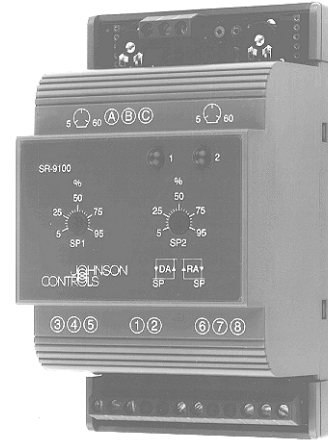


SR-9100 Staging Relay

0...10 V input, 2 relay outputs

Introduction

The SR-9100 is a two-stage staging relay with 0...10 VDC input signal and 2 potential free contact outputs. The SR-9100 can be used in conjunction with a Johnson Controls transducer or a Johnson Controls controller, to convert the 0...10 VDC output signal into two ON/OFF SPDT stages. The two outputs can be connected to two ON/OFF control devices, such as compressors, electrical heating coils, etc. At each stage there is the possibility to adjust the switching point (SP) and the differential.



SR-9100 Staging Relay

Features and Benefits	
<input type="checkbox"/> DIN-omega rail mounting	Easy and quick installation
<input type="checkbox"/> 24 VAC or 230 VAC supply models available	Line or low voltage installation
<input type="checkbox"/> High rating 250 VAC, 10 (5) A SPDT contact outputs	Eliminates the need for an additional contactor
<input type="checkbox"/> LED indicating status of outputs	Visual check
<input type="checkbox"/> Fixed time delay between stages	Reduce in-rush current during start-up of the installation
<input type="checkbox"/> Same styling as SC-9100 easy DDC controller	Fits to the family of Metasys System 91 controllers.
<input type="checkbox"/> Adjustable SetPoint, Differential and mode.	Provides flexibility to match any combination of direct action/reverse action applications
<input type="checkbox"/> Several modules can be connected in parallel on one 0...10 V signal	Multiple stages application

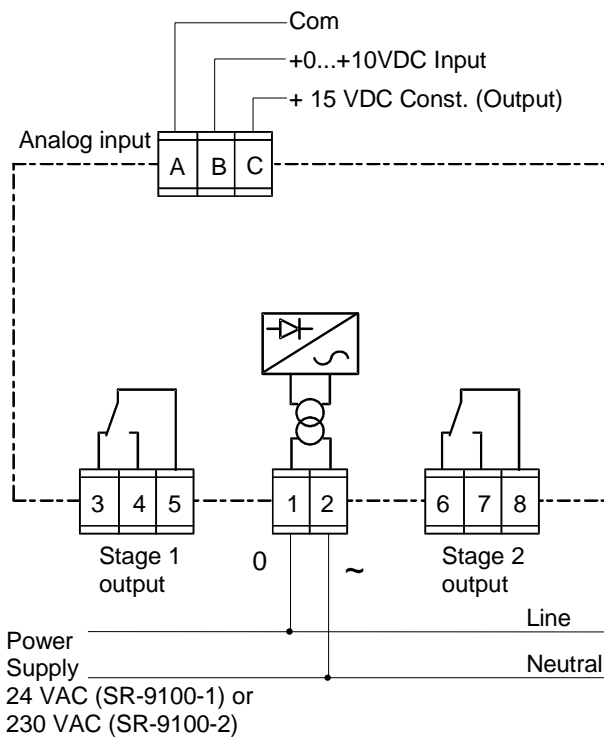
Ordering data

SR-9100-	<input type="checkbox"/>
Supply voltage	
1	24 VAC
2	230 VAC

Mounting instructions

The SR-9100 must be mounted on a DIN omega rail 35 mm (EN50022).

Wiring diagram



Wiring instructions

For wiring please follow the instructions below:

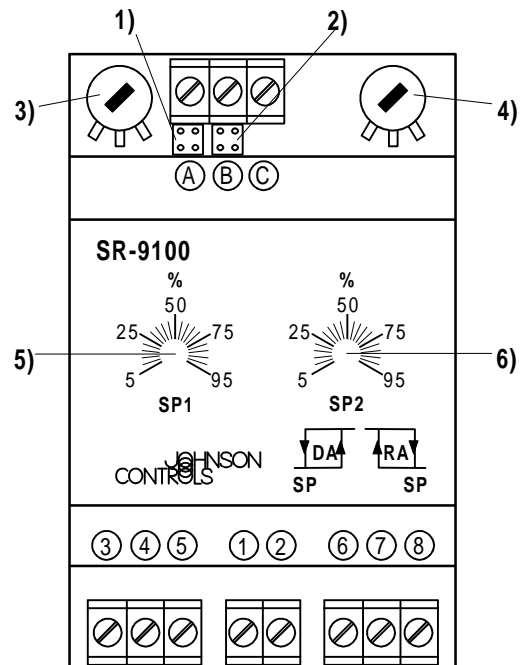
- All wiring must be in accordance with local regulations and national rules.
- Do not attempt field repairs. If the controller is not operating properly, even though it is wired correctly, it should be replaced.

