

Froula Alarm Systems, Inc.

861 Industry Drive ♦ Tukwila WA 98188-3411

Phone: 206-575-1962 ♦ Fax: 206-575-8168

February 1, 2024

Fire Alarm System

Submittals

For

GSMOB

3rd Floor

Women's Clinic Tenant Improvement

1450 – 5th Street SE

Puyallup, Washington 98372

HOWARD WILLIAMSON, SET

NICET #82289

FIRE ALARM SYSTEMS

LEVEL IV

Howard Williamson



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Table of Contents

Fire Alarm System

<u>Manufacturer</u>	<u>Model No.</u>	<u>Description</u>
Farenhyt	IFP-1000	Addressable Fire Alarm Panel - EXISTING
Farenhyt	IDP-Photo	Addressable Smoke Detector
Farenhyt	B300-6	Detector Base
Interstate	BSL1116	12V 18AH Battery
Coleman	81802	18-2 FPLP Wire

Farenhyt



SILENT
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by Honeywell

Addressable Fire Control Panel

Analog/Addressable Fire Alarm Control System

IFP-1000/IFP-1000HV

The IFP-1000 and IFP-1000HV are intelligent analog/addressable fire alarm control panels (FACPs). The basic IFP-1000 system has one signal line circuit (SLC) loop that supports up to seven 5815XL signal line circuit expanders. The IFP-1000HV offers the same functionality and features as the IFP-1000 but is configured for 240 VAC operation.

IFP-1000/HV has six on-board Flexput™ circuits that can be configured for auxiliary power, notification outputs, or for conventional smoke detector inputs (Class A or Class B). The FACP also has a built-in, dual-line digital fire communicator, Form C trouble relay, and two programmable Form C relays. The firmware has powerful features such as detector sensitivity, day/night thresholds, drift compensation, pre-trouble maintenance alert, and calibration trouble alert.

IFP-1000/HV supports a variety of devices, including RA-1000 remote annunciator, 5824 serial/parallel printer interface module (for printing system reports), RPS-1000 intelligent power module, and Hochiki or Intelligent Device Protocol (IDP) devices.

Features

- Built-in support for up to 127 Hochiki devices or 99 IDP detectors and 99 IDP modules, expandable to 1016 Hochiki devices or 792 IDP detectors and 792 IDP modules
- Uses standard wire—no shielded or twisted pair required
- Built-in UL listed digital communicator for remote reporting of system activity and system programming
- Central station reporting by point or by zone
- Supports Class B (Style 4) and Class A (Style 6 or Style 7) configuration for SLC, and SBUS
- Distributed, intelligent power
- Sensor sensitivity settings, day/night sensitivity setting and automatic drift compensation
- Flexput™ I/O circuits configurable for auxiliary power, notification outputs, or conventional smoke detector inputs. Notification circuits can be configured as Class A (Style Z) or Class B (Style Y). 2- and 4-wire smoke detectors can be configured as Class A (Style D) or Class B (Style B)
- Built-in annunciator with a backlit 80-character LCD display
- RS-485 bus provides communication to system accessories
- Built-in RS-232 and USB interface for programming
- Upload or download programming, event history, or detector status onsite or from a remote location using a PC and 5650/5651 Silent Knight Software Suite (SKSS)
- Improvements in SKSS delivers five times faster upload/downloads
- Built-in Form C trouble relay rated at 2.5 amps at 27.4 VDC
- Two built-in Form C programmable relays rated at 2.5 amps at 27.4 VDC
- Individual addressable devices can be tested
- SLC device locator can locate a single or multiple devices on a SLC loop
- System automatically tests addressable devices

Agency Listings



MEA
429-92-E
VOL. IX



IFP-1000

- 13 preset notification cadence patterns (including ANSI 3.41) and four user programmable patterns
- Programmable to automatically display initial event first or display tally of system events
- Built-in synchronization for appliances from AMSECO, System Sensor®, Faraday, Gentex®, and Wheelock®
- Acknowledge function allows operator to keep track of event status
- Jumpstart® auto-programming
- Modular design
- Nonvolatile event history stores up to 1000 events
- 125 software zones and 250 output groups
- 6 amp power supply and maximum charging capacity of 35 amp hours (An additional cabinet enclosure is required for batteries in excess of 18 amp hours)
- Programmable date setting for Daylight Saving Time
- Plex-1 door option combines a dead front cabinet door with a clear window, limiting access to the panel while providing single button operation of the reset and silence functions

P/N 350093 Rev L

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Installation

The IFP-1000/HV can be surface or flush mounted.

