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(12) **United States Design Patent**
Miholic

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- (54) **DIGITAL SAFETY RELAY**
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- (73) Assignee: **ABB Schweiz AG**, Baden (CH)
- (**) Term: **15 Years**
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- (30) **Foreign Application Priority Data**

D567,191 S *	4/2008	Eichinger	D13/158
D595,239 S *	6/2009	Inoue	D13/158
D600,213 S *	9/2009	Inoue	.....	D13/133
D616,833 S *	6/2010	Heggemann	.....	D13/164
D616,834 S *	6/2010	Heggemann	.....	D13/164
D811,349 S *	2/2018	Huettemeier	.....	D13/158
D811,350 S *	2/2018	Huettemeier	.....	D13/158
2008/0092604 A1 *	4/2008	Trinh	.....	H05K 7/1474 70/57
2009/0203234 A1 *	8/2009	Heggemann	.....	H01R 9/2625 439/59
2014/0212715 A1 *	7/2014	Kim	.....	H01M 10/0468 429/94
2015/0173223 A1 *	6/2015	Binner	H01R 9/2408 174/50
2015/0357726 A1 *	12/2015	Hoppmann	H01R 4/4818 439/816

* cited by examiner

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- Sep. 27, 2016 (EM) 003396522
- (51) **LOC (11) Cl.** **13-03**
- (52) **U.S. Cl.** **D13/159**
- USPC **D13/159**
- (58) **Field of Classification Search**
- USPC D13/110, 112, 118–123, 133, 134,
D13/145–147, 149, 154, 156, 158–161,
D13/173, 178, 183, 184, 199
- CPC .. H01H 3/00; H01H 9/00; H01H 9/02; H01H
9/14; H01H 9/30; H01H 45/00; H01H
47/00; H01H 51/00; H01H 50/02; H01H
51/12; H01H 51/28; H01H 51/29; H05K
5/00; H05K 5/02; H01R 4/26; H01R
4/48; H01R 13/00; H01R 13/02; H01R
13/04; H01R 13/06
- See application file for complete search history.

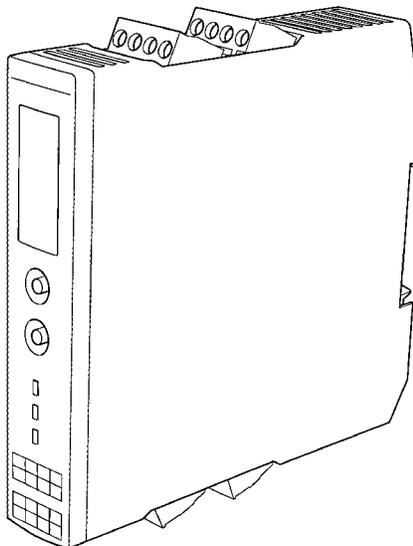
(57) **CLAIM**
The ornamental design for a digital safety relay, as shown and described.

DESCRIPTION

FIG. 1 is a front left side isometric view of a digital safety relay in accordance with the new design; FIG. 2 is a left side elevation view thereof; FIG. 3 is a right side elevation view thereof; FIG. 5 is a bottom plan view thereof; FIG. 6 is a front elevation view thereof; and, FIG. 7 is a rear elevation view thereof. The broken lines in the drawings illustrate portions of the digital safety relay that form no part of the claimed design.

1 Claim, 7 Drawing Sheets

- (56) **References Cited**
- U.S. PATENT DOCUMENTS
- D494,142 S * 8/2004 Schon D13/162
- D534,490 S * 1/2007 Ogawa D13/110
- D566,049 S * 4/2008 Radau D13/162



