



Micro Detectors



Italian Sensors Technology

SHORT FORM CATALOGUE



Micro Detectors



Italian Sensors Technology

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Welcome in M.D. Micro Detectors

M.D. Micro Detectors S.p.A. has been designing and manufacturing a wide range of industrial sensors and safety devices since 1971. Our company's strong commitment to future developments and innovations is based on a great tradition.

Born in a laboratory placed in a garage, this Society has collected a lot of successes in technical fields. Among all of them it is worth to tell that M.D. has been the first company in the World to produce the M18 cylindrical photoelectric sensor as well as the first manufacturer of Area Sensors.

- Photoelectric Sensors
- Proximity Sensors
- Ultrasonic Sensors
- Area Sensors
- Safety Devices
- Applicative Sensors
- Encoders
- Accessories.

In addition to our catalogue products, a very important part of our activity consists of:

- variation and customization of catalogue products;
- products specifically developed to satisfy our customers' application needs.

Our Company is now vertically integrated as a whole: all processes, from research and development of new products to manufacturing and final shipment, are carried out by our personnel at our site. This allows us to keep our technology, all of our processes and quality completely under control and to be flexible and reactive. 1.5 million of pieces approximately are entirely realized in our Modena Plant, having a production capacity available to support even bigger figures. The Made in Italy style, featuring our products development and their manufacture, means quality, accuracy, experience and reliability.

Our organization and competences allow us to manufacture our products quickly, supported by high flexibility resulting in the utmost efficiency for our customers.

Since the beginning, our products have been renowned on the market for their quality, robustness, ease of use and for outstanding performance. This is the result of a manufacturing process carried out at the highest level of capacity, quality, efficiency and flexibility.

All products manufactured in our plant undergo constant controls and they are always double-checked.

We are organized according to the principles of Lean Thinking.

With the Lean Thinking Introduction, the Organization and all daily people behaviours have been adapted to the constant Application of such principles:

- Efficiency
- Flow
- Standardization
- Visual Management
- Simplification
- Continuous Improvement
- Team Working
- Reduction of all Indirect and "No Value Added" Activities.

M.D. Worldwide

M.D. Micro Detectors S.p.A. has three headquarters:



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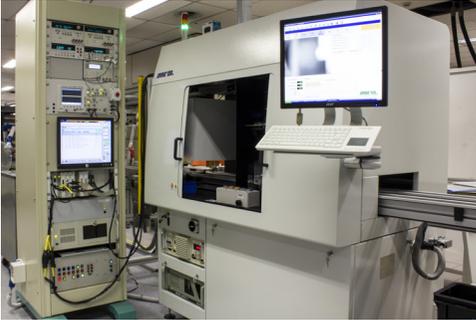
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Our brand evolution

Born in 1971, M.D. Micro Detectors S.p.A. have been recognized on the market over time for their high quality levels and technical innovations, at first by using "Di-ell" brand (a name resulting from two words melting together: "Didactics Electronics"). Below is a summary of logos used by M.D. Micro Detectors during the forty years of Company activities.



Sensors and more!

M.D. Micro Detectors is now more than a very competent sensors' developer and an outstanding manufacturer. Since mid 2012, M.D. Micro Detectors S.p.A. has established the new Chinese facility for the production of coils for inductive sensors, among other activities. The coil is a fundamental component to guarantee high performances of the inductive sensors. This is why M.D. decided to rule this technology setting a manufacturing unit in Tianjin where coils for different manufacturers are produced, in addition to 100% production of the coils needed by M.D. Italy.

All products realized by M.D. Tianjin are 100% quality tested. Production is based on Lean Manufacturing concepts.

The main features offered by M.D. Tianjin are:

- a stable manufacturing process, compliant to Lean Manufacturing principles and M.D. control protocols. Totally controlled by our people;
- quality of raw materials used;
- competence of our operators;
- reliability: all the products manufactured are subject to quality and functional tests;
- technology and know-how: more than 40 years of experience in the design and production of coils for inductive sensors;
- services: fast production and fast delivery worldwide;
- customization: production of coils with diameter and number of windings according to customer's request;
- competitive prices.



M.D. Quality System



M.D. Micro Detectors Quality System meets ISO 9001:2015 standards for design, production and sales of electronic devices for measurement, analysis and detection in the industrial and consumer sector.

