

 SNC · LAVALIN	Instrument Datasheets	Document Code	112577-0116-48ED-0001
		Revision	00
Client City of Winnipeg			
Project SEWPCC Venitlation and Misc. Upgrades			
Package / Area			
Prepared By	Name	Signature	Date
	T. Church		2012-10-15
Checked By	Name	Signature	Date
	C. Reimer		2012-10-15
Approved By	Name	Signature	Date
	C. Reimer		2012-10-15
Notes / Comments		Seal	
		Original Document Sealed By: T. M. Church SNC Lavalin Inc. Member #32682 2012-10-15 Rev. 00	

Revisions					
Rev	Description	Date	By	Checked	Approved
00	Issued for Tender	2012-10-15	T. Church	C. Reimer	C. Reimer



Client Doc. No.	N/A	Instrument Datasheet - Thermal Dispersion Flowmeter					
SLI Doc. No.	112577-0000-48ED-0001-01	Rev.	Date	Description	By	Chk	App
Location	SEWPCC	00	2012-10-15	Issued for Tender	TMC	CJR	CJR
Project	Ventilation and Misc. Upgrades						
Specification No:	40 91 00						
Req. Pkg. No.:							

Revision No.

1	GEN.	Tag No. :	G601-FT	Service :	Wet Well Upper Level Airflow	P&ID :	1-0102G-A0094	
2		Fluid Phase :	Gas	Fluid :	Air	Line No :		
3		Electrical Area Classification :	Unclassified					
4	PROCESS CONDITIONS	Process variables		Units	Min	Norm.	Max	Remarks
5		Flow Rate		l/s	1	600 - 1201	1500	
6		Temperature		°C		10	40	
7		Pressure						
8		Density						
9		Viscosity						
10		Velocity						
11		Vapor Pressure						
12		Cp/Cv						
13		Compressibility (z)						
14		Molecular Weight						
15		Suspended Solids						
16		Corrosive / Abrasive Property						
17	LINE	Line Size	Line Schedule	508 x 508mm Duct				
18		Line Material	Internal Diameter	Stainless Steel				
19		ANSI Rating	Insulation Thickness	N/A		50.8mm (2")		
20	METER / SENSOR	Tag No.	N/A					
21		Tube Size or Insertion Length	To middle of duct					
22		Tube Material	Sensor Material	316 SS				
23		End Connection	ANSI Rating	3/4" NPT		N/A		
24		End Connection Material						
25		Enclosure Material	Enclosure Class.					
26		Heating Element	Not Required					
27		Power Supply (Volts / Hz / Amp)						
28		Mounting Installatin (Horizontal / Vertical)	Vertical					
29	TRANSMITTER	Tag No.	G601-FT					
30		Range	Calibration	0-1500 l/s				
31		Indicator	Totalizer	Yes		Not Required		
32		Mounting (Local/Remote)	Cable Spec. Requirement	Local				
33		Case Material	Enclosure Class.	Painted Low-Copper Aluminum		CSA Type 4		
34		Electrical Enclosure Class.	CSA Approval	Unclassified		Required		
35		Power Supply	Cable Entries	24 VDC		16mm (1/2") NPT		
36		Transmitter Output	Accuracy	4-20 mA / HART		1% of reading / 0.5% of full scale		
37		Fail Mode	RFI Protection	Low				
38	ACCESSORIES	Retraction Unit c/w Ball Valve	Not Required					
39		Flow Linear Plate: Size	Not Required					
40		Thickness						
41		Material						
42								
43								
44	MISC.	* Manufacturer	Magnetrol					
45		* Meter Model Number						
46		* Transmitter Model Number	TA2 Series					

NOTES:

1. Each component shall be indentified with it's respective tag number. The nameplates shall be attached with S.S. wire.

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Client Doc. No.	N/A	Instrument Datasheet - Thermal Dispersion Flowmeter					
SLI Doc. No.	112577-0000-48ED-0001-02	Rev.	Date	Description	By	Chk	App
Location	SEWPCC	00	2012-10-15	Issued for Tender	TMC	CJR	CJR
Project	Ventilation and Misc. Upgrades						
Specification No:	40 91 00						
Req. Pkg. No.:							

Revision No.

