluid in the tank. Thus, suction pressure is subject to change. Noted pressure is based on full tank. 2 VFD to be provided and mounted by others. 3 Nameplate shall indicate the IP rating and state the Zone, Class, and/or Division areas in which the motors are certified. 4 Reference general arrangement drawings (1-0101-MGAD-A001-001, 1-0101-MGAD-F211-001, 1-0101-MGAD-F025-001) and process and instrumentation diagrams (1-0101-PPID-F007-001) for additional information.

5 All electrical factory installed components on the skid shall be terminated in an electrical junction box for connection to the process control system.



### EQUIPMENT DATASHEET PUMP

 DATA SHEET NO.
 REV.

 DST-P-F0780,P-F0781
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NO.	DATE	REVISION		BY	CHK'D	APPR.
0	2022-05-18	ISSUED FOR CONSTRUCTION		JP	Ril	K

PROJECT: NEWPCC
INTERIM PHOSPHOROUS REMOVAL

EQUIPMENT NO. P-F0780, P-F0781 DESCRIPTION: FERRIC CHLORIDE TRANSFER PUMPS Vendor to Verify/Specify Rev GENERAL Number Required: Gear Type Pump Type: Continuous, Duty/Standby Duty: PROCESS DATA Ferric Chloride Fluid: Corrosive Compounds: рΗ <1 37-42% Composition: % wt/wt Flowing Temperature: °C 20 Specific Gravity at Flow Temp.: 1.39-1.46 Viscosity at Flow Temp.: N/A ср Vapor Pressure at Flow Temp.: N/A psia HYDRAULIC DATA Condition: Minimum Flow **Normal Flow** Maximum Flow I/hr Flow Capacity: 90 1500 1700 Suction Pressure: (Note 1) psig 16.7 16.7 16.7 NPSH Available: 4.2 4.1 4.1 m Design Cutoff Pressure: psig 100 100 100 Design Total Head Required: m 0.2 32 40 Operating Pressure: 80 80 80 psig NPSH Required: 0.6 0.6 0.6 m o Pump Speed rpm 300 1600 1750 o % of Full Rated Speed 17% 91% 100% % CONSTRUCTION Casing: PVDF O Connection, flange rating: o Packing or Seal: Sealless Carbon-reinforced PTFE o Gears: Impeller Diameter: Manufacturer, Model No.: Basis of Design: Pulsafeeder Eclipse, E25NFVF-X or approved equal as per Section B8. O Pump Size: 1"x1" (25mm x 25mm) O Drive Configuration: Seal-less mag drive o Pump Full Speed 1750 rpm DRIVER Variable or Constant Speed Variable (Note 2) Inverter duty electric motor O Horsepower and RPM Rating: hp 1.5 Motor Rated Speed rpm 1800 575V / 3PH / 60 Hz Electric Characteristics: Motor Enclosure: TEFC (Note 3) Service Factor: 1.25 BASE Pump shall be mounted and factory assembled on duplex skid with all associated piping and components. Stand alone frame shall be HSS tubing. Frame shall be painted with chemical resistant paint. All backboards Base Type: for mounting of piping and components shall be HDPE. NOTES 1 Suction pressure is dependent on height of fluid in the tank. Thus, suction pressure is subject to change. Noted pressure is based on full tank. 2 VFD to be provided and mounted by others. 3 Nameplate shall indicate the IP rating and state the Zone, Class, and/or Division areas in which the motors are certified. 4 Reference general arrangement drawings (1-0101-MGAD-A001-001, 1-0101-MGAD-F211-001, 1-0101-MGAD-F025-001) and process and instrumentation diagrams (1-0101-PPID-F009-001) for additional information. 5 All electrical factory installed components on the skid shall be terminated in an electrical junction box for connection to the process control system. Junction box shall be mounted directly on the skid.



## EQUIPMENT DATASHEET PUMP

 DATA SHEET NO.
 REV.

 DST-P-F0830,P-F0831,P-F0832
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NO.	DATE	REVISION	BY	CHK'D	APPR.
0	2022-05-18	ISSUED FOR CONSTRUCTION	JP	Rec	K

PROJECT: NEWPCC
INTERIM PHOSPHOROUS REM

PF	ROJECT:	INTERIM PHOSP	HOROUS REM	OVAL						
EQUI	PMENT NO.		30, P-F0831, P		DESCRIPTION:	SODIUM HYDROXIDE METERING P	UMPS	1		
_	Vendor to Veri	<u> </u>	,		•	•				Rev.
GENE									$\neg \uparrow$	
	Number Requi	red:		Three (3)						
	Туре:			Gear Type	Pump					
	Duty:			Continuou	is, Duty/Standby					
PROC	ESS DATA									
	Fluid:			Sodium Hy	/droxide					
	Corrosive Com	pounds:	рН	>14						
	Composition:		% wt/wt	50%						
	Flowing Tempe	erature:	°C	20						
		at Flow Temp.:		1.53						
	Viscosity at Flo	<u> </u>	ср	36.0						
		at Flow Temp.:	psia	N/A						
HYDR	AULIC DATA									
	Condition:				Minimum Flow	Normal Flow	Maximum	<u>ı Flow</u>		
	Flow Capacity:	(2)	l/hr		8	67	792		$\rightarrow$	
	Suction Pressu	· ,	psig		7.01	7.01	7.01			
	NPSH Available		m		5.1	5.1	5.1		-+	
	Design Cutoff F		psig		100	100	100		-	
	Design Total H	· · · · · · · · · · · · · · · · · · ·	m		27	27	31		-+	
	Operating Pres		psig		80	80	80		-+	
_	NPSH Required	:	m		0.6	0.6	0.6	`	$\rightarrow$	
	Pump Speed	Cacad	rpm		300	300	1750		-	
_	% of Full Rated	Speed	%		17%	17%	100%	0	-	
CONS	Casing:			PVDF					-+	
0	Connection, fla	nge rating:		150#					-	
	Packing or Seal			Sealless					-	
_	Gears:				inforced PTFE				-	
Ť	Impeller Diame	oter.		N/A	IIIIOICCUT II L				-+	
	Manufacturer,			+	esign: Pulsafeeder Eclir	ose, E12KLEF-X or approved equal as p	er Section B8		-+	
	Pump Size:	Woder Wo.			" (20mm x 20mm)	ose, Elekter X or approved equal as p	er section bo.			
	Drive Configura	ation:		Seal-less m					-	
	Pump Full Spee		rpm	1750						
DRIV			r							
	Variable or Cor	stant Speed		Variable (N	Note 2)					
	Type:			<del> </del>	uty electric motor				-+	
0	Horsepower ar	nd RPM Rating:	hp	0.5	-				$\neg \uparrow$	
_	Motor Rated S		rpm	1800						
	Electric Charac		·	575V / 3PI	H / 60 Hz					
0	Motor Enclosu	re:		TEFC (Note						
	Service Factor:			1.25						
BASE										
				Pump shal	ll be mounted and fact	ory assembled on triplex skid with all a	associated piping a	and component	ts.	
				Stand alon	ne frame shall be HSS to	ubing. Frame shall be painted with che	emical resistant pa	int. All backboa	ards	
	Base Type:			for mount	ing of piping and comp	onents shall be HDPE.				
NOTE	S									
	<u> </u>	<u> </u>		l in the tank	c. Thus, suction pressur	re is subject to change. Noted pressure	e is based on full to	ank.		
		ided and mounted								
						reas in which the motors are certified				
4						AD-F203-001, 1-0101-MGAD-F027-001	)			
	·				008-001) for additiona					
5			•		be terminated in an el	ectrical junction box for connection to	the process contr	ol system.		
	Junction box sh	nall be mounted dir	ectly on the sl	kid.						



