

900 MHz

Wireless Switch Follower/Digital/Analog Sensor Receiver

The SF900C Analog Sensor, Remote Control/Switch Followers are a system designed to provide a quick and cost effective solution for a variety of wireless switching and remote sensing applications. Each transmitter has 4-Analog inputs, 4-Digital inputs and 4-Relay outputs. Each receiver has 4-Analog outputs, 4-Relay outputs and 4-Digital inputs.

The universal Analog inputs are default 0-10 VDC but can be jumper selected for for 10k thermistors or 4-20mA inputs. The analog outputs are set up for both 4-20mA and 0-10 VDC on separate terminals. Custom versions are available to accommodate other analog inputs and outputs, as well as two-way communication.

The Digital inputs are opto-isolated and may be operated by an applied voltage that can be supplied by a power source from 5 to 24 Volts AC or DC through a switch contact, relay, sensor, PLC output, etc. The digital outputs are isolated relay contacts.

The one-way digital systems (see table below) can work point-to-multipoint. The 2-way digital products work only as pairs.

These products utilize spread spectrum technology and are immune to interference and multipath fading. These systems will not interfere with wifi networks.



Features

- 8-Input Channels/8-Output Channels
- 4 Channel-Analog Inputs/Outputs
 - 10k Thermistor (input only)
 - 4-20mA
 - 0-10V
- 2-Way, 4-Channel Digital (On/Off) Inputs/Relay (10A) Outputs
- Long Range: 2-miles+
- Spread Spectrum Technology
- Isolated Inputs and Outputs
- 12-24 Volt DC Operation
- Accuracy +/-0.2% Full Scale
- Optional NEMA IP65 Enclosure
- Antenna Included
- FCC Certified
- Made in USA

Typical Applications

- Thermistor/Remote Temperature Monitoring
- Other sensor Monitoring
- Solenoid Control
- PLC Activation
- HVAC Control

Ordering Information

Model No. (sets)	Product Description	Digital ON/OFF Response Time	Analog Samples /Sec	Range (Miles)	2-way digital (4-ch.)	1-way Digital (4-ch.)	1-way Analog (4-ch.)
SFA900C8-B-1-PR	Transmitter/Receiver Pair	180 ms	1.5	2.5	√		√
SFA900C8-B-S-PR	Transmitter/Receiver Pair	180 ms	4	2.5		√	√
SFA900C8-J-1-PR	Transmitter/Receiver Pair	58 ms	6	0.5	√		√
SFA900C8-J-S-PR	Transmitter/Receiver Pair	58 ms	22	0.5		√	√
-OPT14	IP67 Watertight Encl.						

Specifications subject to change without notice or obligation.

Electrical Characteristics

Sym	Parameter	Min	Typ	Max	Unit
	Operating Voltage Range	10	12	36	Volts DC
	Operating Current, Receive Mode		45	56	mA
	Operating Current, Transmit Mode		212	225	mA
	Digital Input Resistance		4.7K		Ohms
	Digital Input Voltage	5		24	Volts AC or DC
	Output Relay Contact Ratings at 28VDC			10	Amps
	4-20mA Output Load (12VDC Supply)			300	Ohm
	4-20mA Output Load (24VDC Supply)			900	Ohm
f	Frequency Range	902		928	MHz
Z _{out}	Antenna Input Impedance		50		Ohms
T _{op}	Operating Temperature	-20		+60	C

Transmitter/Receiver Detail

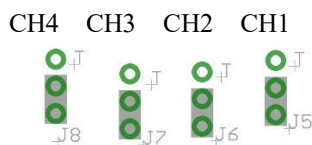
Model	Description	Digital Response Time	Analog Samples/Sec	Frequency (MHz)	Analog Input Types	Range (Feet)	Relay Output	Digital Input Channel	Analog Input Channels	Relays Output	Analog Output Channel	Supply Voltage
One Way Analog, Two Way Digital												
SFA900C8-B-AI-1	Transmitter	180	1.5	902-928	0-10V/ 4-20mA/ 10k Thermistor	2.5 mi+	SPDT, 10A	4	4	4	0	12-30V DC
SFA900C8-B-AO-1	Receiver	180	1.5	902-928		2.5 mi+	SPDT, 10A	4	0	4	4	12-30V DC
One-Way Analog, One-Way Digital												
SFA900C8-B-AI-S	Transmitter	180	4	902-928	0-10V, 4-20mA, 10k Thermistor	2.5 mi+	none	4	4	0	0	12-30V DC
SFA900C8-B-AO-S	Receiver	180	4	902-928		2.5 mi+	SPDT, 10A	0	0	4	4	12-30V DC
One Way Analog, Two Way Digital												
SFA900C8-J-AI-1	Transmitter	58	6	902-928	0-10V, 4-20mA, 10k Thermistor	0.5 mi+	SPDT, 10A	4	4	4	0	12-30V DC
SFA904C8-J-AO-1	Receiver	58	6	902-928		0.5 mi+	SPDT, 10A	4	0	4	4	12-30V DC
One-Way Analog, One-Way Digital												
SFA900C8-J-AI-S	Transmitter	58	22	902-928	0-10V, 4-20mA, 10k Thermistor	0.5 mi+	none	4	4	0	0	12-30V DC
SFA900C8-J-AO-S	Receiver	58	22	902-928		0.5 mi+	SPDT, 10A	0	0	4	4	12-30V DC

Note: -14 Watertight Polycarbonate Enclosure option may be ordered separately for transmitters and receivers.