1	GEN.	Tag No. :	G602-FT	Service :	Wet Well Lower Level Airflow	P&ID :	1-0102G-A0095	
2		Fluid Phase :	Gas	Fluid :	Air	Line No :		
3		Electrical Area Classification :	Unclassified					
4	PROCESS CONDITIONS	Process variables		Units	Min	Norm.	Max	Remarks
5		Flow Rate		l/s	1	3013	4000	
6		Temperature		°C	-40	-30 - 30	40	
7		Pressure						
8		Density						
9		Viscosity						
10		Velocity						
11		Vapor Pressure						
12		Cp/Cv						
13		Compressibility (z)						
14		Molecular Weight						
15		Suspended Solids						
16		Corrosive / Abrasive Property						
17	LINE	Line Size	Line Schedule	762 x 762mm Duct				
18		Line Material	Internal Diameter	Stainless Steel				
19		ANSI Rating	Insulation Thickness	N/A		50.8mm (2")		
20	METER / SENSOR	Tag No.	N/A					
21		Tube Size or Insertion Length	To middle of duct					
22		Tube Material	Sensor Material	316 SS				
23		End Connection	ANSI Rating	3/4" NPT		N/A		
24		End Connection Material						
25		Enclosure Material	Enclosure Class.					
26		Heating Element	Not Required					
27		Power Supply (Volts / Hz / Amp)						
28		Mounting Installatin (Horizontal / Vertical)	Vertical					
29	TRANSMITTER	Tag No.	G602-FT					
30		Range	Calibration	0-4000 l/s				
31		Indicator	Totalizer	Yes		Not Required		
32		Mounting (Local/Remote)	Cable Spec. Requirement	Local				
33		Case Material	Enclosure Class.	Painted Low-Copper Aluminum		CSA Type 4		
34		Electrical Enclosure Class.	CSA Approval	Unclassified		Required		
35		Power Supply	Cable Entries	24 VDC		16mm (1/2") NPT		
36		Transmitter Output	Accuracy	4-20 mA / HART		1% of reading / 0.5% of full scale		
37		Fail Mode	RFI Protection	Low				
38	ACCESSORIES	Retraction Unit c/w Ball Valve	Not Required					
39		Flow Linear Plate: Size	Not Required					
40		Thickness						
41		Material						
42								
43								
44	MISC.	* Manufacturer	Magnetrol					
45		* Meter Model Number						
46		* Transmitter Model Number	TA2 Series					

NOTES:

1. Each component shall be indentified with it's respective tag number. The nameplates shall be attached with S.S. wire.

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Client Doc. No.	N/A	Instrument Datasheet - Temperature (Transmitter, Element & Thermowell)					
SLI Doc. No.	112577-0116-48ED-0001-03	Rev.	Date	Description	By	Chk	App
Location	SEWPCC	00	2012-10-15	Issued for Tender	TMC	CJR	CJR
Project	Ventilation and Misc. Upgrades						
Specification No:	40 91 00						
Req. Pkg. No.:							

Revision No.

1	GEN.	Tag No : G601-TT-1	Electrical Area Classification : Unclassified	P&ID : 1-0102G-A0094
2		Process Fluid : Air	Fluid Phase : Gas	
3		Line No : N/A	Equipment No : G601-SF	
4		Service : Outdoor Air Temperature		

5	PROCESS CONDITIONS	Process Variables	Units	Min	Normal	Max	Remarks
6		Flow Rate	L/s	0	600 - 1200	1500	
7		Inlet Pressure					
8		Inlet Temperature	°C	-40	-30 - 30	40	
9		Specific Gravity	-				
10		Compressibility Factor	-				
11		Fluid Viscosity	cP				
12		Corrosive Components					
13		Erosive Solids					

15	LINE	Pipe Line Size (inches)	NA (Duct Mount)	48	Tag number	N/A
16		Pipe Sch./Wall Thickness	Material	49	Type	Threaded Hub (No Thermowell)
17		Pipe Inside Diameter	Stainless Steel	50	Process Connection	Threaded Hub welded to Duct