Compatibility

The IFP-1000/HV SLC supports multiple device types of the same protocol:

- IDP or Hochiki

You cannot mix Hochiki and IDP devices on a FACP. However, any combination of addressable devices of the same protocol can be used on the IFP-1000/HV.

Specifications

Physical

Flush Mount Dimensions: 14.5"W x 24.75"H x 3.9"D
(36.8 W x 62.9 H x 9.8 D cm)

Overall Dimensions: 16.2"W x 26.4"H x 4.2"D
(40.6 W x 67 H x 11.8 D cm)

Weight: 28 lbs. (12.8 kg)

Color: Red

Environmental

Operating Temperature: 32°F – 120°F (0°C – 49°C)

Humidity: 10% – 93% non-condensing

Electrical

IFP-1000 Primary AC: 120 VRMS @ 50/60 Hz, 2.7A

IFP-1000HV Primary AC: 240 VRMS @ 50/60 Hz, 1.4A

Total Accessory Load: 6A @ 27.4 VDC power-limited

Standby Current: 215 mA

Alarm Current: 385 mA

Battery Charging Capacity: 7 to 35 AH

Battery Size: 18 AH max. allowed in control panel cabinet. Larger capacity batteries can be housed in RBB accessory cabinet.

Flexput Circuits

Six circuits that can be programmed individually as:

Notification Circuits: 3A per circuit @ 27.4 VDC, power-limited

Auxiliary Power Circuits: 3A per circuit @ 27.4 VDC, power-limited

Initiation Circuit: 100 mA per circuit @ 27.4 VDC, power-limited

Indicator Lights

General Alarm (Red): Flashes when in alarm; solid when alarm silenced

Supervisory (Yellow): Flashes when a supervisory condition exists; solid when supervisory silenced

System Troubles (Yellow): Flashes when a trouble condition exists; solid when trouble silenced

System Silenced (Yellow): On when an alarm, trouble or supervisory condition has been silenced but not yet cleared

System Power (Green): Flashes for AC failure; solid when power systems are normal

Telephone

Requirements: FCC Part 15 & Part 68 approved

Jack: RJ31X (two required)

Approvals

NFPA 13, NFPA 15, NFPA 16, NFPA 70, & NFPA 72: Central Station; Remote Signalling; Local Protective Signalling Systems; Auxiliary Protected Premises Unit; & Water Deluge Releasing Service. Suitable for automatic, manual, waterflow, sprinkler supervisory (DACT non-coded) signalling services.

Other Approvals: UL Listed; CSFM 7170-0559: 135; MEA 429-92-E Vol. IX; FM Approved; OSHPD (CA) OSP-0065-10

Approved Releasing Solenoids

Manufacturer	Part Number	Rating	Current	Freq
Asco	T8210A107	24 VDC	3 A max	0 Hz
Asco	8210G207	24 VDC	3 A max	0 Hz

Ordering Information

IFP-1000	Intelligent Fire Alarm Control Panel.
IFP-1000HV	Intelligent Fire Alarm Control Panel. High voltage (240 VAC).

SBUS Accessories

RA-100	Remote Annunciator. Similar in operation and appearance to FACP annunciator. Gray.
RA-100R	Remote Annunciator. Similar in appearance and operation to FACP annunciator. Red.
RA-1000	Remote Annunciator. Four line LCD annunciator with 20 characters per line.
5815XL	Signal Line Circuit (SLC) Expander.
RPS-1000	Intelligent Power Module.
5496	Intelligent Power Module.
5824	Serial/Parallel Printer Interface Module.
5880	LED I/O Module.
5865-3 & 5865-4	LED Fire Annunciators.
5883	Relay Interface Board.

