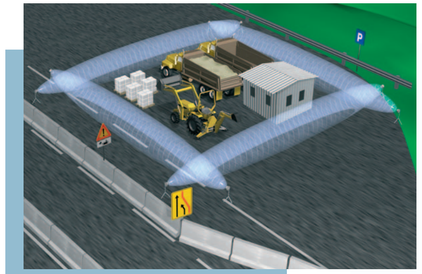
:MMD SYSTEM

MMD SYSTEM - MOBILE BARRIERS

MMD SYSTEM IS A PORTABLE PROTECTION SYSTEM USING MICROWAVE BARRIERS THAT CREATE INVISIBLE DETECTION ZONES FOR TEMPORARY SURVEILLANCE OF SITES CONSIDERED AT RISK. EACH INTRUSION ATTEMPT INTO THE PROTECTED AREA IS DETECTED BY THE BARRIERS, WHICH IMMEDIATELY SEND A RADIO SIGNAL TO THE MMD CONTROL PANEL LOCATED IN A GUARD ROOM OR WHEREVER THE DESIGNATED CONTROL CENTRE IS LOCATED.

TEMPORARY PROTECTION OF BUILDING AND ROAD COMPOUNDS.



MILITARY CAMP PROTECTION.

:SPECIFICATIONS

MMD SYSTEM	
RANGE	660 ft
FREQUENCY	*VARIES ACCORDING TO COUNTRY*
POWER SUPPLY	AUTONOMIA FINO A 20 GG / *AUTONOMY UP TO 20 DAYS*
TEMPERATURE	-95°F / +149°F
ABLING	*ARMOURED CABLES AND MILITARY CONNECTORS*
TRANSPORT KIT	*RESISTANT TRANSPORT BOXES*
ALARM / SETTING TRANSMISSION	*RADIO TRANSMISSION FROM 1650 ft UP TO 3300 ft, USE EXTRA ANTENNA FOR LONGER DISTANCES*

TOOL FREE ADJUSTMENTS: DETAIL OF LEVEL BULB, PLUG AND PLAY CONNECTORS AND HANDLES FOR EASY AND RAPID DEPLOYMENT.

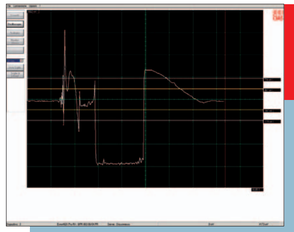
STRONG CARRYING FITTING CASES WITH WHEELS FOR EASY TRANSPORT. POSSIBLE PILE UP OF THE BOXES.

:FEATURES

ERMO482x PRO	
EQUIPMENT SUPPLIED	*TRANSMITTER HEAD AND RECEIVER HEAD WITH SPACE TO ACCOMMODATE A 12V 2Ah BACK-UP BATTERY, CLAMPS FOR A 2,3 " DIAMETER MOUNTING POST. BRACKETS ADAPTOR FOR 4,3" POLES AVAILABLE. POWER SUPPLY AND CHARGER INTEGRAL TO THE HEADS*
RANGE	165, 265,400, 660, 825 ft
FREQUENCY	*K/X BAND FCC AND IC APPROVED*
OUTPUT POWER	*CERTIFIED IN MANY COUNTRIES AND CONFORMS TO CE, USA AND CANADIAN STANDARDS.*
TARGET SPEED	*FROM 0 cm/SEC TO 15 m/sec.*
TARGET SIZE	*MEDIUM SIZE HUMAN TARGET FOR ALL INTRUSION ATTEMPTS (40Kg).*
PROBABILITY OF DETECTION	*0.99 MINIMUM BASED ON S/N RATIO.*
MODULATION CHANNELS	*16 CRYSTAL CONTROLLED.*
FALSE ALARM RATE	*1/UNIT/YEAR BASED ON S/N RATIO*
TEMPERATURE	-95°F + 149°F
ALARM OUTPUTS	*3 SOLID STATE RELAYS FOR ALARM, FAULT, TAMPER.*
POWER SUPPLY AC VAC	19Vac
POWER SUPPLY DC VDC	*13.8Vdc , 24Vdc*
CURRENT CONSUMPTION	120mA TX+RX
SPECIAL APPLICATIONS	*EXPLOSION PROOF AND PORTABLE VERSION AVAILABLE*
WEIGHT AND DIMENSIONS	*4,8 Kg (TX+RX) / Ø 305 mm X 160 mm*