18	ELEMENT	Tag number	G601-TE-1	51	Element Connection	15mm (1/2") NPT
19		Type	RTD PT-100 Class B	52	Vibration Calc. Reqd.	
20		Single / Duplex	Single	53	Material	
21		No. of Wires	3	54	Head Length	
22	*	Wire Gauge		55	Immersion Length	
23		Sheath O.D.	6.35 mm (1/4")	56	Insertion Length	
24		Sheath Material	SS	57	Root Diameter	
25		Grounded / Ungrounded Junction	N/A	58	Bore Diameter	
26		Spring Loaded	No	59	Tip Diameter	
27		Manufacturing Standard		60	Tip Thickness	
28		Length	228.6mm (9")	61	Plug & Chain	
29	*	Manufacturer		62	NACE	
30	*	Model		63		

31	TRANSMITTER	Output Signal	4-20 mA	64	* Canadian Reg. # (CRN)	
32		Calibration Range	-40 to 40 °C	65	* Manufacturer	
33	*	Transmitter Range		66	* Model Number	
34		Power Supply	loop powered	67		
35	*	Accuracy		68	Connection Head	N/A (Integral)

36		Local Indicator	Not required	69	Screw-Cap & Chain	
37		Housing Material	Cast Aluminum	70	Material	
38		Electrical Connection	NPT	71	Electrical Connection	
39		Electrical Classification	Unclassified	72	* Electrical Classification	
40		Ingress Protection		73	Ingress Protection	
41		Output on Sensor Burnout	0 - 3.8 mA	74	Sensor connection	
42		Ambient Temperature Limits	40 °C max	75		
43		Mounting (Integral / Remote)	Integral	76		

44		Protection Method		77		
45				78		
46	*	Manufacturer		79	Nipple-Union-Nipple Length	Not Required
47	*	Model		80	Mounting Hardware	As required

NOTES:
 Element length includes 76.2mm to clear insulation.

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Client Doc. No.	N/A	Instrument Datasheet - Temperature (Transmitter, Element & Thermowell)					
SLI Doc. No.	112577-0116-48ED-0001-04	Rev.	Date	Description	By	Chk	App
Location	SEWPCC	00	2012-10-15	Issued for Tender	TMC	CJR	CJR
Project	Ventilation and Misc. Upgrades						
Specification No:	40 91 00						
Req. Pkg. No.:							

Revision No.

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1	GEN.	Tag No :	G603-TT-1	Electrical Area Classification :	Unclassified	P&ID :	1-0102G-A0094	
2		Process Fluid :	Air	Fluid Phase :	Gas			
3		Line No :	N/A	Equipment No :	G601-SF			
4		Service :	G601-SF Intermediate Air					
5	PROCESS CONDITIONS	Process Variables		Units	Min	Normal	Max	Remarks
6		Flow Rate		L/s	0	600 - 1200	1500	
7		Inlet Pressure						
8		Inlet Temperature		°C	-40	-30 - 30	40	
9		Specific Gravity		-				
10		Compressibility Factor		-				
11		Fluid Viscosity		cP				
12		Corrosive Components						
13		Erosive Solids						
14								
15	LINE	Pipe Line Size (inches)	NA (Duct Mount)		48	Tag number	N/A	
16		Pipe Sch./Wall Thickness		Material	Stainless Steel	49	Type	Threaded Hub (No Thermowell)
17		Pipe Inside Diameter				50	Process Connection	Threaded Hub welded to duct
18	ELEMENT	Tag number	G603-TE-1		51	Element Connection	15mm (1/2") NPT	
19		Type	RTD PT-100 Class B		52	Vibration Calc. Req'd.		
20		Single / Duplex	Single		53	Material		
21		No. of Wires	3		54	Head Length		
22		* Wire Gauge			55	Immersion Length		
23		Sheath O.D.	6.35 mm (1/4")		56	Insertion Length		
24		Sheath Material	SS		57	Root Diameter		
25		Grounded / Ungrounded Junction	N/A		58	Bore Diameter		
26		Spring Loaded	No		59	Tip Diameter		
27		Manufacturing Standard			60	Tip Thickness		
28	Length	228.6mm (9")		61	Plug & Chain			
29	* Manufacturer			62	NACE			
30	* Model			63				
31	TRANSMITTER	Output Signal	4-20 mA		64	* Canadian Reg. # (CRN)		
32		Calibration Range	-40 to 40 °C		65	* Manufacturer		
33		* Transmitter Range			66	* Model Number		
34		Power Supply	loop powered		67	Connection Head	N/A (Integral)	
35		* Accuracy			68	Screw-Cap & Chain		
36		Local Indicator	Not required		69	Material		
37		Housing Material	Cast Aluminum		70	Electrical Connection		
38		Electrical Connection	NPT		71	* Electrical Classification		
39		Electrical Classification	Unclassified		72	Ingress Protection		
40		Ingress Protection			73	Sensor connection		
41	Output on Sensor Burnout	0 - 3.8 mA		74				
42	Ambient Temperature Limits	40 °C max		75				
43	Mounting (Integral / Remote)	Integral		76				
44	Protection Method			77				
45				78				
46	* Manufacturer			79	Nipple-Union-Nipple Length	Not Required		
47	* Model			80	Mounting Hardware	As required		

