

DREXELBROOK[®]

900 MHz Wireless 4 Input I/O Extension Module

I/O Extension Module, 4 Analog Inputs

RAD-AI4-IFS // Part# 2901537-DRX



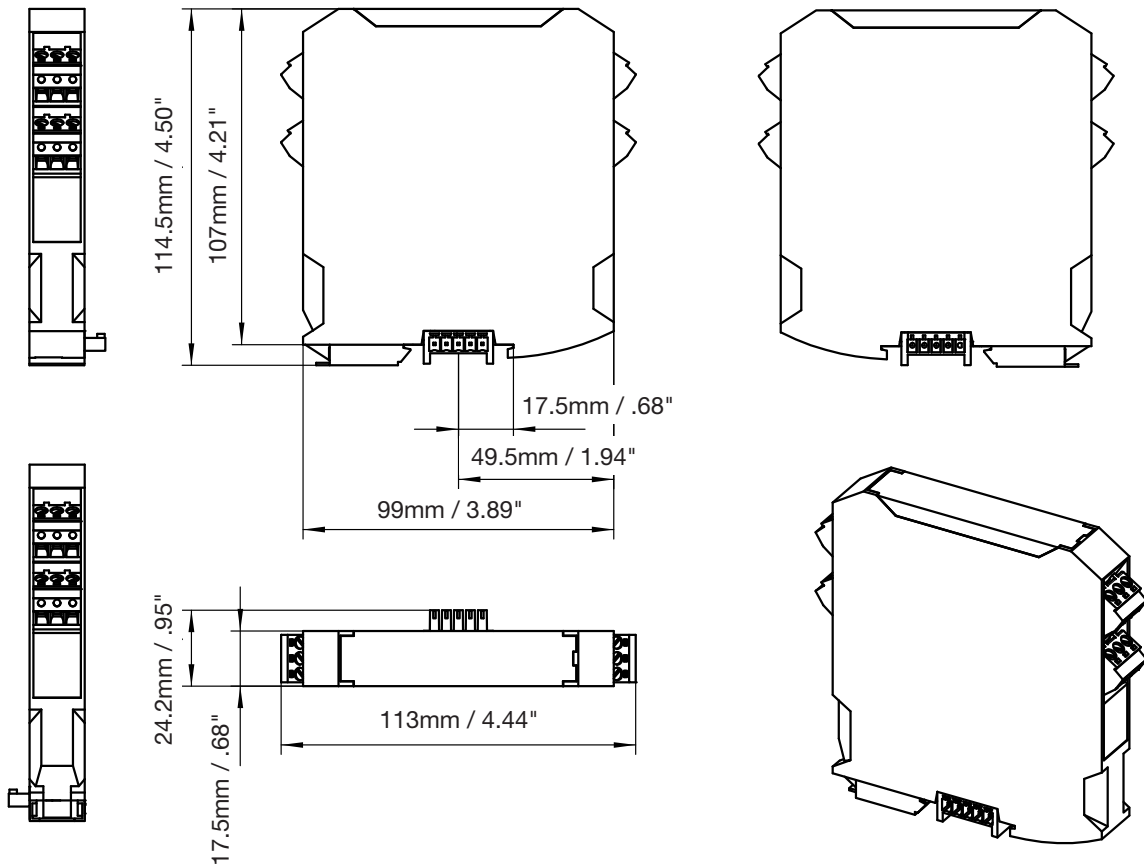
FEATURES

- Easy and tool-free I/O mapping via thumb wheel on the front
- Modular design via DIN rail connector (hot-swap capable)
- Channel-to-channel electrical isolation
- 4 analog inputs (alternatively 0/4 ... 20 mA)
- 16-bit resolution of the analog inputs (accuracy < 0.02%)
- Loop-power function for passive sensors
- International approvals
- Installation in Ex zone 2

The RAD-AI4-IFS I/O extension module can be used in conjunction with Radioline wireless modules and other Interface System (IFS) master devices. In a station structure, you can connect up to 32 I/O extension modules to a wireless module via the DIN rail connector. The RAD-AI4-IFS analog I/O extension module is used for processing four input signals.

