NOTE: Series B14 Alarm Modules will operate with either 2 or 3 wire 4-20mA transmitters. 24VDC power for transmitters is supplied from the B14 module.
**B14 SYSTEM WITH B12 SENSOR/TRANSMITTER**

- **Battery back-up (optional)**
- **2 cond., 20 AWG cable, 100 ft. max.**
- **Drain or shield if used**
- **2 cond., 20 AWG unshielded or shielded cable, 5000 ft. max. (no polarity requirement)**

**A17 Power Supply**

**B14 Receiver**

**B12 Sensor/Transmitter**

**Ati Technology, Inc.**

**Ati-0175**
B14 SYSTEM WITH B12-17 COMBUSTIBLE SENSOR/TRANSMITTER

- 2 COND., 20 AWG CABLE, 100 FT MAX.
- DRAIN OR SHIELD IF USED
- 3 COND., 20 AWG UNSHIELDED OR SHIELDED CABLE, 500 FT MAX.
- B17 POWER SUPPLY (00-0555)
- B14 RECEIVER (00-0507) SPECIFY GAS
- SENSOR CONNECTION
- COMBUSTIBLE SENSOR
- 3/8" NPT
- B12-17 COMBUSTIBLE SENSOR/TRANSMITTER (00-0512)

STOP DRAIN AT CASE WALL IF USED
DO NOT EXTEND DRAIN OR SHIELD INTO CASE

ATI-0217

Analytical Technology, Inc.
B14 SYSTEM WITH C12-17 COMBUSTIBLE SENSOR/TRANSMITTER

- 2 cond. 20 AWG cable 100 ft. max.
- Drain or shield if used
- 3 cond. 20 AWG unshielded or shielded cable, 300 ft. max.

- A17 Power Supply (00-0050)
- B14 Receiver Module (00-0002)
- Specify gas

- C12-17 combustible sensor/transmitter

- Stop drain at case wall (if used)
  Do not extend drain or shield into case

- 3/4” NPT

- Combustible sensor

Analytical Technology, Inc.
B14 SYSTEM W/ D12 TRANSMITTER (2-WIRE CONFIGURATION)

TO OPTIONAL BATTERY BACKUP

2 COND. 20 AWG CABLE
100 FT. MAX.

DRAIN OR SHIELD IF USED

A17 POWER SUPPLY
(00-0055)
B14 RECEIVER MODULE
(00-0507)
SPECIFY CAS

2 COND. 20 AWG UNSHIELDED OR SHIELDED CABLE
5000 FT. MAX.

D12 TOXIC TRANSMITTER

STOP DRAIN AT CASE WALL (IF USED)
DO NOT EXTEND DRAIN OR SHIELD INTO CASE

SS-B14RK, (4/16)
B14 SYSTEM W/ D12 TRANSMITTER (3-WIRE CONFIGURATION)

TO OPTIONAL BATTERY BACKUP

2 COND, 20 AWG CABLE
100 FT. MAX.

DRAIN OR SHIELD IF USED

3 COND, 20 AWG UNSHEPDED OR SHEPDED CABLE
500 FT. MAX.

A17 POWER SUPPLY
(00-0055)

B14 RECEIVED MODULE
(00-0607)

SPECIFY GAS

D12 COMBUSTIBLE TRANSMITTER

STOP DRRAIN AT CASE WALL (IF USED)
DO NOT EXTEND DRRAIN OR SHIELD INTO CASE
**Series B14 Receiver - Terminal Designations**

**B14 RECEIVER TERMINAL DESIGNATIONS**

**TB1**
1. POWER Vin+
2. POWER Vin-
3. Earth Ground (REQUIRED)
4. \( \text{(H+)} \) Audible Horn positive
5. \( \text{(H-)} \) Audible Horn negative
6. \( \text{(RR)} \) Remote Reset
7. \( \text{(MA+)} \) 4-20 mA Output Positive
8. \( \text{(MA-)} \) 4-20 mA Output Negative
9. \(+24\) 24V Loop Supply
10. \( \text{SIG} \) Milliamp (+) Input
11. \( \text{GROUND} \) Milliamp (-) Input