NOTES:

Element length includes 76.2mm to clear insulation.



Client Doc. No.	N/A	Instrument Datasheet - Temperature (Transmitter, Element & Thermowell)					
SLI Doc. No.	112577-0116-48ED-0001-05	Rev.	Date	Description	By	Chk	App
Location	SEWPCC	00	2012-10-15	Issued for Tender	TMC	CJR	CJR
Project	Ventilation and Misc. Upgrades						
Specification No:	40 91 00						
Req. Pkg. No.:							

Revision No.

1	GEN.	Tag No : G603-TT-2	Electrical Area Classification : Unclassified	P&ID : 1-0102G-A0094
2		Process Fluid : Flushing Water	Fluid Phase : Liquid	
3		Line No : N/A	Equipment No : G603-HE	
4		Service : G603-HE Inlet Temperature		

5	PROCESS CONDITIONS	Process Variables	Units	Min	Normal	Max	Remarks
6		Flow Rate	L/s	0	1.9	3.0	
7		Inlet Pressure	kPA	0		750	
8		Inlet Temperature	°C	-10	10	30	
9		Specific Gravity	-		1.0		
10		Compressibility Factor	-				
11		Fluid Viscosity	cP				
12		Corrosive Components	Some - Effluent from Secondary Clarifiers				
13		Erosive Solids	Minimal - Filtered				
14							

15	LINE	Pipe Line Size	65ø (2.5")	48	Tag number	G601-TW-2
16		Pipe Sch./Wall Thickness	40	49	Type	Tapered or Stepped
17		Pipe Inside Diameter	62.7 mm	50	Process Connection	NPT

18	ELEMENT	Tag number	G603-TE-2	51	Element Connection	15mm (1/2") NPT
19		Type	RTD PT-100 Class B	52	Vibration Calc. Req'd.	Yes
20		Single / Duplex	Single	53	Material	Stainless Steel
21		No. of Wires	3	54	* Head Length	
22		* Wire Gauge		55	Immersion Length	101.6mm (4") (at elbow)
23		Sheath O.D.	6.35 mm (0.25")	56	Insertion Length	
24		Sheath Material	SS	57	Root Diameter	
25		Grounded / Ungrounded Junction	N/A	58	Bore Diameter	6.6mm (0.26")
26		Spring Loaded	Yes	59	Tip Diameter	12.7mm (0.5")
27		Manufacturing Standard		60	* Tip Thickness	
28				61	Plug & Chain	Not required
29		* Manufacturer		62	NACE	
30		* Model		63		

31	TRANSMITTER	Output Signal	4-20 mA	64	* Canadian Reg. # (CRN)	
32		Calibration Range	-40 to 40 °C	65	* Manufacturer	
33		* Transmitter Range		66	* Model Number	
34		Power Supply	loop powered	67		
35		* Accuracy		68	Connection Head	N/A (Integral)

36		Local Indicator	Not required	69	Screw-Cap & Chain	
37		Housing Material	Cast Aluminum	70	Material	
38		Electrical Connection	NPT	71	Electrical Connection	
39		Electrical Classification	Unclassified	72	Electrical Classification	
40		Ingress Protection	NEMA 4	73	Ingress Protection	
41		Output on Sensor Burnout	0 - 3.8 mA	74	Sensor connection	
42		Ambient Temperature Limits	40 °C max	75		
43		Mounting (Integral / Remote)	Integral	76		

44		Protection Method		77		
45				78		
46		* Manufacturer		79	Nipple-Union-Nipple Length	Not required
47		* Model		80	Mounting Hardware	As required

NOTES: Install utilizing tee as elbow.

