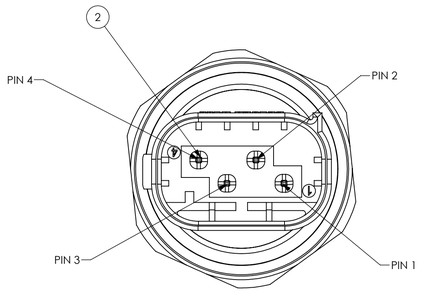
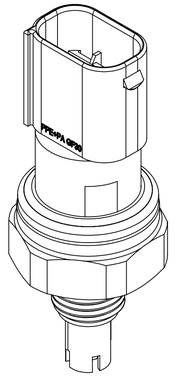
ZONE	REV.	REVISION DESCRIPTION	ECN NO.	DATE
B8	B	"9.95 +0.10|-0.05" WAS "9.86 +0.10|-0.05"; "Cu ALLOY" WAS "Cu5n6 F55"; RTB	ECO-295206	05-APR-2019
A5				

PIN TABLE	
PIN 1	GROUND
PIN 2	PRESSURE OUTPUT
PIN 3	THERMISTOR RESISTANCE OUTPUT
PIN 4	POWER





REFERENCE VIEW
SCALE 2:1

TABLE 1: FUNCTIONAL REQUIREMENTS (SEE NOTE 6)				
FUNCTION	UNIT	MIN	NOM	MAX
SUPPLY VOLTAGE	V	4.9	5	5.1
SUPPLY CURRENT	mA	—	—	15
OPERATING PRESSURE	PSIA	SEE FIGURE 1		
	BarA	SEE FIGURE 2		
PRESSURE ACCURACY	PSIA	SEE FIGURE 3		
	BarA	SEE FIGURE 4		
REFRIGERANT OPERATING TEMPERATURE	°C	-40	—	135
AMBIENT OPERATING TEMPERATURE	°C	-40	—	100
SHIPPING & STORAFE TEMPERATURE	°C	-50	—	135
NTC THERMISTOR OUTPUT (REFERENCE ONLY)	V	SEE FIGURE 6		
PROOF PRESSURE	BarA	45	—	—
	PSIA	652.7	—	—
BURST PRESSURE	BarA	85	—	—
	PSIA	1232.8	—	—
OUTPUT LOAD: PRESSURE SIGNAL (PULL-UP)	KΩ	—	4.7	—
OUTPUT LOAD: TEMPERATURE SIGNAL (PULL-UP)	KΩ	—	5.9	—
SUGGESTED INSTALLATION TORQUE	Nm	6	—	8
LOW OUTPUT SATURATION (Vsupply= 5V)	V	0.3	0.35	0.4
HIGH OUTPUT SATURATION (Vsupply= 5V)	V	4.45	4.5	4.55

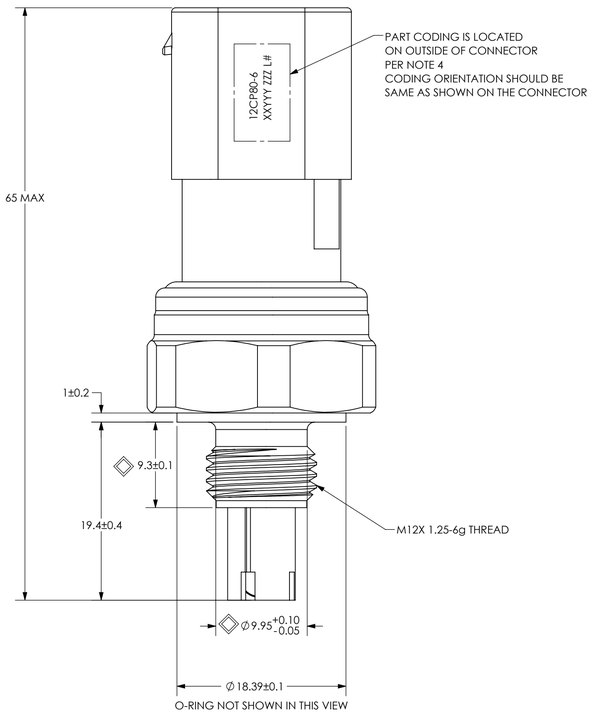
TABLE 2: THERMISTOR RESISTANCE (SEE NOTE 6)			
T [°C]	Rnom [Ω]	Rmin [Ω]	Rmax [Ω]
-40	316181	301183	331179
-30	169149	162304	175994
-20	94143	90938	97349
-10	54308	52781	55836
0	32014	31290	32738
10	19691	19346	20036
20	12474	12315	12633
30	8080	7977	8182
40	5372	5282	5462
50	3661	3585	3737
60	2536	2474	2598
70	1794	1744	1844
80	1290	1250	1330
90	941.8	909.6	974
100	697.2	671.3	723.1
110	524.9	504	545.9
120	399.6	382.6	416.6
130	308.4	294.6	322.3
140	240.3	229	251.7
150	189	179.6	198.3