# EQUIPMENT DATASHEET DST-P-G PUMP SHEET 1 NO. DATE REVISION BY 0 2022-05-18 ISSUED FOR CONSTRUCTION JP

 $\begin{array}{c|cccc} \text{DATA SHEET NO.} & \text{REV.} \\ \hline \text{DST-P-G0751} & 0 \\ \hline \text{SHEET} & 1 & \text{OF} & 1 \\ \hline & \text{BY} & \text{CHK'D} & \text{APPR.} \\ \end{array}$ 

PROJECT: NEWPCC
INTERIM PHOSPHOROUS REMOVAL

	OJECT.	INTERIM PHOSP	HOROUS REM	OVAL								
EQUI	PMENT NO		P-G0751		DESCRIPTI	ION:	FERRIC CHLORIDE METERING PU	MP FOR DP-2	.1A/B			
0	Vendor to	Verify/Specify										Rev.
GENE	RAL											
	Number Re	equired:		One (1)								
	Туре:			Diaphragn	n							
	Duty:			Continuou	ıs							
PROC	ESS DATA											
	Fluid:			Ferric Chlo	oride							
	Corrosive (	Compounds:	pН	<1								
	Composition	on:	% wt/wt	37-42%								
	Flowing Te	mperature:	°C	20								
		avity at Flow Temp.:		1.39-1.46								
		t Flow Temp.:	ср	N/A								
	<u> </u>	sure at Flow Temp.:	psia	N/A								
HYDF	RAULIC DAT	A										
	Condition:				Minimum I	<u>Flow</u>	<u>Normal Flow</u>	Max	<u>kimum Flo</u>	<u> </u>		
	Flow Capac		l/hr		-		200		271			4—
		essure: (Note 1)	psig		-		1		1			₩
	NPSH Avail		m ·		-		21		20			₩
		off Pressure:	psig		-		100		100			1
		al Head Required:	m		-		25		25			+
	Operating		psig		-		80		80			₩
	NPSH Requ		m		-							₩
0	Pump Spee		rpm		-		-		-			-
CONIC	% of Full R	<u>'</u>	%				<del>-</del>					+
CONS	Casing			PVDF								+-
0	Casing:	n, flange rating:		PVDF, DN2	26							+
	Packing or			EPDM/PTF								+-
	Impeller:	Seal.		N/A	· E							+-
	Impeller Di	ameter:		N/A								+-
0	•	rer, Model No.:			sign: ProM	linent Sigma 2	S2CBH07220PVTS070UD81001EN	l or annroyed	ac leuna	ner Section		+
Ť	Pump Size:			N/A	231611. 1 10141	iniciti Sigilia 2,	32CB11072201 V130700D01001E1	• от арргочса	cquai as	per section	1 00.	+
0	Drive Conf			-	ven diaphra	agm						+-
	Pump Full		Strokes/min	160	ven diapine	26111						$\dagger$
DRIV		o peca	ou ones,	100								t
		Constant Speed		Variable (I	Note 2)							†
	Туре:				uty electric	motor						t
0	Power Rati	ng:	W	220	,							
	Motor Rate		rpm									
		aracteristics:		120V / 1PI	H / 60 Hz							1
0	Motor Enc	osure:		TEFC (Not					-			
	Service Fac	tor:		1.25								
BASE												
				Pump sha	ll be mount	ed and factory	assembled on triplex skid with a	l associated p	iping and	componer	nts.	
I							ng. Frame shall be painted with c					
L	Base Type:			mounting	of piping ar	nd components	shall be HDPE.					
NOTE	S											
1	Suction pre	essure is dependent o	n height of flui	d in the tar	nk. Thus, su	ction pressure	is subject to change. Noted press	ure is based o	n full tan	ık.		
2	VFD to be	provided and mounte	d by others.				<u> </u>					
3	Nameplate	shall indicate the IP r	ating and state	the Zone,	Class, and/	or Division are	as in which the motors are certifi	ed.				
4	Reference	general arrangement	plan drawings	(1-0101-M	GAD-A001-0	001, 1-0101-M	GAD-G014-001, 1-0101-MGAD-G0	15-001)				
	and proces	s and instrumentation	n diagrams (1-0	101-PPID-0	G012-001) f	or additional ir	formation.					
5	All electric	al factory installed cor	nponents on tl	ne skid sha	ll be termin	ated in an elec	trical junction box for connectior	to the proce	ss control	system.		
	Junction bo	ox shall be mounted d	irectly on the s	skid.								
							tion Section 40 06 01).					<u> </u>
	and conne	cted to remote dosing	tank, TK-G075	0 (Specifica	ation Sectio	n 40 05 01).					_	

