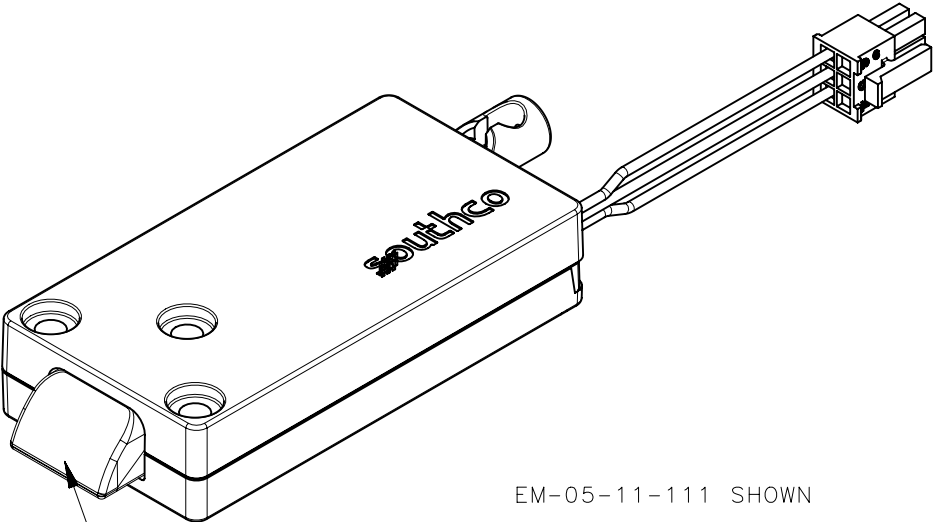


REVISION HISTORY			
REV	DATE	BY	DESCRIPTION
F	30APR2018	KPA/KAM	PRN: P2018-1062



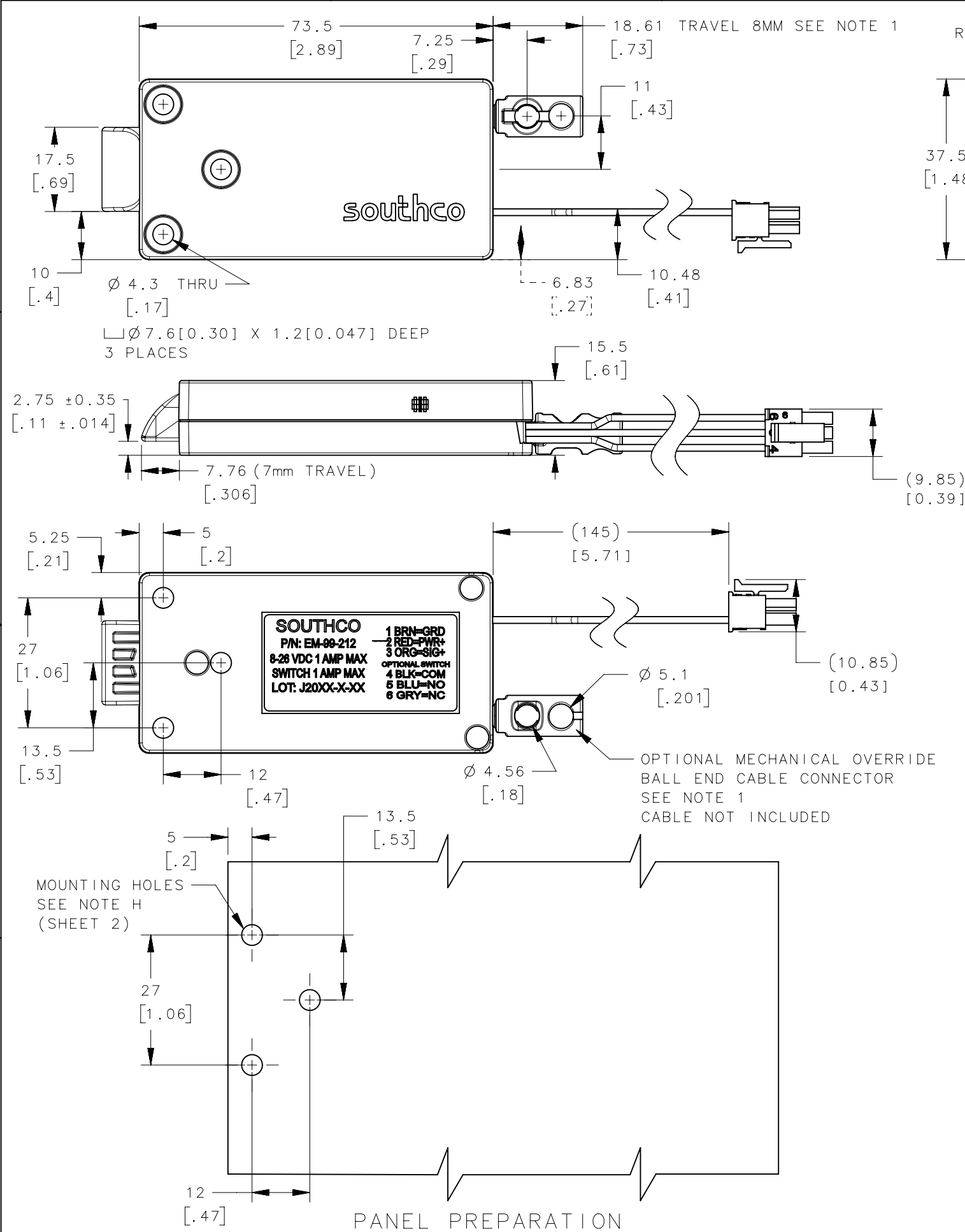
EM-05-11-111 SHOWN

LATCH BOLT
SHOWN IN EXTENDED POSITION

ASSEMBLY PART NUMBER VARIATIONS		
SWITCH OPTION	MECHANICAL OVERRIDE OPTION	ASSEMBLY PART NUMBER
POSITION FEEDBACK SWITCH	4.8MM CABLE BALL END CONNECTOR	EM-05-11-111
	NONE	EM-05-11-110
NO SWITCH	4.8MM CABLE BALL END CONNECTOR	EM-05-11-101*
	NONE	EM-05-11-100

* MECHANICAL VERSION AVAILABLE
ORDER PART NUMBER EM-05-21-001
MECHANICAL VERSION DOES NOT INCLUDE
DRIVE MOTOR OR ELECTRONICS