IB-SYSTEM RACK
SELF-CONFIGURATION OF THE SITE
ENABLE/DISABLE SINGLE MODULES DURING NORMAL OPERATION
STATUS SYNOPTIC ON FRONT PANEL (THANKS TO LED ON IB-ISLAND 8)
MAX 64 BARRIERS / 128 DEVICES
CONNECTION TO RS 485 SERIAL BUS, FIBRE OPTIC, ETHERNET
POWER SUPPLY INCLUDED IN THE RACK
MODEM CONNECTION TO SWITCHED LINE FOR DIRECT REMOTE ASSISTANCE ON FIELD DEVICE (ONLY VALID FOR CIAS INTELLIGENT SENSOR)
IB-SYSTEM RACK SMALL IS PROVIDED ON RACK 9,5" 3U FOR SMALL SITE APPLICATIONS WITH A MAXIMUM EXPANSION OF 16 BARRIERS / 16 DEVICES
FREE WIRING ARCHITECTURE, CLOSE LOOP, STAR, MULTIDROP, MIXED

CIAS RESERVES THE RIGHT TO CHANGE THE SPECIFICATIONS DESCRIBED IN THIS BROCHURE AT ANY TIME WITHOUT PRIOR NOTICE.



:WAVE TEST

WAVE-TEST IS A SOFTWARE PACKAGE USED TO COMMISSION AND FINE TUNE THE ERMO482X PRO INTELLIGENT MICROWAVE BARRIERS. WITH A PC CONNECTED TO THE RX OR TX HEAD, THANKS TO THIS SOFTWARE, IT IS POSSIBLE TO DISPLAY THE RECEIVED SIGNAL SHAPE OR THE ANALOGUE VALUES (BATTERY LEVEL, DETECTED SIGNAL VOLTAGES, TEMPERATURE, AGC VOLTAGE)-IN REAL TIME. IT IS POSSIBLE TO DOWNLOAD THE LAST 100 ANALOGUE EVENTS AND THE LAST 256 BARRIER EVENTS STORED IN THE INDIVIDUAL BARRIER MEMORY, CHANGE THE OPERATING PARAMETERS AND A NUMBER OF OTHER FUNCTIONS. ALL THE ABOVE CAN BE PERFORMED LOCALLY, CONNECTING THE PC DIRECTLY TO THE HEAD ON SITE, OR, BY CONNECTING THE HEADS TO AN RS485 SERIAL LINE, REMOTELY IN A CONTROL ROOM. IT IS ALSO POSSIBLE TO CONNECT THE RS485 LINE TO A MODEM WHICH CAN CONNECT REMOTELY WITH A PC RUNNING WAVE-TEST, ALLOWING COMPLETE REMOTE TROUBLESHOOTING FROM ANYWHERE IN THE WORLD. WAVE-TEST IS VERY USEFUL FOR ANALYSIS OF THE ENVIRONMENTAL NOISE WITHIN A PARTICULAR INSTALLATION, THANKS TO THE ON-BOARD MEMORY, AND THEN TO SET THE BARRIER PERFECTLY FOR THAT ENVIRONMENT.

30 YEARS SECURITY SINCE 1974 CIAS®

EXTREME SECURITY

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: perimeter protection

:ermo482xPRO

165 265 400 660 825 ft

DIGITAL MICROWAVE BARRIER FOR OUTDOOR PERIMETER PROTECTION

:IB-System Rack

PLUG & PLAY SYSTEM FOR SIMPLIFIED WIRING AND UNIVERSAL INTERFACE

ermo482Xpro

DIGITAL MICROWAVE BARRIER WITH DIGITAL SIGNAL ANALYSIS FOR RANGES OF 165, 265, 400, 660 AND 825 FEET. THE INTERNAL MICROPROCESSOR USES FUZZY LOGIC TO ANALYSE THE RECEIVED SIGNAL GIVING VERY HIGH PERFORMANCE IN DETECTION PROBABILITY AND LOW FALSE ALARM RATES.