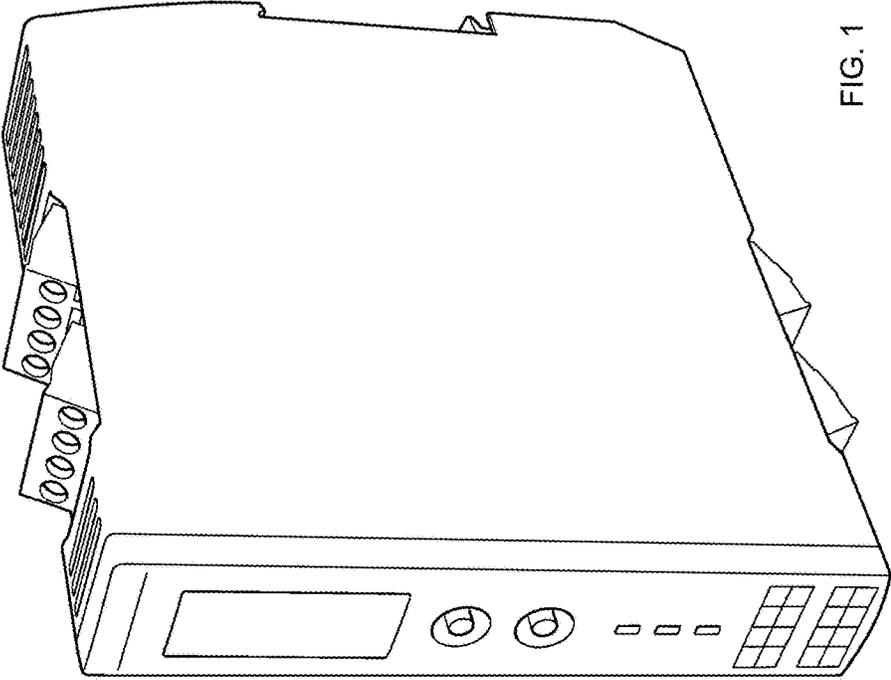


FIG. 1

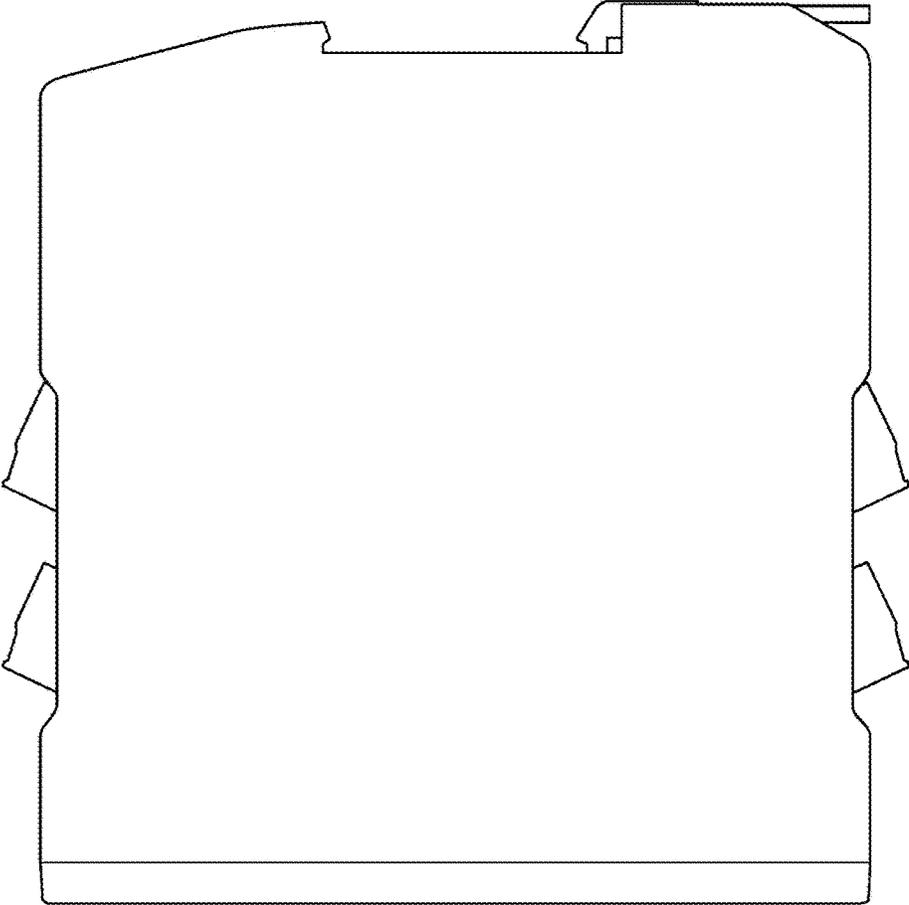


FIG. 2

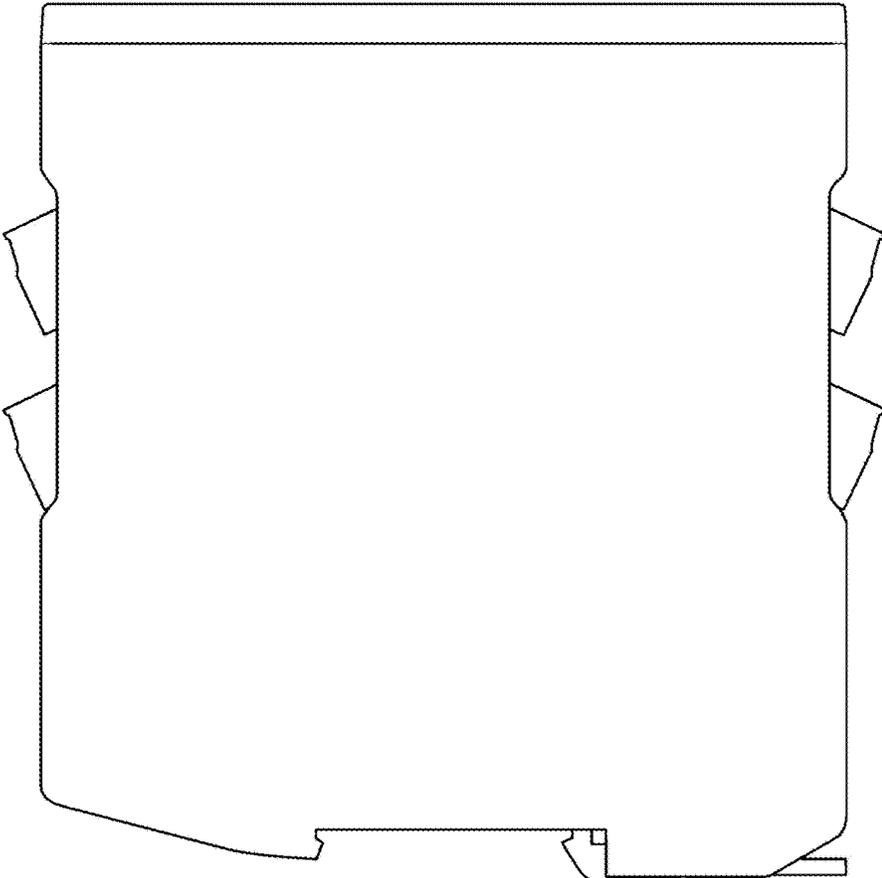


FIG. 3

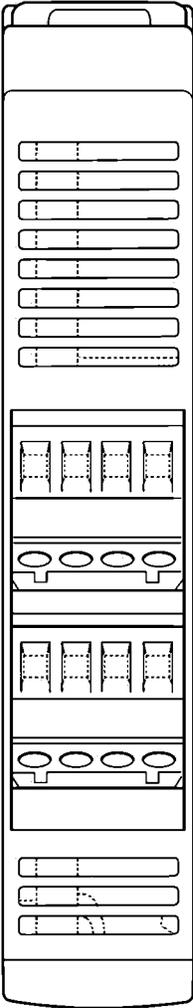