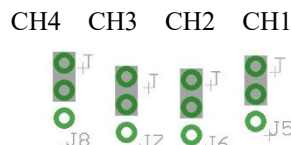
Optional Antenna Bulkhead Extension Cables

Model	Description	Length
600279-8	RPSMA Male to Female	8 Inches
600279-L100E-24	LMR-100 or Equiv.	24 Inches
600279-10F-L200	LMR-200 or Equiv.	10-Ft
600279-15F-L200	LMR-200 or Equiv.	15-Ft
600279-20F-L200	LMR-200 or Equiv.	20-Ft
600279-25F-L200	LMR-200 or Equiv.	25-Ft
Other lengths available		

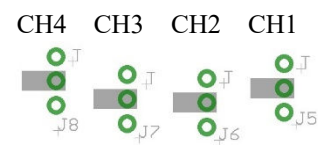
ANALOG INPUT JUMPER SELECTIONS



4 to 20ma Current Input



10K ohm Thermistor input



Zero to 10 VOLT INPUT

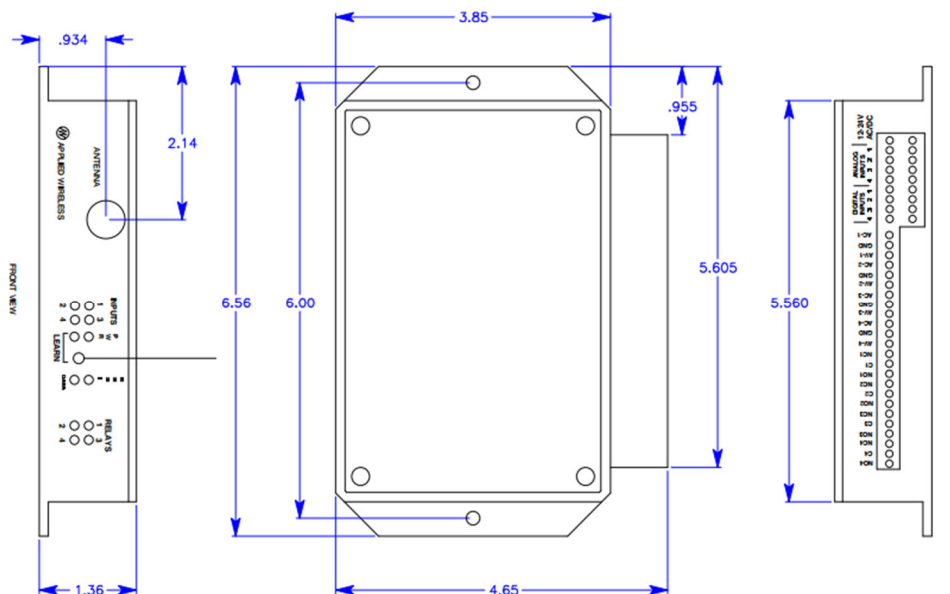
Specifications subject to change without notice or obligation.

SFA SERIES LEARN PROCEDURE

The standard configuration is one transmitter and one receiver. They are supplied already paired at the factory. The learn procedure will have to be re-done when adding units, replacing units, or changing the frequency (discussed next).

The learn process is initiated by pressing the learn button on the transmitter and on the receiver. Their respective learn lights will flash. This places both units to a particular frequency used for learning. The second push of the learn button on the receiver will trigger the learning process. Once completed the lights will turn Off. The receiver will have learned the transmitter's address code and frequency.

Additional receivers can be added one at a time using the same process. However, the covers will have to be removed from the additional receivers and the ACK jumper will have to be moved to the NO ACK position to disable acknowledgements. Only one receiver can respond to acknowledgement requests from the transmitter to avoid collisions.



FCC ID: QY4-618

"This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."

INSTRUCTION TO THE USER

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an experienced radio/TV technician for help.

Changes or modifications not expressly approved by Applied Wireless could void the user's authority to operate the equipment.

Specifications subject to change without notice or obligation.

www.appliedwireless.com • Tel: (805) 383-9600 • sales@appliedwireless.com

Revised 1/07/2026