

# EASY SMART + SMARTBOX08 / PLD

## FS Assessment Statement : FSAS\_361019191

*according to EN 13849-1:2015 and EN 13849-2:2012*


| Manufacturer information |  |   |
|--------------------------|--|---|
| Manufacturer name        | Sistematica S.r.l.   |  |
| Postal address:          | Via Sansovino, 217   |   |
| Postcode and City:       | 10151 – Torino – (TO) - Italia                             |   |
| Telephone :              | +39 011 2074696  |   |
| Web site:                | <a href="http://www.sistematica.it">www.sistematica.it</a> |   |

Table 1

This document refers to the product and model indicated within the next table 2 here below.  
It includes the emergency stop function which is the only safety related function within the product.

| Product information |  |
|---------------------|--|
| Product:            | Radio Remote Control                     |
| Transmitter Model   | EASY SMART / PLD<br>Code XEY06PPSEN00X_L |
| Receiver Model      | SMARTBOX08 / PLD<br>Code XSB08RPSE000X_L |

Table 2



| Transmitter <sup>1</sup>  | Receiver <sup>2</sup>  |
|---|--|
|  |  |

Table 3

The emergency stop function provide a stop category 0 according to EN 60204-1:2018 § 9.2.2.  
The reliability of the emergency stop function was evaluated to fulfill the safety requirements for the performance level “pl d” according to EN 13849-1:2015 § 4.5.1.

Follow, in the next table 4, the relevant safety parameters

| Parameters                           | Value             | Note                          |
|--------------------------------------|-------------------|-------------------------------|
| Category                             | 2                 | Single channel + Test channel |
| MTTF <sub>d</sub> Functional Channel | 50 years          | High                          |
| MTTF <sub>d</sub> Testing Channels   | 345 years         | ==                            |
| DC <sub>avg</sub>                    | 90 %              | Medium                        |
| Performance Level                    | Pl d <sup>3</sup> | ==                            |
| CCF                                  | 65%               | ==                            |
| PFH <sub>du</sub>                    | 4,57E-07          | 457 FIT                       |

Table 4

<sup>1</sup> Picture is indicative; the transmitter could be different in some details

<sup>2</sup> Picture is indicative; the receiver could be different in some details

<sup>3</sup> Ref also to EN 13849-1:2015 – Annex K – Table K.1 for PFHD value related to the performance level “pl d”. It is matched

The standards used as basis for the assessment are specified within the next table 5

| Standard list   | Date |
|---|------|
| <b>EN ISO 13849-1</b> Safety related parts of control systems<br>Part 1: General principles for design  | 2015 |
| <b>EN ISO 13849-2</b> Safety related parts of control systems<br>Part 2: Validation   | 2012 |
| <b>EN ISO 13850</b> Emergency stop function - Principles for design   | 2015 |
| <b>EN 60204-1</b> Safety of machinery - Electrical equipment of machines<br>Part 1: General requirements<br>(in those parts considered applicable - § 9.2.2 and § 9.2.4)                                      | 2018 |
| <b>EN 60204-32</b> Safety of machinery - Electrical equipment of machines<br>Part 32: Requirements for hoisting machines<br>(in those parts considered applicable - § 9.2.7)                                  | 2008 |
| <b>IEC 61784-3</b> Industrial communication networks – Profiles –<br>Part 3: Functional safety fieldbuses – General rules and profile definitions<br>(in those parts considered applicable - § 5.4 and § 5.5) | 2010 |

Table 5

Additional information:

The instructions included within the relevant documents listed into next table 6 shall be taken into account.


| Documents list                              | Number                 | Date    |
|---|------------------------|---------|
| Installation Operation & Maintenance Manual | SL-SSM-MAN-1-0002-1.0  | 06.2020 |
| Safety Manual for compliance items          | PD2-SSM-MAN-1-0000-1.0 | 12.2020 |

Table 6

The complete FS assessment can be found into the following document:

| Document                                 | Number              | Date       |
|--|---------------------|------------|
| S4PA - FS Assessment Report <sup>4</sup> | FSAR_361019191 v0.0 | 21.12.2021 |

Table 7

| Company in charge of the FS Assessment   |   |
|--|---|
|  <p><b>S4PA Engineering</b><br/>Safety for Process Automation</p> | <p><b>S4PA Engineering Sas</b><br/>Gianluca Marradi - Via Mandane 2/A<br/>I – 22030 Montorfano (CO)</p> |

**Signature:**

Montorfano (CO) : **December 22<sup>nd</sup> 2021**

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<sup>4</sup> The FS Assessment Report is a manufacturer's property. It could be delivered under a written NDA