



 **INXPECT**
Sense the world in 3D



WOODWORKING INDUSTRY

Use cases brochure



INXPECT SAFETY RADAR EQUIPMENT

Industrial safety at its best: Inxpect safety radar protective devices (RPD) detect access or presence of operators in dangerous areas and also have the ability to dynamically set the detection and warning zones.

Safety functions:



ACCESS PROTECTION

If the operator moves closer to the dangerous area, it places machinery in a safe state.



RESTART PREVENTION

It prevents machinery from restarting while operators are in the dangerous area.

RESISTANT TO DISTURBANCES

DEBRIS



Inxpect Safety Radar Sensors are immune not only to **light, smoke, dust** and **debris**, but also to **rain** (rainfall rate up to 45 mm/h).



Inxpect works where optical sensors stop. High safety without compromising productivity.

SPARKS



RAIN



DUST



Sensors Range

FOV shapes

Up to
9m
Range

4
Detection fields

4s
Restart timeout

Up to
4m/s
Max target speed

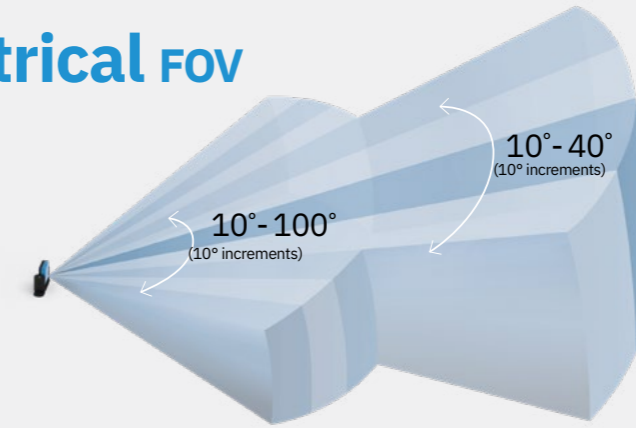
Adjustable angles

RCS
Selectable
(for 9m range only)

Symmetrical fov

Available on:

S201A
S201A-MLR
S201A-W
S203A-W
S201A-WL
S203A-WL

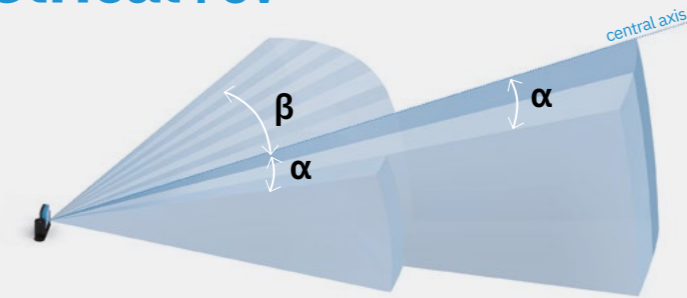


Freely adjustable angles:
Horizontal Plane: 10°-100° [0-5m]
10°-40° [5-9m]

Asymmetrical fov

Available on:

S201A-W
S203A-W
S201A-WL
S203A-WL



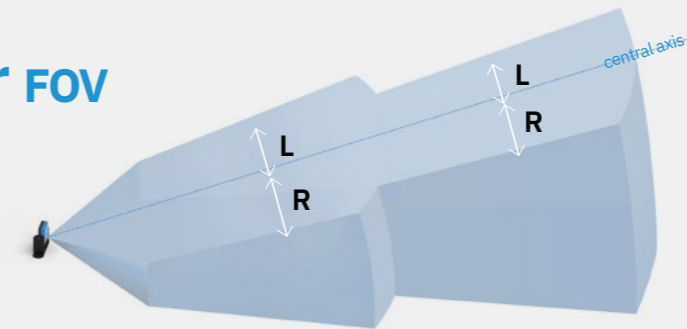
Freely adjustable angles:
Horizontal Plane: 10°-100° [0-5m]
10°-40° [5-9m]

$\alpha \neq \beta$
 α : 0°-50° β : 0°-50° [0-5m]
 α : 0°-20° β : 0°-20° [5-9m]

Corridor fov

Available on:

S201A-W
S203A-W
S201A-WL
S203A-WL

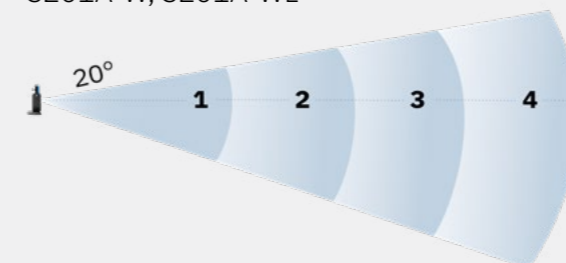


Freely adjustable widths:
Width: 20-800 cm [0-5m]
30-800 cm [5-9m]

$L \neq R$
L: 0-400 cm R: 0-400 cm

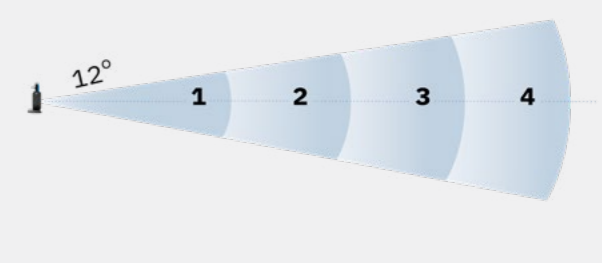
Vertical Plane: 20°

Available on: S201A, S201A-MLR, S201A-W, S201A-WL



Vertical Plane: 12°








Available on: S203A-W, S203A-WL



RADAR SENSORS

Technical specifications











		Vertical angular coverage	FOV	Max target speed	Min settable distance	Settable RCS
4M RANGE	 S101A	Wide 30° Narrow 15°	Symmetrical	1.6 m/s	1 m	-
	 S201A	20°	Symmetrical	2 m/s	0.5 m	-
5M RANGE	 S201A-W	20°	Advanced	2 m/s	0.2 m	-
	 S203A-W	12°	Advanced	2 m/s	0.2 m	-
	 S201A-MLR	20°	Symmetrical	4 m/s	0.5 m	✓
9M RANGE	 S201A-WL	20°	Advanced	4 m/s	0.2 m	✓
	 S203A-WL	12°	Advanced	4 m/s	0.2 m	✓

CONTROL UNITS

Technical specifications



	Fieldbus	Digital I/O	SD backup SD restore	Configuration	Dynamic setting of detection fields	
TYPE A	 C201A-PNS	PROFIsafe MODBUS	✓	-	Ethernet USB	Up to 32 configurations switchable in real time
	 C201A-F	FSoE MODBUS	✓	-	Ethernet USB	Up to 32 configurations switchable in real time
	 C202A	MODBUS	✓	-	Ethernet USB	Up to 8 configurations switchable in real time* <small>*from FW 2.0.0 onwards</small>
	 C203A	-	✓	-	USB	Up to 8 configurations switchable in real time* <small>*from FW 2.0.0 onwards</small>
	 C201B-P	PROFIsafe MODBUS	✓	✓	Ethernet USB	Up to 32 configurations switchable in real time
	 C201B-F	FSoE MODBUS	✓	✓	Ethernet USB	Up to 32 configurations switchable in real time
	 C202B	MODBUS	✓	✓	Ethernet USB	Up to 8 configurations switchable in real time
	 C203B	-	✓	✓	USB	Up to 8 configurations switchable in real time

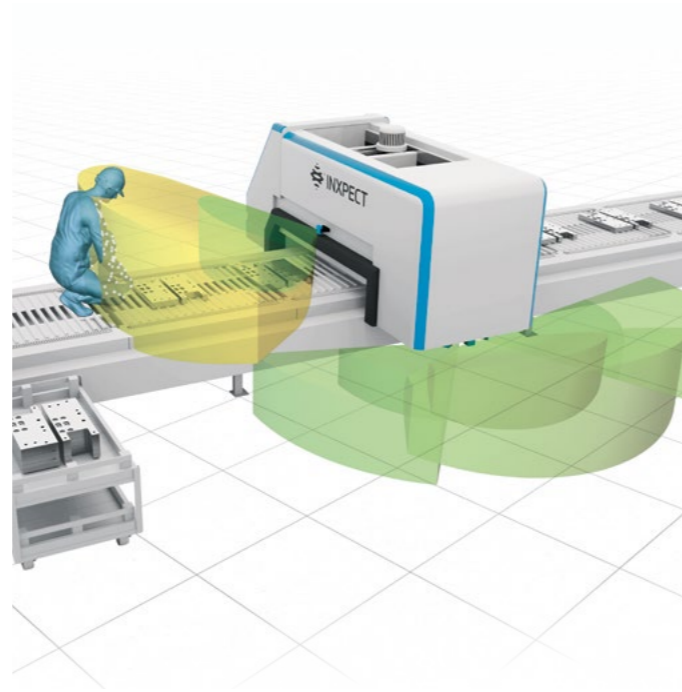
WOODWORKING GANTRY MACHINE

The immunity against the wood dust and the possibility to change dynamically the radar parameters make the radar system the perfect solution for CNC machine.

