

REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
C	23MAY2023	PBJ/VK	PRN: P2023-0955

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-X5XX-XXX, R4-EM-X5XX-XXX-B (SEE J-R4-EM-5-1) AND R4-EM-X7XX-XXX, R4-EM-X7XX-XXX-B (SEE J-R4-EM-7-1).

1. TENSILE FORCES (DIRECTION 1) ARE APPLIED AT THE NOMINAL LATERAL POSITION (ZERO MISALIGNMENT).

2. CYCLE LIFE WITH 44 N (10 lbf) TENSILE FORCE (DIRECTION 1) ON CAM : 80,000 CYCLES AT AMBIENT TEMPRETURE.

MODELS TESTED: R4-EM-71-163  
R4-EM-R722-163  
R4-EM-71-163-B  
R4-EM-R712-163-B

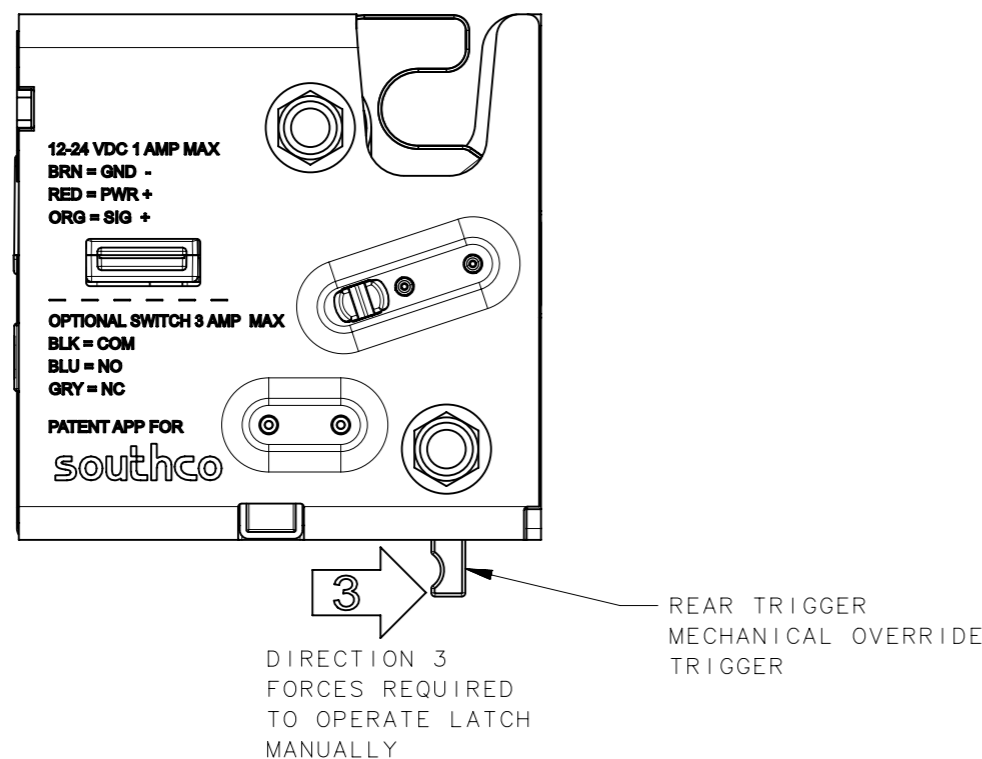
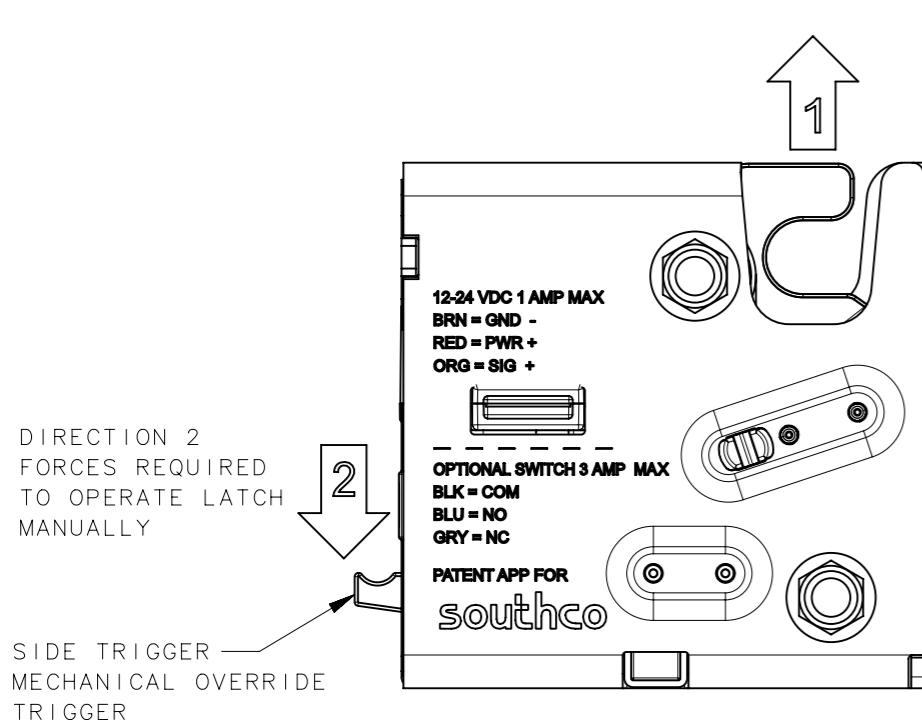
3. MAXIMUM TENSILE FORCE (DIRECTION 1) ON THE CAM THAT THE LATCH CAN RELEASE (OPEN) ELECTRICALLY ONE TIME: 1557 N (350 lbf) MINIMUM.

