

Radar Sensors for natural environments

Applications :

Designed to take measurements in natural environments, PARATRONIC radars are used to monitor the levels of rivers, channels, water bodies.

Simple and effective :

The PARATRONIC CR420 or CRUZOE level sensors use pulse radar technology. Their very low power consumption enables them to be powered by batteries or solar panels. They are self-stabilising and automatically correct horizontal alignment faults of 10°. Their neutral colour allows them to blend into the natural environment. Measuring cone and absence of blind area facilitating their installation in confined environments.

Reliable and upgradeable :

The design of PARATRONIC radars enables them to be used under extreme conditions (flood, temperature, wind) without being damaged. The measuring range may vary from 6 to 30 metres depending on requirements and the IHMcaptteur application allows to change some settings or to average measurement, to filter the echoes.

Available :

- Large stock of all models.
- Constant technical availability to meet your requirements.



C105A-0220

	CRUZOE (RS485)	CR420/06 - CR420/10 & CR420/20 (4-20mA)
Technology	Pulse	Pulse
Transmission frequency	24.05 GHz to 26.5 GHz	24.05 GHz to 26.5 GHz
Power supply	9 to 20 V DC	10 to 33 V DC
Power	Standby mode: 100 μ A Permanent mode: 15 mA Mode 4-20 mA 3-wire: 40 mA (option)	22 mA during 2 seconds, 4 to 20 mA after depending of the distance and the duration of the measurment (configurable). Default : 22 mA
Measuring range	30 metres	CR420/06: 6 metres -- CR420/10: 10 metres -- CR420/20: 20 metres
Radiation angle	+/- 4° by +/- 6°	+/- 4° by +/- 6°
Minimum cycle time	3 Seconds	3 Seconds
Output signal	Jbus slave on RS485 including the measurement and quality of the signal	4-20mA over 2 wires 20-4mA over 2 wires
Resolution	1 mm	1 mm
Sensitivity	---	CR420/06: 2,6 μ A/mm CR420/10: 1,6 μ A/mm CR420/20: 0,8 μ A/mm
Accuracy	< 20 cm : +/-100 mm From 20 cm to 50 cm : +/-20 mm From 50 cm to 30 m : +/-5 mm (CEM +/-10 mm)	< 20 cm : +/-100 mm From 20 cm to 50 cm : +/-20 mm From 50 cm to 20 m : +/-5 mm (CEM +/-10 mm)
Operating temperature	-20°C/+50°C	-20°C/+60°C
Storage temperature	-20°C/+60°C	-20°C/+60°C
Immunity to overvoltages wave 8-20 (1)	1 kV DC	2 kV DC
Immunity to fast transients	Level 4	Level 4
Electromagnetic Compatibility	EN 302729-1/2 (2011-05) - EN 60950-1 (2006-09) + Av A1, A2, A11, A12 EN 61326-1 (2013-05) - EN 62479 (2010-11) - EN 50581 (2013-01)	EN 302729-1/2 (2011-05) - EN 60950-1 (2006-09) + Av A1, A2, A11, A12 EN 61326-1 (2013-05) - EN 62479 (2010-11) - EN 50581 (2013-01)
Standard ISO	ISO 4373	ISO 4373
Installation and fixing	On tube dia. < 40 mm	On tube dia. < 40 mm
Optional accessories	Bracket	Bracket
Protection	IP 68 (100 days at one meter)	IP 68 (100 days at one meter)
Cable	4 wires, section 0.5mm ² dia. 6mm, Length 2m.	Screened, 2 wires, section 0.5mm ² , dia. 5.5mm, 50 Ω /Km - Length 2m
Cable max.	1 Km	Max. Distance according to line resistance and supply voltage
Material	PETP - PTFE - ABS PC	PETP - PTFE - ABS PC
Dimensions	L 300 mm, W 220 mm, H 85mm	L 300 mm, W 220 mm, H 85mm
Weight	1.8 Kg	1.8 Kg
Warranty	2 years including lightning risks (1)	2 years including lightning risks (1)

(1) Protection of the RS485 link with a PRO SA224 and of the 4/20 link by a PRO TAS30 is essential.

Radar Sensors