Hochiki and IDP Devices

See the specification sheets listed below for a complete listing of the Hochiki and IDP devices.

350360	Hochiki Devices Specification Sheet
350361	Intelligent Device Protocol Devices Specification Sheet

Miscellaneous Accessories

5650/5651	Silent Knight Software Suite. Provides programming, upload/download, and event reporting.
5670	Silent Knight Software Suite. Provides facility monitoring.
Plex-1	Door Accessory. Dead front cabinet door with clear window to limit access to panel.
RBB	Remote Battery Box Accessory Cabinet. Use if backup batteries are too large to fit into FACP cabinet. Dimensions: 16" W x 10" H x 6" D (406 mm W x 254 mm H x 152 mm D).
SK-SCK	Seismic Compliance Kit



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This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact Silent Knight 12 Clintonville Road, Northford, CT 06472-1610 Phone: (800) 328-0103, Fax: (203) 484-7118. www.farenhyt.com



Made in the U.S.A.

IDP-PHOTO / IDP-PHOTO-T / IDP-PHOTOR

Intelligent Photoelectric Smoke Detector and Photoelectric Smoke Detector with Thermal

The IDP-PHOTO is a photoelectric smoke detector and the IDP-PHOTO-T is a photoelectric smoke detector with thermal. These plug in smoke detectors, with integral communication, provide features that surpass conventional detectors and are for use with the Honeywell Farenhyt Series fire alarm control panels (FACPs).

Detector sensitivity can be programmed from the FACP software. Sensitivity is continuously monitored and reported to the FACP. Point ID capability allows each detector's address to be set with rotary address switches, providing exact detector locations for selective maintenance when chamber contamination reaches unacceptable levels.

IDP-Photo and IDP-Photo-T have a unique optical sensing chamber that is engineered to sense smoke produced by a wide range of combustion sources. In the IDP-Photo-T, dual electronic thermistors add 135°F (57°C) thermal technology to maximize detection.

The IDP-PhotoR is a remote test capable detector for use with the DNR (W) duct smoke detectors. It is UL 268A listed when used with the DNR (W) duct smoke detector.

Installation

The IDP-Photo and IDP-Photo-T plug into a compatible IDP-series detector base. The IDP-PhotoR is a remote test capable detector for use with the DNR (W) duct smoke detector.



IDP-PHOTO (BASE NOT INCLUDED)

FEATURES & BENEFITS

- Sleek, low-profile design
- Superior EMI resistance for reliability
- Detector transmits signal to indicate maintenance is required
- Tamper-proof feature available on mounting bases
- MEA Listed 225-02-E Vol. V
- Reliable analog communications for trouble-free operation
- Simple field cleaning for code compliance
- Optional remote LED annunciator (System Sensor® PN RA100Z)
- Listed for use in duct applications
- Age resistant polymer housing
- Variety of mounting options to meet any application
- Plug-in mounting provides ease of installation
- Rotary address switches for fast installation
- Dual electronic thermistor design on the IDP-Photo-T
- Dual LED indicators for 360° visibility
- UL Listed
- FM Approved
- CSFM Listed

IDP-PHOTO, IDP-PHOTOR and IDP-PHOTO-T Technical Specifications

PHYSICAL

Height: 2.0" (5.08cm) less sensor

Diameter: 4.1" (10.4CM) installed in B501 base

ENVIRONMENTAL

Operating Temperature:

IDP-PHOTO: 32°F - 120 °F (0°C - 49°C)

IDP-PHOTO-T: 32°F - 100 °F (0°C - 38°C)

Humidity: 10 to 93% non-condensing)

ELECTRICAL RATINGS

Operating Voltage: 15 – 32VDC

SLC Standby and Alarm Current: 300 µA

OTHER RATINGS

IDP-PHOTO-T Thermal: Fixed temperature set point 135°F (57°C)

Velocity: 0 – 4000 fpm (0 – 20 m/sec) (suitable for installation in ducts)

IDP-PHOTO Insect Screen Hole Size: 0.016" (0.41 mm) nominal

ORDERING INFORMATION

IDP-PHOTO: Photoelectric Smoke Detector

IDP-PHOTO-T: Photoelectric Smoke Detector with Thermal (135°F)

IDP-PHOTOR: Photoelectric Smoke Detector, remote test capable, for use with DNR (W) duct smoke detector

ACCESSORIES

RA100Z: Remote LED Annunciator.

