CAPTA
Acoustic sensor

CAPTA SENSOR
STD model

Atex version

CAPTA is an acoustic sensor used to monitor noise emissions from industrial equipment due to moving parts, rotations or generated by the flow of materials within pipelines.
The CAPTA sensor detects high-frequency acoustic waves generated by the friction and impact of solids, granulates, and dust on the walls of a pipeline, and calibrates itself on the noise emissions related to normal system operation.
Any significant change in noise emissions is detected and classified. At high frequencies, noise emissions generated by machines or the process are not altered by neighbouring equipment: the sensor is not disturbed by background noise or low-frequency noise from mechanical vibrations. Spurious signals are automatically reset.
Capta is easy to use: it can be installed outdoors in minutes without the need to lock the system. Maintenance-free, it reduces or eliminates visual and auditory inspections of installations, because the sensors, with their continuous action, ensure prompt detection of potential problems. A variation is detected instantly and the system modifies the output signal and warns the user that a different condition has occurred. The sensor can be connected directly to a PLC or integrated with a control unit that handles a 4 ÷ 20mA isolated output and 2 relay outputs. The Capta sensor opens up new possibilities for monitoring and controlling equipment because it senses changes in operating conditions and allows action to be taken before damage occurs to the equipment and reduces the work and costs of control and maintenance.
Capta is supplied with direct current 23 to 30Vdc and provides a 0 to 10V output that can be connected to a PLC or control unit with power supply 90 ÷ 253Vac. The standard sensor operates in a temperature range of - 40 to 85°C or in a high temperature version up to 125°C.

Continuous product development may lead to changes in the data displayed.

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Technical specifications

CAPTA STD

Detected frequencies	100 ÷ 600kHz
Power supply	23 to 30Vdc (Capta Z = 24 to 26Vdc)
Analogue output	0 ÷ 10Vdc
Cable	shielded 4 wires, 24 AWG, L 4m
Temperature range	standard version - 40 to 85°C high temperature version - 40 to 125°C
Antifreeze	IP 68
Mounting the sensor	base with Ø 14 mm hole
Enclosure and base material	AISI 316 stainless steel
Weight	640g
Dimensions	108 x 65 x 81
Certification	CE

Control unit CU02

Power supply	100/115/200/230Vca, 50/60Hz
Sensor output	26Vdc nominal, 70mA max.
Consumption	max 10VA
Analog Input	0 ÷ 10V from sensor
Analogue output	4 ÷ 20mA isolated, max. 750
Relay output	2 SPDT relays 5A @ 250VDC non-inductive
Delay	0 to 999s (on/off)
Ambient temperature	-20 ÷ 50°C
Input protection	IP 20
Enclosure	polycarbonate
Weight	550g
Dimensions	55 x 75 x 110mm (L x H x P)
Guide rail mounting	DIN66277 or EN50022
Display	3 digits H = 9mm + symbols

CAPTA Z

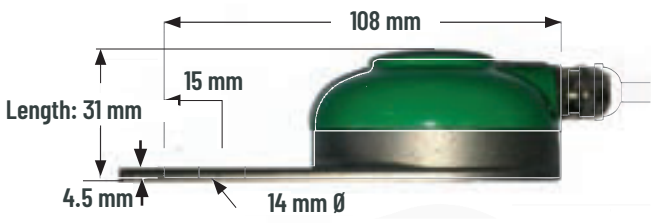
Technical characteristics as Capta STD; can only be used with a Zener barrier; requires an S. I. ground connection; S. I. execution certified EEx ia II C T6 (+ 40°C) or EEx ia II C T4 (+ 92°C)

CAPTA G

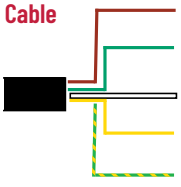
Technical features as Capta STD; can be used with galvanically isolated Zener barrier; no connection to an S. I. ground required; S. I. execution certified EEx ia II C T6 (+ 40°C) or EEx ia II C T4 (+ 92°C)

Control unit CU02

Dimensions



Cable



brown (+)	Power supply 24Vdc (23÷30Vdc 15mA)
green (-)	0V power supply
white (+)	Signal output 0÷10Vdc (min. load 100KΩ)
yellow (-)	0V signal
yellow/green	Screen
(-)	

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