

DREXELBROOK®

900 MHz Wireless Transceiver for Outdoor Service

Model RAD-900-DAI06 // Part #: 2702877-DRX



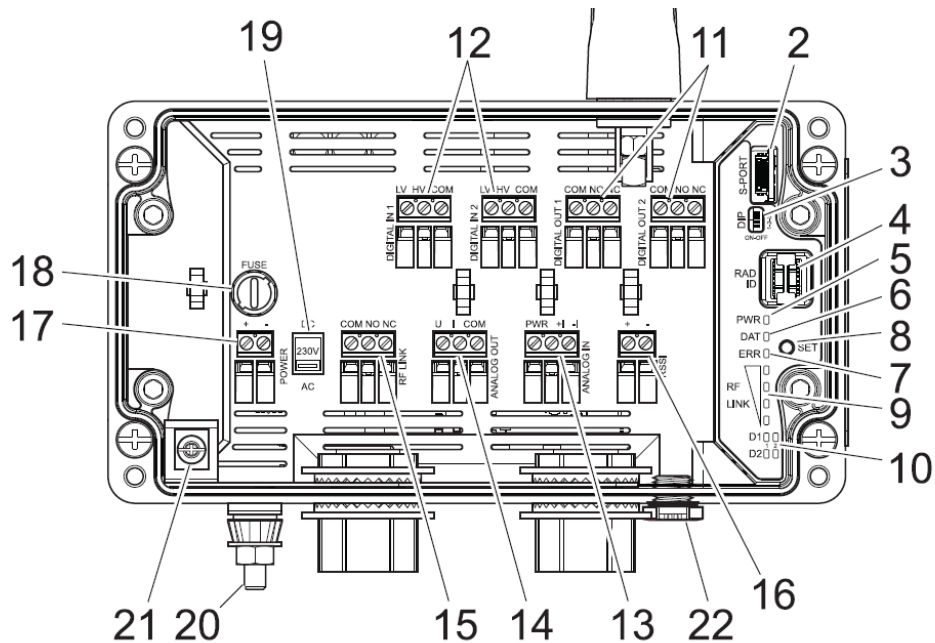
900 MHz wireless transceiver integrated I/O. Radioline - 900 MHz wireless transceiver with six integrated I/O channels, NEMA 4X enclosure, N (female) antenna connection, omnidirectional antenna, point-to-point, star, and mesh networks up to 250 stations, range of up to 32 km (line of sight), for use in North America. It can be used as master, slave or repeater/slave. For wireless networks (point-to-point, star-shape, mesh) with up to 250 devices.

FEATURES

- Completely compatible with existing Phoenix Contact Radioline installations
- Power using AC mains or DC control voltages
- Range of several miles thanks to adjustable data rate for wireless interface
- Outdoor Rated: NEMA 4X housing reduces time and complexity of installation