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	<b>{G</b>					1	Press	sure Tra	ansmitte	r		SHEE	Γ 1	OF	1
	GROU				NO.	DAT	E		REVI	SION		BY	CHK'D	PROC.	APPR.
	GROC	7 P			0	2022 18	8 05	I	ssued for C	onstruction		DG	JP	ym3	gns
Dre	oject:		21-0107-01	5											
FIC	Ject.		21-0107-01	<u> </u>											
ТΔ	G NO:	DIT	-F07801	Serial No:					Loop Wiring	Diagrams:					
17	0 110.		-1 07001	Spec No:					Line / Vesse	el Number:			25-FC-PV0	4-0732	
Asse	t No:			P&ID:	1-010	1-PPID-F009-	-001		Line ID:		Size:	•		edule:	
Desc	ription:	PRESSURE IND	ICATING TRANSMITTE	:R					Manufacture	er:			Siemens		
			ı						Model:				Sitran P420		
_	hase Order:						Vendo						Transwest		
Requ	isition Numb	er:					Job N	umber:							
			ı												
	Fluid:		Ferric Chloride												
	Fluid State:		Liquid												
SNS			N	linimum:				(Operating	<b>1)</b> :		Maxi	mum (Ful	l Scale):		nits:
TIC	Flow:			90				1500				1700			/hr
۵	Pressure:			60				60				60		_	sig
CO	Temperatur	e:		0				20				30			C
PROCESS CONDITIONS	Design Dr	ceure:		150		neir	Vone	Drocours	Pu:			N/A			
CE	Design Pres Design Ten			-10 to 50		psig °C	Vapor	Pressure F	٧.			N/A N/A		$-\!\!\!\!+\!\!\!\!\!-$	$-$ [ $\square$ ]
RC	Lower SG /						ressibility (	7).			N/A		-+	-	
ш	Higher SG						Classification			Nor		us, Corrosive		-	
	Pipe Rating					-	ent Temper			1401	20	us, corrosive		C C	
	Pipe Materi						al Condition				N/	A		_	
	Stainless St	teel Tag:					Wette	d O-Ring N	Material:	N/A					
	Application:		Pressure				Fill Flu	uid:		Note 2					
	Type:		Indincating Transmitter			Elevat	tion:								
	Enclosure (	Class:				Mount	ting:								
K.	Housing:					Instrui	ment Rang	e:			to				
TRANSMITTER	Signal / Pro	tocol:	Profibus			Calibr	ation Rang	e:			to				
SMI	Power Supp	oly:	24 VDC			Contro	oller Displa	y Range:			to				
ΑŘ	Electrical C	onnection:	NPT 1/2			Static	Pressure F	Range:			to				
TR	Accuracy:		Note 2			Allow	able Pres				to				
	Output at T	x Failure:				Opera	ating Temp	perature:			to				
	Response 7	Γime:					DCS F	Range:				to			
	Process Co	nn. / Rating:	1/2" NPT				Max. S	Static Press	sure:						
	Element Ma	aterial:					Supre	ssion:							
			ı						D. ()						
Q	Manifold Ty							emperatur							
MANIFOLD	Body Mater Trim:	iai.						ss Connect	tion.						
Ę	Packing:							facturer:	uon Kaung.						-
Ź	Max Pressu	ıre Rating:					Model								
	70080						oudi								
	Diaphragm		High		Low		Тор Н	lousing Ma	terial:						
Σg	Size & Type	):	15MM (1/2" N	PT)			Botton	n Housing	Material:					-	
340	Process Co	nnection:	Threaded				Instru	ment Conn	ection:						
SEAL DIAPHRAGM	Material:		Note 2				Temp	erature Rat	ting:						
OIA	Flush Conn	ection:	8mm (1/4")				Press	ure Rating:							
4	Length:						Manut	facturer:							
SE,	Capillary Fill Fluid:						Model	l:							
		Material:													
z															
101	Integral Me	ter:						static Testi							
OPTION	Scale:						Mount	ting Bracke	ts:						
			ere standarized by the (	Jity via RFP 449-20	114, no alterna	tives or substi	itute wil	ı be accept	ed.						-[]
လ္လ	2. To be fille	ed out by Vendor													
NOTES															
ž															

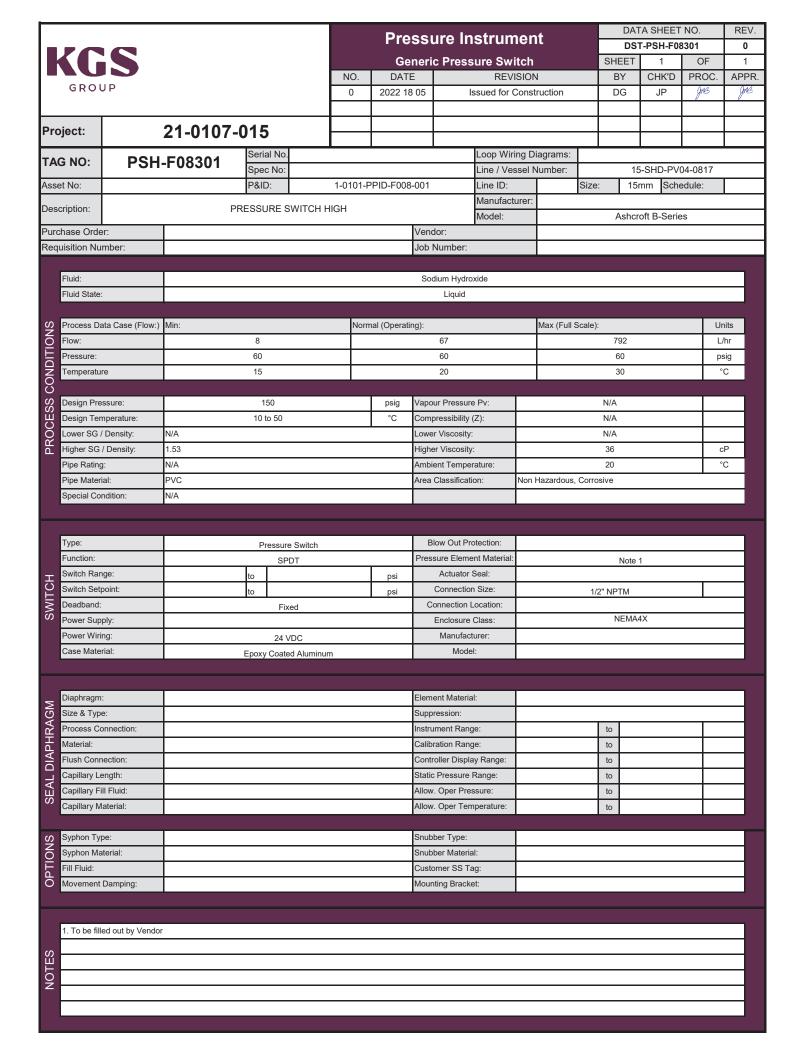
						_				1			DAT	TA SHEET	NO.	REV.
	70						res	sure In	istrum	ient			DS	T-PIT-F07	802	0
	<b>{G</b>						Pre	essure Tr	ansmitte	er		SHI	EET	1	OF	1
	GROU				NC	D. I	DATE		REVI	ISION		В	3Y	CHK'D	PROC.	APPR.
	GROC	7 P			0	202	22 18 0	5 I	Issued for (	Constr	uction	D	G	JP	ym3	GA3
Dre	oject:		21-0107-01	5												
FIC	Ject.		21-0107-01	3												
ТΔ	G NO:	DIT	-F07802	Serial No:					Loop Wirin	g Diagr	ams:					
IA.	G NO.	FII	-1 07002	Spec No:					Line / Vess	el Num	ber:			25-FC-PV04	1-0732	
Asse	t No:			P&ID:	1-0	101-PPID-F	009-001	1	Line ID:		Si	ze:	15r	mm Sche	dule:	
Desc	ription:	PRESSURE IND	ICATING TRANSMITTE	R					Manufactur	rer:			S	Siemens		
5000	p.uom								Model:				Sit	ran P420		
Purcl	hase Order:						Ve	endor:					Tr	answest		
Requ	isition Numb	oer:					Jo	b Number:								
	Fluid:		Ferric Chloride													
	Fluid State:		Liquid													
SN			N	finimum:			Nor	mal (Operating	g):		M	aximum (		cale):		nits:
읟	Flow:			90				1500					700			/hr
ᅙ	Pressure:			60				60					00			sig
PROCESS CONDITIONS	Temperatur	e:		0				20				3	30		°	С
SS (			ı	150												
CÉ	Design Pre				ps		apor Pressure	Pv:			N/A				_	
RO	Design Ten				,		scosity:				N/A				_	
Д	Lower SG /						ompressibility (				N/A			L_		
	Higher SG						rea Classification			N		irdous,	, Corrosive		_	
	Pipe Rating						mbient Temper				20	NI/A			С	
	Pipe Materi	al.				S).	pecial Conditio	n.				N/A				
	Stainless St	teel Tan:					\٨/	etted O-Ring N	Material:	N/A						
	Application:		Pressure					Il Fluid:	viatoriai.	Note 2						
	Туре:		Indincating Transmitter				evation:		11010 2							
	Enclosure (	Class:	mamouning manomico				ounting:									
œ	Housing:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					strument Rang	1e:			to	I		-1		
Ш	Signal / Pro	tocol:	Profibus				alibration Rang				to					
TRANSMITTER	Power Sup		24 VDC			_	ontroller Displa				to			_		
SNS	Electrical C		NPT 1/2				tatic Pressure F				to					
TR/	Accuracy:		Note 2			А	llowable Pres	sure:			to					
Ė	Output at T:	x Failure:				0	perating Tem	perature:			to					
	Response 7	Γime:					DO	CS Range:				to				
	Process Co	nn. / Rating:	1/2" NPT				Ma	ax. Static Pres	sure:							
	Element Ma	aterial:					Su	upression:								
															سبط	
	Manifold Ty							ax Temperatur								
MANIFOLD	Body Mater	ial:						rocess Connec								
불	Trim:							rocess Connec	tion Rating:							
MA	Packing:						_	anufacturer:		-						
	Max Pressu	ire Kating:					Mo	odel:								
	Diaphragm		High		Lov	w	lτα	op Housing Ma	iterial							
Σ	Size & Type	):	15MM (1/2" N	PT)	LO			ottom Housing								
AGI	Process Co		Threaded	,				strument Conn								
SEAL DIAPHRAGM	Material:		Note 2					emperature Ra							-1	
IAP	Flush Conn	ection:	8mm (1/4")	)				ressure Rating:								
ΤБ		Length:	()	<u>'</u>				anufacturer:	•							
έA	Lengtn: Capillary Fill Fluid:							odel:								
(U)	Material:															
												_	_			_
NO	Integral Me	ter:					Ну	ydrostatic Testi	ing:						,	
OPTION	Scale:						Mo	ounting Bracke	ets:							
0																
	1. Manufact	turer and series w	vere standarized by the 0	City via RFP 449-2	2014, no alter	natives or s	ubstitute	will be accept	ted.							
٠,	2. To be fille	ed out by Vendor														
NOTES																
ON.																

