

NOTES:

- A. MATERIAL AND FINISH:
ELECTRONIC ACTUATOR: PLASTIC (PC/ABS AND ACETAL), SILICONE AND BUNA SEALS, AND METAL COMPONENTS
- B. ELECTRICAL SPECIFICATIONS:
OPERATING VOLTAGE: 12 TO 24 VDC NOMINAL
TYPICAL OPERATING CURRENT: LESS THEN 500 MILLIAMPS AT 12 VDC
PEAK / STALL OPERATING CURRENT: 1A MAX (STALL LIMITED TO 1.4 SECONDS)
TOTAL STANDBY CURRENT: RETRACTED: LESS THAN 100 MICROAMPS
EXTENDED: LESS THEN 10 MILLIAMPS AT 12 TO 24 VDC
EXTENDED CONTROL SIGNAL HIGH (UNLOCK COMMAND): 6 VDC TO OPERATING VOLTAGE, 5.5 MILLIAMPS MAX
RETRACTED CONTROL SIGNAL LOW (LATCHED COMMAND): 0 TO 1 VDC (OPEN)
ACTUATOR TRANSIT TIME TO RELEASE: 600 MILLISECONDS NO LOAD, 1.4 SECOND MAX
OPERATING TEMPERATURE RANGE: -40C TO +80C

- C. ELECTRICAL CONNECTIONS AND HOOKUP:
A BASIC SWITCH CONTROL ELECTRICAL HOOKUP DIAGRAM IS PROVIDED FOR REFERENCE.
CONSULT WITH A SOUTHCO REPRESENTATIVE FOR ADDITIONAL ELECTRICAL HOOKUP INFORMATION.
- CONNECT POWER, GROUND AND CONTROL SIGNAL WIRES TO AN APPROPRIATE DC POWER SUPPLY
 - A DC POWER SUPPLY CAPABLE OF SUPPLYING 12 TO 24 VDC AT 1 AMP MINIMUM PER ACTUATOR IS RECOMMENDED
 - POWER MUST BE AVAILABLE TO OPERATE THE ACTUATOR AND MUST REMAIN AVAILABLE DURING THE FULL TRANSIT TIME OF THE ACTUATOR DURING EXTENDING OR RETRACTING

⚠ CAUTION! ACTUATOR CAN BE DAMAGED IF WIRED INCORRECTLY, OR IF IMPROPER VOLTAGE IS APPLIED!
WIRE COLOR CODE / CONNECTOR PIN ASSIGNMENT: SEE CONNECTOR PINOUT TABLE AND PIN LOCATION DETAILS

- D. ELECTRICAL OPERATION:
TO EXTEND THE ACTUATOR:
PROVIDE THE FOLLOWING CONTROL SIGNAL TO THE ORANGE WIRE OR CONNECTOR PIN 3
- CONTROL SIGNAL HIGH FOR A MINIMUM OF 50 MILLISECONDS
 - THE CONTROL SIGNAL CAN REMAIN HIGH INDEFINITELY
 - THE ACTUATOR WILL STAY EXTENDED FOR A MINIMUM OF 20 MILLISECONDS OR AS LONG AS THE SIGNAL IS HIGH

