

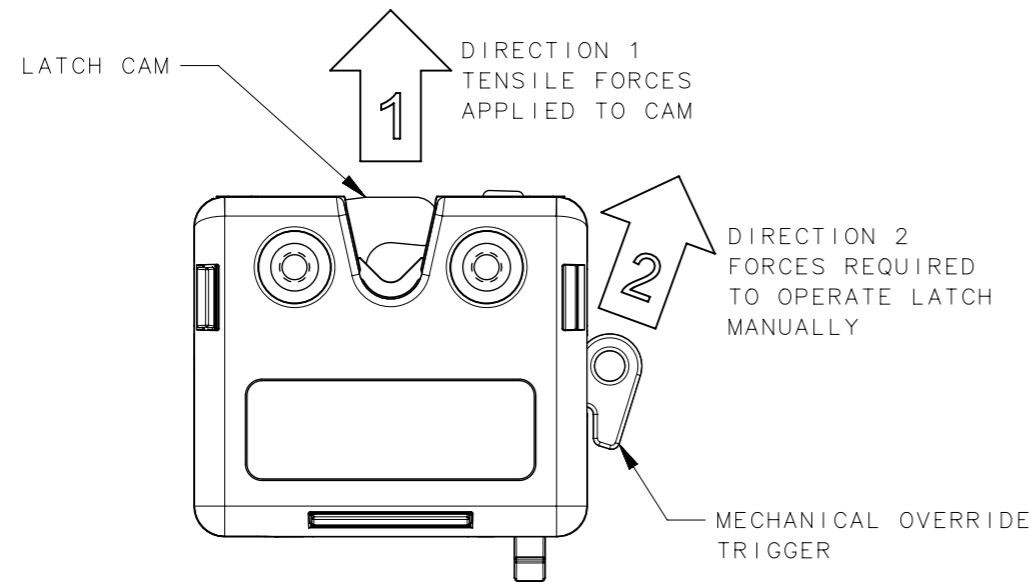
REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
C	13JUL2023	IGS/SKB	PRN: P2023-1303

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 R4-EM-05D20-150 SEE J-R4-EM-05-1.

- TESTING PERFORMED ON R4-EM-05D20-150.
- TENSILE FORCES (DIRECTION 1) ARE APPLIED AT THE NOMINAL LATERAL POSITION (ZERO MISALIGNMENT).
- MAXIMUM TENSILE FORCE (DIRECTION 1) ON THE CAM THAT THE LATCH CAN RELEASE (OPEN) ELECTRICALLY ONE TIME:
195 N (44 lbf)
- AVERAGE ULTIMATE TENSILE FORCE (DIRECTION 1) ON THE CAM BEFORE LATCH FAILURE: 4720 N (1061 lbf). THE LATCH DOES NOT RELEASE BUT DEFORMATION MAY OCCUR AFFECTING FUNCTIONALITY.
- AVERAGE TENSILE FORCE (DIRECTION 2) REQUIRED ON THE MECHANICAL OVERRIDE TRIGGER TO OPERATE (OPEN) THE LATCH MANUALLY WITH A TENSILE FORCE ON THE CAM:



AVERAGE FORCE TO OPERATE LATCH WITH MECHANICAL OVERRIDE VS. LATCH CAM LOAD					
FORCE 1 (N) ON CAM	100 N (22.48 lbf)	200 N (44.96 lbf)	300 N (67.44 lbf)	400 N (89.92 lbf)	500 N (112.40 lbf)
FORCE 2 (N) ON MECHANICAL OVERRIDE	13.5 N (3.04 lbf)	22.5 N (5.06 lbf)	30.9 N (6.95 lbf)	38.9 N (8.75 lbf)	48.3 N (10.86 lbf)

- AVERAGE CLOSING FORCE 1 ON CAM 8.3 N (1.9 lbf) BASED ON ONE CYCLE.
- CYCLE LIFE WITH 20 N (4.5 lbf) TENSILE FORCE (DIRECTION 1) FOR R4-EM-05D20-150
TOTAL NUMBER OF CYCLES 100000 WITH TEST PROFILE AS FOLLOWS:
CHAMBER TEMPERATURE 0° C: 5000
CHAMBER TEMPERATURE 60° C: 5000
AMBIENT TEMPERATURE: 40000
CHAMBER TEMPERATURE 0° C: 5000
CHAMBER TEMPERATURE 60° C: 5000
AMBIENT TEMPERATURE: 40000

REFERENCE FOR SOUTHCO INTERNAL USE ONLY:

- trR4-49439 ITEM 3
- trR4-49440 ITEM 4
- trR4-49437 ITEM 5
- trR4-49438 ITEM 6
- trR4-50920 ITEM 7

	THIRD ANGLE PROJECTION	southco [®] CONNECT • CREATE • INNOVATE	
	MILLIMETERS [IN]		
SURFACE AREA	N/A	DESCRIPTION R4-EM-05-1 ELECTRONIC ACCESS SOLUTION	
VOLUME	N/A	SIZE A3	SYSTEM NX
PROPRIETARY ITEM <small>EXCEPT FOR USES EXPRESSLY GRANTED IN WRITING, INFORMATION DISCLOSED HEREON IS CONFIDENTIAL AND ALL RIGHTS, PATENT AND OTHERWISE, ARE RESERVED BY SOUTHCO, INC.</small>	PER ASME Y14.5M-1994	DWG NO. TD-R4-EM-05-1-J	DATE 20MAY2021
		DRAWN BY IGS	SCALE 1:1
			SHEET 1 OF 1