IB-System Rack

IB-SYSTEM RACK IS A PLUG & PLAY SYSTEM FOR SIMPLIFIED WIRING AND UNIVERSAL INTERFACE. THANKS TO THE SERIAL BUS, FIBRE OPTIC OR ETHERNET IT IS POSSIBLE TO COLLECT ALL THE STATUS ALARMS (PRE-ALARM, ALARM, FAILURE, TAMPER AND NO ANSWER) FOR EACH DEVICE IN THE FIELD IN A COST EFFECTIVE AND STRUCTURED WAY. ALL THE INFORMATION RECEIVED BY THE SERVER CAN BE DISPLAYED ON GRAPHIC MAPS AND/OR, THANKS TO DEDICATED ISLANDS, TRANSLATED INTO THE UNIVERSAL RELAY ON/OFF LANGUAGE IN ORDER TO INTERFACE WITH ANY OTHER TYPE OF SYSTEM (CONTROL PANEL, CCTV, ACCESS CONTROL, AIRPORT TRAFFIC CONTROL ETC). BY USING THE DIGITAL SENSOR FROM CIAS WITH IB-SYSTEM RACK IT IS POSSIBLE TO USE THE SAME BUS TO ADJUST PARAMETERS AND PERFORM ALL MAINTENANCE TASKS FROM A REMOTE LOCATION.

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EXTREME SECURITY

:ermo482xPRO

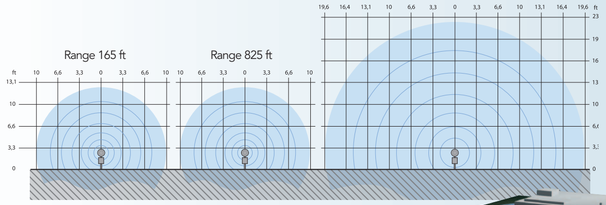
FUZZY SIDE TARGET DISCRIMINATION F.S.T.D.

IN PARTICULAR SITUATIONS WHERE THERE IS CONTINUOUS INTERFERENCE AT THE SIDE OF THE FIELD, SUCH AS LOOSE, MOVING METALLIC FENCES IN THE BEAM PATTERN, VEGETATION THAT ENCROACHES THE SIDE OF THE BEAM OR OTHER LARGE PARALLEL SIDE MOVEMENTS IT IS POSSIBLE TO USE THE FSTD FUNCTION IN THE SOFTWARE. USING THIS IT IS POSSIBLE TO ADJUST THE SENSITIVITY ONLY AT THE SIDE OF THE BEAM PATTERN. IN THIS WAY WE CAN HAVE A BEAM THAT ALTHOUGH IT IS PHYSICALLY AS NORMAL, IT APPEARS ELLIPTICAL WITH DIFFERENT SHAPES DEPENDENT ON THE FSTD SETTING WHILE MAINTAINING THE PURITY OF SIGNAL THAT IS THE ADVANTAGE OF THE PARABOLIC ANTENNA COMPARED TO AN ELLIPTICAL ANTENNA.

NORMAL DETECTION PATTERN SET UP.

SET UP WITH FSTD.

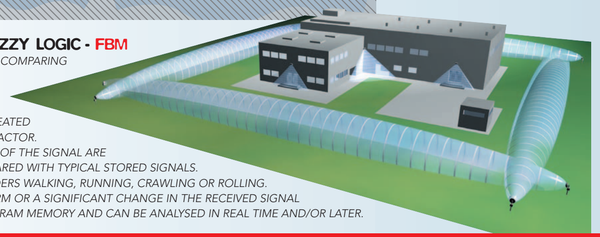
EXTREME WEATHER CONDITIONS DO NOT AFFECT THE PERFORMANCE OF ERMO 482X PRO.



