

PERTRONIC INDUSTRIES LTD

INSTALLATION DATASHEET Agent Release Solenoid Interfaces ARCSI & ARCSI-MM

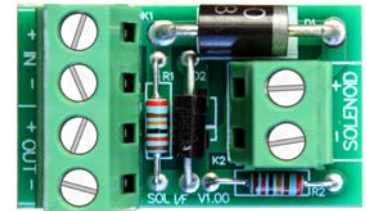


Overview

Pertronic **ARCSI** and **ARCSI-MM** solenoid interfaces allow analogue addressable control modules and the Pertronic Agent Release Controller (ARC) to activate and supervise (monitor) a wide range of solenoids.

There are two solenoid interfaces:

- **ARCSI** (Agent Release Solenoid Interface): For use with the Pertronic Extinguishing Agent Release Controller, the Pertronic Loop Relay, and the Pertronic Multi-Function Loop Responder
- **ARCSI-MM** (Agent Release Solenoid Interface - Module Monitored): For use with System Sensor modules such as the M500S or SC-6



Agent Release Solenoid Interface (ARCSI)

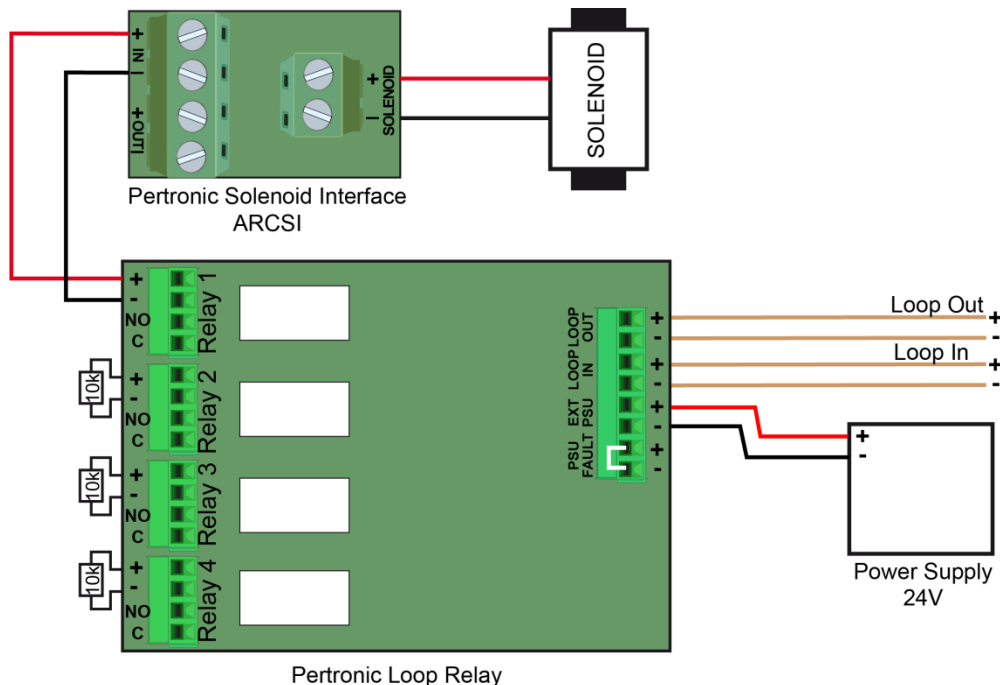
These interfaces have end-of-line (EOL) resistors which allow reverse-polarity fault supervision systems to identify open-circuit faults including disconnected or open-circuit solenoids. The fault supervision system will also identify a short-circuit fault in the cabling between control module and solenoid interface, but not a short circuit across the solenoid itself.

Specification

Dimensions	20.5 mm x 35.5 mm x 15 mm	L x W x H
Operating Voltage	0 Vdc to 30 Vdc	
Operating Current	Up to 3 Amps	Actual current capacity is limited by the capacity of the control module's relay output.
End of Line Resistor	ARCSI 10 kΩ	(2 x 20 kΩ in parallel)
	ARCSI-MM 60 kΩ	(2 x 120 kΩ in parallel)

Operation: Active = True (Input polarity as marked, to activate the solenoid.)
Supervision = False (Input polarity reversed, for fault supervision.)