900 MHz Wireless Transceiver

DIMENSIONS



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TECHNICAL DATA

DIMENSIONS	
Width	17.5 mm
Height	99 mm
Depth	114.5 mm
GENERAL	
Overvoltage category	II
Mounting position	any, on standard DIN rail NS 35 in accordance with EN 60715
Degree of protection	IP20
Degree of pollution	2
Type of housing	PA 6.6-FR, green
Flammability rating according to UL 94	V0
MTTF (mean time to failure) Telcordia standard 25°C temperature, 21% operating cycle (5 days a week, 8 hours a day)	771 Years
MTTF (mean time to failure) Telcordia standard, 40°C temperature, 34.25% operating cycle (5 days a week, 12 hours a day)	351 Years
MTTF (mean time to failure) Telcordia standard, temperature 40 °C, operating cycle 100 % (7 days a week, 24 hours a day)	136 Years
SUPPLY	
Supply voltage range	19.2 V DC ... 30.5 V DC (DIN rail connector)
Max. current consumption	≤ 120 mA (At 24 V DC, at 25°C)
Transient surge protection	Yes
ANALOG INPUT	
Number of inputs	4
Current input signal	0 mA ... 20 mA (can be set via DIP switches) 4 mA ... 20 mA (can be set via DIP switches)
Max. current input signal	22 mA
Input resistance current input	< 70 Ω
Precision	≤ 0.02 % (at 25 °C)
Temperature coefficient, typical	0.0025 %/K (at -40 °C ... +70 °C)
Supply voltage	≥ 12 V DC (For passive sensors (via terminal PWR1, +I1))
Resolution (bit)	16 (Bit)
Protective circuit	Short-circuit and overload protection
ELECTRICAL ISOLATION	
Analog I/O	50 V (Rated insulation voltage (in each case between the TBUS analog outputs / supply, reinforced insulation according to EN 61010)) 300 V (Rated insulation voltage (to adjacent devices, basic insulation in accordance with EN 61010))

TEST VOLTAGE	
Analog I/O	1.5 kV AC (50 Hz, 1 min.)
CONNECTION DATA	
Connection method	Screw connection
Conductor cross section, solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section, flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG/kcmil	24 ... 14
Stripping length	7 mm
Tightening torque	0.6 Nm
STATUS INDICATION	
Status display	Green LED (supply voltage, PWR) Green LED (bus communication, DAT) Red LED (periphery error, ERR)
AMBIENT CONDITIONS	
Ambient temperature (operation)	-40 °C ... 70 °C (>55°C derating) -40 °F ... 158 °F (>131°F derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C -40 °F ... 185 °F
Permissible humidity (operation)	20 % ... 85 %
Permissible humidity (storage/transport)	20 % ... 85 %
Altitude	2000 m
Vibration (operation)	in accordance with IEC 60068-2-6: 5g, 10 Hz ... 150 Hz
Shock	16g, 11 ms
OPERATING CONDITIONS FOR THE EXTENDED TEMPERATURE RANGE (+55 °C ... 70 °C)	
No function restrictions for the extended temperature range if you keep a minimum distance of 17.5 mm between the modules. The minimum distance is the width of a DIN rail connector. Otherwise please observe the following restrictions: – Make sure that no more than 40 mA in total is drawn from the loop-powered PWR1 ... PWR4 outputs. Individual operating conditions on request.	
CERTIFICATIONS	
Conformance	CE-compliant EAC
ATEX Please follow the special installation instructions in the documentation!	⊕ II 3 G Ex nA IIC T4 Gc (IBExU 15 ATEX B008 X)
IECEx	Ex nA IIC T4 Gc (IECEx IBE 13.0019X)
UL, USA/Canada	UL 508 Listed Class I, Div. 2, Groups A, B, C, D T4A Class I, Zone 2, IIC T4
CONFORMANCE	
EMC directive 2014/30/EU	EN 61000-6-2; EN 61000-6-4
Ex directive (ATEX)	EN 60079-0; EN 60079-15

Phone: +1 215-674-1234 • Fax: +1 215-674-2731

E-mail: drexelbrook.info@ametek.com

205 Keith Valley Road | Horsham PA 19044 U.S.A.

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DREXELBROOK
www.Drexelbrook.com