Readers Fete
Technology Leadership
in our 22nd Annual
Readers Choice Awards

by Control Staff
Each year for more than two decades now, we’ve asked the readers of Control to identify the best solution providers in a broad array of process automation disciplines and technologies—from batch control to safety systems and wireless infrastructure to terminal blocks. Thanks to the loyal participation of readers from across the process industries, this year’s awards represent the expressed brand preferences of nearly 1,000 automation professionals from all corners of the process industries. Those surveyed include the print magazine’s U.S.-centric readership as well as subscribers to our increasingly international digital media outlets anchored at our ControlGlobal.com website. And while the results certainly reflect a North American bias, the increasingly global nature of the process automation business, together with the increased participation of industry professionals from outside the U.S., continues to buoy the standings of more than a few European and Asian players.

As in recent years past, our Readers Choice Awards include recognition for “Best in Control” across six distinct process automation disciplines: continuous regulatory control, batch process automation, continuous sheet/web monitoring and control, safety/emergency shutdown, supervisory control and data acquisition (SCADA), and sequential logic control (Table I). Further, we’ve identified the top vote-getters in each of these process automation disciplines in each of the 10 primary process industry verticals we serve (Table II). In addition to these system capabilities awards, our usual rankings in a wide range of instrumentation, control and infrastructure technologies are presented on the pages that follow. In terms of methodology, each survey respondent was allowed to vote for up to three suppliers in each technology category and discipline. Their first, second and third place votes were then weighted accordingly to yield a rank listing of up to five top suppliers in each category.

Our congratulations go out to all the solution providers that made this year’s lists. To be mentioned at all, each supplier has demonstrated to a significant, loyal contingent of users that they provide the very best technology in their respective domains. And that’s no small feat at all.

### Table I. Best in Control Readers Choice Awards by Process Automation Discipline

<table>
<thead>
<tr>
<th>Continuous Regulatory Control</th>
<th>Batch Process Automation</th>
<th>Continuous Sheet/Web Monitoring &amp; Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerson Process Management</td>
<td>Rockwell Automation</td>
<td>ABB</td>
</tr>
<tr>
<td>2: Rockwell Automation</td>
<td>2: Emerson Process</td>
<td>2: Honeywell Process Solutions</td>
</tr>
<tr>
<td>3: Honeywell Process Solutions</td>
<td>3: Siemens Industry</td>
<td>3: ABB</td>
</tr>
<tr>
<td>4: ABB</td>
<td>4: Invensys</td>
<td>4: Invensys</td>
</tr>
<tr>
<td>5: Siemens Industry</td>
<td>5: Honeywell Process</td>
<td>5: Schneider Electric</td>
</tr>
<tr>
<td>6: Invensys</td>
<td>6: Schneider Electric</td>
<td>6: GE Intelligent Platforms</td>
</tr>
<tr>
<td>7: Yokogawa</td>
<td>7: Yokogawa</td>
<td>7: Yokogawa</td>
</tr>
<tr>
<td>8: Schneider Electric</td>
<td>8: Yokogawa</td>
<td>8: Metso</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safety/Emergency Shutdown</th>
<th>Sequential Logic Control</th>
<th>Supervisory Control &amp; Data Acquisition (SCADA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invensys</td>
<td>Rockwell Automation</td>
<td>Rockwell Automation</td>
</tr>
<tr>
<td>2: Rockwell Automation</td>
<td>2: Emerson Process</td>
<td>2: Honeywell Process Solutions</td>
</tr>
<tr>
<td>5: Honeywell</td>
<td>5: Schneider Electric</td>
<td>5: Siemens Industry</td>
</tr>
<tr>
<td>7: HIMA</td>
<td>7: Honeywell Process</td>
<td>7: ABB</td>
</tr>
<tr>
<td>8: Yokogawa</td>
<td>8: Honeywell Process</td>
<td>8: ABB</td>
</tr>
<tr>
<td>9: Yokogawa</td>
<td>9: Yokogawa</td>
<td>9: Schneider Electric</td>
</tr>
</tbody>
</table>

---

**Table: Best in Control Readers Choice Awards by Process Automation Discipline**

- **Continuous Regulatory Control**: Emerson Process Management, Rockwell Automation, ABB, Honeywell Process Solutions, Siemens Industry, Invensys, Yokogawa, Schneider Electric
- **Continuous Sheet/Web Monitoring & Control**: ABB, Honeywell Process Solutions, Rockwell Automation, Emerson Process Management, Siemens Industry, Invensys, Schneider Electric, Yokogawa, Metso
- **Safety/Emergency Shutdown**: Invensys, Rockwell Automation, Emerson Process Management, Siemens Industry, ABB, Honeywell, Schneider Electric, ABB, Yokogawa
- **Sequential Logic Control**: Rockwell Automation, Emerson Process Management, Siemens Industry, ABB, Schneider Electric, GE Intelligent Platforms, Honeywell Process Solutions, Invensys
- **Supervisory Control & Data Acquisition (SCADA)**: Rockwell Automation, Emerson Process Management, Siemens Industry, Schneider Electric, ABB, Yokogawa, Schneider Electric
Closely complementing our Readers Choice Awards across the range of essential process automation disciplines are the Readers Choice Awards for specific software competencies. Highest honors in several of these categories go to the integrated platform players, notably Emerson Process Management and Rockwell Automation. Through a combination of in-house development and acquisition, each of these companies has developed a broad competency in the core software categories.

