



Micro Detectors

Italian Sensors Technology



Application:
Plates detection in
polishing machine.

UK6 - M18 Ultrasonic Sensors
Short housing



Ultrasonic Sensors

Application note

CAT3EUK1370701

Application note - UK6 - english - Ed.01/2013



MARKET
SECTOR

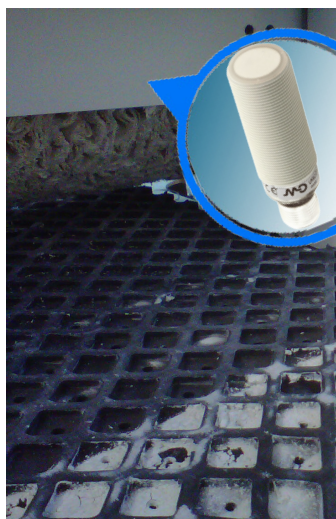
PROBLEM
DESCRIPTION

APPLIED
SOLUTION

Wood and metal industry.

Polishing machines need to detect wood or metal plates for the right brushes actuation.

Ultrasonic technology allows to detect object independently from the material and gloss. UK6C detects wood and metal plates, until 5 mm thickness, through the direct diffuse mode. This solution is perfect for small spaces, where you can't use emitter and receiver photoelectric sensors, or where it is not possible to fix reflectors.

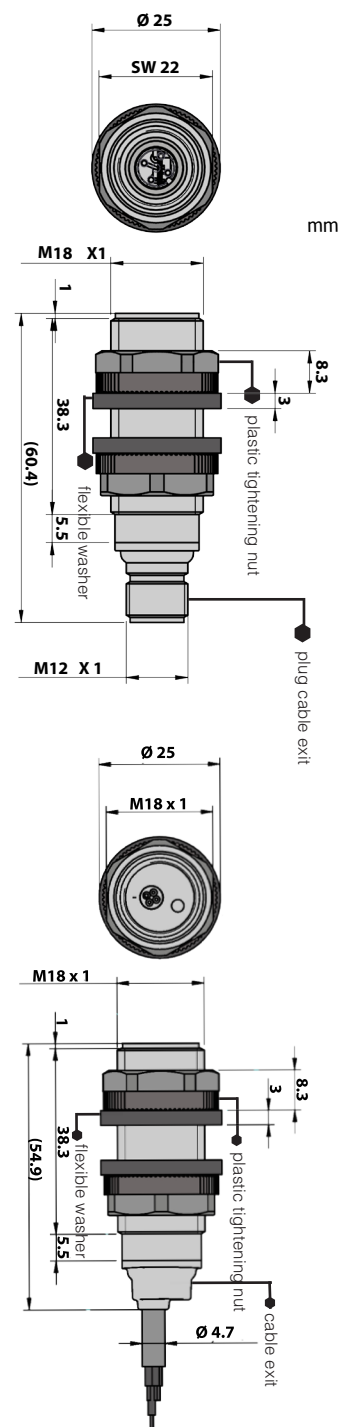


TECHNICAL
SPECIFICATION
& DIMENSION

models	UK6C/D*-0*UL
maximum sensing distance Sn	900 mm ⁽¹⁾
minimum operating distance (blind zone)	120 mm
beam angle	± 8°
switching frequency (digital output)	6 Hz
response time (digital output)	80 ms
hysteresis	2%
repeat accuracy	2%
linearity error	≤ 3%
temperature range	-20°C ...+60°C
temperature compensation	yes
operating voltage	15 - 30 Vcc
thermal drift	≤ 7%
ripple	5%
leakage current	≤ 10 µA @ 30 Vcc
output voltage drop	2,2 V (IL=100mA)
No-Load supply current	≤ 40 mA
maximum load current (digital output)	100 mA
minimum load resistance	500 Ω (power voltage analogue output)
adjustment set point	external Teach-in
supply electrical protections	polarity reversal, overvoltage pulses
digital output electrical protections	short circuit, overvoltage pulses
EMC	conforming to the EC Directive 2004/108/EC requirements according to EN 60947-5-2
protection degree	IP67 ⁽²⁾
housing material	PBT
front end material	epoxy-glass resin
tightening torque	1 Nm
weight	15 gr (connector exit), 80 gr (cable exit)
storage temperature	-35°C...+70° without freezing

⁽¹⁾ Metallic target 200 x 200 mm

⁽²⁾ Protection granted only by plug mounted in a correct way



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