XR2B: Detector Removal Tool. A removal and replacement tool for IDP plug-in detectors. Includes the T55-127-000.

M02-04-01: Detector Test Magnet

M02-09-00: Test Magnet with Telescoping Handle

XP-4: Extension Pole for XR2B. Extends from 5 – 15 ft.

T55-127-000: Detector Removal Head.

BCK-200B: Black Detector Kit. For IDP-series detectors.

* Unless otherwise noted, specifications apply to IDP-Photo and IDP-Photo

COMPATIBILITY

The IDP-PHOTO, IDP-PHOTO-T and IDP-PHOTOR are compatible with the following IDP series detector bases:

- B210LP 6" Mounting Base
- B501 4" Mounting Base
- B224BI 6" Isolator Base
- B224RB 6" Relay Base
- B200SR 6" Sounder Base

The IDP-PHOTO, IDP-PHOTO-T and IDP-PHOTOR are compatible with the following Farenhyt Series FACP's:

- IFP-2100 / IFP-2100ECS / RFP-2100
- IFP-2000 / IFP-2000ECS / RPS-2000
- IFP-1000 / IFP-1000ECS
- IFP-300 / IFP-300ECS
- IFP-100 / IFP-100ECS
- IFP-75
- IFP-50

For a complete listing of all compliance approvals and certifications, please visit www.farenhyt.com.

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For Technical Support, Please call 800-446-6444.

For more information

Learn more about Honeywell's Farenhyt Series and other products available by visiting www.farenhyt.com

Honeywell Security & Fire

12 Clintonville Road
Northford, CT 06472
800-328-0103

B300-6 and B300-6-IV 6" Plug-in Detector Bases

3825 Ohio Avenue, St. Charles, Illinois 60174
1-800-SENSOR2, FAX: 630-377-6495
www.systemsensor.com

SPECIFICATIONS

Base Diameter:	6.1 inches (155 mm)
Base Height:	0.76 inches (19 mm)
Operating Temperature:	Refer to applicable sensor Operating Temperature Range using the Base/Sensor Cross Reference Chart at systemsensor.com.
Electrical Ratings:	
Operating Voltage:	15 to 32 VDC
Standby Current:	170 μ A
Listings:	UL268

BEFORE INSTALLING

Please read the *System Smoke Detectors Application Guide*, which provides detailed information on detector spacing, placement, zoning, wiring, and special applications. Copies of this application guide are available from System Sensor. NFPA 72 guidelines should be observed.

NOTICE: This manual should be left with the owner/user of this equipment.

IMPORTANT: The detector used with this base must be tested and maintained regularly following NFPA 72 requirements. The detector should be cleaned at least once a year.

GENERAL DESCRIPTION

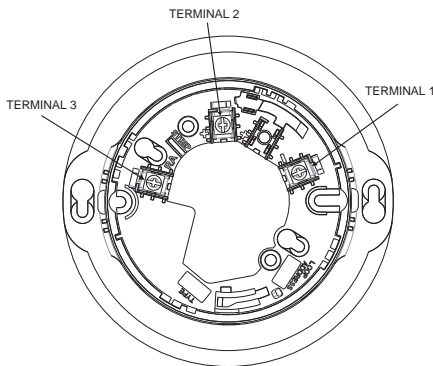
The B300-6 and B300-6-IV are plug-in detector bases intended for use in an intelligent system, with screw terminals provided for power (+ and -), and remote annunciator connections. Communication takes place over the power lines (+ and -).