900 MHz Wireless Transceiver

OPERATING ELEMENTS

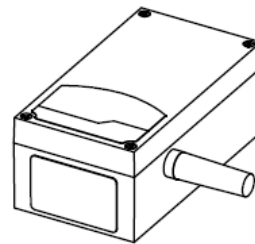
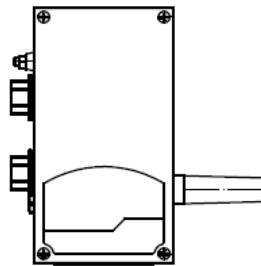
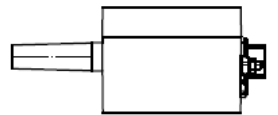
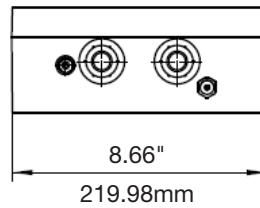
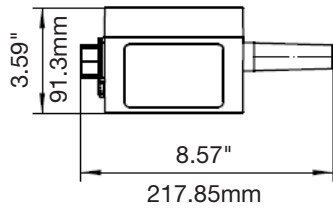
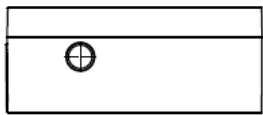
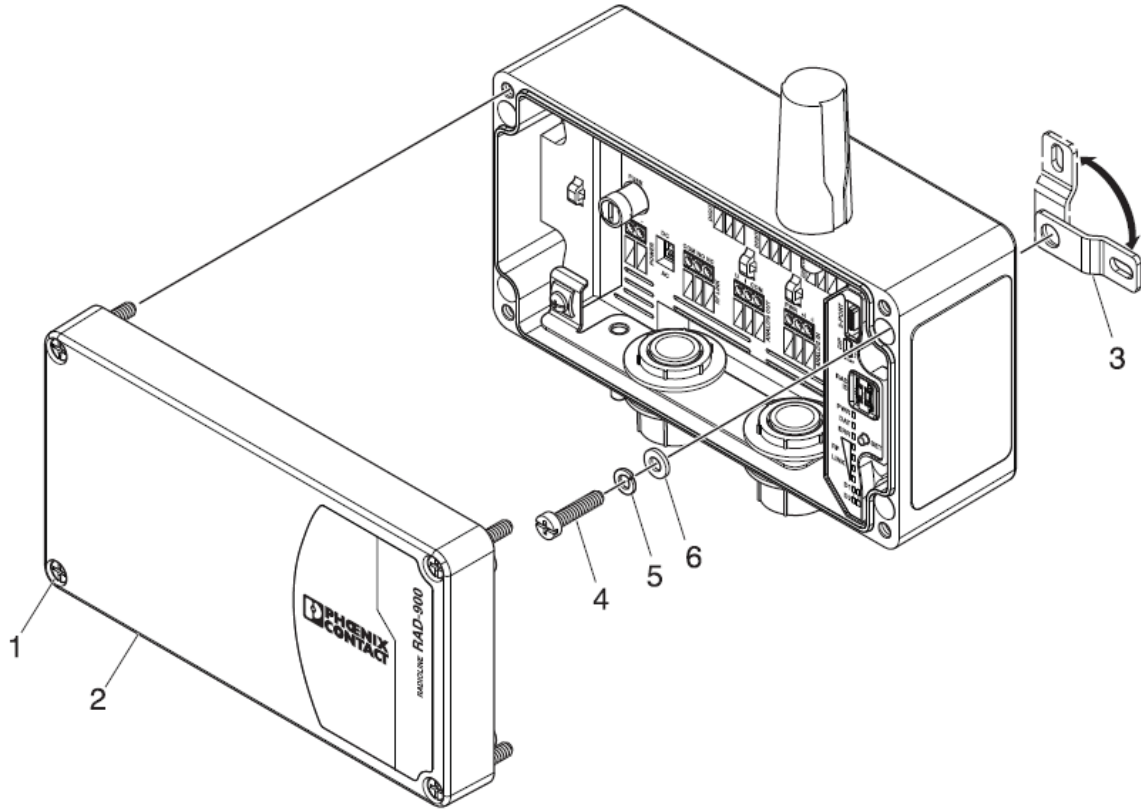


Operating elements

1	N-type antenna	12	Digital input as wide-range input
2	12-pos. programming interface (S-PORT)	13	Analog input for 2-, 3-, and 4-wire measuring transducers
3	DIP switches for configuring I/O	14	Analog output (current or voltage)
4	RAD ID address setting via thumbwheel	15	RF Link
5	PWR status LED, green (supply voltage)	16	Test output RSSI (0...3 V DC) for evaluation of the wireless signal strength
6	DAT status LED, green (bus communication)	17	Device supply (+24 V DC/120 V AC, 0 V/neutral)
7	ERR status LED, red (communication error)	18	Fuse, 5x20 mm, 250 V, 0.8 A slow-blow
8	SET button	19	Power selection switch
9	LED bar graph for displaying the wireless signal strength	20	Ground lug
10	Status LEDs	21	Internal ground screw
11	Relay output with PDT contact (floating)	22	Breather

900 MHz Wireless Transceiver

DIMENSIONS



900 MHz Wireless Transceiver

TYPICAL INSTALLATIONS

Point to Point Wireless I/O (Outdoor)



RAD-900-DAIO6 Transceiver
(2702877-DRX)



RAD-900-DAIO6 Transceiver
(2702877-DRX)

Point to Point Wireless I/O (Outdoor/Indoor)

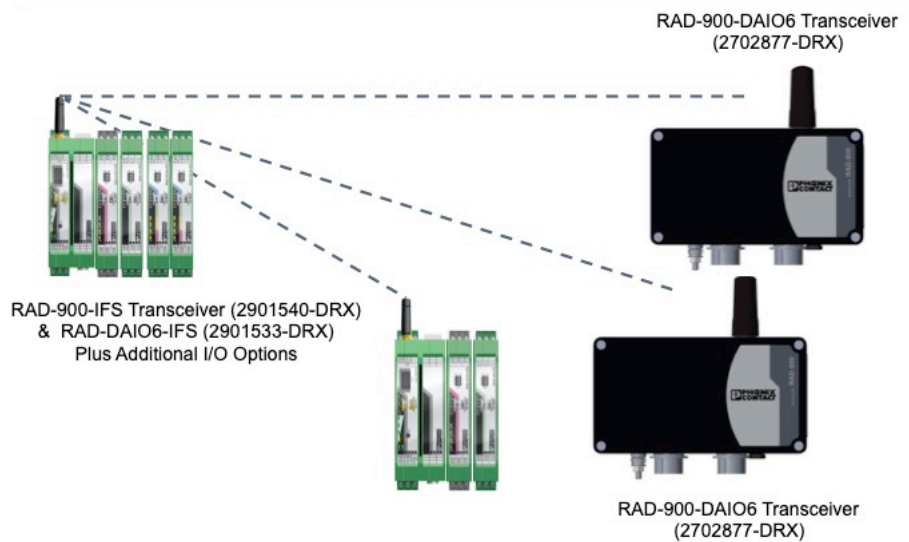


RAD-900-IFS Transceiver (2901540-DRX)
& RAD-DAIO6-IFS (2901533-DRX)



