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(12) **United States Design Patent**
Mielnik et al.

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(54) **INDUSTRIAL CONTROL SYSTEM MODULE**

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(52) **U.S. Cl.**
USPC **D13/123**

(58) **Field of Classification Search**
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D14/240, 348, 353, 358; D12/332; D15/5,
D15/138, 143; D21/330; D23/200, 207;
290/31, 36 R, 38 R; 310/10, 40 R, 40.5;
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CPC . H02M 7/003; H05K 7/20918; H05K 7/1418;
G02B 3/3897; G02B 6/4453; G06F 1/18;
G06F 1/1632; H04N 5/268; H01H 33/66;
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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D290,694 S	7/1987	Shimizu et al.
D307,740 S	5/1990	Shibayama et al.
D309,598 S	7/1990	Ohsawa et al.
D325,900 S	5/1992	Shimizu et al.
D345,137 S	3/1994	Thomas
D345,144 S	3/1994	Thomas
D358,369 S	5/1995	Shimizu et al.
D368,252 S	3/1996	Nakai
D375,084 S	10/1996	Hamada
D394,642 S	5/1998	Bender
D394,842 S	6/1998	Kellstedt, Jr. et al.

(Continued)

OTHER PUBLICATIONS

Square D, I/O Interface Modules Catalog, Dec. 1994, 8501CT9401, Raleigh, North Carolina.

(Continued)

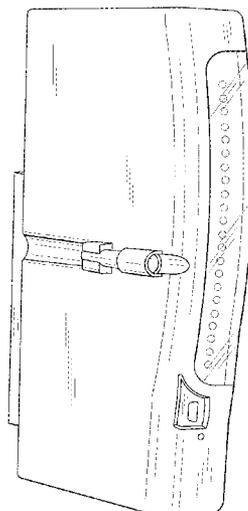
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(57) **CLAIM**
We claim the ornamental design for an industrial control system module, as shown and described.

DESCRIPTION

FIG. 1 is a front and left side perspective view of an industrial control system module showing our new design; FIG. 2 is a front and right side perspective view thereof; FIG. 3 is a front elevation view thereof; FIG. 4 is a top plan view thereof; FIG. 5 is a right side elevation view thereof; FIG. 6 is a left side elevation view thereof; FIG. 7 is a rear elevation view thereof; and, FIG. 8 is a bottom plan view thereof. The broken line portion of the figure drawings is included to show unclaimed subject matter only and forms no part of the claimed design.

1 Claim, 3 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D400,180 S 10/1998 Shimizu
 D402,965 S 12/1998 Bender
 5,984,734 A 11/1999 Piper et al.
 D418,115 S 12/1999 Shimizu et al.
 6,008,985 A 12/1999 Lake et al.
 D418,483 S 1/2000 Shimizu et al.
 6,033,257 A 3/2000 Lake et al.
 6,033,268 A 3/2000 Piper et al.
 D428,600 S 7/2000 Futami et al.
 6,097,303 A 8/2000 Lunz et al.
 D433,381 S * 11/2000 Talesfore D13/123
 6,172,875 B1 1/2001 Suzuki et al.
 6,185,095 B1 * 2/2001 Helot et al. 361/679.44
 D442,923 S 5/2001 Raspotnig
 6,257,936 B1 7/2001 Strandberg
 D452,486 S 12/2001 Gardiner
 6,418,027 B1 7/2002 Suzuki et al.
 6,456,495 B1 9/2002 Wieloch et al.
 D477,814 S 7/2003 Droulin et al.
 D478,322 S 8/2003 Droulin et al.
 D480,369 S 10/2003 Droulin et al.
 D482,005 S 11/2003 Droulin et al.
 D488,133 S 4/2004 Droulin et al.
 D494,142 S 8/2004 Schön
 D512,696 S 12/2005 Nurmi et al.
 D524,760 S 7/2006 Ohlwine et al.
 D529,453 S 10/2006 Schurr et al.
 D532,378 S * 11/2006 Kesler D13/147
 D563,902 S 3/2008 Radau et al.
 D563,903 S 3/2008 Radau et al.
 D588,552 S 3/2009 Radau et al.
 D603,349 S 11/2009 Liu
 D609,195 S 2/2010 Yamashita et al.
 D621,792 S 8/2010 Miller et al.

