

# ISO 13856-3:2013-07 (E)

## Safety of machinery - Pressure-sensitive protective devices - Part 3 : General principles for design and testing of pressure-sensitive bumpers, plates, wires and similar devices

---

<b>Contents</b>	<b>Page</b>
Foreword .....	iv
Introduction .....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	2
4 Requirements for design and testing .....	8
4.1 General .....	8
4.2 Basic requirements .....	8
4.3 Specific requirements for pressure-sensitive bumpers .....	15
4.4 Specific requirements for pressure-sensitive plates .....	16
4.5 Specific requirements for pressure-sensitive wires (trip wires) .....	16
5 Marking .....	17
5.1 General .....	17
5.2 Labels .....	17
5.3 Marking of the control unit .....	17
5.4 Marking of the sensor .....	17
6 Information for selection and use .....	17
6.1 General .....	17
6.2 Essential data for selection of suitable pressure-sensitive protective device .....	18
6.3 Information for use .....	19
7 Verification of requirements .....	21
7.1 Verification of requirements applicable to all pressure-sensitive protective devices 7.2 .....	31
7.3 Verification of requirements for pressure-sensitive bumpers only .....	32
7.4 Verification of requirements for pressure-sensitive plates only .....	32
7.5 Verification of requirements for pressure-sensitive wires only .....	32
7.5 Other tests .....	33
Annex A (normative) Timing diagrams for pressure-sensitive bumpers, plates, wires and similar devices with/without reset .....	34
Annex B (informative) Device characteristics -- Explanatory remarks and recommendations .....	38
Annex C (informative) Design guidance .....	40
Annex D (informative) Application guidance .....	50
Annex E (informative) Commissioning and inspection .....	54
Bibliography .....	56