RAD-900-DAIO6 Transceiver
(2702877-DRX)

Point to Multipoint Wireless I/O



900 MHz Wireless Transceiver

TECHNICAL DATA

RAD-900-DAIO6		2702877-DRX
Wire-clamp screw torque	Screw connection	0.5 ... 0.6 Nm
Conductor cross section		0.14 ... 2.5 mm ² (AWG 26 ... 14)
Supply voltage range		10.8 V DC ... 30.5 V DC 100 V AC ... 240 V AC
Max. current consumption	10.8 V DC	368 mA
	30.5 V DC	135 mA
	100 V AC	116 mA
	240 V AC	60 mA
Nominal power consumption		3.9 W
Transient surge protection	Yes	
WIRELESS PATH		
Direction	Bi-directional	
Frequency range		902 MHz ... 928 MHz
Data rate	adjustable	16 kbps/125 kbps/ 250 kbps/500 kbps
Transmission power	adjustable	max. 1 W
Security	128-bit data encryption	
Connection method	N (female)	
Analog output	RSSI voltage output	0 V ... 3 V
Digital output	RF link relay output	
Contact type	PDT	
Switching voltage		30 V AC/DC
Switching current		500 mA
Analog input	Number of inputs	1
Signal range	can be set via DIP switches	0 mA ... 20 mA/ 4 mA ... 20 mA
Maximum input signal		22 mA
Input resistance		<70 Ω
Accuracy	at 25°C	≤0.02 %
Temperature coefficient, typical	at -40 °C ... +70°C	typ. 0.0025%/K
Supply voltage	For passive sensors (via terminal PWR1, +1)	≥12 V DC
Digital input	Number of inputs	2
Input frequency		≤2 Hz
Current draw		<1 mA
Analog output	Number of outputs	1
Output signal		0 mA ... 20 mA (0 V ... 10 V) 4 mA ... 20 mA
Maximum output signal		approx. 21.67 mA (approx. 10.83 V)
Accuracy	at 25°C	≤0.02% (typ. 0.5%)
Load		≤500 Ω (≥10 kΩ)
Temperature coefficient, typical	at -40°C ... +70°C	typ. 0.0025%/K
Digital output	Relay output	2
Max. switching voltage		250 V AC

Min. switching current		≥10 mA
Max. switching current		2 A
Max. switching frequency		2 Hz
GENERAL DATA		
Switching level 1 signal ("H")	Low-voltage input	10 V AC/DC... 50 V AC/DC
	High-voltage input	50 V AC/DC... 250 V AC/DC
Switching level 0 signal ("L")	Low-voltage input	0 V AC/DC... 4 V AC/DC
	High-voltage input	0 V AC/DC... 20 V AC/DC
Degree of protection		NEMA 4
Ambient temperature (operation)	DC	-40°C ... 70°C
Ambient temperature (operation)	AC	-40°C ... 65°C
Humidity		20% ... 85%
Maximum altitude for use above sea level		2000 m
Housing material	Glass-reinforced plastic (GRP)	
Inflammability class in acc. with UL 94		V0
Dimensions W/H/D		220 mm/90 mm/120 mm
ELECTRICAL ISOLATION		
Analog I/O	Rated insulation voltage (in each case between the analog inputs/analog outputs/AC supply, reinforced insulation according to EN 61010)	300 V
Analog I/O and power	Rated insulation voltage (in each case between the analog inputs/analog outputs/DC supply, reinforced insulation according to EN 61010)	50 V
Digital I/O	Rated insulation voltage (in each case between the digital inputs and digital outputs, reinforced insulation according to EN 61010)	300 V
Digital/Analog I/O	Rated insulation voltage (in each case between the digital inputs and outputs and between the analog inputs and outputs, reinforced insulation according to EN 61010)	300 V
Overvoltage category		II
Degree of pollution		2
Test voltage for digital I/Os	60 Hz, 2 s	2.5 kV AC
Test voltage for analog I/Os	60 Hz, 2 s	2.5 kV AC
CONFORMANCE/APPROVALS		
	FCC Directive, Part 15.247	
	ISC Directive RSS 210	
	UL USA/Canada	ANSI/ISA/CSA 22.2 61010-2-201, UL 50E Type 4
	UL, USA/Canada	Class I, Div. 2, Groups A, B, C, D T4 Class I, Zone 2, IIC T4