



TECHNICAL REPORT

Test items

Description..... : OPTIC LINEAR SENSOR
Trademark..... : SETRONIC VERONA
Sample product..... : ARDEA SF EEXD
Derived models..... : ARDEA S EEXD – ARDEA SF IP65 – ARDEA S IP65
Manufacturer..... : Same as client

Client

Name..... : SETRONIC VERONA S.r.l.
Address : Via F. da Levanto, 14/B
..... : 37138 Verona (VR) – ITALY

Test specification

Standard : EN 55022 (1998) + EN 55022/A1 (2000) + EN 55022/A2 (2003); EN 61000-3-2 (2000); EN 61000-3-3 (1995) + EN 61000-3-3/A1 (2001)
..... : EN 50130-4 (1995) + EN 50130-4 /A1 (1998) + EN 50130-4 /A2 (2003)

Ref. Test report nr..... : R04132801 and R04105501

Technical Report

Reference No. : RT04105501

Compiled by (+ signature)..... : R. Beghetto – *Supervisor*

Approved by (+ signature) : F. Marenza – *Laboratory Manager*
(Substitute)

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Contents : 8 pages

Result

COMPLY

This technical report consists of n° 8 pages
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1. Introduction

This Technical Report is the summary of the analysis of Document nr. T04105501 introduced by firm SETRONIC Verona S.r.l..

Analysis has been performed by Competent Body CMC Centro Misure Compatibilità S.r.l.

2. Description of construction of family members

Description of family members is reported in clauses 2 and 3 of Document n° T04105501

Description of sample model: cl. 2 of Document n° T04105501

Tab. 2 - Annexes introduced by firm SETRONIC Verona S.r.l..

Annex	Description
A	Components List
B	Hookup
C	Wiring diagrams
D	Declaration of CE conformity
E	Instructions for use



3. Comments about technical differences among family members

Differences among family members are reported in clauses 2, 3 and 4 of Document nr. T04105501

Differences among derived models and sample model:

Model → Components ↓	ARDEA SF EEXD	ARDEA S EEXD	ARDEA SF IP65	ARDEA S IP65
Transmitter circuit PCB mod. TX ARDEA EEXD	✓	✓	✓	✓
Receiver circuit PCB mod. RX ARDEA EEXD	✓	✓	✓	✓
Analysis unit with only smoke output (for S models) PCB mod. SCA1		✓		✓
Analysis unit with smoke and fire output (for SF models) PCB mod. SCA1	✓		✓	
Software (Analysis unit) Cod.: 252_873.PIC	✓	✓	✓	✓
Envelope EEXD (TX and RX) Cod. : EMH9.22	✓	✓		
Envelope IP65 (TX and RX) Cod.: IP65			✓	✓
Envelope DIN for analysis unit Cod. : 3MHC53	✓	✓	✓	✓

Sample model has not particular filtering and/or construction devices with respect to derived models.

Differences among sample model and derived models can be considered not important for EMC requirements.



Tests performed on ARDEA SF EEXD model:

Emission: <u>Reference standard EN 55022 (1998) + EN 55022/A1 (2000) + EN 55022/A2 (2003) ; EN 61000-3-2 (2000); EN 61000-3-3 (1995) + EN 61000-3-3/A1 (2001)</u>				
Test specifications	Port	Environmental Phenomena	Tests Sequence	Result
EN 55022	A.C. mains DC power supply Signal / Control lines	Conducted disturbance	7	Complies
EN 55022	Enclosure	Radiated disturbance	4	Complies
EN 61000-3-2	A.C. mains	Harmonic current emissions		N.A. (+)
EN 61000-3-3	A.C. mains	Voltage fluctuations and flicker		N.A. (+)
Immunity: <u>Reference standard EN 50130-4 (1995) + EN 50130-4 / A1 (1998) + EN 50130-4 /A2 (2003)</u>				
Test specifications	Port	Environmental Phenomena	Tests Sequence	Result
EN 61000-4-2	Enclosure	Electrostatic discharge	6	Complies
EN 61000-4-3	Enclosure	Radiated electromagnetic field	5	Complies
EN 61000-4-4	A.C. mains DC power supply Signal / Control lines	Electrical Fast Transients	1	Complies
EN 61000-4-5	A.C. mains DC power supply Signal / Control lines	Surge	3	Complies
EN 61000-4-6	A.C. mains DC power supply Signal / Control lines	Injected currents	2	Complies
EN 61000-4-11	A.C. mains	Dips / Short interruptions		N.A. (+)

(+) EUT with 24Vdc power supply

Reference: Test Report nr. R04132801 date 15.11.04



Tests performed on ARDEA S IP65 model:

Emission: <u>Reference standard EN 55022 (1998) + EN 55022/A1 (2000) + EN 55022/A2 (2003) ; EN 61000-3-2 (2000); EN 61000-3-3 (1995) + EN 61000-3-3/A1 (2001)</u>				
Test specifications	Port	Environmental Phenomena	Tests Sequence	Result
EN 55022	A.C. mains DC power supply Signal / Control lines	Conducted disturbance		N.E.
EN 55022	Enclosure	Radiated disturbance		N.E.
EN 61000-3-2	A.C. mains	Harmonic current emissions		N.A. (+)
EN 61000-3-3	A.C. mains	Voltage fluctuations and flicker		N.A. (+)
Immunity: <u>Reference standard EN 50130-4 (1995) + EN 50130-4 / A1 (1998) + EN 50130-4 /A2 (2003)</u>				
Test specifications	Port	Environmental Phenomena	Tests Sequence	Result
EN 61000-4-2	Enclosure	Electrostatic discharge		N.E.
EN 61000-4-3	Enclosure	Radiated electromagnetic field	1	Complies
EN 61000-4-4	A.C. mains DC power supply Signal / Control lines	Electrical Fast Transients	2	Complies
EN 61000-4-5	A.C. mains DC power supply Signal / Control lines	Surge	3	Complies
EN 61000-4-6	A.C. mains DC power supply Signal / Control lines	Injected currents		N.E.
EN 61000-4-11	A.C. mains	Dips / Short interruptions		N.A. (+)

(+) EUT with 24Vdc power supply

Reference: Test Report nr. R04105501 date 03.12.04



4. Comments on design solutions

No one

5. Analysis of tests performed

Evaluation has been concentrated on tests performed on sample model.



6. Evaluation of Technical Construction File

CMC Centro Misure Compatibilità S.r.l. has analysed Document n° T04105501 inclusive of all annexes introduced by firm SETRONIC Verona S.r.l.

Considering the technical description in clauses 2 and 3;
Considering the differences among the models in clause 3;
Considering tests performed on models of the family;

CMC Centro Misure Compatibilità as Competent Body approves of the extension of compliance with EMC requirements for the following models:

**ARDEA S EEXD
ARDEA SF IP65
ARDEA S IP65**

7. References

CEI 110-24 (1995): Guida all'applicazione del decreto legislativo sulla compatibilità elettromagnetica (EMC).

Guida alla Compatibilità Elettromagnetica: criteri di applicazione della Direttiva 89/336/CEE