BASE TERMINALS

NO. FUNCTION

- 1 Power (-), Remote Annunciator (-)
- 2 Power (+)
- 3 Remote Annunciator (+)

FIGURE 1. TERMINAL LAYOUT



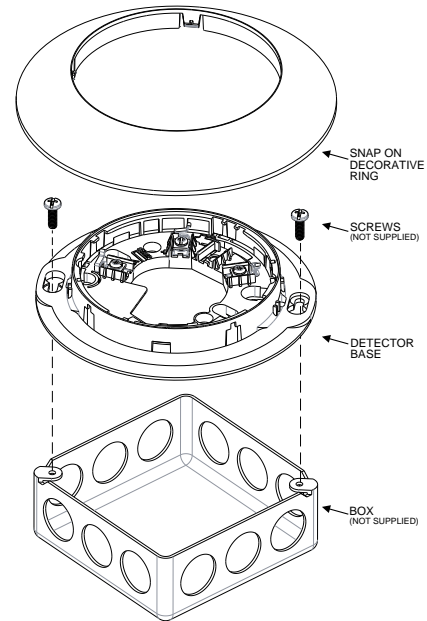
C2252-00

MOUNTING

This detector base mounts directly to 4-inch square (with and without plaster rings), 4-inch octagon, 3 1/2-inch octagon, and single gang junction boxes. To mount, remove the decorative ring by turning it in either direction to unhook the snaps, then separate the ring from the base. Install the base on the box using the screws supplied with the junction box and the appropriate mounting slots in the base.

Place the decorative trim ring on the base and rotate it in either direction until it snaps into place. (See Figure 2.)

FIGURE 2. MOUNTING DETECTOR TO BOX



C2253-00

INSTALLATION AND WIRING GUIDELINES (SEE FIGURE 3)

All wiring must be installed in compliance with all applicable local codes and any special requirements of the authority having jurisdiction. Proper wire gauges should be used. The conductors used to connect smoke detectors to control panels and accessory devices should be color-coded to reduce the likelihood of wiring errors. Improper connections can prevent a system from responding properly in the event of a fire.

For signal wiring (the wiring between interconnected detectors), it is recommended that the wire be no smaller than 18 AWG (0.823 mm²). Wire sizes up to 12 AWG (3.31 mm²) may be used with the base.

Make electrical connections by stripping about 3/8 inch (10 mm) of insulation from the end of the wire (use strip gauge molded in base). Then slide the wire under the clamping plate and tighten the clamping plate screw. Do not loop the wire under the clamping plate. (See Figure 4.)

Check the zone wiring of all bases in the system before installing the detectors. This includes checking the wiring for continuity, correct polarity, ground fault testing and performing a dielectric test.

The base includes an area for recording the zone, address, and type of detector being installed. This information is useful for setting the detector head address and for verification of the detector type required for that location.

Once all detector bases have been wired and mounted, and the loop wiring has been checked, the detector heads may be installed in the bases.

TAMPER-RESIST FEATURE

NOTE: Do not use the tamper-resist feature if a removal tool will be used.

The detector base includes a tamper-resist feature that prevents removal of the detector without using a small screwdriver or similar tool.

To activate this feature, use needle-nose pliers to break the tab on the detector base as shown in Figure 5A. Then, install the detector.

To remove the detector from the base once the tamper-resist feature has been activated, remove the decorative ring by rotating it in either direction and pulling it away from the base. Then, insert a small screwdriver into the notch, as indicated in Figure 5B, and press the plastic lever toward the mounting surface before rotating the detector counterclockwise for removal.

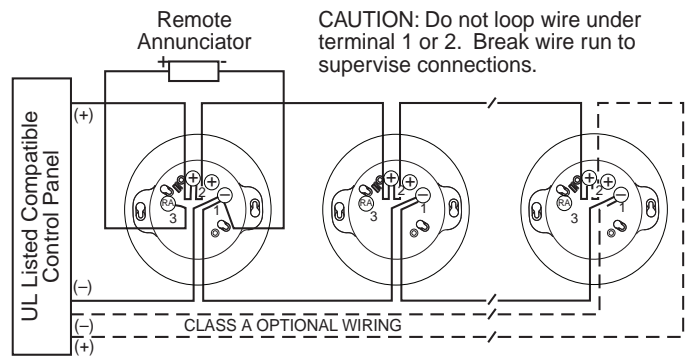
The tamper-resist feature can be defeated by breaking and removing the plastic lever from the base. However, this prevents the feature from being used again.