Typical Connections: ARCSI (for Pertronic Products)



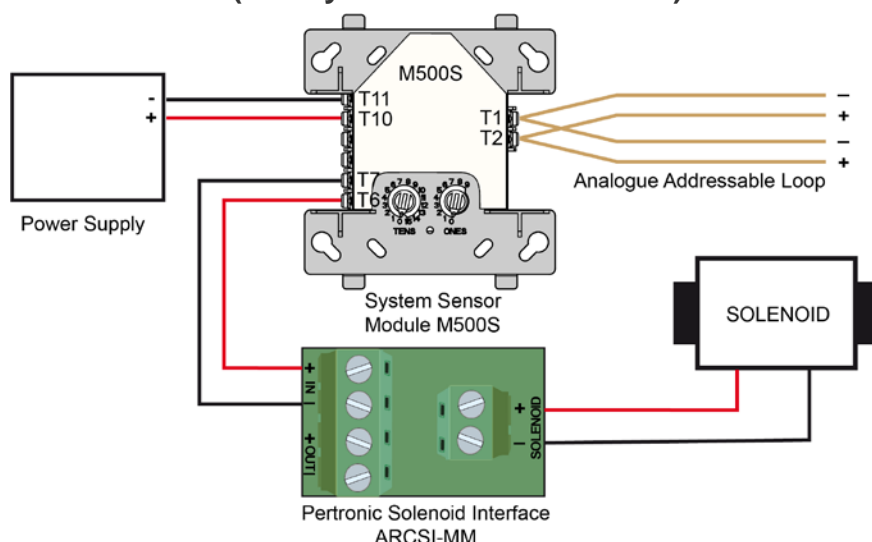
Up to four Pertronic Agent Release Solenoid Interfaces (ARCSI) may be connected to a Pertronic Loop Relay. The diagram (above) shows one ARCSI connected to the "Relay 1" output (K1) of a Loop Relay. Connections for Relays 2-4 are similar. The current load per Loop Relay output must not exceed 1 Amp.

The ARCSI solenoid interface must be mounted as close as practicable to the solenoid.

The ARCSI may also be connected to the Multi-Function Loop Responder's relay output or to the Agent Release Controller's detonate output. Please refer to the relevant technical manual for current specification and connection details.

Note that the solenoid current may exceed the analogue addressable loop current capacity. If using a Loop Relay or Multi-Function Loop Responder, an external power supply may be required.

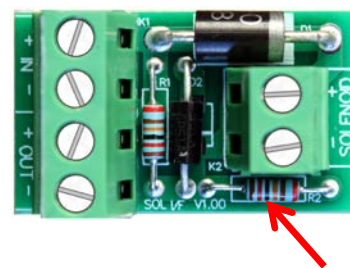
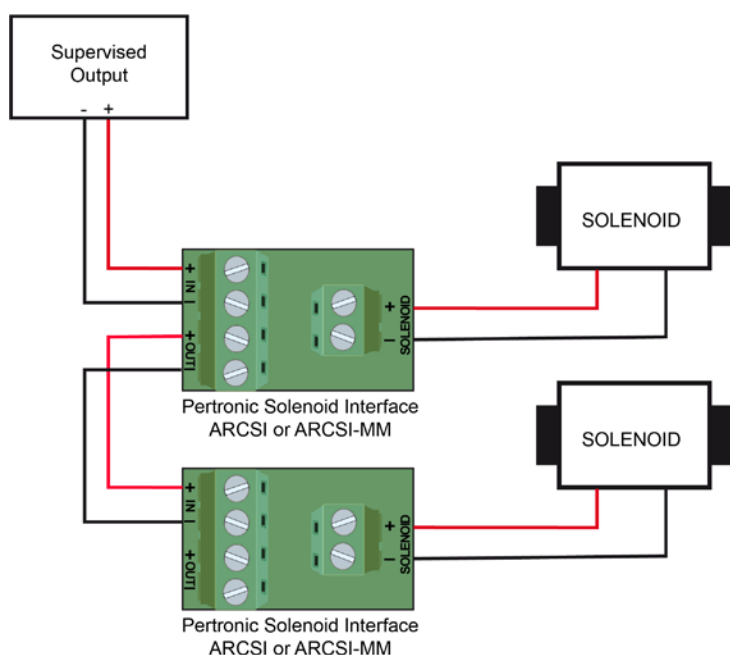
Typical Connections: ARCSI-MM (For System Sensor Modules)



The above diagram shows a Pertronic Agent Release Solenoid Interface-Module Monitored (ARCSI-MM) with a System Sensor M500S Module. The ARCSI-MM solenoid interface must be mounted as close as practicable to the solenoid. Note that the solenoid current may exceed the analogue addressable loop current capacity. If so, an external power supply will be required, as shown in the diagram.

The ARCSI-MM may also be connected to a System Sensor SC-6 module.

Connecting Two Solenoids in Parallel to a Single Output



If two ARCSI or ARCSI-MM are connected to in parallel, remove resistor R2 on both interfaces.

Up to two solenoids may be connected in parallel (above left). Each solenoid must have a separate solenoid interface. On each interface, remove resistor R2 (above right) to obtain the correct EOL resistance.

Driving 12-Volt Solenoids from a 24-Volt Power Supply

To drive one or more 12-Volt solenoids from a 24-Volt output, either:

- Connect a suitably-rated resistor, with the same resistance as the solenoid, in series with the solenoid, or
- Connect two 12-Volt solenoids in series, to a single ARCSI or ARCSI-MM.

Ordering Information

Product Code	Description
ARCSI	Agent Release Solenoid Interface
ARCSI-MM	Agent Release Solenoid Interface - Module Monitored