But in the spirit of entrepreneurship, so central to innovation in the software space, a number of smaller software publishers have maintained an independent leadership role, notably ExperTune in the Loop-Tuning Software category, MatrikonOPC for its competency in OPC Connectivity, and Mynah Technologies in Simulation Software. In the arena of Calibration Management Software, Fluke takes top honors in part on the strength of its industry-leading hardware offering in the category.

### The Software Suite

Closely complementing our Readers Choice Awards across the range of essential process automation disciplines are the Readers Choice Awards for specific software competencies. Highest honors in several of these categories go to the integrated platform players, notably Emerson Process Management and Rockwell Automation. Through a combination of in-house development and acquisition, each of these companies has developed a broad competency in the core software categories.

But in the spirit of entrepreneurship, so central to innovation in the software space, a number of smaller software publishers have maintained an independent leadership role, notably ExperTune in the Loop-Tuning Software category, MatrikonOPC for its competency in OPC Connectivity, and Mynah Technologies in Simulation Software. In the arena of Calibration Management Software, Fluke takes top honors in part on the strength of its industry-leading hardware offering in the category.

### Table II. Best in Control
Readers Choice Awards by Discipline and Industry
While field devices and controllers perform the fundamental actions of the process control loop, an extensive communications infrastructure is needed to ensure that process data is reliably and seamlessly communicated throughout the modern process control system. This next group of Readers Choice Awards recognizes those essential infrastructure players—from wire to wireless and from terminal blocks to power supplies—who make sure measurement A gets to controller B and back to valve C.

Indeed, despite all the latest advances in wireless communication, the bulk of signal transmission in today’s process plants still relies on good old-fashioned wire and from terminal blocks to power supplies—who make sure measurement A gets to controller B and back to valve C.

For this group of Readers Choice Awards winners, it’s an acknowledged expertise in hardware design and manufacturing that typically carries the day.

Anmetek’s Panalarm division specializes in Annunciators—all day long—and is once again recognized as the long-time leader in that display technology niche. Other platforms used for human-machine interface (HMI) applications include Panel Displays, Operator Interface Terminals and Industrial Computers; Rockwell Automation gets the nod in all three of these categories, although niche specialists such as Advantech, Pro-face and Red Lion also placed highly in this functional family of technologies.

In the more specialized categories of Process Loop Controller and Recorder, Honeywell Process Solutions and Yokogawa took top honors, respectively.

The Essential Infrastructure Players

While field devices and controllers perform the fundamental actions of the process control loop, an extensive communications infrastructure is needed to ensure that process data is reliably and seamlessly communicated throughout the modern process control system. This next group of Readers Choice Awards recognizes those essential infrastructure players—from wire to wireless and from terminal blocks to power supplies—who make sure measurement A gets to controller B and back to valve C.

Indeed, despite all the latest advances in wireless communication, the bulk of signal transmission in today’s process plants still relies on good old-fashioned wire and cable to get messages from one place to another. And for the readers of Control, Belden rates as the Wire & Cable maker of choice, while Anixter and Lapp also rate highly.

That wire, of course, needs to ultimately connect with the host control system, and Phoenix Contact holds the preferred position among a predominantly European field of Terminal Block manufacturers that also includes Weidmuller, Wago, Rockwell Automation and Schneider Electric. In the burgeoning field of Wireless Infrastructure, field device and systems leader Emerson Process Management takes pole position, followed by system-independent players Cisco and Phoenix Contact.

The analog-to-digital conversion, conditioning, powering and intrinsic safety protection of instrumentation loops also are essential communication functions. For the purposes of our Readers Choice Survey, these functions are characterized by the technology arenas of I/O Systems, Signal Conditioners, Power Supplies and Intrinsic Safety. In the overall classification of Input/Output System, top honors go to the major automation platform providers, with Rockwell Automation and Siemens Industry in the lead. As with Terminal Blocks, European suppliers also carry the day in the closely related categories of Power Supplies (Phoenix Contact), Signal Conditioners (Phoenix Contact) and Intrinsic Safety (Pepperl+Fuchs). American suppliers SolaHD (a division of Emerson Industrial Automation), Moore Industries and MTL Instruments were runners up in each of these categories.
Going with the Flow

Accurately measuring process flows is difficult—and perhaps that’s why so many flow measurement companies have sprung up over the years, each exploiting a new physical phenomenon to tame this historically problematic process measurement. Indeed, many novel flow measurement technologies have been co-opted (or their creators acquired) by the major instrumentation companies, although a few notable niche players remain independent.

