GPS STANDARD

Committed to security.

PERIMETER

INTELLIGENT INFRARED BARRIERS IPS ™

IPS

perimeter barriers using INFRARED BEAMS

IPS™, Infrared Perimeter System is an infrared perimeter protection sytem used for both internal and external applications. It gives high resistance to mechanical vibrations and to atmospheric interference.

OPERATION

The concentrator, which can be connected up to a maximum of 8 double-beam receivers, sends commands, via the sync cable, to turn on the transmitters connected to the synchronizer. Simultaneously, it enables the receiver corresponding to a particular transmitter.
The concentrator processes the light pulses received from the various connected cells. If the beam between TX and RX is interrupted, for the pre-set crossing time, it generates an alarm.
The system is immune to sunlight as it does not recognise continuous light.
The maximum range of the IPS™ 6000 series is 250mt internal and 200mt external, and 200mt internal and 150mt external for 4000 series.
The beams are connected to a concentrator which manages up to 8 receivers and, via a single cable, sends a synchronising signal to the associated synchroniser board, which manages the transmitters in the transmitter column. It is possible to connect up to 64 concentrators in a network to protect very large perimeters.
When the visibility between transmitter and receiver reduces, due to atmospheric conditions, the system, using an automatic gain control, can amplify the received signal by up to 50 times to restore the signal to the normal level.

PLUS

IPS™ uses a micro-metric mechanical alignment system which allows maximum precision in the alignment.
As it is based on microprocessor technology, thanks to intelligent analysis of the received signal, it can eliminate false alarms due to interference and detect attempts to mask the cells.
If visibility between transmitters and receivers is reduced (due to fog, heavy rain, snow), an automatic gain control circuit tries to restore the optimum level of infrared light reception.
When this is not possible, the concentrator disables the beams that can no longer work in these conditions, generating a disqualification alarm.
Restoration of normal operation occurs automatically when normal visibility is achieved. The models currently available are equipped with single- or double-beam transmitters and receivers.

IPS™ transmitter post – TX module – sends light impulses to the receiver post – RX – simultaneously with a synchronising signal that is sent along the cable.

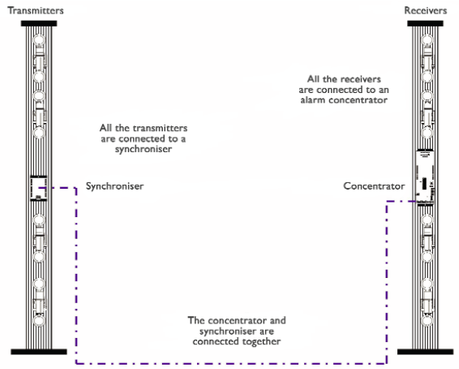
150/250 series and 40/60 and 4000/6000 series

150/250 SERIES
The IPS™150 and IPS™250 beams are available in the following models: with disqualification and without synchronisation circuits or with synchronisation and disqualification circuits.
A particular characteristic of the second model is the use of a synchronisation signal along a wire to make it immune to sabotage. It also has a disqualification circuit which, in the event of snow, fog or very heavy rain will automatically exclude the beam to prevent false activations, together with an open collector output to signal the disqualification. It is automatically re-enabled when normal visibility is established.
The IPS™150 has transmitters and receivers with a single beam while the IPS™250 units have a double beam.
The IPS™250 reduces the possibility of false alarms because it is necessary to break both beams simultaneously to create the alarm. The maximum range of the IPS™150 and IPS™250 is approximately 150m in internal applications and approximately 100m in external applications.

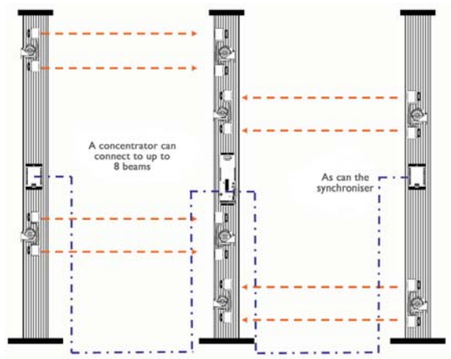
40/60 SERIES AND 4000/6000 SERIES
The IPS™40 and IPS™60 use the same mechanical assembly as the IPS™150/250, which allows vertical and horizontal alignment of the beams.
Using microprocessor technology gives automatic control of the gain to manage the level of the received signal.
This overcomes the problems of disqualification, which can occur in critical climatic conditions.
The IPS™40 and IPS™4000 use transmitters and receivers with a single beam while the IPS™60 and IPS™6000 are designed with a double beam, which considerably reduces the potential for false alarms as it will only signal alarms when both of the beams are blocked simultaneously.
The 4000 and 6000 series are designed to be integrated into the Multiplex2000 system where the concentrators communicate with the MIND via a serial line while the 40 and 60 series are Stand-alone.