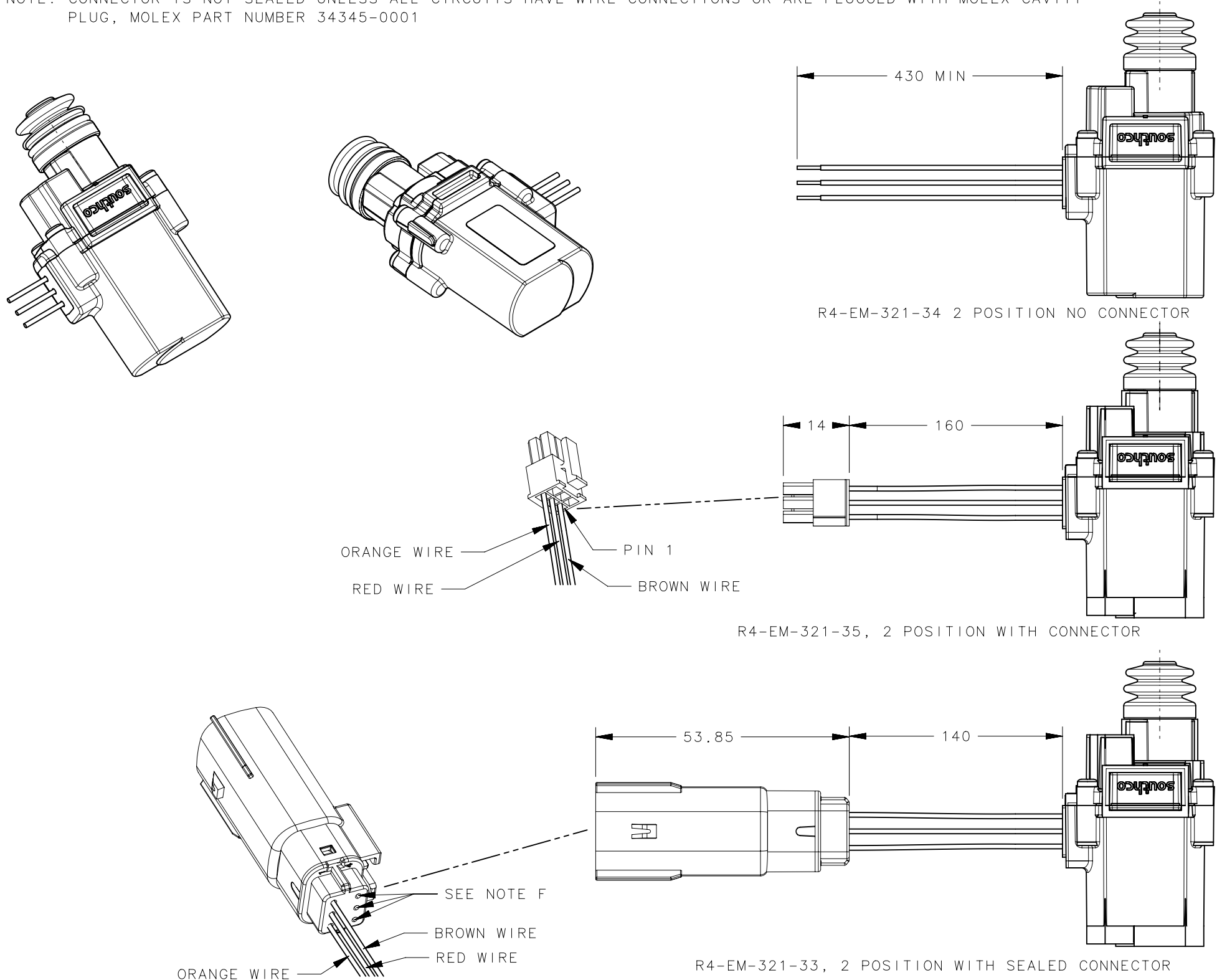
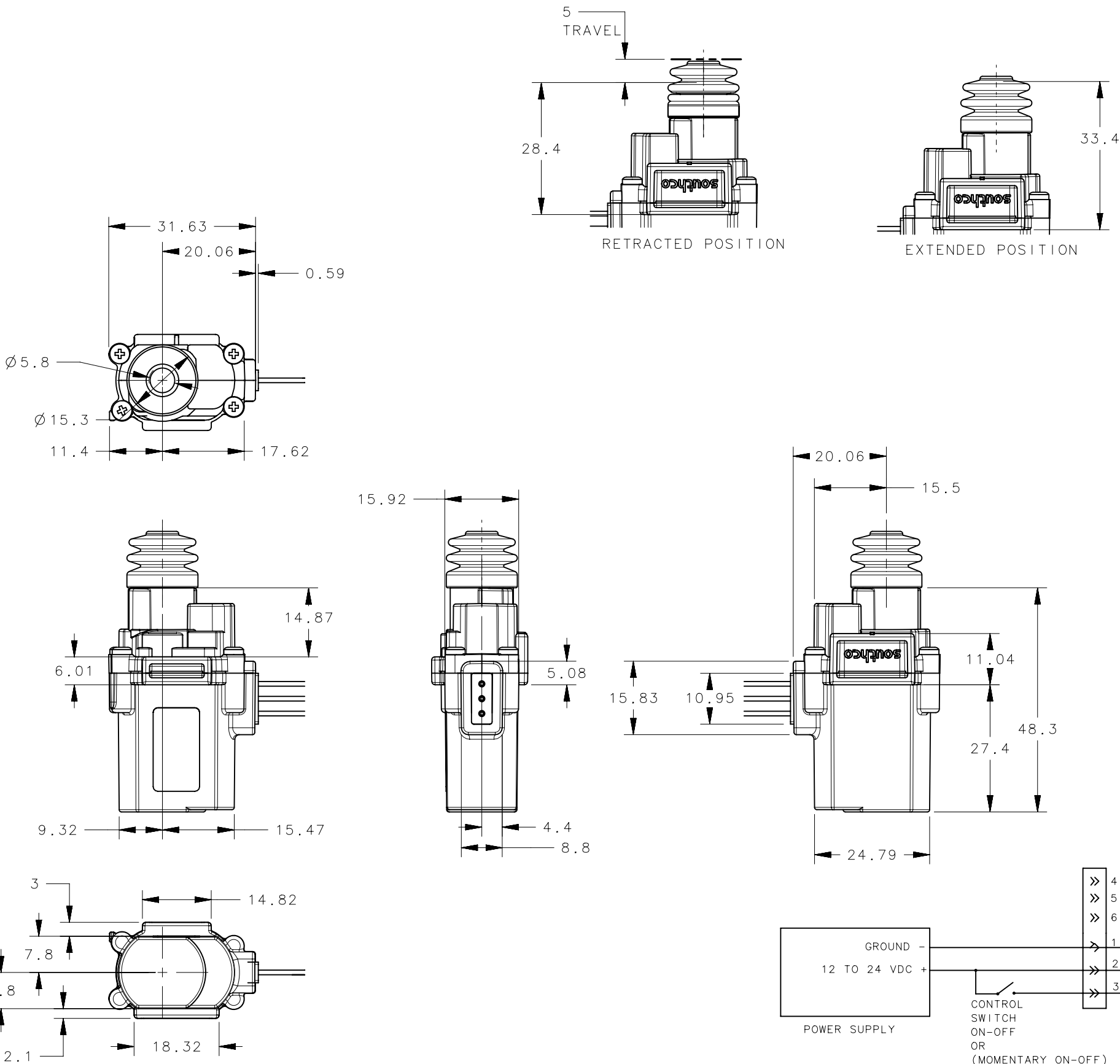
- TO RETRACT THE ACTUATOR:
PROVIDE THE FOLLOWING CONTROL SIGNAL TO THE ORANGE WIRE OR CONNECTOR PIN 3
- PROVIDE CONTROL SIGNAL LOW FOR A MINIMUM OF 50 MILLISECONDS. POWER MUST BE AVAILABLE DURING TRANSIT TO RETRACT POSITION.