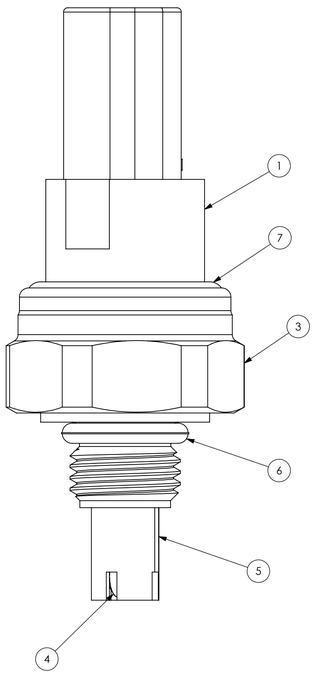
NOTES:

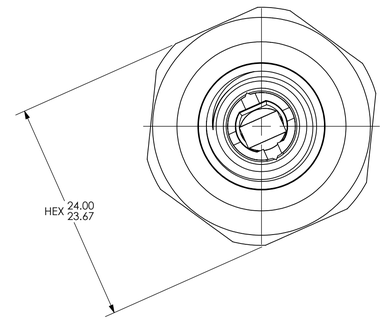
1. DEVICE IS FREE OF LEADED SOLDER (Pb FREE) (Pb).
2. CONNECTOR DESIGNED TO MATE WITH AMP #1-967640-1 MICRO QUADLOCK SYSTEM CODING OPTION A (REV B).
3. SIX SIDED 24.0mm DRIVER REQUIRED TO TORQUE HEX. TORQUE TO BE APPLIED ONLY TO HEX FLATS.
4. CODING TO BE AS FOLLOWS:

   SENSATA P/N: 12CP80-6
   DATE CODE: XXYYY ZZZ L#

   XX = LAST TWODIGITS OF YEAR
   YYY = JULIAN DATE
   ZZZ = SHIFT
   L = COUNTRY OF MANUFACTURE
   # = CELL NUMBER
5. DEVICE INTERNAL SEAL MATERIAL IS HNBR.
6. DEVICE COMPLIES TO SENSATA SPECIFICATION DOC00150382.







7	ENVIRONMENTAL SEAL	SILICONE RTV	
6	O-RING	HNBR	
5	THERMISTOR CAP	PPE+PA GF30	BLACK
4	THERMISTOR	NTC THERMISTOR	SEE FIGURE 5 AND TABLE 2
3	HEXPORT	AL 6061-T6511X	
2	BASE TERMINAL	Cu ALLOY	
1	BASE CONNECTOR	PPE+PA GF30	BLACK
ITEM NO.	DESCRIPTION	MATERIAL	NOTES