(SEE NOTE J, SHEET 2)

THIRD ANGLE PROJECTION	MILLIMETERS [IN]		DESCRIPTION	
	TOLERANCES UNLESS OTHERWISE NOTED		ELECTRONIC KEEPER FRONT MOUNT LATCH BOLT	
	ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.		SIZE B	SYSTEM NX
SURFACE AREA	PER ASME Y14.5M-1994		DWG NO. J-EM-05-11-111	
			SCALE 1:1	SHEET 1 OF 2
VOLUME			DRAWN BY GGG	DATE 10SEP2010
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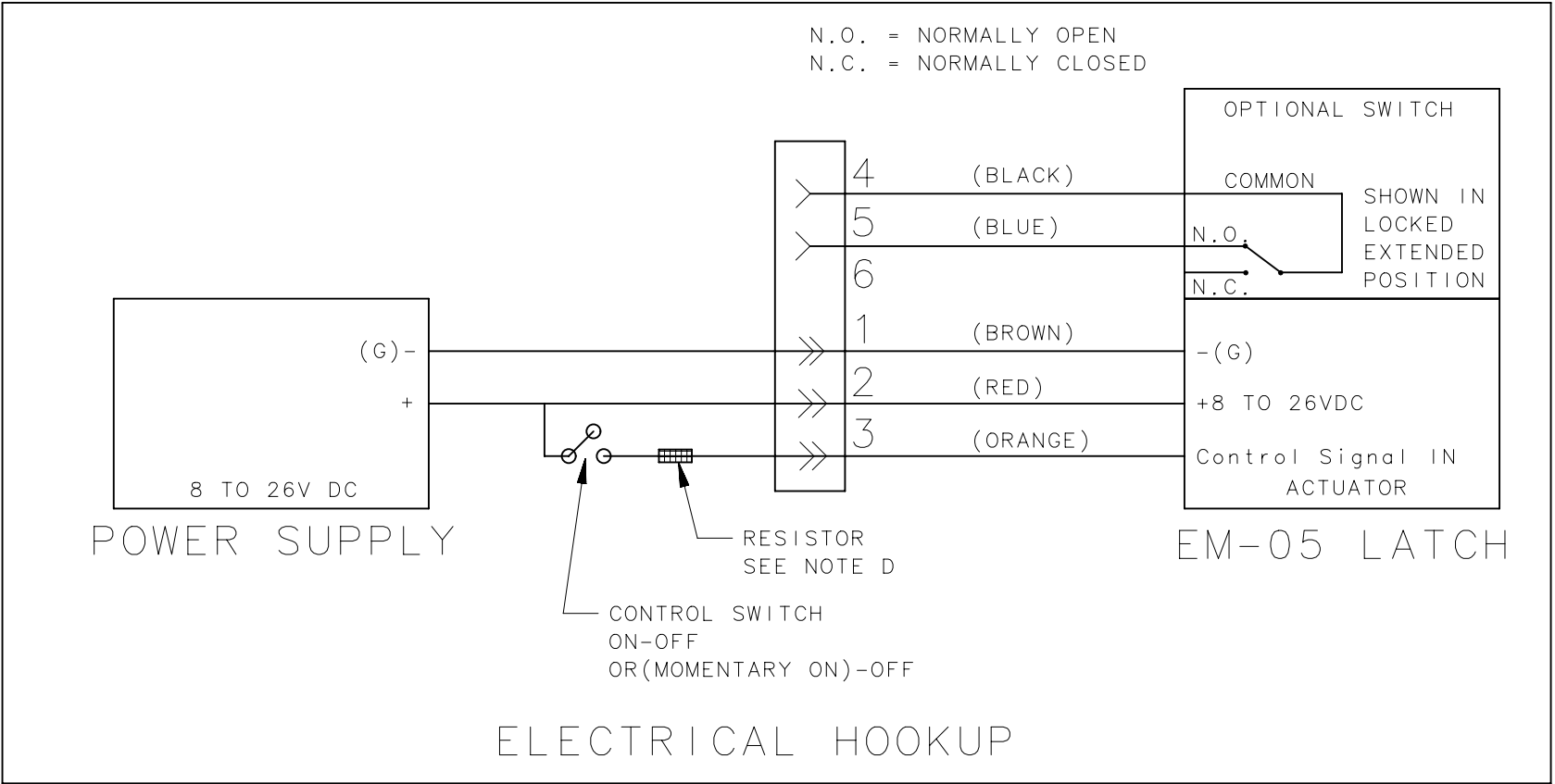
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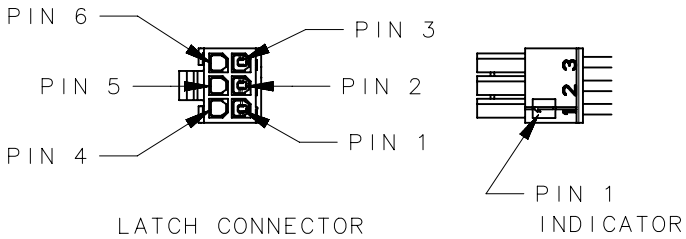
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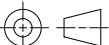
- NOTES:
- A. MATERIAL AND FINISH
HOUSINGS, LATCH BOLT: PLASTIC (GLASS FILLED NYLON, ACETAL)
INTERNAL COMPONENTS: PLASTIC (ACETAL) AND METAL COMPONENTS
- B. ELECTRICAL SPECIFICATIONS:
OPERATING VOLTAGE: 8 TO 26 VDC
TYPICAL OPERATING CURRENT: LESS THAN 500 mA • 12VDC
PEAK/STALL OPERATING CURRENT: 1A MAX • 12VDC (STALL LIMITED TO 1.4 SECOND)
STANDBY CURRENT LESS THAN 185 MICROAMP
CONTROL SIGNAL HIGH (UNLOCK COMMAND): 6 TO 12 VDC, 13 mA MAX
CONTROL SIGNAL LOW (LOCK COMMAND): 0 TO 1VDC (OPEN)
LATCH TRANSIT TIME TO RELEASE: 600 MILLISECONDS NO LOAD, 1 SECOND MAX.