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Client Doc. No.	N/A	Instrument Datasheet - Temperature (Transmitter, Element & Thermowell)					
SLI Doc. No.	112577-0116-48ED-0001-06	Rev.	Date	Description	By	Chk	App
Location	SEWPCC	00	2012-10-15	Issued for Tender	TMC	CJR	CJR
Project	Ventilation and Misc. Upgrades						
Specification No:	40 91 00						
Req. Pkg. No.:							

Revision No.

1	GEN.	Tag No :	G603-TT-3	Electrical Area Classification :	Unclassified	P&ID :	1-0102G-A0094	
2		Process Fluid :	Flushing Water	Fluid Phase :	Liquid			
3		Line No :	N/A	Equipment No :	G603-HE			
4		Service :	G603-HE Outlet Temperature					
5	PROCESS CONDITIONS	Process Variables		Units	Min	Normal	Max	Remarks
6		Flow Rate	L/s	0	1.9	3.0		
7		Inlet Pressure	kPA	0		750		
8		Inlet Temperature	°C	-10	10	30		
9		Specific Gravity	-		1.0			
10		Compressibility Factor	-					
11		Fluid Viscosity	cP					
12		Corrosive Components	Some - Effluent form Secondary Clarifiers					
13		Erosive Solids	Minimal - Filtered					
14								
15	LINE	Pipe Line Size	65ø (2.5")		48	Tag number	G601-TW-2	
16		Pipe Sch./Wall Thickness	40	Material	Carbon Steel	49	Type	Tapered or Stepped
17		Pipe Inside Diameter	62.7 mm			50	Process Connection	NPT
18	ELEMENT	Tag number	G603-TE-3		51	Element Connection	15mm (1/2") NPT	
19		Type	RTD PT-100 Class B		52	Vibration Calc. Req'd.	Yes	
20		Single / Duplex	Single		53	Material	Stainless Steel	
21		No. of Wires	3		54	* Head Length		
22		* Wire Gauge			55	Immersion Length	101.6mm (4") (at elbow)	
23		Sheath O.D.	6.35 mm (0.25")		56	Insertion Length		
24		Sheath Material	SS		57	Root Diameter		
25		Grounded / Ungrounded Junction	N/A		58	Bore Diameter	6.6mm (0.26")	
26		Spring Loaded	Yes		59	Tip Diameter	12.7mm (0.5")	
27		Manufacturing Standard			60	* Tip Thickness		
28				61	Plug & Chain	Not required		
29	* Manufacturer			62	NACE			
30	* Model			63				
31	TRANSMITTER	Output Signal	4-20 mA		64	* Canadian Reg. # (CRN)		
32		Calibration Range	-40 to 40 °C		65	* Manufacturer		
33		* Transmitter Range			66	* Model Number		
34		Power Supply	loop powered		67			
35		* Accuracy			68	Connection Head	N/A (Integral)	
36		Local Indicator	Not required		69	Screw-Cap & Chain		
37		Housing Material	Cast Aluminum		70	Material		
38		Electrical Connection	NPT		71	Electrical Connection		
39		Electrical Classification	Unclassified		72	Electrical Classification		
40		Ingress Protection	NEMA 4		73	Ingress Protection		
41	Output on Sensor Burnout	0 - 3.8 mA		74	Sensor connection			
42	Ambient Temperature Limits	40 °C max		75				
43	Mounting (Integral / Remote)	Integral		76				
44	Protection Method			77				
45				78				
46	* Manufacturer			79	Nipple-Union-Nipple Length	Not required		
47	* Model			80	Mounting Hardware	As required		

THERMOWELL

HEAD

MISC.

NOTES: Install utilizing tee as elbow.

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Client Doc. No.	N/A	Instrument Datasheet - Temperature (Transmitter, Element & Thermowell)					
SLI Doc. No.	112577-0116-48ED-0001-07	Rev.	Date	Description	By	Chk	App
Location	SEWPCC	00	2012-10-15	Issued for Tender	TMC	CJR	CJR
Project	Ventilation and Misc. Upgrades						
Specification No:	40 91 00						
Req. Pkg. No.:							

Revision No.