WARNING

When servicing make sure that:

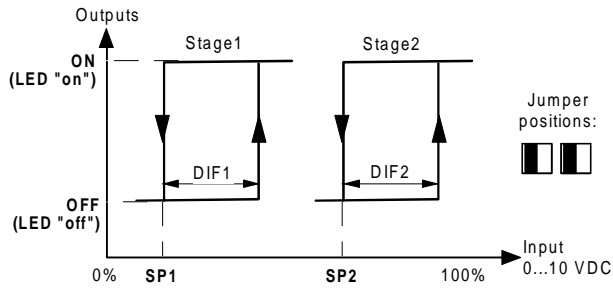
- the electric supply to the staging relay is switched off to avoid possible damage to the equipment, personal injury or shock.
- you do not touch or attempt to connect or disconnect wires when electric power is on.

Adjustments

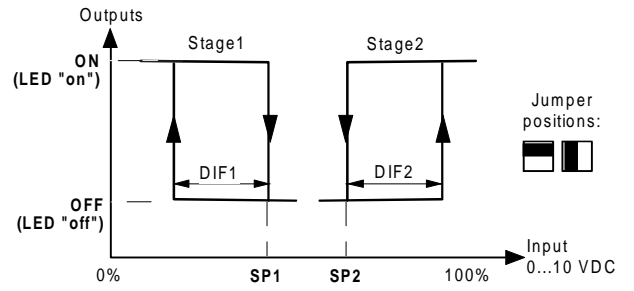


- 1) Jumper action type stage 1
- 2) Jumper action type stage 2
- 3) Differential adjustment stage 1 (DIF1)
- 4) Differential adjustment stage 2 (DIF2)
- 5) Switching point adjustment stage 1 (SP1)
- 6) Switching point adjustment stage 2 (SP2)

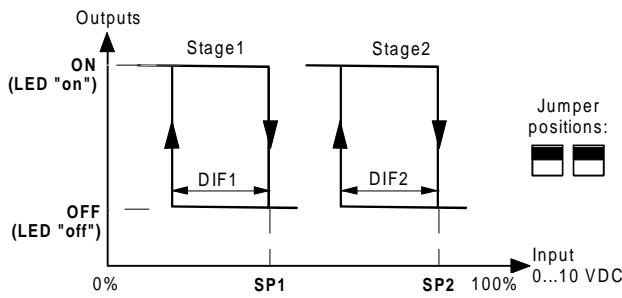
Example1: Two direct acting (DA) stages (e.g. 2 compressors)



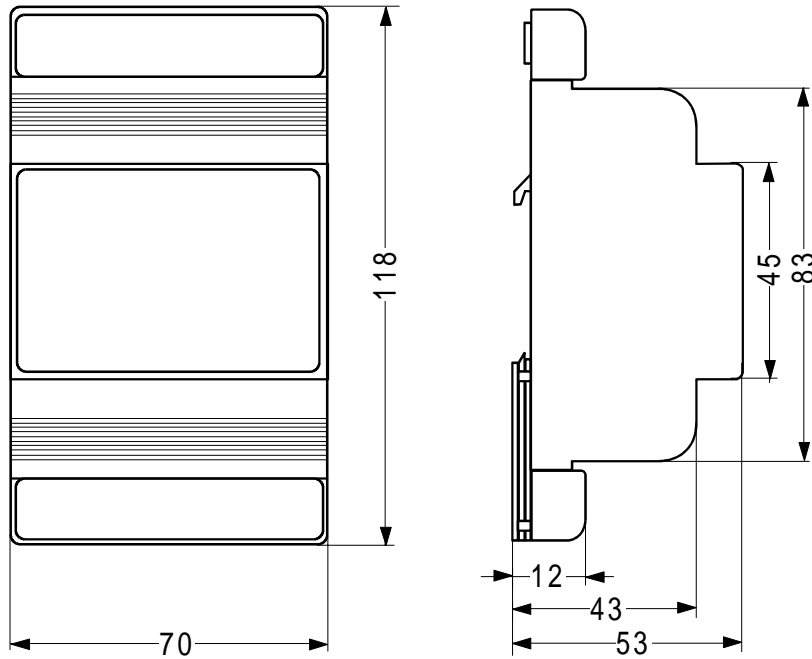
Example2: One stage direct acting (DA), one stage reverse acting (RA) (e.g. 1 compressor and 1 heating coil)



Example3: Two reverse acting (RA) stages (e.g. 2 heating coils)



Dimensions (mm)



Specifications

Models	SR-9100-1	SR-9100-2
Supply voltage (50/60 Hz)	24 VAC	230 VAC
Tolerance	-15%/+10%	-15%/+10%
Power consumption	4.5 VA	3 VA
Input	0...10 VDC	
Outputs	SPDT contact, 250 VAC, 10 (5) A.	
15 VDC supply to transducer	max. 10 mA.	
Setpoint Range	5...95 % (0.5...9.5 VDC)	
Differential range	5...60 % (0.5...6.0 VDC)	
Time delay	stage1: 1 second stage 2: 2 seconds	
Action mode	Direct action (DA) or reverse action (RA) adjustable for each stage	
Ambient Operating condition	-10 to +50 °C, 10...90 % R.H., non condensing	
Ambient Storage condition	-40 to +70 °C, 10...90 % R.H., non condensing	
Terminations	Fixed screw terminals for max. 1 x 2.5 mm ² wire	
Mounting	DIN omega rail 35 mm (EN50022)	
Housing	Material: ABS Polycarbonate (self extinguishing)	
Protection class	IP30, (IEC 44)	
Weight, excl. packaging	315 g (1.1 Lb)	
CE Compliance	EMC Directive (89 / 336 EMC)	

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

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