

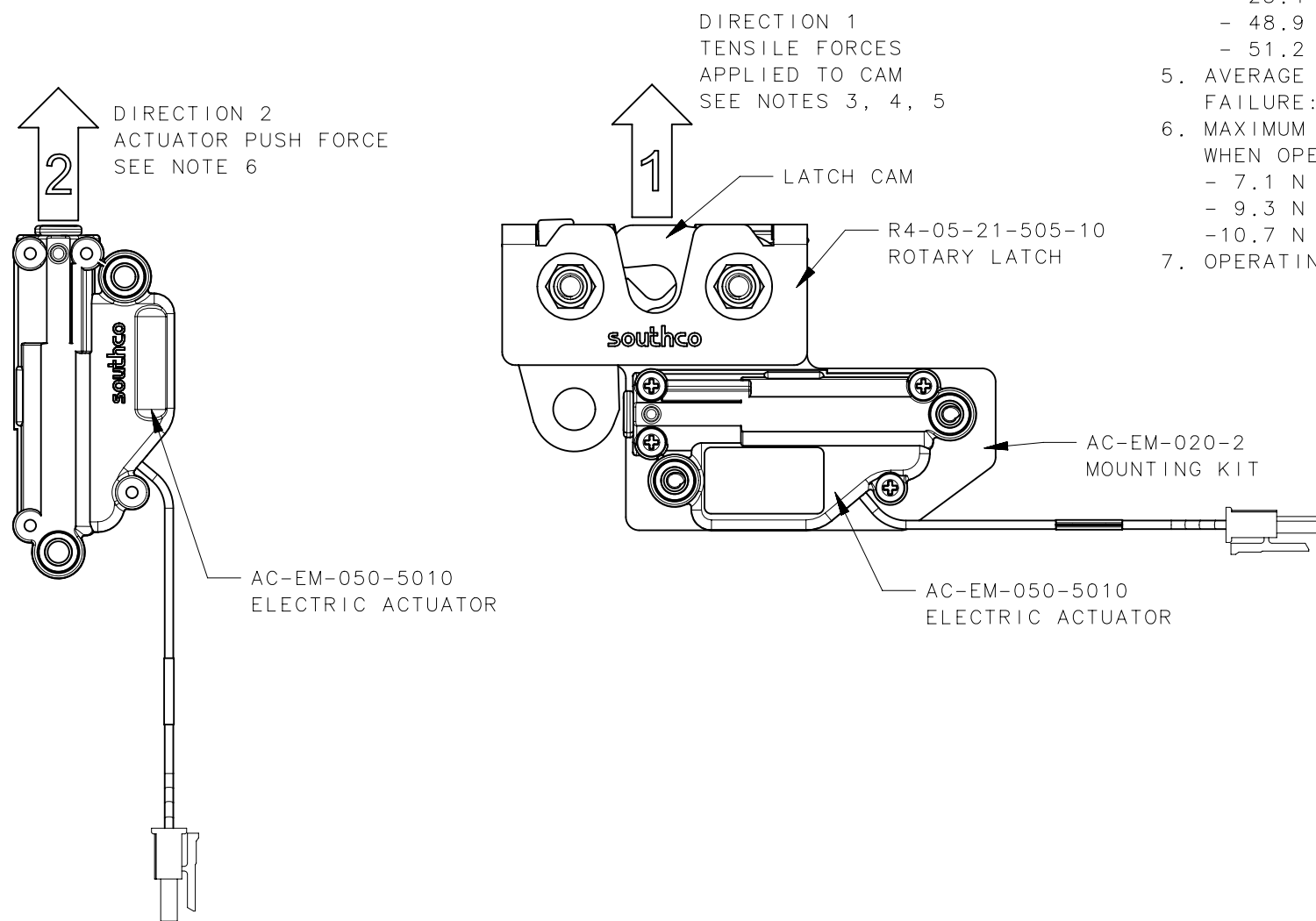
REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
A	12MAR2018	ELA/GGG	PRN: P2018-0414