													D.	ATA SHEET	NO.	REV.
	10						Pre	ssu	re In	strum	ent			OST-PIT-F8		0
	<b>(G</b>							ressi	ure Tra	ansmitte	r		SHEE		OF	1
					N	10.	DATE			REVI			BY	CHK'D	PROC.	APPR.
	GROU	JP				0	2022 18		1:		Construction		DG	JP	ym3	gas
						0	2022 10	, 00		00000 101 0	onou douon		- 50	01		77
Pro	oject:		21-0107-01	5												
-				Serial No:						L con Wining	Diagrama					
TA	G NO:	PIT	Г-F8711							Loop Wiring				05.054.014	14 0004	
_				Spec No:							Number:	-		25-SEA-CU		
Asse	t No:			P&ID:	1-	0101-F	PPID-F002-0	001		Line ID:		Size	2	25mm Sche	dule:	
Desc	ription:	PRESSURE IND	ICATING TRANSMITTE	ER .						Manufacture	er:			Siemens		
			1							Model:				Sitran P420		
Purcl	nase Order:							Vendor:						Transwest		
Requ	isition Numb	oer:						Job Nur	mber:							
	Fluid:		Service Air													
	Fluid State:		Gas													
<u>8</u>			N	finimum:			N	Normal (	Operating	1):		Max	mum (Ful	l Scale):	Ur	nits:
6	Flow:			3.0					5.4				7.0		L	/s
E	Pressure:			0					10				100		p:	sig
NC	Temperatur	e:		0		t			20		+		30			C
PROCESS CONDITIONS						_										
SS	Design Pre	ssure:		150			psig	Vanor E	Pressure F	ο <sub>V</sub> .			N/A			
CE	Design Pre			-40 to 100						٧.			N/A N/A			
RO					C	Viscosit		7).						_		
Д	Lower SG /						essibility (				1.00			_		
	Higher SG						assificatio			Nor		us, Corrosive		_		
	Pipe Rating						t Temper				20		°	С		
	Pipe Materi	al:	e L			Special	Condition	า:			N/	A				
	Stainless S	teel Tag:					Wetted	O-Ring M	faterial:	N/A						
	Application:		Pressure				Fill Fluid	d:		Note 2						
	Туре:					Elevation	n:									
	Enclosure 0	Class:				Mountin	ıg:									
ĸ	Housing:					Instrum	ent Rang	e:			to					
TRANSMITTER	Signal / Pro	tocol:				Calibrat	ion Rang	e:			to					
M	Power Supp	ply:				Controll	er Displa	y Range:			to					
Š	Electrical C	onnection:				Static P	ressure F	Range:			to					
₽.	Accuracy:					Allowal	hle Press	sure:			to					
Г.	Output at T:	x Failure:				Operat	ing Temp				to					
	Response 1							DCS Ra					to			-
		nn. / Rating:	1/2" NPT						atic Press	cure:			to			-
	Element Ma		172 141 1					-		ourc.						-
	Liement wa	ateriai.						Supress	51011.							_
	Manifold T	ne:						Moy T-	mperet	a Pating:						
Q	Manifold Ty								mperature							
MANIFOLD	Body Mater	iai.							Connect							
Ž	Trim:									tion Rating:						
M	Packing:	D!'						Manufa	cturer:							
	Max Pressu	ire Kating:						Model:								
	Diaphragm		High		Le	ow			using Mat							
SEAL DIAPHRAGM	Size & Type		15MM (1/2" N	PT)					Housing I							
№	Process Co	nnection:	Threaded					Instrum	ent Conn	ection:						
Ŧ	Material:		Note 2					Temper	ature Rat	ing:						
P N	Flush Conn	ection:	8mm (1/4")	)				Pressur	e Rating:							
Ā	Length:							Manufa	cturer:							
SE	Capillary Fill Fluid:							Model:								
		Material:														
																_
O	Integral Me	ter:						Hydrost	atic Testi	ng:						
OPTION	Scale:							g Bracke								
Ō																
	1 Manufact	urer and series	vere standarized by the 0	City via PED 440	2014 no olto	rnativ	es or subotit	tute will t	ne accort	ed						
		ed out by Vendor	. s. s standarized by tile (	ony via INI F 448-	_0 17, 110 dil€	auvt	oo or oubbill	WIII L	accept	ou.						
လ္သ	Z. TO DE IIII	out by venuor														
NOTES																
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		GS					Pre	SSI	ure In	strum	nen	nt			A SHEET		REV.
							Go	nori	o Bross	uro Swi	itch		Н	SHEET	1	OF	1
	M					NO			c Press	ure Swi		.1					
						NO.	DAT			REVI				BY	CHK'D	PROC.	APPR.
	ONO	, ,				0	2022 18	8 05	l:	ssued for (	Const	truction	_	DG	JP	gn2	gas
L																	
Pro	ject:		21-0107	.015													
	,		21 0107	_						1							
IΤΑ	G NO:	PSH	-F07701	Seria	ıl No.					Loop Wiri					101-AILD-		
				Spec	: No:					Line / Ves	ssel N			1	5-FC-PV0		
Ass	et No:			P&IC	):	1-0101-	PPID-F007	7-001		Line ID:			Size:	15r	nm Sche	edule:	
Des	cription:		F	PRESSU	RE SWITCH F	lIGH				Manufact	urer:						
										Model:				Ashcr	oft B-Serie	es	
_	chase Orde							Ven	dor:								
Req	uisition Nui	mber:						Job	Number:								
	Fluid:							F	erric Chlori	de							
	Fluid State:								Liquid								
တ္	Process Da	ita Case (Flow:)	Min:			Nor	nal (Operati	ing):				Max (Full S	Scale):			U	nits
CONDITIONS	Flow:			8					167					792		L	/hr
E	Pressure:						60					60		p:	sig		
	Temperatur	re					20					30		۰	,C		
Ö																	
	Design Pres	ssure:	50		psig	Vapo	ur Pressure	e Pv:				N/A					
PROCESS	Design Ten		o 50		°C	-	pressibility					N/A					
20	Lower SG /					-	r Viscosity:		N/A								
) K	Higher SG					-	er Viscosity		N/A								
т.	Pipe Rating					-	ent Tempe		,, .			20		۰	°C		
	Pipe Materi					-	Classificati		Non	Hazardous,	Corros				_		
	Special Cor		PVC N/A				Alca	Olassilloati	OII.	IVOIT	i iazai dous,	001103					
	Оресіаі Обі	idition.	IN/A														
	Туре:		ı				Ь	low Out Pro	ataatian:							_	
	Function:			essure Switch			-	sure Eleme								$\dashv$	
				SPDT		T	FIES	Actuator					Note '			-	
프	Switch Ran					psi									Ī	-	
WITCH	Switch Setp Deadband:	OOITIL.		to			psi		Connection				1/2'	' NPTM			-
SN		- h			Fixed				onnection L					NEMA4	IY		-
	Power Supp								Enclosure					INLIVIA			-
	Power Wirin				24 VDC			$\vdash$	Manufact								-
	Case Mater	iai:		Ероху	Coated Aluminur	m			Mode	l:							_
	- ·																_
Σ	Diaphragm:							-	ent Materia	l:							_
SEAL DIAPHRAGM	Size & Type							-	ression:		_		-				_[]
H H	Process Co	nnection:						-	ıment Rang				_	to			[]
호	Material:							_	ration Rang				_	to			_
	Flush Conn							-	roller Displa					to			_
4	Capillary Le							-	Pressure					to			_
SE/	Capillary Fi							-	. Oper Pres					to			
0,	Capillary Material:							Allow	. Oper Tem	perature:				to			
	Syphon Type:																
S	Syphon Typ							-	ber Type:								
Ó	Syphon Ma	terial:						Snub	ber Materia	d:							
OPTIONS	Fill Fluid:							Cust	omer SS Ta	ıg:							
0	Movement	Damping:					Mour	nting Bracke	et:								
	1. To be fille	ed out by Vendor															
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NOTES																	
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$\subseteq$				_												_	
N		n Type: n Material:															

