

SERIES SRB 202 C & SRB 400 C

Differentiated-Input Controllers



Description

The Series SRB202C and SRB400C are (general purpose) units designed for use with safety devices having two Normally-Closed (N.C.) and/or one Normally-Open (N.O.) and one Normally-Closed (N.C.) dry contacts. Uniquely, they provide for differentiated switching of the safety outputs depending on the input that is actuated.

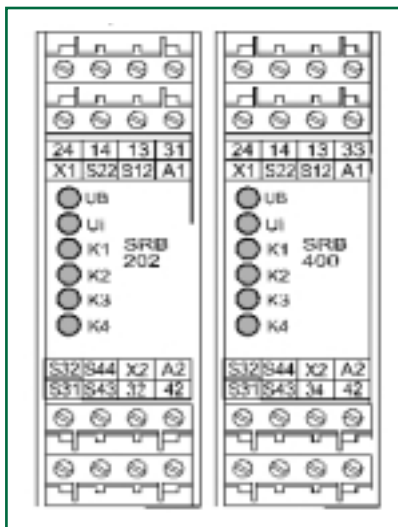
For example, actuating an E-Stop as Input #1 would disable all of the unit's safety outputs. Conversely, actuation of Input #2 (e.g., a safety guard interlock switch) would only disable half of the available safety outputs (safety output #2 on SRB202C units and safety outputs #3 & #4 on SRB400C units).

Thus this functionality, which would normally require two discrete safety controllers, can be achieved with a single unit (controller).

TECHNICAL FEATURES

Input Voltage	24 VDC
# Discrete Input Devices Monitored	2
Compatible Input Device Contact Configuration	Input #1: 2 N.C. (Dry contacts) Input #2: 2 N.C. or 1 N.O./1 N.C.
Number & Type Safety Outputs	2 N.O. (SRB202 models) 4 N.O. (SRB400 models)
Number & Type Auxiliary (Non-Safety or Signalling Outputs)	SRB202: 2 N.C. SRB400: None
Typical Input Devices Monitored	<ul style="list-style-type: none"> E-stops (N.C.) Interlock switches (N.C.)
Type of Reset (Depends on model)	<ul style="list-style-type: none"> Monitored-manual (24 VDC trailing edge) Automatic or Manual
Feedback Monitoring	Yes
LED Displays	Green LEDs for: <ul style="list-style-type: none"> K1 (safety relay 1) K2 (safety relay 2) K3 (safety relay 3) K4 (safety relay 4) Ui (voltage beyond internal fuse) Ub (voltage at input terminals)
Conformity to Standards	UL, CSA, BG (CE-compliant)
Stop Category	0
Safety Control Category Rating Per EN 954-1	4
Selected Features	<ul style="list-style-type: none"> Plug-in screw terminals Cross-short recognition ("Q" models only) Electronic fuse Feedback monitoring

Front View



Selection Chart

Model #	Outputs		Input #1			Input #2	
	Safety	Aux	Contacts	Reset	Cross-short	Contacts	Reset
SRB202CA	2	2	2 N.C.	Auto or Manual	No	1 N.O./1 N.C.*	Auto or Manual
SRB202CS	2	2	2 N.C.		No	2 N.C.	
SRB202CA/Q	2	2	2 N.C.	Monitored-manual	Yes	1 N.O./1 N.C.*	Auto or Manual
SRB202CA/T	2	2	2 N.C.		No	1 N.O./1 N.C.*	
SRB202CS/T	2	2	2 N.C.		No	2 N.C.	
SRB202CA/QT	2	2	2 N.C.	Monitored-manual	Yes	1 N.O./1 N.C.*	Auto or Manual
SRB400CA	4	0	2 N.C.		Auto or Manual	No	
SRB400CS	4	0	2 N.C.	Auto or Manual	No	2 N.C.	Auto or Manual
SRB400CA/Q	4	0	2 N.C.		Yes	1 N.O./1 N.C.*	
SRB400CA/T	4	0	2 N.C.	Monitored-manual	No	1 N.O./1 N.C.*	Auto or Manual
SRB400CS/T	4	0	2 N.C.		No	2 N.C.	
SRB400CA/QT	4	0	2 N.C.		Yes	1 N.O./1 N.C.*	

*Suitable for use with BNS coded-magnet switches.

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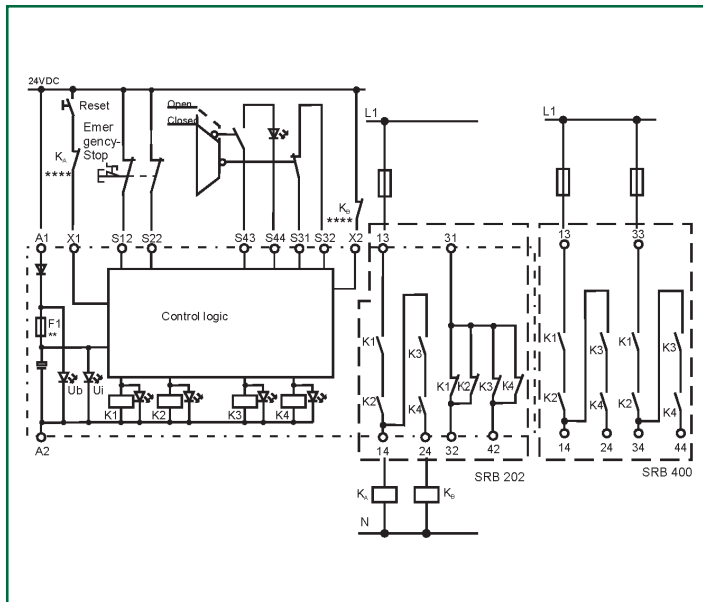
MECHANICAL SPECIFICATIONS