Emerson Process Management remains the dominant flow measurement player in this year’s Readers Choice Awards, complementing its win in Pressure Transmitters (used with orifice plates and other primary elements to measure flow) with top awards in six out of our 10 other categories, including Coriolis, Magnetic, Open Channel, Turbine, Ultrasonic (Closed Pipe) and Vortex flowmeter technologies. These competencies are represented in the marketplace through its Rosemount, Daniel and Micro Motion brands. Process measurement specialists Endress+Hauser and Krohne also fare well in a range of flow measurement technologies, as do the other broad-based process automation platform providers including Yokogawa, ABB and Siemens.

In other flow measurement niches, top honors in Positive Displacement Flowmeters go to FMC Technologies, in Variable Area Flowmeters to Brooks Instrument, and in Thermal Mass Flowmeters and Flow Switches to FCI.

Our Level Best

Similar to the rich landscape of providers in the flow instrumentation field, the level measurement marketplace is home to a broad variety of technologies and suppliers. Here, Emerson Process Management once again assembles a critical mass of competence, faring well in most of the mainstream technologies and winning outright in Float/Displacer and Radar technologies. With the combined forces of its Rosemount and Saab TankRadar brands it also claims top spot in the arena of Inventory-Grade Tank Gauges.

But level measurement excellence also belongs to a number of independent specialists. Notable among them in this year’s Readers Choice Awards are Endress+Hauser for its wins in the categories of Ultrasonic and Capacitance/Admittance/Conductance Level Gauges, and for Vibration Level Switches. Magnetrol took top honors in Electrical Property-based Level Switches, together with subsidiary Orion Instruments’ wins in Magnetic Level Indicators and Magnetostrictive technologies. Vega Americas took the top spot in Radiometric (Nuclear) Level Gauges and ABB for its Laser Level Gauges.
The Heat (and Pressure) Is On

Back to the days of the original Rosemount 1151, the industrial pressure transmitter is in many ways the foundation from which Emerson Process Management built or assembled its market leadership position in a broad range of measurement technologies. Temperature sensors and transmitters are no exception, and only the arena of infrared has remained beyond their scope, where Fluke carries the day in the categories of both Infrared Temperature Sensing and Infrared Imaging/Thermography.

A Process Analysis Primer

Typically a step in complexity beyond the measurement of primary physical variables such as temperature, pressure, flow or level, is the realm of process analysis. These devices, once confined primarily to the laboratory, have increasingly moved into the field, gone on line, and are helping to improve control and boost quality throughout the process industries.

Here, as in other field instrument categories, the process instrumentation majors lead the industry with Emerson Process Management and ABB taking top spots in four and two categories, respectively. The other process majors including Siemens, Yokogawa, Invensys and Endress+Hauser also place well in these categories. In the yet-more specialized category of Humidity and Moisture analysis, GE Measurement & Control rolls on the strength of its Panametrics brand.
The Final Element

The last crucial link in any automated process control loop is of course the final control element. Measurements can be taken and control decisions made—but all unravels if those decisions aren’t effectively and reliably translated into final action. Primary among the process industries means of affecting process control are the position of a valve or the direction and speed of an electric motor.

For the Control Valve itself, top spot in this year’s Readers Choice Awards goes to Emerson Process Management, primarily on the strength of its Fisher Controls brand. Runners up Flowserve, Samson Controls, GE Energy and Metso Automation were often mentioned as well. In the category of Pneumatic Actuator, Emerson also prevails, but cedes Electric Actuator to Rotork Controls. The nod for On/Off Valves also went to Emerson, represented primarily by the company’s ASCO brand, a division of Emerson Industrial Automation.

In the category of Variable-Speed Motor Drive, Rockwell Automation is ranked most highly in this year’s Readers Choice Awards polling. And as for the Electric Motors themselves, Baldor Electric takes top honors. ABB and Siemens also placed highly in both motors and drives technology categories.

Elsewhere in the Field

Last but certainly not least, this final group of Readers Choice Awards includes a cast of essential field instrumentation technologies that play a critical role in process automation, but don’t belong to another logical group discussed thus far.

First off, the words “Data Acquisition” means many things to many people, but in this year’s poll the DAQ System award goes to Rockwell Automation—maker of both data acquisition hardware, as well as the popular RSView visualization environment. Fluke wins in the category of Portable Calibrator. The Enclosure award goes to perennial favorite Pentair Technical Products, while the preferred enclosure Purge System award goes to Pepperl+Fuchs. (Although each of these winners are more likely known for their acquired Hoffman and Bebco brands, respectively.) And what to put into those boxes? The nod for Remote Terminal Unit goes to Rockwell Automation.

Leak-proof fittings are, of course, critical to any process instrumentation installation, and honors for the category of Instrument Fittings go to Swagelok, followed by Parker Hannifin.

Finally, our Readers Choice Awards for two important process measurements: vibration and weight. The nod for Vibration Instrumentation goes to GE Energy on the strength of its Bently Nevada brand. Excellence in the category of Weighing System/Load Cell goes to Mettler Toledo.