		GS				Pre	SS	ure In	strun	ner	nt			A SHEET		REV.	
							Ge	nori	c Press	ure Sw	itch			SHEET	1	OF	1
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						0	2022 1			ssued for				DG	JP	gns	JAB
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_							+									<b>├</b>	<b>├</b> ──
Pro	oject:		21-0107	-015	5								_			<u> </u>	₽
_	_										. 5		$\vdash$	4.0	101 111 5	5017.001	
TA	G NO:	PSH	-F07711	Seria						Loop Wir					101-AILD-		
				Spec						Line / Ve	ssel i				5-FC-PV0		
Ass	et No:			P&IE	): 	1-0101-	PPID-F007	7-001		Line ID:			Size:	15r	mm Sche	edule:	
Des	cription:			PRES	SURE SWITC	Н				Manufact	turer:						
	op									Model:				Ashcr	oft B-Serie	es	
Purc	chase Orde	r:						Ven	dor:								
Req	uisition Nu	mber:						Job	Number:								
	Fluid:							F	erric Chlori	de							
	Fluid State:								Liquid								
			•														
S	Process Da	ata Case (Flow:)	Min:			Nor	mal (Operat	ing):				Max (Full S	Scale):			U	nits
NO	Flow:	,		8				3,	167			<u> </u>		792			/hr
Ĕ	Pressure:			$\dashv$			60					60			sig		
CONDITIONS	Temperatur	re.		+			20			1		30			°C		
Ó	Temperatur	C					20					30		_			
	Design Pre		50		nois	Vand	UIN DEGGGLIN	- D. //				N/A					
PROCESS					psig	-	our Pressure		-					-	_		
S	Design Ten	·	to 50		°C	-	pressibility					N/A			_		
RC	Lower SG /					-	er Viscosity:		N/A								
₫	Higher SG					-	er Viscosity		N/A						_		
	Pipe Rating					Amb	ient Tempe	rature:				20		°	°C		
	Pipe Materi	al:	PVC				Area	Classificati	on:	Non	Hazardous,	Corros	ive				
	Special Cor	ndition:															
	Type:			essure Switch			Е	Blow Out Pro	otection:								
	Function:			SPDT			Pres	sure Eleme	ent Material:				Note '	1			
T	Switch Ran	ge:				psi		Actuator	Seal:								
Ö	Switch Setp	point:			psi		Connection	n Size:			1/2'	' NPTM					
WITCH	Deadband:				Fixed			C	onnection I	_ocation:							
S	Power Sup	ply:	1						Enclosure	Class:				NEMA4	1X		
	Power Wiri	ng:			24 VDC				Manufact	turer:							
	Case Mater	rial:		Enovy	Coated Aluminur	m			Mode	d:							
				Броху	Coated Aldmind	11											
	Diaphragm							Flem	ent Materia	ıl·							
ΜE	Size & Type							_	ression:	***							-
SEAL DIAPHRAGM	Process Co		<del>                                     </del>						ument Rang	ie.	$\vdash$			to		$\overline{}$	
出		minection.											_				
ΑР	Material:	ootion:	<del>                                     </del>						ration Rang		$\vdash$		$\dashv$	to		$-\!\!\!\!+\!\!\!\!-$	<b>—[]</b>
	Flush Conn							_	roller Displa				_	to			_
A_	Capillary Le							_	c Pressure		_			to			_
SE	Capillary Fi								/. Oper Pre					to		$-\!\!\!\!\!+\!\!\!\!\!\!-$	
	Capillary Material:							Allov	. Oper Ten	nperature:				to			
	Syphon Type																
S	Syphon Typ							Snub	ber Type:								
Ó	Syphon Ma	terial:						Snub	ber Materia	al:							
OPTIONS	Fill Fluid:							Cust	omer SS Ta	ag:							
Ö	Movement	Damping:					Mou	nting Bracke	et:								
			•														
	1. To be fille	ed out by Vendo	,														
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							Ge	neri	ic Press	sure Sw	vitch			SHEET	1	OF	1
	V					NO.	DAT		l Fiess		/ISIOI			BY	CHK'D	PROC.	APPR.
	GROU	J P				0	2022 1		1	ssued for			-	DG	JP	gn3	gas
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-						-	+		-				$\dashv$			<del> </del>	
Pro	oject:		21-0107	-015	)								-			-	
<u> </u>				Seria						Loop Wi	ring C	)iagrams:		1.0	101-AILD-	E219 001	
TA	G NO:	PSH	-F07721	Spec								Number:			5-FC-PV0		
Λοο.	et No:			P&ID		1 0101	PPID-F007	7 001		Line / Ve	25561 1	Number.	Size:			edule:	I
A55	et NO.			FAIL	<i>)</i> .	1-0101-	-PFID-F007	7-001			t	-	Size.	151	mm Sche	saule.	
Des	cription:			PRES	SURE SWITCH	Н				Manufac Model:	lurer.			A a b a r	oft B-Serie		
D	.b Od.							\/	al a m	Model:				ASIC	on B-Serie	25	
_	chase Orde							Ven									
Req	uisition Nu	mber:						Job	Number:								
			·														_
	Fluid:							F	erric Chlori	de							_
	Fluid State:								Liquid								_
			live:				1/2					lv					
NS SNS		ata Case (Flow:)	ıvlin:	8		Nor	mal (Operat	ing):	407			Max (Full S	ocale):	700			nits
9	Flow:						167					792			/hr		
CONDITIONS	Pressure:			-			60					60			sig		
O	Temperatu	re					20					30			C		
							_	_									
PROCESS	Design Pre		50		psig	+	our Pressure		-			N/A		$\rightarrow$	_		
S	Design Ten	·	to 50		°C	-	pressibility					N/A					
RO	Lower SG /		1.39				-	er Viscosity:		N/A							
₫	Higher SG					-	er Viscosity		N/A					—			
	Pipe Rating					-	ient Tempe					20			C		
	Pipe Materi		PVC				Area	Classificati	ion:	Non	Hazardous,	Corros	ive				
	Special Cor	ndition:	N/A														
	Туре:			essure Switch			-	Blow Out Pro								_	
	Function:			SPDT		1	Pres	sure Eleme		l:			Note	1		_	
天	Switch Ran					psi		Actuator		-						_	
WITCH	Switch Set	point:		to			psi		Connection		-		1/2"	' NPTM			_
	Deadband:				Fixed			С	Connection I					NEMA	437		_
0)	Power Sup								Enclosure					NEMA	+X		_
	Power Wiri				24 VDC				Manufact								_
	Case Mater	rial:		Ероху	Coated Aluminur	m			Mode	el:							
	Dierster							F1	ont Mark	J.							
Σ	Diaphragm:							_	nent Materia	11:	-						-
SEAL DIAPHRAGM	Size & Type		<del>                                     </del>					-	oression:		-		-	. I		<del></del>	-[
岩	Process Co	mnection:	<del>                                     </del>					_	ument Rang	-	-		_	to		$-\!\!\!\!+\!\!\!\!\!-$	-[
AP	Material:							_	oration Rang	-	-		_	to			-
	Flush Conn							-	roller Displa		-			to		-	-
AL	Capillary Le							-	c Pressure		-		_	to		-	-
SE	Capillary Fi								v. Oper Pre		-		_	to			-
	Capillary Material:							Allov	v. Oper Ten	nperature:			_	to			
_	0 1 7					0 1									_		
OPTIONS	Syphon Typ							-	ber Type:		-						-
9	Syphon Ma	teriai:						_	ber Materia		-						-
Г	Fill Fluid:						-	omer SS Ta								_	
O	Movement	Damping:					Mou	nting Bracke	ec								
	1. To be fille	ed out by Vendo	r														
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NOTES																	
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KGS					Pressure Instrument  DATA SHEET NO. DST-PSH-F08311									REV.					
							Ge	neri	ic Press	sure Sw	vitch					OF	1		
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	GROU	JP				0	2022 1			ssued for				DG	JP	gn3	gas		
							2022 1	0 03		ssueu ioi	COIIS	truction	$\rightarrow$	DG	JF.	<i></i>	9		
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Pro	oject:		21-0107	-015	5								-			-			
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TΑ	G NO:	PSH	-F08311	al No. c No:							iagrams:			101-AILD-					
_									essel	Number:			S-SHD-PV						
Ass	et No:			P&IE	): 	1-0101-	PPID-F008	3-001		Line ID:		_	Size:	151	mm Sch	edule:			
Des	cription:		F	PRESSU	JRE SWITCH H	HIGH				Manufac	cturer:	_							
										Model:				Ashcr	oft B-Serie	∋s			
	chase Orde							Ven											
Req	uisition Nu	mber:						Job	Number:										
	Fluid:							So	dium Hydro	oxide									
	Fluid State:								Liquid								/hr sig PC		
																	Jnits L/hr psig °C  cP °C		
<u>S</u>	Process Da	ata Case (Flow:)	Min:			Nor	mal (Operat	ing):				Max (Full S	Scale):			U	nits		
0	Flow:			8					67					792		L	/hr		
CONDITIONS	Pressure:			60		$\neg$			60					60		р	sig		
	Temperatur	re		15		_			20					30			C		
Ō																			
	Design Pre	ssure:		1:	50		psig	Vapo	our Pressure	e Pv:				N/A					
PROCESS	Design Ten				to 50		°C	+	pressibility					N/A		-+			
	Lower SG /		N/A	101			Ü	-	Lower Viscosity:					N/A		$-\!\!\!\!+\!\!\!\!-$			
	Higher SG		1.53					-	er Viscosity					36		<del></del>	, <sub>D</sub>		
			N/A							ent Temperature:			20						
	Pipe Rating							-		· · · · · · · · · · · · · · · · · · ·									
	Pipe Materi		PVC					Area	Classificati	ion:	Non	Hazardous,	Corros	ive			_		
	Special Cor	ndition:	N/A																
											-								
	Туре:		Pressure Switch					-	Blow Out Pro								_		
	Function:				SPDT			Pres	sure Eleme	ent Materia	d:			Note	1				
ェ	Switch Ran	ige:	to			psi			Actuator	Seal:									
WITCH	Switch Setpoint:		to			psi			Connection	n Size:			1/2'	' NPTM					
$\geq$	Deadband:		Fixed					C	Connection Location:										
S	Power Sup	ply:							Enclosure	Class:		NEMA4X							
	Power Wiri	ng:			24 VDC				Manufact	turer:									
	Case Mater	Case Material: Epox			y Coated Aluminum Model:														
_	Diaphragm	:				Element Material:													
ß	Size & Type	e:						Supp	ression:										
SEAL DIAPHRAGM	Process Co							-	ument Rang	ge:				to		$\overline{}$			
Ξ	Material:							_	oration Rang					to		$\dashv$			
Ι¥	Flush Conn	ection:						_	roller Displa					to		_			
Ω.	Capillary Le							-	c Pressure					to		-			
Z	Capillary Fi							-	v. Oper Pre				_	to		+			
SE	Capillary M							-						to		-+	_		
	Capillary IVI	ateriai.						Allow. Oper Temperature:						ιο					
- 10	Syphon Typ	20:	1					Spuk	hor Typo:		_								
OPTIONS	Syphon Ma		-				Snubber Type: Snubber Material:												
2		iteriai.						_			-						_		
P	Fill Fluid:	D'	-					-	omer SS Ta	-							<u> </u>		
O	Movement	Damping:						Mou	nting Bracke	et:									
	1. To be fille	ed out by Vendo	r																
(0	L																		
NOTES																			
0																			
Z																			

