

# DIN EN ISO 25197:2023-02 (E)

Small craft - Electrical/electronic control systems for steering, shift and throttle (ISO 25197:2020 + Amd 1:2022) (includes Amendment :2022)

<b>Contents</b>	<b>Page</b>
European foreword .....	4
<b>A1</b> European foreword to Amendment <b>A1</b> .....	5
<b>A1</b> Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2013/53/EU aimed to be covered <b>A1</b> .....	6
Foreword .....	7
<b>A1</b> Foreword to Amendment <b>A1</b> .....	9
<b>1</b> Scope .....	<b>10</b>
<b>2</b> Normative references .....	<b>10</b>
<b>3</b> Terms and definitions .....	<b>11</b>
<b>4</b> General requirements .....	<b>14</b>
<b>5</b> Control head .....	<b>15</b>
<b>6</b> Command station transfer .....	<b>17</b>
<b>7</b> Portable helm station controls .....	<b>17</b>
<b>8</b> Dynamic-positioning system (DPS) .....	<b>17</b>
<b>9</b> Failure modes and responses .....	<b>18</b>
9.1 Loss of operation .....	18
9.2 Loss of computer command logic .....	18
<b>10</b> Test requirements .....	<b>19</b>
10.1 General test requirements .....	19
10.2 Steering .....	19
10.3 Control lever(s) for separate or combined shift and throttle functions .....	19
10.4 Joystick .....	20
10.5 Environmental-test requirements .....	21
10.5.1 General .....	21
10.5.2 Salt mist tests .....	22
10.5.3 Damp heat — Cyclic .....	23
10.5.4 Damp heat — Steady state .....	23
10.5.5 High-temperature test — Operation .....	23
10.5.6 High-temperature test — Storage .....	23
10.5.7 Low-temperature test — Operation .....	24
10.5.8 Low-temperature test — Storage .....	24
10.6 Vibration tests and requirements .....	24
10.7 Shock testing .....	25
10.8 Drop test .....	25
10.9 Resistance to UV .....	25
10.10 Electromagnetic compatibility (EMC) .....	26
10.10.1 Electromagnetic interference tests .....	26
10.10.2 EMC performance criteria .....	26
10.10.3 Immunity to conducted low-frequency interference .....	26
10.10.4 Immunity to conducted radio-frequency interference .....	27
10.10.5 Immunity to radiated radio-frequency fields .....	27

10.10.6	Immunity to fast, low-energy transients (bursts)	27
10.10.7	Immunity to slow, high-energy transients (surges)	28
10.10.8	Immunity to electrostatic discharge (ESD)	28
10.10.9	Immunity to power supply variation	28
10.10.10	Radiated emissions	29
10.10.11	Conducted emissions	29
10.11	Compass safe distance	29
10.12	Insulation resistance	29
<b>11</b>	<b>Labelling</b>	<b>29</b>
<b>12</b>	<b>Instructions to be included in the owner's manual</b>	<b>29</b>
	<b>Bibliography</b>	<b>31</b>