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REVISIONS						
RELEASE	LTR	DESCRIPTION	DRAWN/REV. BY	ENGINEER	DATE	APPROVALS ON FILE
EC1160	B	DIM 7.46±.24 WAS 6.85±.24 (C3) DIM 29.62±.24 WAS 30.83±.24 (B3)	F.MOHAMMED	S.MILETTE	10-Jun-2022	

- NOTES:
- ALL MATERIALS ARE COMPATIBLE WITH AUS 32, DEF (DIESEL EXHAUST FLUID), DIESEL FUEL, ANTIFREEZE
 - OPERATING TEMPERATURES:
 - COOLANT: -40°F TO +200°F (-40°C TO +93°C)
 - DEF LEVEL & CONCENTRATION SENSOR: 12°F TO 158°F (-11°C TO 70°C) (WHEN IN LIQUID STATE)
 - DEF TEMPERATURE SENSOR: -40°F TO +160°F (-40°C TO +71°C)
 - COOLANT HEATER DESIGNED FOR:
 - TEMPERATURE: -40°F TO +200°F (-40°C TO +93°C)
 - PRESSURE: 0 TO 40 psig (0 TO 276 kPa)
 - COOLANT FITTINGS: 5/8 HOSE BEAD PER SAE J1231
MATERIAL: STAINLESS-STEEL-304L
 - COOLANT PRESSURE DROP THROUGH HEATER: (VALUES ARE FOR REFERENCE ONLY)
- | GPM | PSID | LPM | kPa |
|-----|------|------|------|
| 1.0 | 0.90 | 3.8 | 6.20 |
| 2.0 | 1.10 | 7.6 | 7.58 |
| 3.0 | 1.80 | 11.4 | 12.4 |
| 4.0 | 2.70 | 15.1 | 18.6 |
- DEF FITTINGS:
 - MATERIAL: STAINLESS-STEEL-316L
 - SUCTION: 3/8 PER SAE J2044
 - RETURN: 5/16 PER SAE J2044
 - DEF QUALITY/LEVEL/TEMPERATURE SENSOR
 - SIGNAL OUTPUT: J1939 CAN PER SPECIFICATIONS BELOW
 - ENGINEERING SPEC: 0000297187
 - INTERFACE SPEC: 0000296494
 - NOM. OPERATING VOLTAGE: 12 OR 24 VDC
 - ELECTRICAL CONNECTOR: DEUTSCH DT04-4P
 - MATING CONNECTOR: DEUTSCH DT06-4S (NOT SUPPLIED BY SHAW DEVELOPMENT)
 - PIN #1: CAN LOW
 - PIN #2: CAN HIGH
 - PIN #3: GROUND
 - PIN #4: POWER
 - REPLACEABLE ITEMS:
 - SENSOR KIT: 325-0186-33-K
 - SUCTION STRAINER: 908-0864-01
 - CLEANLINESS:
 - 9.1 INTERNAL SURFACES OF THE SUCTION TUBE, SUCTION FITTING AND SUCTION FILTER MUST MEET ISO 16232-10 CLEANLINESS SPECIFICATION CCC=G7/H6/I5/J4/K00.
 - 9.2 ALL OTHER SURFACES NOT DESIGNATED IN NOTE 9.1 SHALL BE FREE OF VISIBLE PARTICLES, FIBERS AND DEBRIS.
 - ALL DIMENSIONS ARE FOR REFERENCE ONLY.
BLOCK TOLERANCES DO NOT APPLY UNLESS OTHERWISE SPECIFIED.

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ORIGINAL RELEASE DATE 30-Dec-2021	THIS DRAWING CONFORMS TO ASME Y14.5-2009 AND SHAW DEVELOPMENT ES-2030	THIRD ANGLE PROJECTION	DRAWING SCALE: 0.250 SHOWN FOR REFERENCE ONLY DO NOT SCALE DRAWING	DRAWING STATE Released
SHAW DEVELOPMENT 25190 Bernwood Dr., Bonita Springs, Florida 34135 WWW.SHAWDEV.COM	TITLE MFHU, DEF, BOLT ON	CODE IDENT NO. 59647	SIZE C	DRAWING NO. 908-2247-01
REVISION B	SHEET 1 OF 1			

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DRAWING NO. 908-2247-01
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