FIGURE 1: REFRIGERANT PRESSURE [PSIA] VS. OUTPUT VOLTAGE
Vsupply = 5.0 V

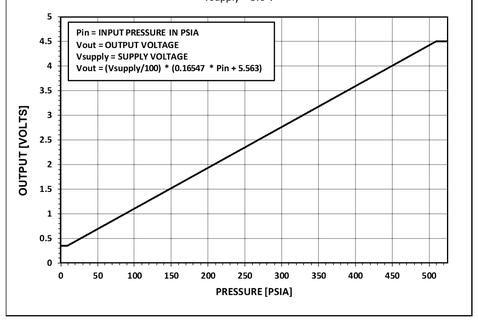


FIGURE 2: REFRIGERANT PRESSURE [BarA] VS. OUTPUT VOLTAGE
Vsupply = 5.0 V

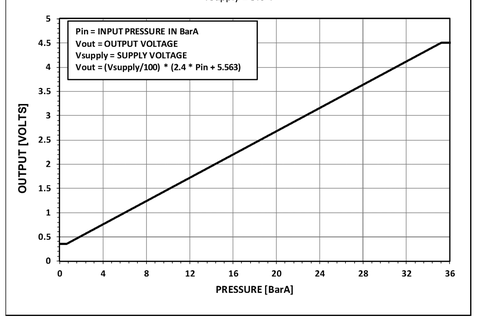


FIGURE 3: REFRIGERANT PRESSURE [PSIA] VS. OUTPUT VOLTAGE ERROR

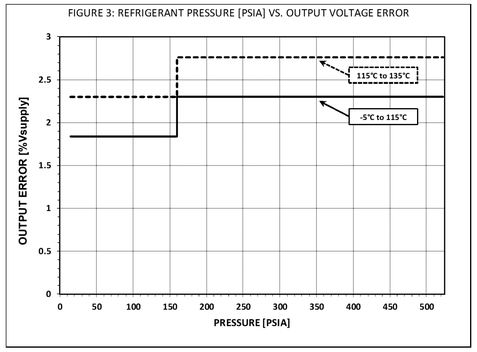


FIGURE 4: REFRIGERANT PRESSURE [BarA] VS. OUTPUT VOLTAGE ERROR

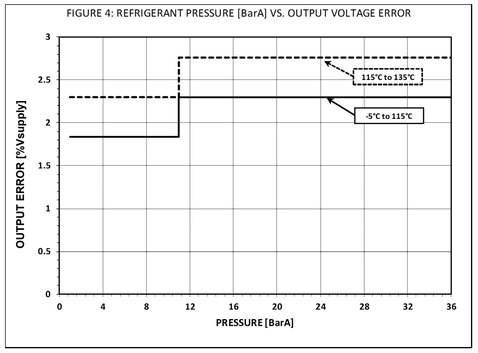


FIGURE 5: NTC RESISTISTANCE VS. TEMPERATURE

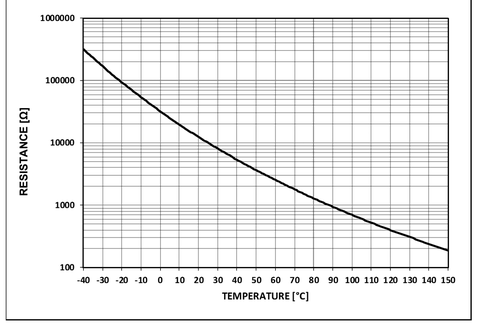
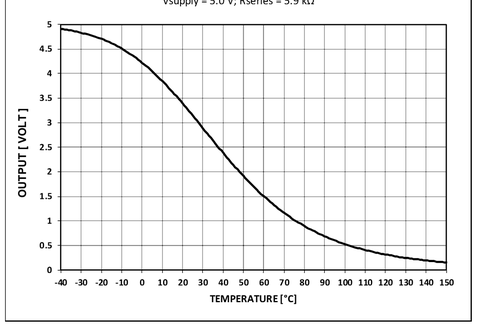


FIGURE 6: NTC OUTPUT VS. TEMPERATURE (REFERENCE ONLY)
Vsupply = 5.0 V; Rseries = 5.9 kΩ



CHARACTERISTIC NAME	DRAWING SYMBOL	AIAG APQP REFERENCE MANUAL, GLOBAL SUPPLIER QUALITY MANUAL (G-SM-01) QMS-100255, APPENDIX A	(INITIAL) SHORT TERM Cpk	LONG TERM Ppk
ISO 26262 FUNCTIONAL SAFETY RELATED SPECIAL	✚	A CHARACTERISTIC OF AN ITEM, ELEMENT OR PRODUCTION PROCESS FOR WHICH REASONABLY FORSEEABLE DEVIATION COULD AFFECT, CONTRIBUTE TO OR CAUSE ANY POTENTIAL REDUCTION OF FUNCTIONAL SAFETY.	≥ 1.67	MONITORING OF COMPLIANCE REQUIRED
	✚ S		≥ 1.67	≥ 1.67
CRITICAL	▽	CONTROL ITEM PRODUCTS HAVE CRITICAL CHARACTERISTICS THAT MAY AFFECT SAFE VEHICLE/PRODUCT OPERATION AND/OR COMPLIANCE WITH GOVERNMENT REGULATIONS. UNIQUE SYMBOLS IDENTIFYING SAFETY AND REGULATORY CHARACTERISTICS.	≥ 1.67	MONITORING OF COMPLIANCE REQUIRED
	▽ S		≥ 1.67	≥ 1.67
SIGNIFICANT	◇	SIGNIFICANT CHARACTERISTICS ARE THOSE PRODUCT PARAMETERS AND REQUIREMENTS THAT ARE IMPORTANT FOR CUSTOMER SATISFACTION (FORM, FIT AND FUNCTION) AND FOR WHICH QUALITY PLANNING ACTIONS MUST BE ADDRESSED ON A CONTROL PLAN.	≥ 1.67	MONITORING OF COMPLIANCE REQUIRED
	◇ S		≥ 1.67	≥ 1.33
SPC	S	USED TO SPECIFY ONGOING SPC METHODOLOGIES TO BE PERFORMED.	≥ 1.67	≥ 1.33
STANDARD		NON-KEY CHARACTERISTIC - STANDARD DIMENSION VS. STANDARD (INCL. TOLERANCE)	FIRST ARTICLE INSPECTION/ OK FIRST PART	FIRST ARTICLE INSPECTION/ OK FIRST PART

FOR REFERENCE ONLY. CHECK LATEST REVISION BEFORE USE. PARTS MADE TO THIS PRINT MUST CONFORM TO E9898 REV. E.

DRAWN J. JUAN ALONSO DATE 22-MAR-2019
ENGINEER MATT MONTEIRO DATE 22-MAR-2019
APPROVED KEVIN HARPIN DATE 22-MAR-2019
APPROVED MATT BIRNIE DATE 22-MAR-2019

INTERPRET DIMENSIONING AND TOLERANCING PER ASME Y14.5-2009. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS.
TOLERANCES
DECIMALS ANGLES

DO NOT SCALE DRAWING | THIRD ANGLE PROJECTION

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TITLE
12CP80-6
ENVELOPE DRAWING

SIZE A1 | DWG NO. 12CP80-6 | REV. B
SCALE 3:1 | SOLIDWORKS | SHEET 1 OF 1

DEVICE:
PROJECT: 1