Dimensions calculated using medium sensitivity at the centre of the beam

DIGITAL ANALYSIS USING FUZZY LOGIC - FBM

ERMO482X PRO MONITORS THE SIGNAL, COMPARING IT WITH BEHAVIOUR MODELS USING ALGORITHMS BASED ON "FUZZY" LOGIC (FUZZY BEHAVIOUR MODELS - FBM) TO DECIDE IF THE SIGNAL WAS CREATED BY A REAL INTRUDER OR SOME OTHER FACTOR. THE SIZE, SHAPE AND RATE OF CHANGE OF THE SIGNAL ARE CONTINUOUSLY MEASURED AND COMPARED WITH TYPICAL STORED SIGNALS. THE SENSOR IS ABLE TO DETECT INTRUDERS WALKING, RUNNING, CRAWLING OR ROLLING. EVERY EVENT THAT GENERATES AN ALARM OR A SIGNIFICANT CHANGE IN THE RECEIVED SIGNAL IS DATE/TIME STAMPED AND STORED IN RAM MEMORY AND CAN BE ANALYSED IN REAL TIME AND/OR LATER.



DYNAMIC DIGITAL ANTI-MASKING

THE 16 CRYSTAL CONTROLLED MODULATION CHANNELS, TOGETHER WITH A DYNAMIC ANALYSIS OF THE ABSOLUTE VALUE OF THE RECEIVED SIGNAL, DETECTED DURING THE INSTALLATION PROCESS, MAKE MASKING IMPOSSIBLE AND POSSIBLE THE DETECTION OF POTENTIAL FAULTS IN THE MICROWAVE COMPONENTS.

AUTOMATIC ENVIRONMENT ADJUSTMENT

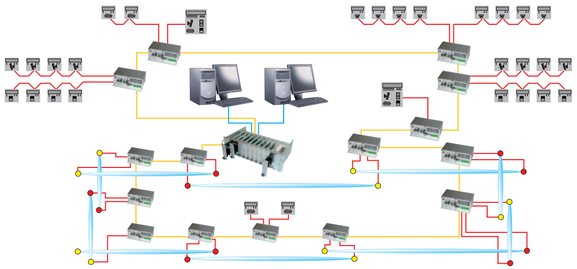
THE TEMPERATURE IS CONTINUOUSLY CHECKED TO DETECT POSSIBLE FAULTS AS WELL AS MONITORING THE TEMPERATURE GRADIENT (TEMPERATURE CHANGE OVER A PERIOD OF TIME) TO COMPENSATE FOR SIGNAL DIFFERENCES CREATED BY ENVIRONMENTAL CHANGES.

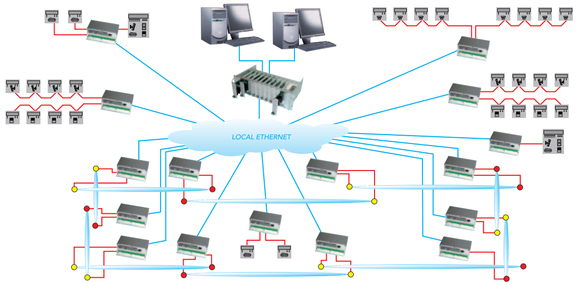
NEW NOW AVAILABLE X AND K BAND

IN ADDITION TO THE ERMO 482X PRO FAMILY, THAT WORKS WITH X BAND FOR RANGE OF 165, 265, 400, 660 ft WE HAVE NOW AVAILABLE A NEW MODEL FOR RANGE UP TO 825 ft THAT WORKS WITH K BAND USING A FREQUENCY OF 24GHZ. THE MAIN FEATURE OF THIS NEW MODEL PROVIDES THE POSSIBILITY TO COVER LONGER DISTANCES AND WHERE THE CORRIDORS HAVE GOT CRITICAL DIMENSIONS THANKS TO THE SMALLER MICROWAVE BEAM GENERATED.