CONFIGURATIONS

Multiple beams are installed in columns of various heights.



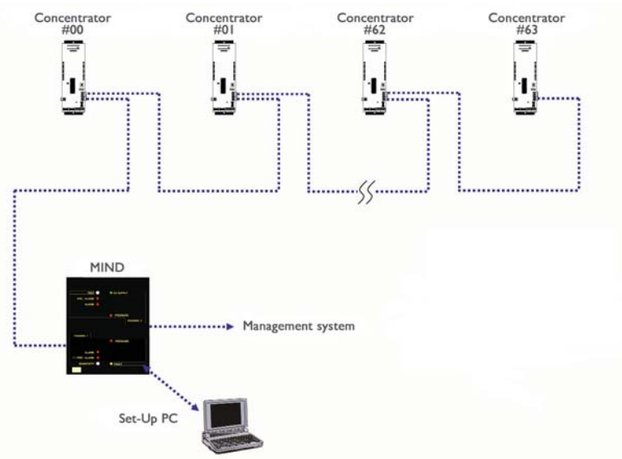
Many concentrators can be connected to universal communications processor (MIND) using a BUS cable for data and power.



Operation of the 40/60 and 4000/6000 series

The microprocessor based Concentrator can control up to 8 pairs of single or double beams installed in one or two pairs of columns, using a single cable. The concentrator sends a synchronising signal to a synchronising module, which divides the signal into individual time slots and passes them to transmitter units connected to the synchroniser outputs.
The concentrator also has an led scale which can be used for alignment of the transmitter and the corresponding receiver.
The signals from the 8 pairs of beams are output on a common alarm relay (also a common fault relay). By adding an optional relay module it is possible to assign an alarm output relay to each single pair of beams. As well as the stand alone mode (40-60) the concentrator can be connected, via an appropriate power and communication cable, to a central analyser - MIND. Up to 64 concentrators can be managed by one MIND unit.
In this case the alarms from each individual beam, the general alarm, the disqualification, tamper and interference signals can be output using the appropriate relay board. By means of an RS232 connection between the MIND and a PC and using a control and management software package (Multiplex2000) it is possible to view the analogue signals from the beams and help with the alignment process. It also gives simple and immediate access to the control of alarm thresholds, disqualification thresholds and speed of crossing times and all other parameters.
The Multiplex2000 software can also continuously record the analogue signal from the beam The PC can memorise on disc all of the data relevant to the event, together with the preceding 4 seconds of data, also storing the date and time of the event. IPS™ 4000 and 6000 can be integrated with other perimeter protection systems. The maximum ranges of the IPS™40 and IPS™4000 are approx. 200m for internal use and 150m for external use and for the IPS 60 and IPS™6000 are approx. 250m for internal use and 200m for external use.

Up to 64 concentrators all on a single cable, using the Multiplex2000 system.



TECHNICAL SPECIFICATIONS

	IPS150-250	IPS40-60	IPS4000-6000
Power supply	10-18 Vdc	10-13,8 Vdc	24-55 Vdc
Wavelenght	940 Nm	940 Nm	940 Nm
Transmission angle	2°	2°	2°
Repetition ratio	1/400 circa	1/400 circa	1/400 circa
Impulse duration	18/22 ms	18/22 ms	18/22 ms
Heater power supply	12-15 Vac	12-15 Vac	12-15 Vac
Heater current	max 300 mA	max 300 mA	max 300 mA
Operating temp. without heater	-5°C +60°C	-5°C +60°C	-5°C +60°C
Operating temp. with heater	-30°C +60°C	-30°C +60°C	-30°C +60°C

Retailer of confidence

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COMPANY WITH ENVIRONMENTAL SYSTEM CERTIFIED BY DNV = ISO 14001 =

COMPANY WITH SAFETY SYSTEM CERTIFIED BY DNV = OHSAS 18001 =

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