OPERATING TEMPERATURE RANGE: -20C TO +60C
- 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 1 AMP MINIMUM IS RECOMMENDED.
- POWER MUST BE AVAILABLE TO OPERATE THE LATCH AND MUST REMAIN AVAILABLE DURING THE FULL TRANSIT TIME OF THE LATCH DURING LOCKING OR UNLOCKING.
- CAUTION ! LATCH CAN BE DAMAGED IF WIRED INCORRECTLY, OR IF IMPROPER VOLTAGE IS APPLIED!
WIRE COLOR CODE/CONNECTOR PIN ASSIGNMENT:
PIN 1: BROWN: GROUND(-)
PIN 2: RED: POWER (+12V TYPICAL)
PIN 3: ORANGE: CONTROL SIGNAL (+12V TYPICAL)
PIN 4: BLACK: SWITCH COMMON (OPTIONAL)
PIN 5: BLUE: SWITCH N.O. CONTACT (OPTIONAL)
PIN 6: NONE
- D. ELECTRICAL OPERATION:
TO UNLOCK THE LATCH (LATCH BOLT RETRACTED):
PROVIDE THE FOLLOWING CONTROL SIGNAL TO THE ORANGE WIRE OR CONNECTOR PIN 3
- PROVIDE 6 TO 12 VDC (CONTROL SIGNAL HIGH) FOR A MINIMUM OF 50 MILLISECONDS (CONTACT SOUTHCO IF HIGHER COMMAND SIGNAL IS REQUIRED)
- THE CONTROL SIGNAL CAN REMAIN HIGH FOR EXTENDED PERIODS OF TIME (WHEN THE CONTROL SIGNAL REMAINS HIGH FOR LONGER THAN 1 HOUR A RESISTOR SHOULD BE INSTALLED BETWEEN THE SUPPLY AND THE LATCH. SELECT RESISTOR VALUE FROM THE RESISTOR CHART BASED ON THE SUPPLY VOLTAGE TO MEET THE MINIMUM SPECIFICATIONS)
- THE LATCH WILL STAY UNLOCKED FOR A MINIMUM OF 1 SECOND OR AS LONG AS THE SIGNAL IS HIGH
TO LOCK THE LATCH (LATCH BOLT EXTENDED):
PROVIDE THE FOLLOWING CONTROL SIGNAL TO THE ORANGE WIRE OR CONNECTOR PIN 3
- PROVIDE 0 TO 1VDC (CONTROL SIGNAL LOW). POWER MUST BE AVAILABLE DURING TRANSIT TO LOCKED POSITION
- NOTE:
- FROM THE LOCKED POSITION THE DOOR CAN BE PUSHED TO CLOSE AND WILL LOCK.
- E. OPTIONAL LATCH BOLT POSITION FEEDBACK SWITCH AVAILABLE
- A NORMALLY OPEN CONTACT (BLUE WIRE) PROVIDES SWITCH CLOSURE WHEN LATCH BOLT IS FULLY EXTENDED (LOCKED).
- SWITCH COMMON (BLACK WIRE)
SWITCH RATING: RATED UL CSA 0.1A/0.2A 48VDC/60VDC
RECOMMENDED 1A MAX • 12/24 VDC
- WARNING! SWITCH CIRCUIT IS NOT FUSED OR ELECTRICALLY PROTECTED! USE APPROPRIATE EXTERNAL CIRCUIT PROTECTION.