In next months our Quality System will be updated, meeting the new ISO 9001:2015 requirements.



cylindrical

H8



M8 high frequency
DC

HE



M8 miniaturized
through-beam
sensors DC

DG



Ø 10 mm

dimensions	M8	M8	Ø 10 mm
background suppression	-	-	-
diffuse short distance	-	-	-
diffuse long distance	-	-	-
retroreflective	-	-	-
polarized	-	-	-
retroreflective for transparent objects	-	-	-
through beam	80 mm	0...1 m (10 kHz); 0...2 m (1 kHz)	2 m (EG4)
switching frequency	50 kHz	1 kHz - 10 kHz	40 Hz
LED emission	IR	IR	IR
LASER emission	-	-	-
axial optic	●	●	●
90° optic	-	-	-
power supply Vdc	●	●	●
power supply Vac	-	-	-
NPN - NO	-	●	●
NPN - NC	-	●	●
PNP - NO	●	●	●
PNP - NC	-	●	●
NPN - NO / NC	-	-	-
PNP - NO / NC	-	-	-
NPN - NO + NC	-	-	-
PNP - NO + NC	-	-	-
DECOUT®	-	-	-
relay	-	-	-
SCR	-	-	-
temperature range	-25°C...+70°C	-25°C...+70°C	-25°C...+70°C
protection degree	IP67	IP67	IP67
housing material	stainless steel	stainless steel	plastic
active head material	PMMA	PMMA	PC
cable	●	●	●
plug	-	-	-

CE

CE

CE



cylindrical

FAL BGS



M18
direct
with
background
suppression - DC
LASER
diffuse
adjustable

FBL



M18 LASER

SS/SP



M18 with lateral
adjustment

dimensions	M18	M18	M18
background suppression	ass.: 30..80 (cl.1) 30..130 mm (cl.2) ass.: 30..100 (cl.1) 30..150 mm (cl.2)	ass.: 30..80 (cl.1) 30..130 mm (cl.2) ass.: 30..100 (cl.1) 30..150 mm (cl.2)	50 mm / 100 mm
diffuse short distance	-	400 mm (axial) 300 mm (90°)	100 mm
diffuse long distance	-	-	400 mm / 800 mm
retroreflective	-	-	5 m
polarized	-	30 m (RL201)	4 m
retroreflective for transparent objects	-	-	-
through beam	-	50 m	14 m
switching frequency	1,500 Hz	800 Hz -1 kHz	800 Hz -1 kHz 250 Hz
LED emission	red / LASER (1-2)	red / LASER (1)	red / IR
LASER emission	●	●	-
axial optic	●	●	●
90° optic	●	●	●
power supply Vdc	●	●	●
power supply Vac	-	-	-
NPN - NO	-	-	●
NPN - NC	-	-	●
PNP - NO	-	-	●
PNP - NC	-	-	●
NPN - NO / NC	●	-	●
PNP - NO / NC	●	-	●
NPN - NO + NC	●	●	-
PNP - NO + NC	●	●	-
DECOUT®	-	-	-
relay	-	-	-
SCR	-	-	-
temperature range	- 15°C...+55°C	- 15°C...+55°C	- 25°C...+70°C
protection degree	IP67	IP67	IP67
housing material	nickel plated brass	nickel plated brass	plastic / nickel plated brass
active head material	PMMA / glass	PMMA / glass	PMMA
cable	●	●	●
plug	●	●	●



113GD



113GD

MS/MP



M18 DECOUT® DC output

SA



M18 high performances with rear adjustment - DC

MV



M18 multivoltage output sensors

MQ0/ MQ1



M18 with fixed distances background suppression and 90° optics

cylindrical

M18	M18	M18	M18
50 mm / 100 mm	-	-	50 mm / 100 mm
100 mm / 200 mm	150 mm	100 mm / 200 mm	-
400 mm	400 / 1,000 mm	400 mm	-
4.5 m	6 m	4.5 m	-
3.5 m	3.5 m	3.5 m	-
-	-	-	-
16 m / 32 m	-	16 m	-
1 kHz - 80 - 30 Hz	1 kHz	25 Hz	25 Hz
red / IR	red / IR	red / IR	IR
-	-	-	-
●	●	●	-
●	-	-	●
●	●	-	-
-	-	●	●
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	●	-	-
-	●	-	-
-	-	-	-
-	-	-	-
●	-	-	-
-	-	-	-
-	-	●	●
-25°C...+70°C	-25°C...+70°C	-25°C...+70°C	-25°C...+70°C
IP67	IP65	IP67	IP67
plastic / nickel plated brass	plastic / nickel plated brass	plastic	plastic
PMMA	PMMA	PMMA	PMMA
●	●	●	-
●	●	●	●





cylindrical

FQ



M18 sensors with short body - DC

FF



M18 sensors for harsh environments - DC

FFRS



M18 sensors with background suppression for harsh environment - DC

dimensions	M18 short housing	M18	M18
background suppression	-	-	30...130 mm / 60...100 mm
diffuse short distance	100 mm	100 mm	-
diffuse long distance	0.4 / 1.2 m (1 m - 90°)	400 / 800 mm	-
retroreflective	6 m	-	-
polarized	4.5 m	4.5 m	-
retroreflective for transparent objects	100...1,500 mm	100...1,500 mm	-
through beam	20 m (16 m - 90°)	20 mm	-
switching frequency	250 Hz	1 kHz - 500 Hz - 400 Hz - 250	1 kHz - 400 Hz
LED emission	red / IR	-	-
LASER emission	-	red / IR	red
axial optic	●	●	●
90° optic	●	-	-
power supply Vdc	●	●	●
power supply Vac	-	-	-
NPN - NO	-	-	-
NPN - NC	-	-	-
PNP - NO	-	-	-
PNP - NC	-	-	-
NPN - NO / NC	-	●	●
PNP - NO / NC	-	●	●
NPN - NO + NC	●	●	●
PNP - NO + NC	●	●	●
DECOUT®	-	-	-
relay	-	-	-
SCR	-	-	-
temperature range	-25°C...+70°C	-25°C...+80°C	-25°C...+80°C
protection degree	IP67	IP68 / IP69K	IP68 / IP69K
housing material	plastic / nickel plated brass	stainless steel AISI 316L	stainless steel AISI 316L
active head material	PMMA/PC	PMMA / PA12	PA12
cable	●	-	-
plug	●	●	●



Diversey ECOLAB



Diversey ECOLAB

IT DETECTS OBJECTS REGARDLESS OF THE COLOR



NEW !!!



cylindrical photoelectric



FA BGS series

M18 direct diffuse with adjustable background suppression

features

- Up 300 mm adjustable reading distance
- Cable or M12 plastic plug versions
- Supply voltage 10...30 Vdc, output current 100 mA
- LED light status indicator
- IP67 protection degree
- Complete protection against electrical damages
- ATEX models, cat.3, available on request
- Approvals: CE and cULus Listed




Micro Detectors
Italian Sensors Technology





cubic

QM



with high performance
- DC

QF



for harsh environments
and food industry - DC

QX



miniaturized - DC

dimensions	21 x 12.8 x 31.2	21 x 11 x 31.4 mm	15 x 23 x 40 mm
background suppression	30...200 mm 30...400 mm	25...200 mm	-
diffuse short distance	100 mm	200 mm	-
diffuse long distance	400 mm / 1,000 mm/ 1,500 mm	1,000 mm	300 mm
retroreflective	7 m	-	5 m
polarized	5 m	6 m	3 m
retroreflective for transparent objects	0.4...4 m 0.05...1.5 m	-	-
through beam	20 m/30 m	15 m	8 m
switching frequency	1 kHz / 2 kHz	1 kHz / 500 Hz	500 Hz / 750 Hz
LED emission	red / IR	red / IR	red / IR
LASER emission	-	-	-
axial optic	-	-	●
90° optic	●	●	●
power supply Vdc	●	●	●
power supply Vac	-	-	-
NPN - NO	-	-	●
NPN - NC	-	-	●
PNP - NO	-	-	●
PNP - NC	-	-	●
NPN - NO / NC	●	-	-
PNP - NO / NC	●	-	-
NPN - NO + NC	-	●	-
PNP - NO + NC	-	●	-
DECOUT®	-	-	-
relay	-	-	-
SCR	-	-	-
temperature range	-25°C...+70°C	-25°C...+60°C	-25°C...+70°C
protection degree	IP67	IP68 / IP69K	IP65
housing material	plastic	stainless steel AISI 316L	ABS
active head material	PMMA	PSU	acrylic
cable	●	●	●
plug	M8 e pig-tail M8, M12	M8 4 pin	M8, M12



BS - BV



cubic sensors
DECOUT® - DC or AC

Q50



compact cubic
50 x 50 mm - DC or
AC/DC

FG



compact - DC or
AC/DC

RX



maxi with static
output DC or with
relay output AC /DC

cubic

15 x 37 x 70 mm	17 x 50 x 50 mm	20 x 43 x 55 mm	26 x 50 x 80 mm
-	120...500 mm	90...310 mm / 110...600 mm	50...300 mm / 250...1,000 mm
100 / 200 mm	-	-	-
400 mm / 1.600 mm	1 / 2 m	-	1 / 2 m
8 m	-	-	12 m
-	6 m	12 m	6 m
-	-	-	-
-	20 m	50 m	16 m / 32 m
80 Hz	20 Hz - 500 Hz	33 Hz - 250 Hz - 1 kHz	25 Hz - 500 Hz
IR	IR / red	red	IR / red
-	-	-	-
-	-	●	-
●	●	●	-
●	●	●	●
●	●	●	●
-	-	-	-
-	-	-	-
-	-	-	-
-	-	●	-
-	-	●	-
-	-	-	-
-	●	-	-
-	●	-	-
●	-	-	●
-	-	●	●
●	●	-	-
-25°C...+70°C	-25°C...+60°C	-25°C...+55°C	-25°C...+70°C
IP65	IP67	IP67	IP65
ABS	PC / ABS	plastic	PC
acrilic	PMMA	PMMA	PMMA
●	●	●	-
M12	M12	M12	M12





forks

FC5



photoelectric fork
for objects detection
without regulation

FC6



photoelectric fork for
objects detection with
regulation

FC7



photoelectric fork
sensors for labels
detection

dimensions	-	-	-
nominal sensing distance Sn	30, 50, 80, 120, 180 mm	2,5,15,30, 50, 80, 120 mm	3 mm
luminescent scanner	●	●	-
slot sensor for labels detection	-	-	●
depth detection slot	30, 60, 124 mm	42, 59, 95 mm	42 mm
minimum object dimension	0.8 / 1.2 mm	0.05 mm	-
emission	red	IR / LASER red (cl.1)	IR
switching frequency	4 kHz	10 kHz	10 kHz
power supply Vdc	●	●	●
power supply Vac	-	-	-
NPN - NO	●	-	-
NPN - NC	●	-	-
PNP - NO	●	-	-
PNP - NC	●	-	-
NPN - NO / NC	-	-	●
PNP - NO / NC	-	-	●
NPN / PNP - NO / NC	-	●	●
temperature range	- 10°C...+60°C	- 20°C...+60°C	- 20°C...+60°C
protection degree	IP67	IP65	IP65
housing material	painted aluminium	painted aluminium	thermoplastic (PA12)
cable	-	-	-
plug	M8 3 pin	M8 4 pin	M8 4 pin





forks

FC8



ultrasonic fork sensors
for labels detection

HI-TECH TO TOUCH DOWN

forks

dimensions	-
nominal sensing distance Sn	3 mm
luminescent scanner	-
slot sensor for labels detection	●
depth detection slot	69 mm
minimum object dimension	label 2 mm - 2 mm
emission	ultrasonic
switching frequency	1.5 kHz
power supply Vdc	●
power supply Vac	-
NPN - NO	-
NPN - NC	-
PNP - NO	-
PNP - NC	-
NPN - NO / NC	●
PNP - NO / NC	●
NPN / PNP - NO / NC	●
temperature range	- 5°C...+55°C
protection degree	IP65
housing material	painted aluminium
cable	-
plug	M8 4 pin



FC5 and FC6

Photoelectric forks for
object detection with
regulation

- **Plug and Play without adjustment (FC5)**
- Simple and accurate adjustment manually by +/- buttons (FC6)
- High power RED LED emission (FC5), infrared emission: LASER emission (class 1) (FC6)
- Metal housing
- M8 connectors 3 and 4 pins
- Minimum size object detection 0.8 mm (FC5), 0.05 mm (FC6L), 0.2 mm (FC6I)
- -20...+60°C temperature range





Optical fibers amplifiers

SSF



M18

FS1



cubic

F



for DIN-rail mounting

dimensions	M18	15 x 26 x 66 mm	10 x 32 x 70 mm
amplifier with relay output	-	-	-
amplifier for plastic fibers	●	●	●
amplifier for glass fibers	●	●	-
DIN bar amplifier	-	-	●
output timing	-	-	-
Teach-in	●	-	-
frequency	800 Hz	1 kHz	2 kHz
emission	red	red	red
sensing distance	depending on optical fibers	depending on optical fibers	depending on optical fibers
power supply Vcc	●	●	●
power supply Vac	-	-	-
relay	-	-	-
PNP - NO / NC	●	●	●
NPN - NO / NC	●	●	●
temperature range	-25°C...+70°C	-25°C...+70°C	-25°C...+55°C
protection degree	IP67	IP67	IP50
housing material	plastic / metallic	PA	PBT / PC
optics material	plastic fibre, glass fibre	plastic fibre, glass fibre	plastic fibre
cable	●	●	●
plug	M12	M12	-



FX



for DIN-rail mounting

FY



for DIN-rail mounting

DESIGNED TO OPERATE IN TIGHT PLACES

optical fibers amplifiers



10 x 31 x 60 mm	10 x 30 x 71,8 mm
-	-
•	•
•	•
•	•
-	•
•	•
1.5 kHz	ut to 25 kHz (FY2) up to 2,5 kHz (FY3)
red	red
depending on optical fibers	depending on optical fibers
•	•
-	-
-	-
•	•
•	•
-25°C...+55°C	-20°C...+55°C
IP64	IP64
PBT	PC
plastic fibre, glass fibre	plastic fibre, glass fibre
•	•
M8	pig-tail M8



FY series

Photoelectric
sensors for DIN-rail
mounting

features

- Models with Teach-In
- Timed
- Double digital display





**cylindrical
miniaturized
inductive**

AA



Ø 3 mm

AB



M4

AC



Ø 4 mm

dimensions	Ø 3 mm	M4	Ø 4 mm
standard shielded	0.6 mm	0.6 mm	0.8 mm
standard unshielded	-	-	-
long distance shielded	1 mm	1 mm	1.5 mm
long distance unshielded	-	-	-
standard housing	-	-	-
short housing	-	-	-
miniaturized housing	●	●	●
power supply Vdc	●	●	●
power supply Vac	-	-	-
NPN - NO	●	●	●
NPN - NC	●	●	●
PNP - NO	●	●	●
PNP - NC	●	●	●
PNP - NO + NC	-	-	-
NPN - NO + NC	-	-	-
DECOU [®]	-	-	-
SCR	-	-	-
0...10 V	-	-	-
4...20 mA	-	-	-
temperature range	-25°C...+70°C	-25°C...+70°C	-25°C...+70°C
protection degree	IP67	IP67	IP67
housing material	stainless steel	stainless steel	stainless steel
active head material	PBT	PBT	PBT
cable	●	●	●
plug	-	-	M8



AD



M5

AHS



Ø 6.5 mm

AES



M8

M5	Ø 6.5 mm	M8
0.8 mm	1.5 mm	1.5 mm
-	-	-
1.5 mm	2 mm	2 mm
-	-	-
-	-	-
-	-	-
•	•	•
•	•	•
-	-	-
•	•	•
•	•	•
•	•	•
•	•	•
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-25°C...+70°C	-25°C...+70°C	-25°C...+70°C
IP67	IP67	IP67
stainless steel	stainless steel	stainless steel
PBT	PBT	PBT
•	•	•
M8	M8	M8





**cubic miniaturized
inductive**

IL5



5 x 5 mm



**IL8
IL9**



8 x 8 mm



IL1



10 x 28 x 16 mm



dimensions	5 x 5 mm	8 x 8 mm	10 x 28 x 16 mm
standard shielded	0.8 mm	1.5 mm	-
standard unshielded	-	-	-
long distance shielded	1.5 mm	2 / 2.5 mm	3 mm
long distance unshielded	-	-	6 mm
standard housing	-	-	●
short housing	-	-	-
miniaturized housing	●	●	-
power supply Vdc	●	●	●
power supply Vac	-	-	-
NPN - NO	●	●	●
NPN - NC	●	●	●
PNP - NO	●	●	●
PNP - NC	●	●	●
PNP - NO + NC	-	-	-
NPN - NO + NC	-	-	-
DECOUT®	-	-	-
SCR	-	-	-
0...10 V	-	-	-
4...20 mA	-	-	-
temperature range	-25°C...+70°C	-25°C...+70°C	-25°C...+70°C
protection degree	IP67	IP67	IP67
housing material	stainless steel	stainless steel	PA
active head material	PBT	PBT	PA
cable	●	●	●
plug	M8 pigtail (on demand)	M8	M8



IL45



40 x 40 x 65 mm

40 x 40 x 65 mm

-

-

20 mm

35 mm

-

•

-

•

-

•

•

•

•

•

-

-

-

-

-

-25°C...+75°C

IP67

PBT

PBT

•

M12



ALTERNATING CURRENT (DIRECT QUALITY)

cubic miniaturized inductive



INDUCTIVE SENSORS AC/DC



V3E1, V3M1, V3K1, V3T1 series

M8, M12, M18 inductive with AC/DC supply voltage

features

- Operating voltage: 20...250 Vac / Vdc
- Sensing range: shielded 1.75 mm, unshielded 3 mm (V3E1), 4 mm, unshielded 6 mm (V3M1), 6 mm, unshielded 10 mm (V3K1), 12 mm, unshielded 18 mm (V3T1)
- NO/NC output selectable, if DC supplied
- Cable or M12 plug exit (dual keyway)
- IP67 protection degree



cylindrical
inductive

AH



Ø 6.5 mm

AE



M8

AM



M12

dimensions	Ø 6.5 mm	M8	M12
standard shielded	1.5 mm	1.5 mm	2 mm
standard unshielded	2.5 mm	2.5 mm	4 mm
long distance shielded	2 mm	2 mm	4 mm
long distance unshielded	4 mm	4 mm	8 mm
standard housing	•	•	•
standard housing	•	•	•
short housing	-	-	-
power supply Vdc	•	•	•
power supply Vac	-	-	-
NPN - NO	•	•	•
NPN - NC	•	•	•
PNP - NO	•	•	•
PNP - NC	•	•	•
PNP - NO + NC	-	-	•
NPN - NO + NC	-	-	•
DECOUT®	-	-	-
SCR	-	-	-
0...10 V	-	-	-
4...20 mA	-	-	-
temperature range	- 25°C...+70°C	- 25°C...+70°C	- 25°C...+70°C
protection degree	IP67	IP67	IP67
housing material	stainless steel	nickel plated brass	nickel plated brass
active head material	PBT	PBT	PBT
cable	•	•	•
plug	M8 and M12	M8 and M12	M8 and M12

PM3



M12 DECOUT®

AK



M18

PK3



M18 DECOUT®

PMS PKS PMW PKW



IP 67/68 for harsh environments
M12 and M18 - DC

cylindrical inductive sensors

M12	M18	M18	M12 / M18
2 mm	5 mm	5 mm	2 mm / 5 mm
4 mm	8 mm	8 mm	4 mm / 8 mm
-	8 mm	-	-
-	12 mm	-	-
•	•	•	•
-	•	-	-
-	-	-	-
•	•	•	•
-	-	-	-
-	•	-	-
-	•	-	-
-	•	-	-
-	•	-	-
-	•	-	•
-	•	-	•
•	-	•	-
-	-	-	-
-	-	-	-
-	-	-	-
-25°C...+70°C	-25°C...+70°C	-25°C...+70°C	-25°C...+70°C
IP67	IP67	IP67	IP67 / IP68
nickel plated brass	nickel plated brass	nickel plated brass	nickel plated brass (PMS,PKS) stainless steel (PMW,PKW)
PBT	PBT	PBT	PPS
•	•	•	-
M12	M12	M12	M12





**cylindrical inductive
standard**

ET



M12 / M18
extended
temperature range

AT



M30

VM



M12 in CA

dimensions	M12 / M18	M30	M12
standard shielded	2 mm / 5 mm	10 mm	2 mm
standard unshielded	4 mm / 8 mm	15 mm	4 mm
long distance shielded	-	15 mm	-
long distance unshielded	-	20 mm	-
standard housing	●	●	●
short housing	-	●	-
miniaturized housing	-	-	-
power supply Vdc	●	●	-
power supply Vac	-	-	●
NPN - NO	-	●	-
NPN - NC	-	●	-
PNP - NO	-	●	-
PNP - NC	-	●	-
PNP - NO + NC	●	●	-
NPN - NO + NC	●	●	-
DECOUT®	-	-	-
SCR / Mosfet	-	-	SCR
0...10 V	-	-	-
4...20 mA	-	-	-
temperature range	-25°C...+110°C	-25°C...+70°C	-25°C...+70°C
protection degree	IP68	IP67	IP67
housing material	stainless steel	nickel plated brass	nickel plated brass
active head material	PPS / PSU	PBT	PBT
cable	●	●	●
plug	M12	M12	M12



VK



M18 in CA

VT



M30 in CA

V3E



M8 AC / DC

V3M



M12 AC/DC

cylindrical inductive standard

M18	M30	M8	M12
5 mm	10 mm	-	-
8 mm	15 mm	-	-
-	-	2	4
-	-	4	6
•	•	•	•
-	-	-	-
-	-	-	-
-	-	•	•
•	•	•	•
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
SCR	SCR	Mosfet	Mosfet
-	-	-	-
-	-	-	-
-25°C...+70°C	-25°C...+70°C	-25°C...+70°C	-25°C...+70°C
IP67	IP67	IP67	IP67
nickel plated brass	nickel plated brass	nickel plated brass	nickel plated brass
PBT	PBT	PBT	PBT
•	•	•	•
M12	M12	½" - 20 UNF	½" - 20 UNF





cylindrical inductive
standard

V3K



M18 AC / DC

V3T



M30 AC / DC

FME



M8 full metal

dimensions	M18	M30	M8
standard shielded	-	-	-
standard unshielded	-	-	-
long distance shielded	6	12	2 mm
long distance unshielded	10	18	-
standard housing	●	●	-
short housing	-	-	-
miniaturized housing	-	-	●
power supply Vdc	●	●	●
power supply Vac	●	●	-
NPN - NO	-	-	●
NPN - NC	-	-	●
PNP - NO	-	-	●
PNP - NC	-	-	●
PNP - NO + NC	-	-	-
NPN - NO + NC	-	-	-
DECOUT®	-	-	-
SCR / Mosfet	Mosfet	Mosfet	-
0...10 V	-	-	-
4...20 mA	-	-	-
temperature range	-25°C...+70°C	-25°C...+70°C	-25°C...+70°C
protection degree	IP67	IP67	IP67 / IP68 / IP69K
housing material	nickel plated brass	nickel plated brass	stainless steel AISI 316L
active head material	PBT	PBT	stainless steel AISI 316L
cable	●	●	-
plug	½" - 20 UNF	½" - 20 UNF	M8



FMM



M12 full metal

FMK



M18 full metal

FMT



M30 full metal

cylindrical inductive standard

M12	M18	M30
-	-	-
-	-	-
3 mm	5 mm	10 mm
-	-	-
-	-	-
-	-	-
•	•	•
•	•	•
-	-	-
•	-	-
•	-	-
•	-	-
•	-	-
-	•	•
-	•	•
-	-	-
-	-	-
-	-	-
-	-	-
-25°C...+70°C	-25°C...+70°C	-25°C...+70°C
IP67 / IP68 / IP69K	IP67 / IP68 / IP69K	IP67 / IP68 / IP69K
stainless steel AISI 316L	stainless steel AISI 316L	stainless steel AISI 316L
stainless steel AISI 316L	stainless steel AISI 316L	stainless steel AISI 316L
-	•	-
M12	M12	M12



TESTED TO WITHSTAND EXTREME CONDITIONS

NEW !!!



cylindrical inductive
standard

FME, FMM, FMK, FMT series

M5 inductive sensors with full metal housing

features

- sensing distance 2 mm (FMES), 3 mm (FMM6), 5 mm (FMK6), 10 mm (FMT6)
- Shock resistance degree: IK05 (FMES and FMM6), IK08 (FMK6), IK10 (FMT6)
- protection degree: IP68/IP69K
- M8 (FMES), M12
- Output logic PNP or NPN
- Output state NO or NC (FMES, FMM6) or NO + NC (FMK6, FMT6)



Micro Detectors

Italian Sensors Technology



IP69K





capacitive

C12



cilyndrical M12

C18



cilyndrical M18

CE



cilyndrical Ø 20

dimensions	M12	M18	M18
standard shielded	-	-	-
standard unshielded	-	-	-
long distance shielded	0,5...4 mm	3...8 mm	1,5...7,2 mm
long distance unshielded	0,5...8 mm	3...12 mm	-
standard housing	●	●	●
miniaturized housing	-	-	-
power supply Vdc	●	●	●
power supply Va	-	●	-
NPN/PNP - NO/NC	●	-	-
NPN - NO	-	-	-
NPN - NC	-	-	-
PNP - NO	-	-	-
PNP - NC	-	-	-
PNP - NO + NC	-	●	●
NPN - NO + NC	-	●	-
DECOUT®	-	-	-
SCR	-	●	-
0...10 V	-	-	-
4...20 mA	-	-	-
temperature range	- 25°C...+80°C	- 25°C...+80°C	- 25°C...+80°C
protection degree	IP67	IP67	IP67
housing material	PE	PE	PE
active head material	PE	PE	PE
cable	●	●	●
plug	M12	M12	M12

CE

CE c UL US

CE

CT



cilyndrical M30

C30



cubic
7 x 30 x 50 mm

CQ50



cubic
15 x 35 x 55 mm

CQ55



capacitive

Ø 20	M30	7 x 30 x 50 mm	15 x 35 x 55 mm
10 mm	-	-	4...16 mm
-	-	-	4... 25 mm
-	2...16 mm	5 / 6 / 7 / 10 mm	-
-	4...25 mm	-	-
•	•	•	•
-	-	-	-
•	•	•	•
-	•	-	-
-	-	-	-
•	-	•	-
•	-	•	-
•	-	•	-
•	-	-	-
-	•	-	•
-	•	-	•
-	-	-	-
-	•	-	-
-	-	-	-
-	-	-	-
-25°C...+70°C	--25°C...+80°C	0°C...+60°C	-25°C...+80°C
IP65	IP67	IP67	IP67
nickel plated brass	PE / stainless steel	noryl	PC
LCP	PE	noryl	PC
•	•	•	•
M12	M12	-	M12



UQ



cubic ultrasonics
53 x 38 x 20 mm

UH



cubic through beam
30 x 20 x 15 mm
and 24 x 50 x 15 mm

53 x 38 x 20 mm	30 x 20 x 15 mm and 24 x 50 x 15 mm
up to 1,200 mm	-
up to 1,200 mm	-
-	0...300 mm 0...1.100 mm
●	●
-	-
-	1 x PNP - NO
-	1 x PNP - NC
-	1 x NPN - NO
-	1 x NPN - NC
-	-
-	-
●	-
●	-
●	-
●	-
-20°C...+70°C	-15°C...+60°C
IP67	IP67
PA	PBT
epoxy glass resin	ceramic
-	●
M12	-





FC8



ultrasonic

ultrasonic fork sensors
for label detection

dimensions	-
nominal sensing distance	3 mm
fork sensor	-
fork for label	●
slot length detection	69 mm
minimum object dimension	2 mm
emission	ultrasonic
switching frequency	1.5 kHz
power supply Vdc	●
power supply Vac	-
NPN - NO	-
NPN - NC	-
PNP - NO	-
PNP - NC	-
NPN - NO / NC	●
PNP - NO / NC	●
NPN / PNP - NO / NC	●
temperature range	- 5°C...+55°C
protection degree	IP65
housing material	painted aluminium
cable	-
plug	M8 4 pin





THE LIMITLESS SERIES



Ultrasonic

THE NEW ULTRASONIC WAVE



CAT7E001993401 SHORT FORM CATALOGUE ENG ED.01/2019

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