FIG. 4

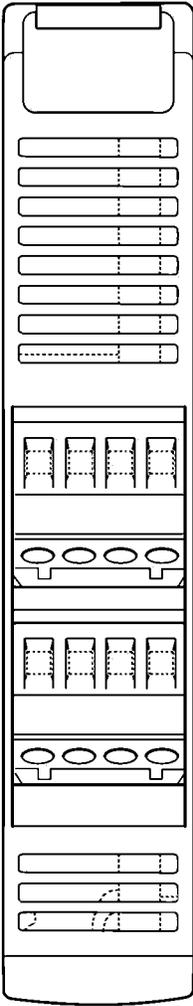


FIG. 5

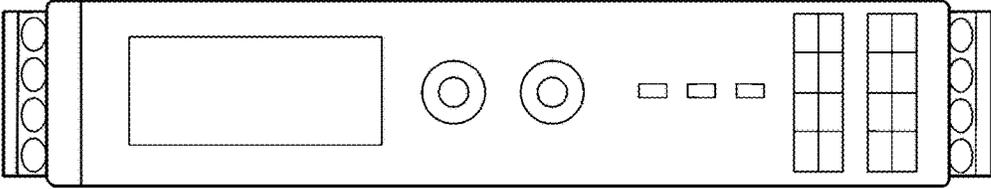


FIG. 6

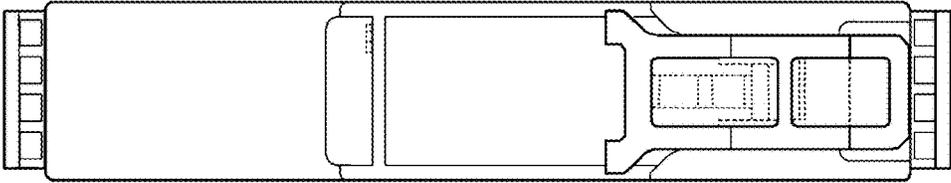


FIG. 7