No more physical fences and segregated areas, the machinery can work at high speed, increasing productivity without neglecting the safety of the operator.

Product list:

Quantity	Products
1	C201A-PNS
5	S203A-W
5	Cables
1	Bus Terminator



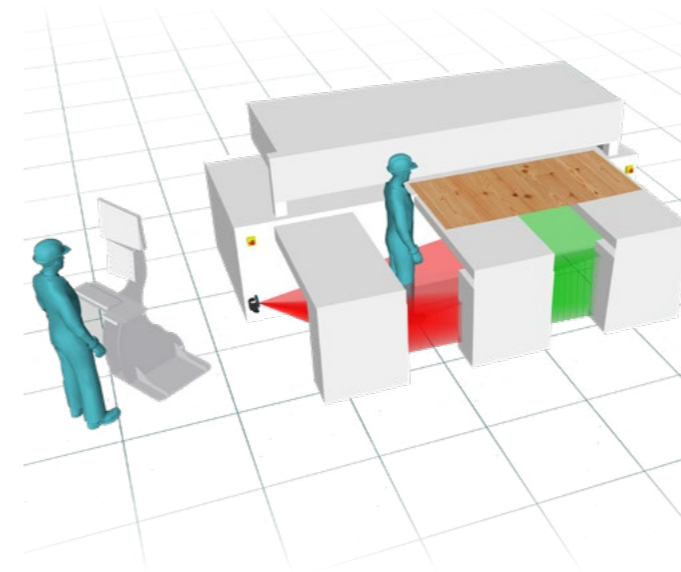
AUTOMATIC BEAM SAW

The Inxpect safety radar sensors are completely immune against wood debris keeping the operations smooth and safe.

With four independent detection fields, and a precise information of targets position (range and angle), the Inxpect safety radar sensor revolutionises the efficiency of beam saw processes.

Product list:

Quantity	Products
1	C201A-PNS
1	S203A-W
1	Cable
1	Bus terminator



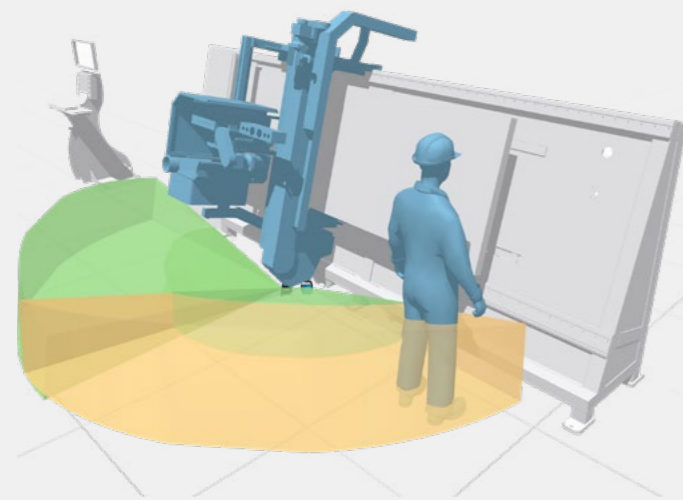
WOODWORKING VERTICAL MACHINE

The radar sensor can be installed on the moving structure and it will trigger an alarm every time that an operator stands along the path of the gantry.

Human/machinery interaction is smoother, leading to less downtime and ultimately boosting production.