D642,167 S * 7/2011 Brandt et al. D14/240
 D658,598 S 5/2012 Ling et al.
 D659,650 S 5/2012 Kang
 D661,254 S * 6/2012 Grunwald et al. D13/123
 D669,060 S * 10/2012 Huang D14/240
 D703,642 S * 4/2014 Gao et al. D14/240

OTHER PUBLICATIONS

Emerson Process Management, Delta V Product Data Sheet, S-series SX Controller, Jan. 2013, pp. 1-6 www.DeltaV.com.
 Horner APG, Smartmod Modbus I/O Parameter Configuration Utility for use with XLe, MAN0849-01, Apr. 17, 2007, pp. 1-6, www.heapg.com.
 Horner APG, SmartMod Analog Output Module, HE359DAC201-0-10V 14-Bit Resolution, ECN#950, May 8, 2009, pp. 1-2, www.heapg.com.
 Horner APG, OCS Operator Control Station, All-in-One Control Solution for Industrial Applications, Copyright 2009, whole document, Ireland, www.horner-app.com.
 Sauro, Din Rail Boxes, Contenitori, Feb. 22, 2007, pp. 222-235, Sauro s.r.l. www.sauro.net Italy.
 ABB Ltd., Symphony Plus Control: PN1800 Harmony Plant Network (PN800) Interface, User Manual, Aug. 2013, 2VAA001719 Revision A, Zurich, Switzerland.
 ABB Inc., Symphony Plus I/O: Binary Input, User Manual, Apr. 2012, 2VAA000595-102, Wickliffe, Ohio.
 ABB Ltd., Symphony Plus Control: HA1805 and HAO805 Hart (™) Analog Input/Output Modules, User Manual, Aug. 2013, 2VAA001714 Revision A, Zurich, Switzerland.
 ABB Ltd., Symphony Plus Control: HPC800 Harmony Process Controller, User Manual, Aug. 2013, 2VAA001586 Revision A, Zurich, Switzerland.