WIRE SWITCH CORRECTLY PER ELECTRICAL HOOKUP DIAGRAM AND DO NOT SHORT CIRCUIT.
A SHORT CIRCUIT CAN DAMAGE LATCH AND MAY POSE AN ELECTRICAL FIRE HAZARD!
- F. LATCH 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: 24 AWG STYLE 1007
WIRE LENGTH: SEE DRAWING FOR AVAILABLE LENGTH
- G. MATE CONNECTOR (NOT SUPPLIED)
MANUFACTURER: MOLEX, SERIES: MICROFIT 3.0
- CONNECTOR PLUG 6 POSITION 3MM VERTICAL DUAL MOLEX P/N: 43020-0601
- RECOMMENDED CONTACTS (6 MAXIMUM REQUIRED): MOLEX, MALE CRIMP TERMINAL (PIN) MOLEX P/N: 43031-0007
- RECOMMENDED WIRE GAGE: 24 AWG
- H. MOUNTING:
- MOUNT THE LATCH SECURELY USING THREE (3) #6-32 OR M4 SCREWS IN MOUNTING HOLES PROVIDED (SCREWS NOT PROVIDED).
- MAXIMUM TORQUE ON MOUNTING SCREWS M4: 2.27 N.m (20 lbf-in), #6-32: 1.67 N.m (15lbf-in)
- I. MECHANICAL OPERATION (OPTIONAL):
THE LATCH IS PROVIDED WITH A MECHANICAL OVERRIDE TO RELEASE THE LATCH.
THE MAXIMUM TRAVEL OF THE OVERRIDE IS 8MM AS SHOWN.
CABLE BALL END ADAPTER WILL ACCEPT Ø1.6±0.15MM [Ø.063±.006"] CABLE WITH Ø4.78±0.13MM [Ø0.188±.005"] BALL.
CABLE NOT INCLUDED
- CAUTION ! IT IS IMPORTANT TO ENSURE THE MECHANICAL RELEASE ROD IS FULLY IN THE LOCKED POSITION (LATCH BOLT EXTENDED) WHEN OPERATING THE LATCH ELECTRICALLY.
CONTACT SOUTHCO FOR MECHANICAL RELEASE CABLES AND ACTUATORS
- J. MECHANICAL ONLY VERSION DOES NOT INCLUDE DRIVE MOTOR OR ELECTRONICS. WIRES AND CONNECTOR SHOWN ARE NOT INCLUDED IN MECHANICAL VERSION.
- K. PACKAGED IN INDIVIDUAL BOXES OR ADD -1 TO PART NUMBER FOR BULK PACKAGING
EXAMPLE EM-05-11-111: PACKAGED ONE UNIT PER BOX
EM-05-11-111-1: PACKAGED IN CELL DIVIDERS

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RESISTOR CHART		
SUPPLY VOLTAGE	STANDARD RESISTOR VALUE	RESISTOR
26	2.26kΩ	RESISTOR CASE STYLE: AXIAL LEADED POWER RATING: 250mW RESISTANCE TOLERANCE: ±1% RESISTOR ELEMENT TYPE: METAL FILM TEMPERATURE COEFFICIENT: ±50ppm/°C
24	2.00kΩ	
22	1.78kΩ	
20	1.50kΩ	
18	1.27kΩ	
16	1.00kΩ	
14	750Ω	
12	499Ω	
10	255Ω	



	THIRD ANGLE PROJECTION						southco® CONNECT • CREATE • INNOVATE			
	MILLIMETERS [IN]									
SURFACE AREA	TOLERANCES UNLESS OTHERWISE NOTED	DESCRIPTION ELECTRONIC KEEPER FRONT MOUNT LATCH BOLT								
VOLUME	ALL DIMENSIONS WITHOUT TOLERANCES ARE FOR REFERENCE ONLY.	SIZE B	SYSTEM NX		DWG NO. J-EM-05-11-111					
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