Dimensions (W x H x D)	22.5mm x 100mm x 121mm (0.9" x 3.9" x 4.75")
Ambient Operating Temperature Range	-25°C to +45°C (-13°F to +113°F)
Mechanical Life Expectancy	>10 ⁷ switching cycles
Weight	235 gm
Mounting	DIN rail (35mm)

ELECTRICAL SPECIFICATIONS

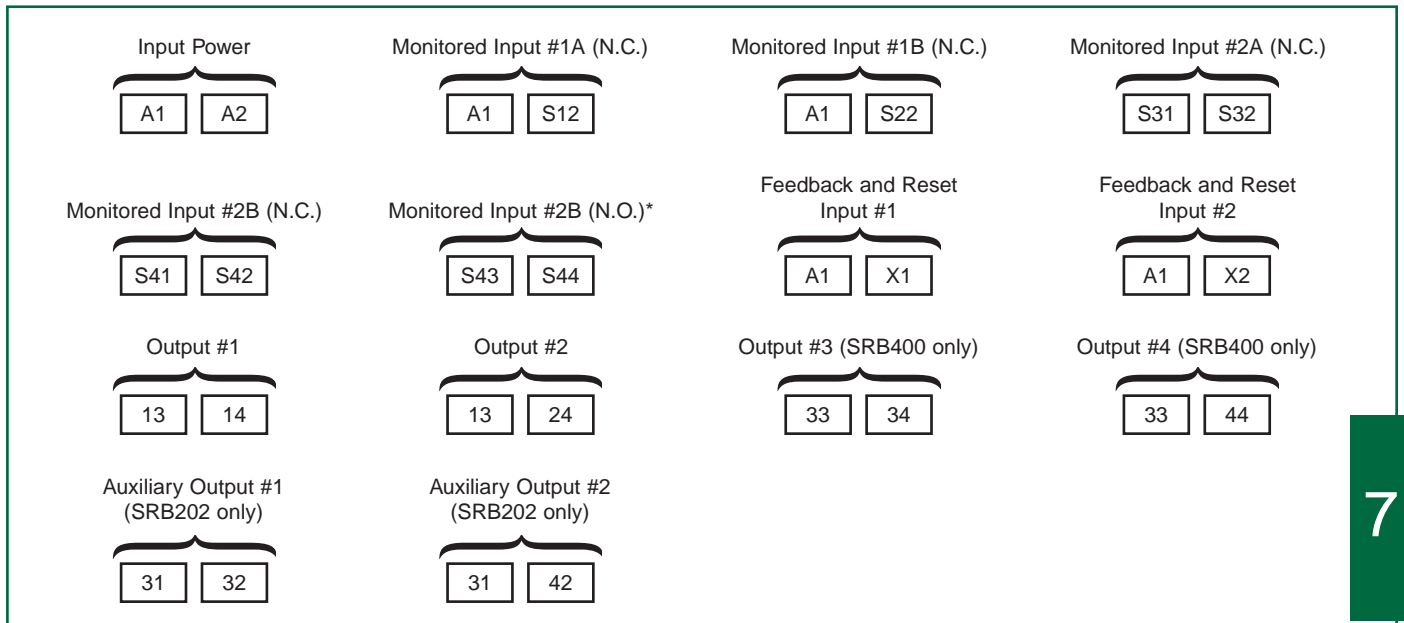
Operating Voltage	24 VDC -15% / +20%, residual ripple max. 10%
Power Consumption	4.4 W
Fuse (Input Power)	Internal electronic fuse* F1, Tripping current > 1 A
Fuse (Safety Outputs)	6 A Slow-blow (Recommended)
Switching Capacity (Safety Outputs)	230 VAC, 6 A Resistive (inductive with suitable suppressor circuit)
Switching Capacity (Auxiliary Contacts)	24 VDC 100mA
Application Category	AC 15 / DC 13 : EN 60 947-5-1
Pick-up Delay	≤ 40 ms
Drop-out Delay	≤ 50 ms
Contact Type & Materials	AgSnO, self cleaning, positive-guided
Contact Resistance	100 mOhm (max. in new state)
Air Clearance & Creepage Distance	DIN VDE 0110-1 (04.97), 4 kV/2
Cable Connections	<ul style="list-style-type: none"> • Plug-in, self-lifting, screw terminals for 13 to 20 AWG • Stranded or multi-core with wire end ferrule
Terminal Labeling	DIN EN 50 005 / DIN 50 013

TYPICAL WIRING DIAGRAM



*Resets automatically after a short time-delay.

TERMINAL CONNECTIONS



*For models having 1 N.O./1 N.C. contacts on Input #2.