:IB-SYSTEM CONFIGURATIONS *FREE WIRING ARCHITECTURE, CLOSE LOOP, STAR, MULTIDROP, MIXED*

DUAL REDUNDANCY LOOP WITH FO



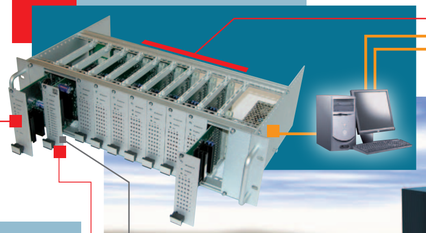


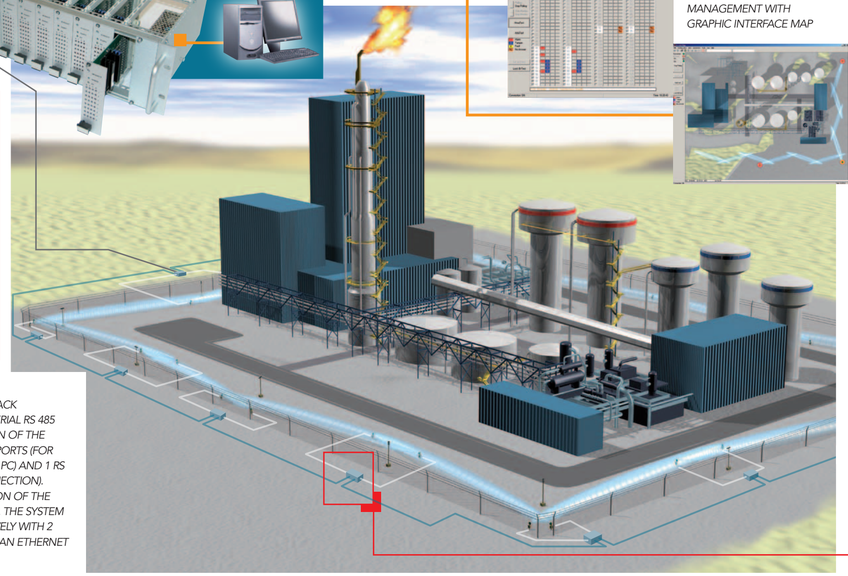
FIELD CONNECTION THROUGH ETHERNET

:IB-System

COMPLETE PRE-ASSEMBLED RACK SYSTEM COMPRISING 1 19" RACK 3U, 1 IB-BACK PANEL WITH 4 SLOTS, 1 IB SERVER, 1 IB-HUB, 1 IB ISLAND-8 AND 1 POWER SUPPLY 3A, FOR THE MANAGEMENT OF 8 BARRIERS/DEVICES. USING IB-EXTENSION AND THE MAXIMUM ALLOWED QUANTITY OF IB-ISLAND 8 (8 PER RACK) WE CAN OBTAIN THE TOTAL EXTENSION OF THE SYSTEM: 64 BARRIERS/128DEVICES.

CONTROL ROOM





:IB-Test / IB-Test Map

MONITOR AND SYSTEM MANAGEMENT WITH GRAPHIC INTERFACE MAP

IB-Island-8

SERIAL MODULE CARD 3U RACK MOUNTABLE FITTED WITH 32 RELAY OUTPUTS TO REMOTELY MONITOR ALL THE STATUS ALARMS OF 8 BARRIERS/DEVICES.

:IB-Server

SERVER BOARD 3U RACK MOUNTABLE FOR POLLING AND MANAGEMENT OF 64 BARRIERS OR 128 DEVICE.

:IB-Hub

COMMUNICATION CARD 3U RACK MOUNTABLE FITTED WITH 6 SERIAL RS 485 PORTS, (FOR THE CONNECTION OF THE SERVER TO THE BUS) 2 RS 232 PORTS (FOR DIRECT CONNECTION TO THE PC) AND 1 RS 232 PORT (FOR MODEM CONNECTION). THANKS TO THE INTRODUCTION OF THE INTERFACES IB-FO AND IB-ETH, THE SYSTEM WILL BE UPGRADED RESPECTIVELY WITH 2 FIBRE OPTIC TRANSCEIVER OR AN ETHERNET CONNECTION.

IB-FMCREP

FIELD MULTIMEDIA CONVERTER, DECOUPLER AND REPEATER PROVIDED WITH 5 RS485 PORTS

IB-FMCREP-FO

FIELD MULTIMEDIA CONVERTER, DECOUPLER AND REPEATER PROVIDED WITH 5 RS485 AND 2 FIBRE OPTIC PORTS.

IB-FMCREP-ETH

FIELD MULTIMEDIA CONVERTER, DECOUPLER AND REPEATER PROVIDED WITH 5 RS485 AND ETHERNET PORTS