

## Remote Intelligent Sensor (RIS)

The RIS (Remote Intelligent Sensor) is housed in an environmentally sealed (NEMA 4), tamper-resistant enclosure with an external membrane switch control panel. The unit operates on DC current from an external power supply, and has internal battery backup which enables the RIS to operate up to seven hours in case of a power outage. A large, easy-to-read LCD indicates gas concentration and features a "strobing" visual alarm that is triggered when a preset alarm level is exceeded. The LCD also shows self-diagnostic data such as unit readiness, alarm set level, battery current and charge voltage, percent of sampling tape remaining and fault situations. Typically, up to eight hours of sampling data can be stored in the Remote Intelligent Sensor's internal memory. This allows personnel to review data over the course of an entire workday to pinpoint when and where toxic gas concentrations occur. The unit calculates eight hour and 15 minute PNA values and can be set to alarm at TWA and STEL values.



## How to Order an RIS

### Step 1: Which gas do you wish to detect?

This will help you determine the instrument part number.

### Step 2: Order the required tape cassette.

Tape cassettes are ordered separately. Ordering cassettes through a blanket order is recommended. Each cassette lasts approximately 60 days. Cassettes should not be stored over 4 months in ambient conditions. Do not use cassette beyond the end-of-life date marked on the case.

### Step 2: What power supply do you need?

AC power supply is required.

**Note:** Each RIS comes equipped with a backup battery.

### Step 3: What alarming needs do you have?

The RIS provides only a visual indication of the reading. No audible alarm or siren is installed.

### Each unit can be equipped with:

- An Alarm Module Kit that can accommodate common visual and audible alarms for up to three instruments.
- An optional relay board that provides up to three relay outputs per instrument for separate alarm annunciation devices.

ITEM#	Remote Intelligent Sensor (RIS)
BAC-2772-0010	TDI RIS Monitor
BAC-2772-0120	RIS MDI High Flow Model, Range: 0-200 PPB, Alarm 1= 5 PPB / Alarm 2=10 PPB, Flow = 700 cc/min
BAC-2772-0160	RIS TDI, MDI, IPDI Monitor High Flow Model, Range: 0-200 PPB Alarm 1= 5 PPB / Alarm 2= 10 PPB, Flow: 700cc min
BAC-2772-0110	RIS Phosgene (non-reactive to Chloroformates) "B" Monitor Range: 0 to 5 PPM, Alarm 1= 0.05 PPM / Alarm 2 = 0.1 PPM
BAC-2772-1010	TDI Cassette, R.I.S.
BAC-2772-1120	MDI Cassette, R.I.S.

## Specifications

<p><b>Accuracy:</b>                      PPB Ranges: ±15% of reading ±1 ppb                      PPM Ranges: ±15% of reading ±0.01 ppm  <b>Exceptions:</b>                      #2772-0020: ±20% of reading ± 0.01 ppm                      #2772-0035: ±20% of reading ±0.02 ppm  <b>Dimensions:</b>                      7" Depth x 11.75" Width x 7.875" Height                      (17.8 cm D x 29.8 cm W x 20 cm H)  <b>Weight:</b>                      11.5 lbs. (5.2 kg)  <b>Enclosure:</b>                      IP-55 with sealed glands (NEMA 4)  <b>Cable Glands:</b>                      3x for input/ output cables  <b>Power Input Requirements:</b>  <b>Power Transformer</b>                      12 V DC  <b>Input Current:</b>                      Depends on model and conditions  <b>Low Flow Models:</b>                      (200 cc/ min. or less)                      • Normal run current (charged battery) =150 to 200 mA                      • Run current (discharged battery) =500 to 700 mA  <b>High Flow Models:</b>                      (700 cc/ min. or less)                      • Normal run current, (charged battery) =250 to 300 mA                      • Run current (discharged battery) =600 to 800 mA  <b>Solid State Relay Output:</b>  <b>Standard System</b>                      1 Combined Gas/ Fault Alarm  <b>Optional Outputs</b>                      2 Gas Alarms, plus 1 Fault Alarm  <b>Ratings</b>                      Devices rated at 1A/ 60 V DC max.                      Surge current (1 second) = 5A peak.                      Turn on/ off time = 50 ms                      On state voltage = 1.5 V DC                      Logic: Device normally "closed," opens on alarm (with standard system software).</p>	<p><b>Analog Output:</b>  <b>Standard:</b>                      4–20 mA is available on the instrument.                      0–1 V DC can be hardware selected.                      In both cases the minimum = zero concentration, and the maximum value = system range maximum. (Other configurations available. Please contact Customer Service)  <b>Display:</b>                      5.7" (145mm) x 3.2" (81 mm)  <b>Displayed parameters include:</b>                      System Readiness status                      Measured Concentration (3 decades of ppb or ppm)                      Tape Remaining, and icons for Gas and Fault alarms.  <b>In the TEST Mode, display includes:</b>                      Alarm Set Point(s); System Current (mA); Alarm Type; Regulated Voltage (V); Active Gas Type; Track 1 and 2 Light Levels; Date and Time.  <b>Front Panel:</b>                      (Membrane switch panel)                      Four switches for the following functions:                      Print                      8 hour TWA/ Digit set                      15 min. TWA/ Decade                      Hold/ Release  <b>Sealed Lead Acid Battery:</b>                      6 v / 1.1 Ah Charge maintained with external power connected.                      (internal power switch SW1 can be on or off).  <b>Temperature Range:</b>                      –10 °C to +40 °C (operating) (Instrument Only)  <b>Relative Humidity:</b>                      (System Hardware): 5–95% (non-condensing)  <b>Sampling Input FEP:</b>                      Teflon input tubes</p>
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