4. AVERAGE ULTIMATE TENSILE LOAD (DIRECTION 1) ON THE CAM BEFORE LATCH CAM FAILURE, WHEN USED WITH NONDEFORMING BOLT , SUPPORTED AT BOTH ENDS:  
5300 N (1191 lbf) FOR STEEL MODELS R4-EM-X7XX-XXX  
4980 N (1119 lbf) FOR STAINLESS STEEL MODELS R4-EM-X7XX-XXX-B

5. AVERAGE ULTIMATE TENSILE LOAD (DIRECTION 1)WHEN USED WITH SOUTHCO STRIKER BOLT R4-90-121-10: 4420 N (993 lbf).

6. AVERAGE TENSILE FORCE (DIRECTION 2 or 3) 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			
	100 N (22.48 lbf)	400 N (89.92 lbf)	700 N (157.36 lbf)
FORCE 1 (N) ON CAM			
FORCE 2 (N) ON SIDE TRIGGER MECHANICAL OVERRIDE	4.0 N (0.9 lbf)	11.8 N (2.7 lbf)	15.7 N (3.5 lbf)
FORCE 3 (N) ON REAR TRIGGER MECHANICAL OVERRIDE	17.0 N (3.8 lbf)	38.6 N (8.7 lbf)	58.7 N (13.2 lbf)



REFERENCE: trR4-15267  
trR4-16759  
trR4-19432  
trR4-52044  
trR4-52605

	THIRD ANGLE PROJECTION	<b>southco</b> CONNECT • CREATE • INNOVATE	
	MILLIMETERS [IN]		
SURFACE AREA	TOLERANCES UNLESS OTHERWISE NOTED	DESCRIPTION R4-EM 5 AND 7 SERIES ROTARY LATCH	
VOLUME	UP TO 0.5 ±0.05 OVER 0.5 UP TO 6 ±0.1 OVER 6 UP TO 30 ±0.2 OVER 30 ±0.3 ANGLES ±1°	SIZE A3	SYSTEM NX
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		DRAWN BY DJK/GGG	SCALE 1:1
			SHEET 1 OF 1