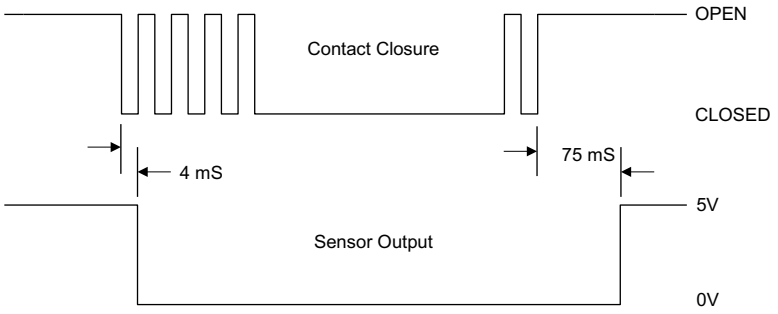
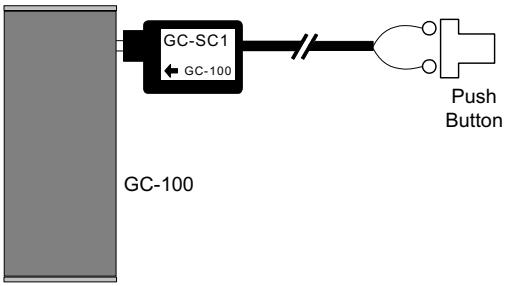
Global Caché
GC-SC1
Contact Closure Sensor

The Global Caché GC-SC1 is a contact closure sensor. Its circuitry provides a rapid response to contact closure (4mS typ) with a slow response to contact opens (75mS typ). This eliminates false triggers due to contact bounce created by mechanical contacts coming together, such as push buttons or relays. The following illustrates a typical push button installation along with the GC-SC1 response.



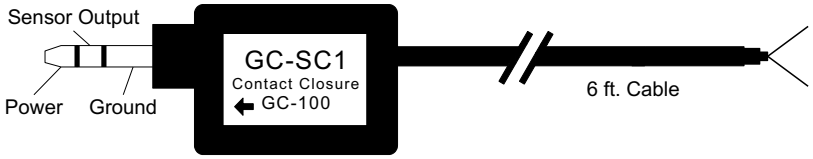
GC-SC1 Output Diagram

The GC-SC1 plugs directly into the GC-100 Network Adapter's IR/Sensor connector for proper operation. (The GC-100 connector must be configured as an input. See the *GC-100 Quick Start* for more information.) The GC-SC1 is connected directly across the contacts, with the open/close state to be determined. There is no polarity to the wiring. Below is a typical installation using the GC-SC1.



Using the GC-SC1 to detect a push button

The GC-SC1 requires +5V (supplied by the GC-100) to operate and provides a logic level output representing the contact closure state. The pin assignments are shown in the diagram below.



Specifications:	Minimum	Typical	Maximum
Sensor output from contact CLOSE	-	4.0 mS	6.0 mS
Sensor output from contact OPEN	-	75 mS	90 mS
Steady-state current for contact CLOSE	-	50 µA	75 µA
In-rush current at initial CLOSE	-	1.5 mA	2.0 mA
Sensor output ON voltage @100µA	Vcc – 0.1V	-	-
Sensor output OFF voltage @100µA	-	-	0.1V
Vcc, Supply Voltage	4.50V	-	5.50V
Supply Current	-	50µA	100µA

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