1	GEN.	Tag No :	G605-TT-1	Electrical Area Classification :	Unclassified	P&ID :	1-0102G-A0094	
2		Process Fluid :	Air	Fluid Phase :	Gas			
3		Line No :	N/A	Equipment No :	G601-SF			
4		Service :	G601-SF Discharge Air					
5	PROCESS CONDITIONS	Process Variables		Units	Min	Normal	Max	Remarks
6		Flow Rate		L/s	0	600 - 1200	1500	
7		Inlet Pressure						
8		Inlet Temperature		°C	-40	-30 - 30	40	
9		Specific Gravity		-				
10		Compressibility Factor		-				
11		Fluid Viscosity		cP				
12		Corrosive Components						
13		Erosive Solids						
14								
15	LINE	Pipe Line Size (inches)	NA (Duct Mount)		48	Tag number	N/A	
16		Pipe Sch./Wall Thickness		Material	Stainless Steel	49	Type	Threaded Hub (No Thermowell)
17		Pipe Inside Diameter				50	Process Connection	Threaded Hub Welded to Duct
18	ELEMENT	Tag number	G605-TE-1		51	Element Connection	15mm (1/2") NPT	
19		Type	RTD PT-100 Class B		52	Vibration Calc. Reqd.		
20		Single / Duplex	Single		53	Material		
21		No. of Wires	3		54	Head Length		
22		* Wire Gauge			55	Immersion Length		
23		Sheath O.D.	6.35 mm (1/4")		56	Insertion Length		
24		Sheath Material	SS		57	Root Diameter		
25		Grounded / Ungrounded Junction	N/A		58	Bore Diameter		
26		Spring Loaded	No		59	Tip Diameter		
27		Manufacturing Standard			60	Tip Thickness		
28	Length	228.6mm (9")		61	Plug & Chain			
29	* Manufacturer			62	NACE			
30	* Model			63				
31	TRANSMITTER	Output Signal	4-20 mA		64			
32		Calibration Range	-40 to 40 °C		65	* Canadian Reg. # (CRN)		
33		* Transmitter Range			66	* Manufacturer		
34		Power Supply	loop powered		67	* Model Number		
35		* Accuracy			68	Connection Head	N/A (Integral)	
36		Local Indicator	Not required		69	Screw-Cap & Chain		
37		Housing Material	Cast Aluminum		70	Material		
38		Electrical Connection	NPT		71	Electrical Connection		
39		Electrical Classification	Unclassified		72	* Electrical Classification		
40		Ingress Protection			73	Ingress Protection		
41	Output on Sensor Burnout	0 - 3.8 mA		74	Sensor connection			
42	Ambient Temperature Limits	40 °C max		75				
43	Mounting (Integral / Remote)	Integral		76				
44	Protection Method			77				
45				78				
46	* Manufacturer			79	Nipple-Union-Nipple Length	Not Required		
47	* Model			80	Mounting Hardware	As required		

NOTES:

Element length includes 76.2mm to clear insulation.

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Client Doc. No.	N/A	Instrument Datasheet - Temperature (Transmitter, Element & Thermowell)					
SLI Doc. No.	112577-0116-48ED-0001-08	Rev.	Date	Description	By	Chk	App
Location	SEWPCC	00	2012-10-15	Issued for Tender	TMC	CJR	CJR
Project	Ventilation and Misc. Upgrades						
Specification No:	40 91 00						
Req. Pkg. No.:							

Revision No.