SOUTHCO PERFORMANCE GUIDELINES

THE PERFORMANCE GUIDELINES SHOWN ON THIS PAGE ARE SUPPLIED AS A GENERAL GUIDE ONLY, AS CONDITIONS VARY WITH EACH APPLICATION AND METHOD OF INSTALLATION. STRENGTH DATA GIVEN IS FOR FAILURE OF THE PRODUCT OR FOR SUFFICIENT DEFORMATION TO MAKE THE PRODUCT INOPERABLE. NO SAFETY FACTOR HAS BEEN APPLIED. IT'S RECOMMENDED THAT THE USER REQUEST A PRODUCT SAMPLE FOR TESTING TO DETERMINE THE SUITABILITY OF THE PRODUCT FOR THE PURPOSE INTENDED AND THE USER'S PARTICULAR APPLICATION.

PERFORMANCE VALUES FOR AC-EM-050-50X0 ACTUATORS AND R4-05-21-505-10 ROTARY LATCH ALSO SEE J-AC-EM-05-1, J-AC-EM-020, AND J-R4-05-10

- TESTING PERFORMED ON AC-EM-050-5010 ACTUATOR.  
SOME TESTS PERFORMED WITH OPTIONAL R4-05-21-505-10 ROTARY LATCH AND AC-EM-020-2 MOUNTING KIT.
- TENSILE FORCES (DIRECTION 1) ARE APPLIED AT THE NOMINAL LATERAL POSITION OF THE LATCH (ZERO MISALIGNMENT).
- CYCLE LIFE OF AC-EM-050-5010 ACTUATOR WHEN USED WITH R4-05-21-505-10 ROTARY LATCH.
  - CYCLE LIFE: 50,000 CYCLES
  - CYCLE TEMPERATURE PROFILE: 40,000 AT AMBIENT TEMP, 5,000 AT -20C, 5,000 AT +60C
  - CYCLE LOAD: 17.8 N (4 lbf) TENSILE FORCE (DIRECTION 1) ON LATCH CAM.
  - SEE TD-R4-05-J FOR R4-05 LATCH CYCLE DATA
- MAXIMUM TENSILE FORCE (DIRECTION 1) ON THE CAM THAT THE LATCH CAN RELEASE (OPEN) ELECTRICALLY ONE TIME:
  - 25.4 N ( 5.7 lbf) AT 4.25 VOLTS
  - 48.9 N (11.0 lbf) AT 5.00 VOLTS
  - 51.2 N (11.5 lbf) AT 5.75 VOLTS
- AVERAGE ULTIMATE TENSILE LOAD (DIRECTION 1) ON THE CAM BEFORE LATCH CAM FAILURE: SEE TD-R4-05-J FOR LATCH STRENGTH DATA
- MAXIMUM CONSTANT LOAD THE ACTUATOR CAN PUSH, WITH 5MM TRAVEL, IN DIRECTION 2 WHEN OPERATED ELECTRICALLY ONE TIME (WITHOUT R4-05 LATCH):
  - 7.1 N (1.6 lbf) AT 4.25VDC
  - 9.3 N (2.1 lbf) AT 5.00 VDC
  - 10.7 N (2.4 lbf) AT 5.75 VDC
- OPERATING TEMPERATURE -20 TO 60 C



REF: trAC-33202

	THIRD ANGLE PROJECTION	 CONNECT • CREATE • INNOVATE	
	MILLIMETERS [IN]		
SURFACE AREA	XXXXXmm <sup>2</sup>	ELECTRO-MECHANICAL ACTUATOR	
VOLUME	XXXXXmm <sup>3</sup>	DESCRIPTION	
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.	SIZE A3	SYSTEM NX
	PER ASME Y14.5M-1994	DWG NO. TD-AC-EM-05-1-J	DATE 15FEB2018
		DRAWN BY GGG	SCALE 1:1 SHEET 1 OF 1