REMOTE ANNUNCIATOR (RA100Z)

Connect the remote annunciator between terminals 1 and 3 using the spade lug terminal included. The spade lug terminal is connected to the base terminal as shown in Figure 6.

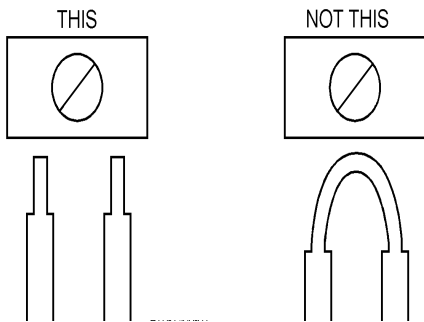
It is not acceptable to have three stripped wires under the same wiring terminal unless they are separated by a washer or equivalent means. The spade lug supplied with the model RA100Z is considered an equivalent means. See Figure 3 for proper installation.

FIGURE 3. TYPICAL WIRING DIAGRAM FOR 2-WIRE LOOP



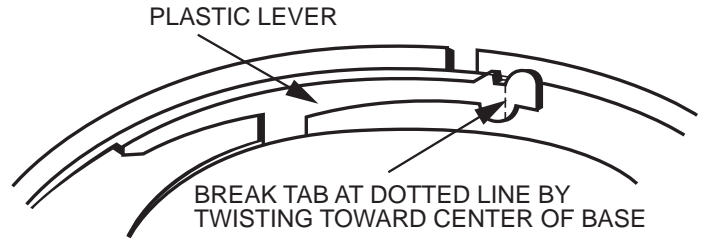
C0129-10

FIGURE 4. TERMINAL WIRE INSTALLATION



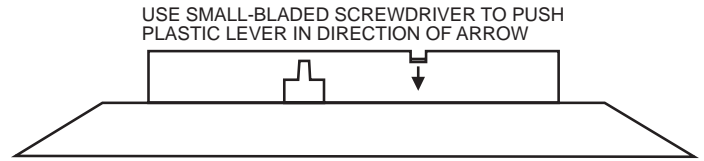
C0473-00

FIGURE 5A. ACTIVATE TAMPER-RESIST FEATURE



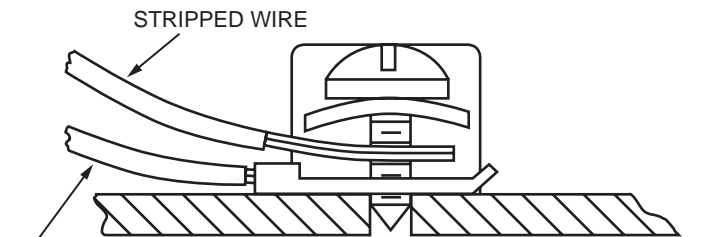
C0130-00

FIGURE 5B. DETECTOR REMOVAL



C0130-00

FIGURE 6. CONNECTION TO REMOTE ANNUNCIATOR TERMINAL



C0116-00

Please refer to insert for the Limitations of Fire Alarm Systems

THREE-YEAR LIMITED WARRANTY

System Sensor warrants its enclosed smoke detector base to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. System Sensor makes no other express warranty for this smoke detector base. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the repair or replacement of any part of the smoke detector base which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning System Sensor's toll free number 800-SENSOR2 (736-7672) for a Return Authorization number, send defective units postage prepaid to: Honeywell,

12220 Rojas Drive, Suite 700, El Paso TX 79936 USA. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to repair or replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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Sealed Lead-Acid Batteries

BSL1116
(PC1218)

