



RELIABLE SOLUTIONS FOR FACILITY INFRASTRUCTURE MANAGEMENT

TELECOMMUNICATION

POWER UTILITY

WATER & WASTEWATER

FUSION

A remote monitoring unit that turns data into real time information

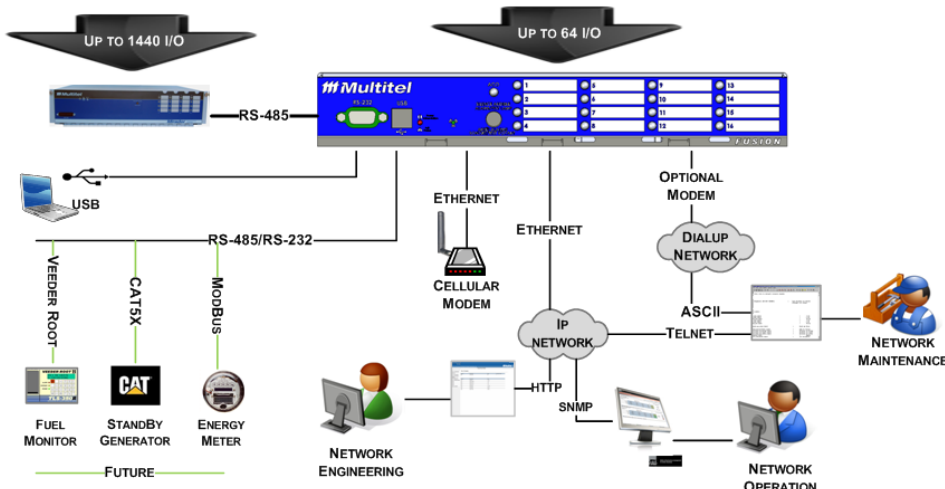
FUSION is an intelligent, flexible remote monitoring system that brings together automation features and assistance to decision making. Its modular approach fits with various needs for monitoring applications like alarm, telemetry, telemetry and critical infrastructure automation such as:

- Equipment Alarms (Microwave Radio, MUX, switches, fiber, etc.)
- Environmental conditions (fire/smoke, presence of water)
- Intrusion and Access Control (door, motion, keyboard, camera)
- DC, AC Power Supplies and power backups (batteries, chargers, converters, inverters, UPS and generators)

Using its multiple integrated features, **FUSION** allows power sector failure detection, automatically turning on the generator while remotely notifying the people in charge. If batteries happen to be solicited, recording their discharge curve will allow their performance to be assessed and plan their replacement in advance. It is also possible to perform remote diagnostics following a failure. Using Statistics and History log files and also telemetering data, proper decisions can be taken for proactive maintenance and consequently reduce the number of unnecessary and costly dispatches.

Multilevel generic or detailed alarms may be transmitted to the Network Operations Center (NOC) or to other resources via e-mail, SNMP traps, modem and can also can be transmitted to Multitel's FIRM Suite™ Surveillance alarm management module.

MORE SPECIFICALLY, FUSION ALLOWS YOU TO:

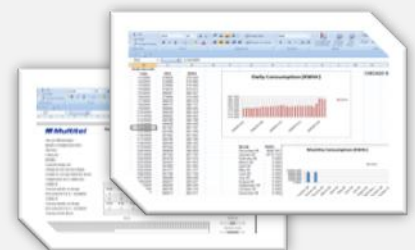


PRIMARY USERS: Managers, network operators, technicians and others



Advantages

- **VISUALIZE** in real time the integrity of the critical network infrastructure assets
- **DECIDE** on best measure to be taken based on your network's real and actual data
- **REDUCE** the number of dispatches by filtering your alarms and assuring an accurate diagnostic
- **OPTIMIZE** maintenance routines by modifying their frequency and duration



Understandable Reports

FUSION allows recordings of history and statistical data that are easily integrated to a spreadsheet program of your choice for simple inquiry or for producing efficient and integrated reports.