* cited by examiner

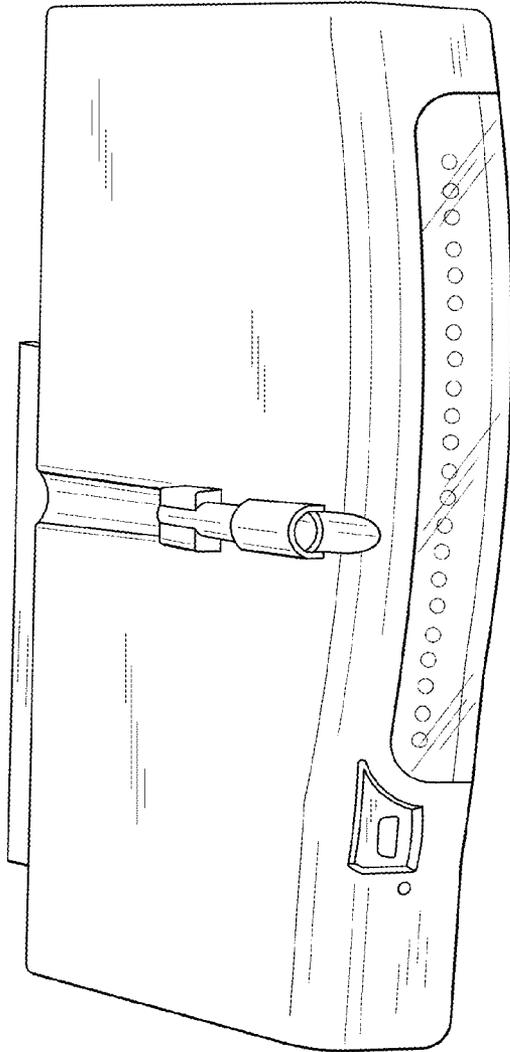


FIG. 1

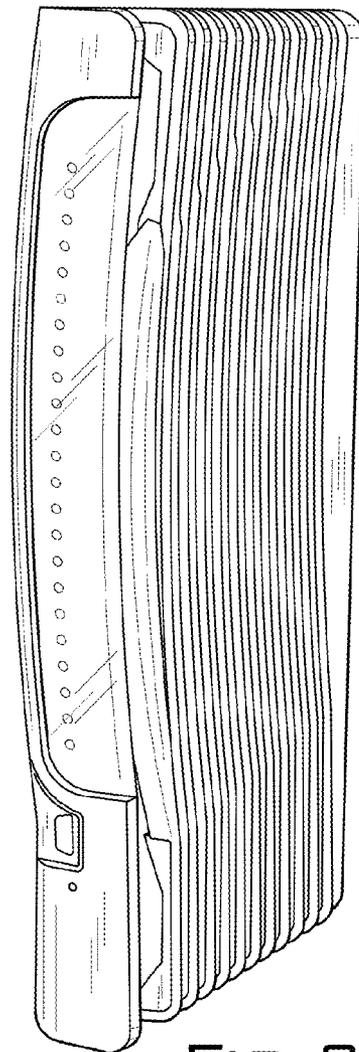


FIG. 2

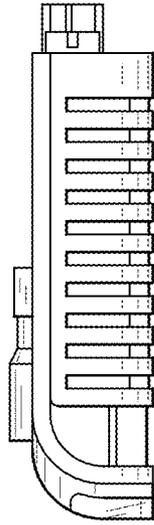


FIG. 4

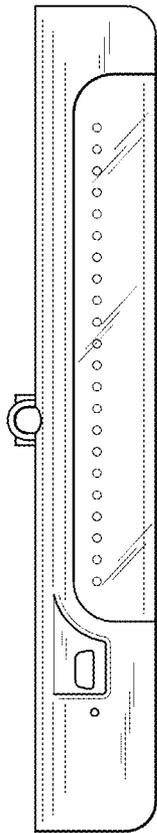


FIG. 3

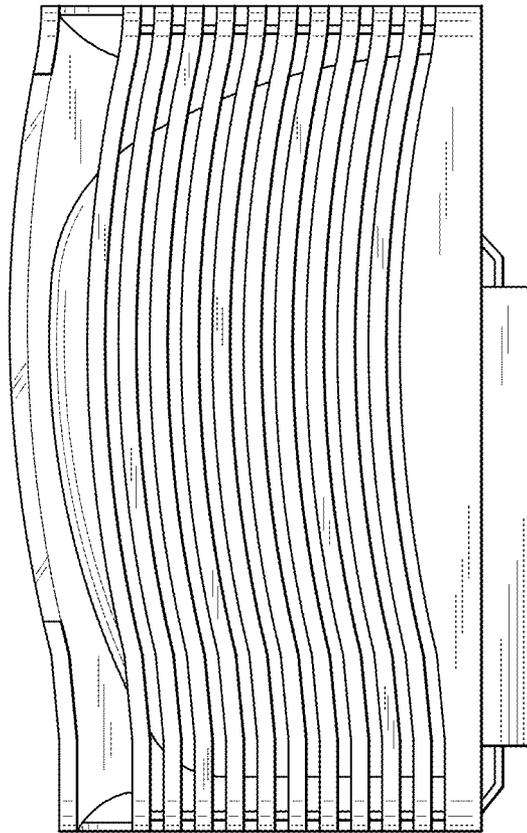


FIG. 5

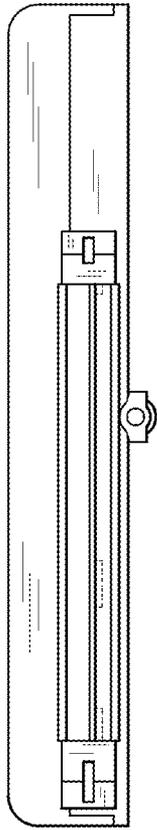


FIG. 7

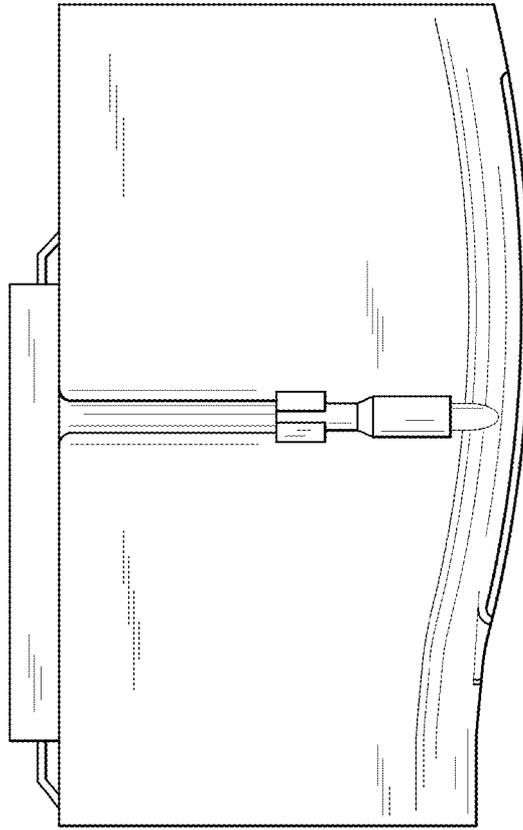


FIG. 6

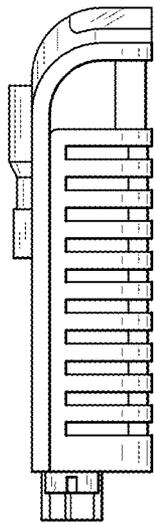


FIG. 8