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1	GEN.	Tag No :	G682-TT-1	Electrical Area Classification :	Unclassified	P&ID :	1-0102G-A0026
2		Process Fluid :	Air	Fluid Phase :	Gas		
3		Line No :	N/A	Equipment No :	G682-AHU		
4		Service :	G682-AHU Outside Air				
5	PROCESS CONDITIONS	Process Variables	Units	Min	Normal	Max	Remarks
6		Flow Rate	L/s	0		2260	
7		Inlet Pressure					
8		Inlet Temperature	°C	-40	-30 - 30	40	
9		Specific Gravity	-				
10		Compressibility Factor	-				
11		Fluid Viscosity	cP				
12		Corrosive Components					
13		Erosive Solids					
14							
15	LINE	Pipe Line Size (inches)	NA (Duct Mount)	48	Tag number	N/A	
16		Pipe Sch./Wall Thickness	Material Galvanized Steel	49	Type	Threaded Hub (No Thermowell)	
17		Pipe Inside Diameter		50	Process Connection	Threaded Hub Mounted to Duct	
18	ELEMENT	Tag number	G682-TE-1	51	Element Connection	15mm (1/2") NPT	
19		Type	RTD PT-100 Class B	52	Vibration Calc. Req'd.		
20		Single / Duplex	Single	53	Material		
21		No. of Wires	3	54	Head Length		
22	*	Wire Gauge		55	Immersion Length		
23		Sheath O.D.	6.35 mm (1/4")	56	Insertion Length		
24		Sheath Material	SS	57	Root Diameter		
25		Grounded / Ungrounded Junction	N/A	58	Bore Diameter		
26		Spring Loaded	No	59	Tip Diameter		
27		Manufacturing Standard		60	Tip Thickness		
28		Length	228.6mm (9")	61	Plug & Chain		
29	*	Manufacturer		62	NACE		
30	*	Model		63			
31	TRANSMITTER	Output Signal	4-20 mA	64			
32		Calibration Range	-40 to 40 °C	65	* Canadian Reg. # (CRN)		
33	*	Transmitter Range		66	* Manufacturer		
34		Power Supply	loop powered	67	* Model Number		
35	*	Accuracy		68	Connection Head	N/A (Integral)	
36		Local Indicator	Not required	69	Screw-Cap & Chain		
37		Housing Material	Cast Aluminum	70	Material		
38		Electrical Connection	NPT	71	Electrical Connection		
39		Electrical Classification	Unclassified	72	* Electrical Classification		
40		Ingress Protection		73	Ingress Protection		
41		Output on Sensor Burnout	0 - 3.8 mA	74	Sensor connection		
42		Ambient Temperature Limits	40 °C max	75			
43		Mounting (Integral / Remote)	Integral	76			
44		Protection Method		77			
45				78			
46	*	Manufacturer		79	Nipple-Union-Nipple Length	Not Required	
47	*	Model		80	Mounting Hardware	As required	

NOTES:

Element length includes 76.2mm to clear insulation.



Client Doc. No.	N/A	Instrument Datasheet - Temperature (Transmitter, Element & Thermowell)					
SLI Doc. No.	112577-0116-48ED-0001-09	Rev.	Date	Description	By	Chk	App
Location	SEWPCC	00	2012-10-15	Issued for Tender	TMC	CJR	CJR
Project	Ventilation and Misc. Upgrades						
Specification No:	40 91 00						
Req. Pkg. No.:							

Revision No.

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1	GEN.	Tag No :	G682-TT-2	Electrical Area Classification :	Unclassified	P&ID :	1-0102G-A0026
2		Process Fluid :	Air	Fluid Phase :	Gas		
3		Line No :	N/A	Equipment No :	G682-AHU		
4		Service :	G682-AHU Discharge Air				
5	PROCESS CONDITIONS	Process Variables	Units	Min	Normal	Max	Remarks
6		Flow Rate	L/s	0		2260	
7		Inlet Pressure					
8		Inlet Temperature	°C	-40	-30 - 30	40	
9		Specific Gravity	-				
10		Compressibility Factor	-				
11		Fluid Viscosity	cP				
12		Corrosive Components					
13		Erosive Solids					
14							
15	LINE	Pipe Line Size (inches)	NA (Duct Mount)	48	Tag number	N/A	
16		Pipe Sch./Wall Thickness	Material Galvanized Steel	49	Type	Threaded Hub (No Thermowell)	
17		Pipe Inside Diameter		50	Process Connection	Threaded Hub Mounted to Duct	
18	ELEMENT	Tag number	G682-TE-2	51	Element Connection	15mm (1/2") NPT	
19		Type	RTD PT-100 Class B	52	Vibration Calc. Req'd.		
20		Single / Duplex	Single	53	Material		
21		No. of Wires	3	54	Head Length		
22	*	Wire Gauge		55	Immersion Length		
23		Sheath O.D.	6.35 mm (1/4")	56	Insertion Length		
24		Sheath Material	SS	57	Root Diameter		
25		Grounded / Ungrounded Junction	N/A	58	Bore Diameter		
26		Spring Loaded	No	59	Tip Diameter		
27		Manufacturing Standard		60	Tip Thickness		
28		Length	228.6mm (9")	61	Plug & Chain		
29	*	Manufacturer		62	NACE		
30	*	Model		63			
31	TRANSMITTER	Output Signal	4-20 mA	64			
32		Calibration Range	-40 to 40 °C	65	* Canadian Reg. # (CRN)		
33	*	Transmitter Range		66	* Manufacturer		
34		Power Supply	loop powered	67	* Model Number		
35	*	Accuracy		68	Connection Head	N/A (Integral)	
36		Local Indicator	Not required	69	Screw-Cap & Chain		
37		Housing Material	Cast Aluminum	70	Material		
38		Electrical Connection	NPT	71	Electrical Connection		
39		Electrical Classification	Unclassified	72	* Electrical Classification		
40		Ingress Protection		73	Ingress Protection		
41		Output on Sensor Burnout	0 - 3.8 mA	74	Sensor connection		
42		Ambient Temperature Limits	40 °C max	75			
43		Mounting (Integral / Remote)	Integral	76			
44		Protection Method		77			
45				78			
46	*	Manufacturer		79	Nipple-Union-Nipple Length	Not Required	
47	*	Model		80	Mounting Hardware	As required	