⚠ CAUTION! TO PREVENT LONG TERM DAMAGE TO THE ELECTRICAL COMPONENTS IT IS IMPORTANT TO NOT BLOCK (STALL) THE ACTUATOR DURING ELECTRICAL OPERATION.

- THE ACTUATOR CANNOT REVERSE A CYCLE.
- THE ACTUATOR MUST BE ALLOWED TO REACH ITS FULL EXTENDED TRAVEL TO COMPLETE A CYCLE.

- E. OPTIONAL NON-SEALED CONNECTOR:
MANUFACTURER: MOLEX, SERIES: MICROFIT 3.0
- CONNECTOR RECEPTICAL 6 POSITION 3mm VERTICAL DUAL, MOLEX P/N: 43025-0600
 - CONTACTS: FEMALE CRIMP TERMINAL (SOCKET) MOLEX P/N: 43030-0007
 - WIRE: 22 AWG STYLE AWM 1569
 - WIRE LENGTH: SEE TABLE FOR AVAILABLE LENGTHS
 - MATE FOR NON-SEALED CONNECTOR (NOT SUPPLIED)
 - MANUFACTURER: MOLEX, SERIES: MICROFIT 3.0
 - CONNECTOR PLUG 6 POSITION 3 mm VERTICAL DUAL, MOLEX P/N: 43020-0601
 - RECOMMENDED CONTACTS (6 MAX REQUIRED): MOLEX, MALE CRIMP TERMINAL (PIN), MOLEX P/N: 43031-XXXX
 - RECOMMENDED WIRE GAGE: 22 AWG
- F. OPTIONAL SEALED CONNECTOR:
MANUFACTURER: MOLEX, SERIES: MX150
- CONNECTOR SEALED MALE, 6 POSITION DUAL ROW, 3.50mm PITCH MX150, POLARIZATION A, MOLEX P/N: 33482-0601
 - CONTACTS: MOLEX, MALE CRIMP TERMINAL, TIN, MOLEX P/N: 33000-0003
 - WIRE: 22 AWG STYLE AWM 1569
 - WIRE LENGTH: SEE TABLE FOR AVAILABLE LENGTHS
 - MATE FOR SEALED CONNECTOR (NOT SUPPLIED)
 - MANUFACTURER: MOLEX, SERIES: MX150
 - CONNECTOR SEALED FEMALE, 6 POS DUAL ROW, 3.50 mm PITCH MX150, POLARIZATION A, MOLEX P/N: 33472-0601
 - RECOMMENDED CONTACTS (6 MAX REQUIRED): MOLEX, FEMALE CRIMP TERMINAL, TIN 18-22 AWG, MOLEX P/N: 33012-2003
 - RECOMMENDED WIRE GAGE: 22 AWG
- NOTE: CONNECTOR IS NOT SEALED UNLESS ALL CIRCUITS HAVE WIRE CONNECTIONS OR ARE PLUGGED WITH MOLEX CAVITY PLUG, MOLEX PART NUMBER 34345-0001

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
A	13JUN2016	TRC/DJK	PRN: 2016-1369



R4-EM-321-35	ACTUATOR, DELAYED RELOCK WITH CONNECTOR
R4-EM-321-34	ACTUATOR, DELAYED RELOCK WITHOUT CONNECTOR
R4-EM-321-33	ACTUATOR, DELAY RELOCK WITH SEALED CONNECTOR
R4-EM-321-32	ACTUATOR, AUTO RELOCK WITHOUT CONNECTOR
R4-EM-321-31	ACTUATOR, AUTO RELOCK WITH SEALED CONNECTOR
R4-EM-321-30	ACTUATOR, AUTO RELOCK WITH CONNECTOR
ACTUATOR PART NUMBER CONNECTOR TYPE	
THIRD ANGLE PROJECTION	
MILLIMETERS [IN]	
TOLERANCES UNLESS OTHERWISE NOTED	
ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	
PROPRIETARY ITEM EXCEPT FOR USES EXPRESSLY GRANTED IN WRITING, INFORMATION DISCLOSED HEREON IS CONFIDENTIAL AND ALL RIGHTS, PATENT AND OTHERWISE, ARE RESERVED BY SOUTHCO, INC.	
PER ASME Y14.5M-1994	
DRAWN BY DJK/GGG DATE 12NOV2013 SCALE 1:1 SHEET 1 OF 1	