SPECIFICATIONS

General Specifications	
CPU	32 Bit, 63Mhz Power PC
Display	16 DELs 3 colors including audible alarm (optional)
Power Supply	-40 à -60Vdc redondant (120Vac optional), 8 watts
Operating Temperature	-40 °C à 65 °C (-40 °F à 150 °F)
Dimension*	4.45 cm X 27.9 cm X 26.6 cm (1.75 in. X 11 in. X 10.5 in.)
Weight	2.7 kg (6 lb)
Expansion I/O Modules (Internal)	
EXP1	4 analog hybrid, 1 humidity, 13 binary inputs et 3 binary outputs
EXP2	6 analog hybrid, 16 binary inputs et 3 binary outputs
EXP3	32 binary inputs
EXP4	28 binary inputs et 3 binary outputs
I/O Expansion (external)	
Interface	M-Link Port (RS-485)
Shelf Capacity	5 I/O Intelligent cards
Dimension of the expansion shelf	10.1 cm X 43.2 cm X 30.5 cm (4 in. X 17 in. X 12 in.)
I/O intelligent Cards	
« ANALOG » card (voltage and current, temperature, 4-20mA, etc.)	18 real channels et 18 derived channels
« ANALOG » card (battery single cell voltage)	36 0-3 volts channels
« OUTPUT » card	32 relay contacts of type « A FORM »
« EVENT » card	48 binary inputs
Communication / Network Integration	
Serial Ports	2 RS-232 ports and 2 RS-485 ports(115kbps max)
USB	Yes
Gateway	Yes
Modem (Optional)	56 kbps (Optional)
Integrated Ethernet	Auto MDIX; 10/100 Mbit and 10 simultaneous users
IP Protocols	HTTP (Web), SNMP (Alarms), SMTP (email), Telnet
Languages	English and French
Embedded Software	
File Transfer simple and user-friendly	Source code, statistics, historic and configuration
Periodic data recordings	Daily for a month
Detailed data recordings	10 files of each 25 channels and 2000 samples
History data recordings	HIST = 4800; HISTLOG = 50; SYSLOG = 200
Programmable Views	32
Programmable Thresholds	1500
Basic Derived Channels	128 arithmetic channels;64 binary manuals
Advanced derived Channels	10 chronometers; 10 watt-hour
Approvals	
Radio Frequency Interference (RFI)	FCC part 15 subsection B and ICES-003
Electric Safety	CAN/CSA C22.2 No. 60950-1-03 et UL No. 60950-1
Electromagnetic Compatibility (CEM)	TIA-968 (FCC part 68) et CS-03
Flammability	Meet the UL94V2 specifications UL94V2 « Fire risk tests »
Heat Dissipation	10 Watts (140 BTU/hr)
Seismic zone Requirements	Zone 4 (Bellcore TR-NWT-000063, part 5.6.3)

*Dimensions do not include mounting brackets to the frame.

ORDERING INFORMATION

Complete and replacement package

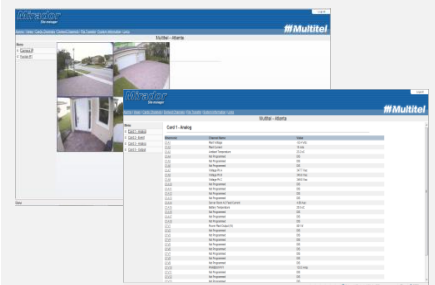
M-7048-AA-BB-CC-R = FUSION 48V with Ethernet

AA, 00 = without modem; 56k= modem 56k

BB, E1 = EXP1 alone = (5AI + 13BI + 3BO)
 E2 = EXP1 and EXP2 = (11AI + 29BI + 6BO)
 E3 = EXP3 alone = (32BI)
 E4 = EXP4 alone = (28BI + 3BO)
 E1E3 = EXP1 et EXP3 = (5AI + 45BI + 3BO)
 E1E4 = EXP1 et EXP4 = (5AI + 41BI + 6BO)
 E3E3 = EXP3 et EXP3 = (64BI)
 E3E4 = EXP3 et EXP4 = (60BI + 3BO)
 E4E4 = EXP4 et EXP4 = (56BI + 6BO)

CC, 00 = no display, 16A = DELs display

Part	Description
M-4102	Ambient temperature probe
M-4103	Temperature probe batteries
M-4109	Humidity and temperature probe
M-5601	Float current charging probe (1 set)
M-5602	Float current charging probe (2 sets)
M-4182	AC voltage Transformer 1PH (120 or 240Volts)
M-4173	AC voltage Transformer 3PH (240Volts)
M-4178	AC voltage Transformer 3PH (600Volts)
M-4005	Door contact
M-4141	Presence detector CA 1PH
M-4151	Presence detector CA 3 PH
M-4320	AC current Transducer (100 to 3000Amp)
MKEYPAD	Numerical keyboard
MWATERDETECT	Water presence detector



FUSION is a user friendly device that does not require any custom software for configuration and information display.

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