NOTES:

Element length includes 76.2mm to clear insulation.



Client Doc. No.	N/A	Instrument Datasheet - Temperature (Transmitter, Element & Thermowell)					
SLI Doc. No.	112577-0116-48ED-0001-10	Rev.	Date	Description	By	Chk	App
Location	SEWPCC	00	2012-10-15	Issued for Tender	TMC	CJR	CJR
Project	Ventilation and Misc. Upgrades						
Specification No:	40 91 00						
Req. Pkg. No.:							

Revision No.

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1	GEN.	Tag No :	G682-TT-3	Electrical Area Classification :	Unclassified	P&ID :	1-0102G-A0026
2		Process Fluid :	Air	Fluid Phase :	Gas		
3		Line No :	N/A	Equipment No :	G682-AHU		
4		Service :	G682-AHU Return Air				
5	PROCESS CONDITIONS	Process Variables	Units	Min	Normal	Max	Remarks
6		Flow Rate	L/s	0		2260	
7		Inlet Pressure					
8		Inlet Temperature	°C	-40	20 - 30	40	
9		Specific Gravity	-				
10		Compressibility Factor	-				
11		Fluid Viscosity	cP				
12		Corrosive Components					
13		Erosive Solids					
14							
15	LINE	Pipe Line Size (inches)	NA (Duct Mount)	48	Tag number	N/A	
16		Pipe Sch./Wall Thickness	Material Galvanized Steel	49	Type	Threaded Hub (No Thermowell)	
17		Pipe Inside Diameter		50	Process Connection	Threaded Hub mounted to duct	
18	ELEMENT	Tag number	G682-TE-3	51	Element Connection	15mm (1/2") NPT	
19		Type	RTD PT-100 Class B	52	Vibration Calc. Req'd.		
20		Single / Duplex	Single	53	Material		
21		No. of Wires	3	54	Head Length		
22	*	Wire Gauge		55	Immersion Length		
23		Sheath O.D.	6.35 mm (1/4")	56	Insertion Length		
24		Sheath Material	SS	57	Root Diameter		
25		Grounded / Ungrounded Junction	N/A	58	Bore Diameter		
26		Spring Loaded	No	59	Tip Diameter		
27		Manufacturing Standard		60	Tip Thickness		
28		Length	152.4mm (6")	61	Plug & Chain		
29	*	Manufacturer		62	NACE		
30	*	Model		63			
31	TRANSMITTER	Output Signal	4-20 mA	64			
32		Calibration Range	-40 to 40 °C	65	* Canadian Reg. # (CRN)		
33	*	Transmitter Range		66	* Manufacturer		
34		Power Supply	loop powered	67	* Model Number		
35	*	Accuracy		68	Connection Head	N/A (Integral)	
36		Local Indicator	Not required	69	Screw-Cap & Chain		
37		Housing Material	Cast Aluminum	70	Material		
38		Electrical Connection	NPT	71	Electrical Connection		
39		Electrical Classification	Unclassified	72	* Electrical Classification		
40		Ingress Protection		73	Ingress Protection		
41		Output on Sensor Burnout	0 - 3.8 mA	74	Sensor connection		
42		Ambient Temperature Limits	40 °C max	75			
43		Mounting (Integral / Remote)	Integral	76			
44		Protection Method		77			
45				78			
46	*	Manufacturer		79	Nipple-Union-Nipple Length	Not Required	
47	*	Model		80	Mounting Hardware	As required	

NOTES: