



Italia

COMPLIANCE

with IEC EN 61508

Certificate No.: C-IS-722169456

CERTIFICATE OWNER: Setronic Verona S.r.l.
Via Milano 13
37024 Arbizzano di Negrar (VR)
Italy

**WE HEREWITH CONFIRM THAT
LINEAR BEAM DETECTORS SERIES ILIA
MEET THE SIL REQUIREMENTS DETAILED IN THE ANNEXED TABLE
FOR THE SAFETY FUNCTION:**

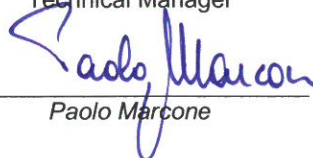
“signal transmission in presence of smoke / fire”

Examination result:	The above reported Linear Beam Detectors series ILIA were found to meet the standard defined requirements of the safety levels detailed in the following table (T-IS-722169456) according to IEC EN 61508, under fulfillment of the conditions listed in the Report R-IS-722169456 Rev.1 dated September, 25 th 2019 in its currently valid version, on which this Certificate is based
Examination parameters:	Construction/Functional characteristics and reliability and availability parameters of the above mentioned Linear Beam Detectors series ILIA
Official Report No.:	R-IS-722169456 Rev.1
Expiry Date	September, 26 th 2022
Reference Standard	IEC EN 61508:2010 Part 2, 4, 6, 7

Sesto San Giovanni, September, 27th 2019

TÜV ITALIA Srl

TÜV ITALIA Srl
Industry Service Division
Technical Manager


Paolo Marcone



SUMMARY TABLE T – IS – 722169456

<i>E/EE/EP safety-related system (final element)</i>	Linear Beam Detectors series ILIA produced by Setronic Verona S.r.l.	
<i>System type</i>	Type A	
<i>Systematic Capability</i>	SC3	
<i>Safety Function Definition</i>	<i>Signal transmission in presence of smoke / fire</i>	
<i>Max SIL⁽¹⁾</i>	SIL2 with HFT=0	SIL3 with HFT=1
λ_{TOT}	4,957E-07	
λ_{SD}	0,000E+00	
λ_{SU}	0,000E+00	
λ_{DD}	4,908E-07	
λ_{DU}	4,957E-09	
<i>β and β_D factor</i>	10%	
<i>MRT</i>	8 h	
<i>Hardware Safety Integrity</i>	Route 2 _H	
<i>Systematic Safety Integrity</i>	Route 2 _s	
Remarks		
<p><i>(1) The Safety Integrity Level (SIL) of the entire Safety Instrumented Function (SIF) must be verified via a calculation of PFD_{AVG} considering the redundant architectures, proof test interval, proof test effectiveness, any automatic diagnostics, average repair time and the specific failure rates of all products included in the SIF. Each subsystem must be checked to assure compliance with the minimum hardware fault tolerance (HFT) requirements.</i></p>		

*SIL classification according to Standard IEC EN 61508:2010 for Linear Beam Detectors series ILIA
produced by Setronic Verona S.r.l.*

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NOTE: The present table is integral part of the Document C–IS–722169456
Date: September, 27th 2019