		_					Pre	ss	ure In	str <u>u</u> r	ner	nt		DAT	REV.			
	<b>(</b> G						Ge	ner	ic Press	ure Sw	/itch			SHEET	<b>Γ-PSH-F0</b> 2	OF	1	
	V					NO.	DAT		C PIESS		/ISIOI			BY	CHK'D	PROC.	APPR.	
	GROU	JP				0	2022 1			ssued for				DG	JP	gns	JAB	
							2022 1	o 05	I:	ssued for	Cons	truction	-	DG	JP	9,-	gr-	
_						<u> </u>	-		<u> </u>							<b>├</b>	-	
Pro	ject:		21-0107	-015	5								_					
_										l								
TΑ	G NO:	PSH	-F08321	al No.							Diagrams:			101-AILD-				
					c No:						essel	Number:			S-SHD-PV			
Ass	et No:			P&IE	D:	1-0101-	PPID-F008	3-001		Line ID:			Size:	151	mm Sch	edule:		
Des	cription:		F	PRESSU	JRE SWITCH H	HIGH				Manufac	turer:							
	op									Model:				Ashcr	oft B-Serie	<b>3</b> S		
Pur	chase Orde	r:						Ven	dor:									
Req	uisition Nu	mber:						Job	Number:									
	Fluid:					Sodium Hydroxide												
	Fluid State:								Liquid								nits //hr sig //CC	
S	Process Da	ata Case (Flow:)	Min:			Nor	mal (Operat	ing):				Max (Full S	Scale):			U	nits	
O	Flow:	,		8					67					792		L	/hr	
Ĕ	Pressure:		<del>                                     </del>	60					60			†		60			_	
CONDITIONS		re	<del>                                     </del>	15		-+			20			+		30			_	
Ó	remperata	<u> </u>						20					- 00					
PROCESS C	Fluid State:  Process Data Case (Flow:) Flow: Pressure: Temperature  Design Pressure: Lower SG / Density: Higher SG / Density: Pipe Rating: Pipe Material: Special Condition:  Type: Function: Switch Range: Switch Setpoint: Deadband: Power Supply:		1	1	50		psig	Vand	our Pressure				N/A					
					to 50		°C	+						N/A			_	
			NI/A	10 1	10 50		C	-	Compressibility (Z):  Lower Viscosity:							$-\!\!\!+\!\!\!\!-$	_	
			N/A					-			-			N/A		$-\!\!+\!\!-$	_	
			1.53					-	Higher Viscosity:  Ambient Temperature:					36				
			N/A					-			_			20			C	
	<u>'</u>		PVC					Area	Classificati	ion:	Non	Hazardous,	Corros	ive			_	
	Special Cor	ndition:	N/A															
	Туре:		Pressure Switch					E	Blow Out Pro	otection:								
	Function:				SPDT			Pres	sure Eleme			Note	1					
I	Switch Ran	ge:	to			psi			Actuator Seal:									
5	Switch Setp	point:	to			psi			Connection	n Size:	: 1/			' NPTM				
WITCH	Deadband:		Fixed					C	Connection Location:									
Ś	Power Sup	ply:							Enclosure Class:			NEMA4X						
	Power Wiri	ng:			24 VDC				Manufact	turer:								
	Case Material:			Fnoxy	Coated Aluminu	m			Mode	el:								
			<u> </u>															
	Diaphragm		1					Elem	ent Materia	al:								
SEAL DIAPHRAGM	Size & Type							_	ression:									
×	Process Co							_	ument Rang	re·				to			_	
生	Material:	ATTIOGRAPH.	-					_	oration Rang	-	-		-	to		$-\!\!\!\!+\!\!\!\!-$		
AP	Flush Conn	ootion:						_	roller Displa		+					-+	_	
□								-			-		_	to		$-\!\!\!+\!\!\!\!-$	_	
A.	Capillary Le							-	c Pressure				_	to		$-\!\!\!\!+\!\!\!\!\!-$	_	
S	Capillary Fi							-	v. Oper Pre					to		-	_	
	Capillary M	aterial:						Allov	v. Oper Ten	nperature:				to				
S	Syphon Typ							-	ber Type:									
OPTIONS	Syphon Ma	terial:						Snul	ber Materia	al:								
F	Fill Fluid:					Customer SS Tag:				ag:								
O	Movement	Damping:					Mounting Bracket:											
	1. To be fille	ed out by Vendo	r															
	T	,																
SI																		
NOTES																		
Š	<b>—</b>																	