**TB2**
1. \( \text{(A1 NO)} \) Alarm 1 Normally Open Contact
2. \( \text{(A1 C)} \) Alarm 1 Common
3. \( \text{(A1 NC)} \) Alarm 1 Normally Closed Contact
4. \( \text{(A2 NO)} \) Alarm 2 Normally Open Contact
5. \( \text{(A2 C)} \) Alarm 2 Common
6. \( \text{(A2 NC)} \) Alarm 2 Normally Closed Contact
7. \( \text{(A3 NO)} \) Alarm 3 Normally Open Contact
8. \( \text{(A3 C)} \) Alarm 3 Common
9. \( \text{(A3 NC)} \) Alarm 3 Normally Closed Contact
10. \( \text{(TROUBLE NC)} \) Trouble Normally Closed Contact
11. \( \text{(TROUBLE C)} \) Trouble Common
12. \( \text{(TROUBLE NO)} \) Trouble Normally Open Contact

**A17 POWER SUPPLY TERMINAL DESIGNATIONS**

**TB1** (12V Battery Only)
1. \( \text{(B+)} \) External Battery Positive
2. \( \text{(B-)} \) External Battery Negative
3. \( \text{Earth Ground} \)

**TB2**
1. \( (+12) \) Receiver Module Positive
2. \( \text{(C)} \) Receiver Module Common
3. \( \text{Earth Ground} \)

**TB3**
1. \( (+12) \) Receiver Module Positive
2. \( \text{(C)} \) Receiver Module Common
3. \( \text{Earth Ground} \)

**TB4**
1. \( \text{(H)} \) AC Power Hot (85-255 VAC)
2. \( \text{(N)} \) AC Power Neutral
3. \( \text{Power Ground (Earth Ground)} \)

**TB5**
1. \( \text{(NC)} \) Power Failure Normally Closed Contact
2. \( \text{(C)} \) Power Failure Common
3. \( \text{(NO)} \) Power Failure Normally Open Contact

**CAUTION:** AC power input must be properly earth grounded for safe operation. 220 VAC power without a neutral line may not be used with this power supply.

NOTE: Relay contact designation is shown for relays in normal mode of operation for relays A1, A2, and A3. If fail-safe relay operation is selected, NO and NC designations are reversed for that relay. The TROUBLE relay is set to fail-safe operation at the factory, and the designation shown above is for the trouble relay in fail-safe mode.
65W P/S (28-0004) TYP. INSTALLATION FOR 3,6 DEEP & 9,12 MODULE ENCLOSURES

65W P/S (28-0004) WIRING CONNECTION DIAGRAM

ATI-0359

ATI-0360
RECEIVER/POWER SUPPLY MODULES

#80-0006 TWO MODULE ENCLOSURE

#80-0005 SINGLE MODULE ENCLOSURE

NOTES

1) Enclosure Ratings:
   Nema-4X / IP 65

2) Enclosure Material:
   Polystyrene base and cover, hinged transparent door with push-release latch.

3) Knockouts:
   Pg 13.5 (.825" dia.)
   Pg 16 (.90" dia.)
   Pg 21 (1.15" dia.)
   Pg 29 (1.50" dia.)

#80-0009 BATTERY BACKUP ENCLOSURE
#80-0024 NINE MODULE ENCLOSURE

System Enclosure Dimensions

#80-0026 TWELVE MODULE ENCLOSURE
**SURFACE MOUNT INSTALLATION**

1. Screws are inserted into blind recess in corners of enclosure. Cover must be removed for access to screw recesses.
2. Mounting template supplied for mounting hole locations.
3. All mounting hardware is supplied by customer.
4. Receiver and Transmitter enclosures are mounted in the same fashion.
5. For outdoor installations, a sun shade is recommended.

**REMOVING KNOCKOUTS**

1. To remove knockouts, place a thin bladed screwdriver into the circular slot or the desired knockout size and tap firmly with a hammer.

**MOUNTING/REMOVING RECEIVER MODULES**

1. Mounting of receiver modules is done by clipping them to a standard 35 x 7.5 mm DIN rail. A spring loaded clip holds the module to the rail and is used for mounting and removal. From the front, the clip is seen as a black loop at the top rear of the module. To remove from a rail, place a small screwdriver into the opening in the black loop and pull outward until the module releases from the rail. Reverse the procedure to mount the module.