Product list:

Quantity	Products
1	C202B
2	S203A-W
2	Cables
1	Bus terminator



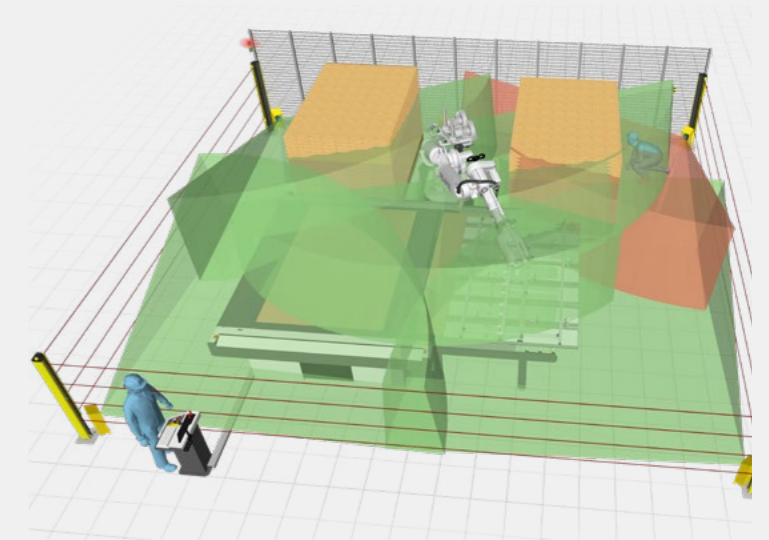
WOODWORKING ROBOTIC CELL

Inxpect refines the state of art of robotics cell and the world of industrial safety in general.

Inxpect 3D radars ensure maximum safety within dangerous areas preventing unintentional restart while the operator is in the dangerous area.

Product list:

Quantity	Products
1	C203A
6	S201A
6	Indoor Adjustable protector kit
6	Cables
2	Bus terminators



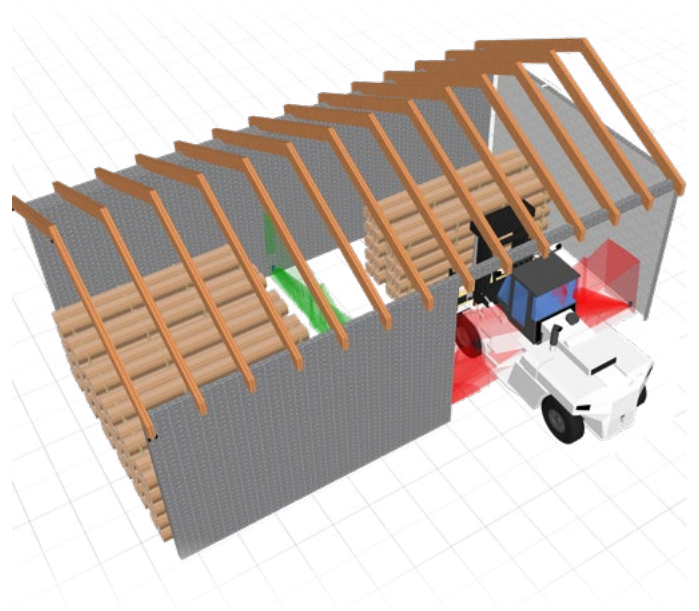
CONTINUOUS KILNS

Inxpect safety radar monitors the kiln entrance, creating virtual barriers to keep the area safe.

It is completely immune to dust, smoke and fog avoiding false alarms. Even under heavy rain (up to 45 mm/h), its reliability is not affected.

Products list:

Quantity	Products
1	C201A-PNS
4	S203A-WL
2	Outdoor Adjustable protector kit
2	Indoor Adjustable protector kit
4	Cables
2	Bus Terminators



Inxpect S.p.A.
Via Serpente, 91
25131 Brescia (IT)
T +390305785105
safety@inxpect.com
www.inxpect.com

Inxpect Deutschland GmbH
Am Holzacker, 29
D-91085 Weisendorf (DE)
T +4991357366926
hello@inxpect.de
www.inxpect.de

Inxpect Electronics Co., Ltd.
1303, No.111 Yinli Center Building,
South Youyi Road, Xiqing Economic and
Technological Development Zone, Tianjin (CN)
hello-china@inxpect.com
www.inxpect.com

Inxpect Ibérica SL
C/ Sant Josep 28, Les Franqueses del Vallès
08520 Barcelona (ES)
T +34935507946
info@inxpect.es
www.inxpect.es

Inxpect North America Corp.
10375 N. Baldev Court, Suite B
Milwaukee, Wisconsin 53092 (US)
T 4148587644
hello@inxpect.us
www.inxpect.us

