SELEX GALILEO

A Finmeccanica Company

HYDRA
PASSIVE INFRARED (PIR) DETECTION

The Hydra PIR sensor provides accurate and reliable detection of human activity, ideally suited to the protection of perimeters, passageways, roads or crossing points.

KEY BENEFITS

- Utilises the common Hydra node
- Low power consumption
- Provides direction of travel
- User selectable sensitivity
- Low false alarm rate
- 24 hour coverage
- Unaffected in adverse weather conditions.

ACCURATE ROUND THE CLOCK TARGET DETECTION

Whether deployed alone or as part of a large sensor network, the Hydra PIR node provides a powerful detection capability. Typical ranges are up to 100 meters for personnel and 200 meters for vehicles. The PIR sensor can also determine the target's direction of travel.

LOW FALSE ALARM RATE...RELIABLE DETECTION

Conventional PIR sensors can suffer from false alarms under adverse weather conditions. Utilising intelligent digital processing, the Hydra PIR detector virtually eliminates false alarms caused by rapid changes in sunlight or rainfall.

RAPID, SIMPLE DEPLOYMENT

The Hydra PIR can be used with all variants of Hydra sensor node and can cue imaging sensors both locally and over network. The various deployment fixtures available for the Hydra PIR allows this sensor to be securely deployed and positioned in seconds, with no impact to the surrounding environment.

EFFECTIVE DISTRIBUTED SENSING

Utilising the common Hydra node, the PIR sensor can be used in isolation, fused with other sensors, or used to activate and point imaging sensors in the Hydra network.

COST-EFFECTIVE

As a standalone remote sensor or as part of a more sophisticated multi-sensor system, the Hydra PIR node provides a cost-effective and reliable remote detection and cueing capability.

Hydra PIR provides accurate and reliable detection of human activity

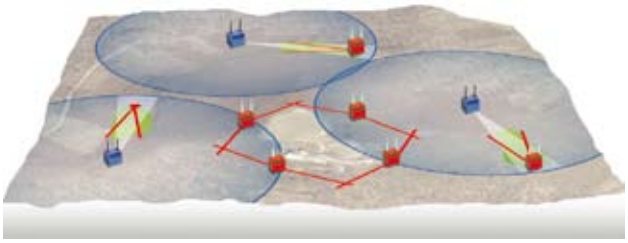
TECHNICAL SPECIFICATIONS

Hydra sensor node	
Operating Temp (standard)	-20°C to +65°C
Operating Temp (extended)	-40°C to +85°C
Humidity	< 95% non condensing PIR
Sensitivity settings	Low, Medium, High

Long range detector	
Dimensions (long)	175mm max
Dimensions (dia)	50mm max
Weight	370 g
Operating temp	-30°C to + 60°C
Field of view	4°
Detection range	100m personnel
	200m vehicle

Medium range detector	
Dimensions (long)	123mm max
Dimensions (dia)	25.4mm max
Weight	160 g
Operating temp	-30°C to + 60°C
Field of view	10°
Detection range	40m personnel
	60m vehicle

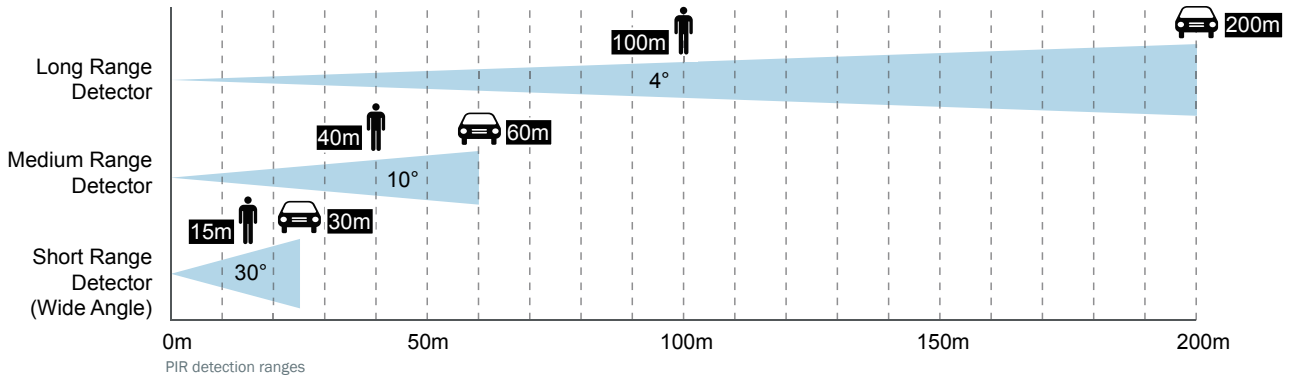
Short range detector wide angle	
Dimensions (long)	98 mm max
Dimensions (dia)	25.4 mm max
Weight	140 g
Operating temp	-30°C to + 60°C
Field of view	30°
Detection range	15m personnel
	25m vehicle



Hydra network sensing scenario

The scenario above illustrates how PIR sensing can form the basis of the remote sensing system, providing simple and reliable early detection of threats, whilst cueing other sensors which provide classification and identification.

The figure shows remote sensor nodes deployed to provide detection of targets approaching a restricted or sensitive area at the centre. In the three outlying sensor positions, the PIR sensor node provides a detection and cueing mechanism at strategic points for the adjacent imaging sensor nodes. In the centre of the diagram the PIR sensor nodes provide a second line continuous perimeter protection zone.



PIR detection ranges

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