KGS				Pressure Instrument  DATA SHEET NO. DST-PSH-F8712										REV.			
							Ge	neri	c Press	ure Sw	itch			SHEET	1	OF	1
	V					NO.	DAT		1 1633		ISIOI	N.		BY	CHK'D	PROC.	APPR.
	GROU					0	2022 1			ssued for (				DG	JP	JAB	JAB
						0	2022 1	0 05	1:	ssued for t	Cons	iruction	-	DG	JP	9,-	- Jan
																<u> </u>	₽
Pro	ject:		21-0107	-015									_				<u> </u>
_				_													
IΤΑ	G NO:	PSF	I-F8712	_	al No.					Loop Wir					101-AILD-		
								Line / Ve	ssel l	Number:			-SEA-CU				
Asse	et No:			D:	1-0101-	PPID-F002	2-001		Line ID:	Size: 25mm Schedule				edule:			
Des	cription:			PRES	SSURE SWITC	Н				Manufact	turer:						
	op									Model:				Ashcr	oft B-Serie	es .	
Purchase Order:						Ven	dor:										
Req	uisition Nu	mber:						Job	Number:								
	Fluid:					Service Air											
	Fluid State:								Gas								
			-														
S	Process Da	ata Case (Flow:)	Min:			Nor	mal (Operat	ing):				Max (Full S	Scale):			U	nits
NO	Flow:	,		3.0				3,	5.4			,	,	7.0			_/s
Ĕ	Pressure:			0		<del></del>			10					100			sig
CONDITIONS	Temperatui	re.	<del>                                     </del>	0		+			20			<del>                                     </del>		30			°C
Ó	Temperatur	C		0					20					30		_	ر ال
	Decise Dro			-1	50		nois	Vand	UIN DEGGGLIN	. D. //				N/A			
PROCESS	Design Pre				psig			Vapour Pressure Pv:							$-\!\!\!\!+\!\!\!\!-$	_	
	Design Ten			-40 t	o 100		°C	Compressibility (Z):					1	.00			
	Lower SG /		N/A					-	er Viscosity:		N/A						
	Higher SG		1.00				Higher Vis				N/A						_
	Pipe Rating		N/A					Amb	ient Tempe	rature:				20			°C
	Pipe Materi	al:	Copper Type L					Area	Classificati	on:	Non	Hazardous,	Corrosi	ve			
	Special Cor	ndition:	N/A														
	Type:		Pressure Switch					Е	Blow Out Pro	otection:							$\neg$
	Function:				SPDT				sure Eleme	ent Material:				Note 1	1		
_	Switch Ran	ge:	to			psi			Actuator Seal:								
Ċ	Switch Setpoint:		to		psi			Connection	n Size:	ze: 1			NPTM				
WITCH	Deadband:			Fixed			po.	C	onnection L	ocation:			.,_				
S	Power Sup	ply:		Tixed					Enclosure Class:					NEMA4	łХ		
	Power Wiri		<del> </del>	24 VDC					Manufacturer:								-
	Case Mater		F					Mode								-	
	Gase Mater	idi.		Ероху	Coated Aluminur	n	Wodd.										
	Diaphragm							Flor	ent Materia	ıl·							
Σ								_			-						
AG	Size & Type								ression:		⊢						_
一	Process Co	nnection:							ument Rang		-			to		$-\!\!+\!\!-$	_
4	Material:								ration Ran					to		$-\!\!\!\!+\!\!\!\!\!-$	_
	Flush Conn							_	roller Displa					to		$-\!$	
SEAL DIAPHRAGM	Capillary Le							Stati	c Pressure	Range:				to			
ĬĘ/	Capillary Fi							Allov	/. Oper Pre	ssure:				to			
0)	Capillary M	aterial:						Allov	. Oper Ten	nperature:				to			
S	Syphon Typ	oe:						Snub	ber Type:								
O	Syphon Ma	terial:						Snuk	ber Materia	al:							
OPTIONS	Fill Fluid:					Customer SS Tag:											
Р	Movement	Damping:	1					_	nting Bracke		т						
	1 Tab- #"	ed out by Vendo															
	i. To be fille	eu out by vendo	l .														-
S																	—
NOTES																	
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					FOLUDIA	ENT DATACHEET	DA	REV.						
					EQUIPIVI	ENT DATASHEET	DST-P-Y07	0						
			KAS			PUMP	SHEET 1 OF			1				
			GROUP	NC	DATE	REVISION		BY	CHK'D	APPR.				
			GROUP	0	2022-05-18	ISSUED FOR CONSTRUCTION	ı	JP	RiC	K				
	0.1567	NE	WPCC											
PK	OJECT:	INTERIM PHOSP	HOROUS REM	OVAL										
EQUII	PMENT NO	. P-Y07	91, P-Y0792, P	-Y0793 DESCR	RIPTION:	FERRIC CHLORIDE METERING F	PUMPS FOR DP	-4.1, 4.2,	1.3					
0	Vendor to	Verify/Specify	<u> </u>					, ,			Rev.			
GENE														
	Number Re	equired:		Three (3)										
	Туре:			Solenoid-driven d	liaphragm									
	Duty:			Continuous										
PROC	ESS DATA													
	Fluid:			Ferric Chloride										
	Corrosive C	Compounds:	pН	<1										
	Composition	on:	% wt/wt	37-42%										
	Flowing Te	mperature:	°C	20										
-	•	avity at Flow Temp.:		1.39-1.46										
-		Flow Temp.:	ср	N/A										
		sure at Flow Temp.:	psia	N/A										
	AULIC DAT	A												
-	Condition:			Minimu	ım Flow	Normal Flow	<u>M</u>	aximum Fl	<u>ow</u>		ļ			
	Flow Capac	<u>'</u>	l/hr	-	-	30		30						
		essure: (Note 1)	psig	-		1		1						
	NPSH Avail		m .	-		21		21						
-		off Pressure:	psig	-		100		100						
		al Head Required:	m	-	-	0		0						
_	Operating		psig			80		80						
	NPSH Requ Pump Spee		M Ctrokes/min			200		200						
	% of Full Ra		Strokes/min %	-	-	200 100%		200 100%						
	TRUCTION	ateu speeu	/0		•	100%		100%						
_	Casing:			PVDF										
		n, flange rating:		PVDF, DN10										
	Packing or			PTFE										
-	Impeller:			N/A										
	Impeller Di	ameter:		N/A										
		rer, Model No.:		Basis of Design: P	asis of Design: ProMinent Gamma XL, GXLAUS0730PVT2Q000UDC130EN or approved equal as per Section B8.									
	Pump Size:	•		N/A					•					
0	Drive Confi	guration:		Solenoid-driven d	liaphragm									
0	Pump Full S	Speed	Strokes/min	200										
DRIV	ER													
	Variable or	Constant Speed		Variable (Note 2)										
	Туре:			Inverter duty elec	tric motor	·								
		er Consumption:	W	78										
-	Motor Rate		rpm								$ldsymbol{oxed}$			
-		aracteristics:		120V / 1PH / 60 F	lz									
-	Motor Encl			TEFC (Note 3)										
-	Service Fac	tor:		1.25										
BASE														
	D T			alone frame shall	be HSS tubing. Fr	y assembled on simplex skid wi rame shall be painted with chen								
	Base Type:			of piping and com	iponents snan be	nurc.								
NOTE 1		scura ic danandant a	height of fluid	lin the tank Thus	suction process	is subject to change. Noted are	accura is based	l on full to	nk		<del>                                     </del>			
		provided and mounted		a in the talls. Thus,	, suction pressure	e is subject to change. Noted pro	233U1 E 15 D45E0	on full tal	IN.		1			
				the Zone Class a	nd/or Division ar	eas in which the motors are cert	tified							
						l-0101-MGAD-Y001-001)	uncu.							
		s and instrumentation												
						ctrical junction box for connect	ion to the proc	cess contro	ol system					
		ox shall be mounted di			acca in an cic	zaza. jaza.za. box for conficct	to the prot		5,500					
6					t system (Specific	ration Section 40 06 01).								
		cted to remote dosing	•											
				, ,	,.									