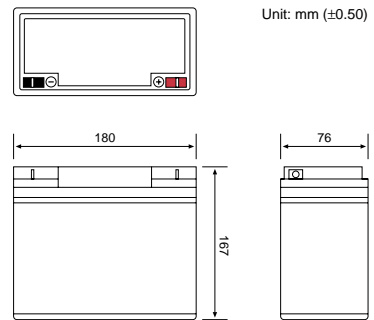
Capacity Specifications

Cut-off Voltage	20 Hr Rate (0.90 A)	18.0 Ah
1.75 v/c @ 25°C	10 Hr Rate (1.60 A)	16.0 Ah
1.70 v/c	5 Hr Rate (2.9 A)	14.5 Ah
1.55 v/c	1 Hr Rate (9.8 A)	9.8 Ah
	Bloc	Per Cell
Charge Voltage (constant)	Float	13.5~13.8
	Cycle	14.4~14.7
Discharge Current Amps (5 seconds maximum)	250	
Discharge Current Amps (maximum continuous)	80	
Max. Charge Current	5.1 A	
Approx Final Charge Current (2.25 v/c Float)	0.03 (30 mA)	
Approx Final Charge Current (2.45 v/c Cycle)	0.15 (150 mA)	
Terminal Type	Type C / (E optional)	
Self Discharge	9 months @ 21°C	
Case Material	ABS – Gray* or Black	

Due to changes in the manufacturing processes, specifications may change without notice.
*Gray option is Flame Retardant ABS.

Technical Specifications

Nominal Voltage	12V
Nominal Capacity	18.0 Ah (20 Hr Rate)
Dimensions	Length: 180 mm
	Width: 76 mm
	Height: 167 mm
Total Height/Terminal:	167 mm
Weight	Approx 6.2 Kg



Optional E

Actual Wattage / Ampere Capacity at Various Discharge Times (Volt per Cell @ 25°C)		5 Min.	10 min.	15 min.	30 min.	45 min.	60 min.
1.75 v/c	W	107.4	72.33	55.6	33.79	24.68	19.78
	A	61.37	41.33	31.77	19.31	14.1	11.3
1.67 v/c	W	104.79	72.16	55.31	33.48	25.05	20.04
	A	62.75	43.21	33.12	20.05	15.0	12.0
1.60 v/c	W	116.8	73.76	54.72	32.19	24.37	19.33
	A	73.0	46.1	34.2	20.12	15.23	12.08



PRODUCT DATA SHEET

PART NUMBER: 81802
DESCRIPTION: 18/2 SOLID FPLP FT6 CABLE
CONSTRUCTION: This cable consists of two bare copper insulated conductors and an overall jacket.
APPROVALS: UL Standard 1424, NEC Article 760.
APPLICATION: Fire Alarm Power Limited Circuit Cable Used in Plenum Applications

Construction Parameters:

Conductor	18 AWG Bare Copper
Stranding	Solid
Insulation Material	Polymer Alloy
Insulation Thickness	0.006" Nom.
Insulated Conductor Diameter	0.052" Nom.
Number of Conductors	2
Lay Length	1.75" Nom.
Jacket Material	Low Smoke PVC
Jacket Thickness	0.016" Nom.
Overall Cable Diameter	0.136" Nom.
Approximate Cable Weight	17.4 Lbs/1M' Nom.
Flame Rating	UL 910 Steiner Tunnel Smoke and Flame Test

Cable Cross-Section



Electrical Properties:

Temperature Rating	-20°C to 75°C
Operating Voltage	300 V RMS Max.
Capacitance Between Conductors @ 1 KHz	50 pF/ft Nom.
Capacitance Between Conductors to Shield @ 1 KHz	-----
DC Resistance per Conductor @ 20°C	6.32 Ohms/1M' Nom.

Insulation Colors	Black Red
Jacket Color	Red (Other colors available for minimum order)

Legend (Surface Ink Print) E100315 * 18 AWG 2/C (UL) TYPE FPLP 75C -- C(UL) TYPE CMP FT6

On special orders, the customer will accept all factory lengths and +/- 10 percent of total order requested.

The jacket is sequentially footmarked.

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Customer Name _____

Customer Approval _____

Specification Issue Date: January 19, 2001

