Users name suppliers of the best technologies in process control

WE’VE now tabulated the Readers’ Choice Awards 26 times, for more than a quarter century, and we’re starting to see it as an institution—more than a habit, at least a tradition, and we think, a trusted repository of valuable information for process automation professionals who want to know which companies offer the best technology, according to their peers.
We owe the success of the awards to an esteemed subgroup of those same professionals, the ones who take the time and make the effort to complete our lengthy, fill-in-the-blank surveys. For each of more than 80 categories, they decided whether or not they had the experience to name up to three suppliers who, in their opinion, deliver the best technology. If so, they decided who those suppliers would be, ranked them one to three, and typed in their names.

What does it take to deliver the best technology? No respondent was able to fill in all the blanks—even many felt qualified to fill in less than half the categories. Clearly, naming the best supplier isn’t a casual decision. Today’s industrial facilities increasingly rely on vendors to not only deliver high-performance, rugged, durable equipment and expert services at rock-bottom prices, but to back those products and services with competent, immediate, 24/7 support. Only the strongest suppliers can generate the loyalty that leads to a place in our Readers’ Choice Awards.

Determined solely by readers’ responses, the awards you’ll find on the following pages name the vendors that provide the best technology in categories from software and systems to instrumentation and final control elements. If you’re not sure which ultrasonic flowmeters are the best choice, what valve actuators provide the finest control, whose SCADA package leads the pack, or where to turn for excellence in any of our 83 categories, the Control Readers’ Choice Awards arm you with a quick reference to the preferences of your peers.

We express our heartfelt appreciation to the hardy respondents who took the time to share their valuable wisdom by selecting our winners, and we congratulate each listed vendor on being recognized in our Readers’ Choice Awards.

The view at the top
The Best in Control awards are listed first by automation discipline, then broken down into 10 industries using respondents’ designation of where they perform all or most of their work. This year, in Continuous Regulatory Control, Honeywell moved up from third to second, and ABB from sixth to fourth in this very prestigious category.

Emerson moved from second to first in Batch Process Automation; Schneider Electric took first place in Safety/Emergency

### Best in Control: Readers’ Choice Awards by Process Automation Discipline

<table>
<thead>
<tr>
<th>Continuous Regulatory Control</th>
<th>Batch Process Automation</th>
<th>Sequential Logic Control</th>
<th>Supervisory Control &amp; Data Acquisition (SCADA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. GE Automation &amp; Controls</td>
<td>8. GE Automation &amp; Controls</td>
<td>8. GE Automation &amp; Controls</td>
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<thead>
<tr>
<th>Safety/Emergency Shutdown</th>
<th>Continuous Sheet/Web Monitoring &amp; Control</th>
<th>Continuous Sheet/Web Monitoring &amp; Control</th>
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<tbody>
<tr>
<td>1. Schneider Electric</td>
<td>1. Rockwell Automation</td>
<td>1. Schneider Electric</td>
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<tr>
<td>2. Rockwell Automation</td>
<td>2. ABB</td>
<td>2. Emerson Automation Solutions</td>
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<tr>
<td>7. HIMA</td>
<td>7. Yokogawa</td>
<td>7. ABB</td>
</tr>
<tr>
<td>8. Yokogawa</td>
<td>8. GE Automation &amp; Controls</td>
<td>8. OSIsoft</td>
</tr>
</tbody>
</table>
Shut down and SCADA; and ABB moved up from third to second in Continuous Sheet/Web Monitoring & Control.

Broken down by industry, results were mostly unchanged, though Rockwell Automation became the favorite of the Pharmaceuticals & Life Sciences industry for Safety/Emergency Shutdown and SCADA.

Who’s up, and who’s in
As we move away from the major control discipline and industry favorites, we see more changes, both in relative rankings and companies winning awards for the first time or after a hiatus. Our survey methods are sound, and we do everything possible to prevent (and disqualify) votes from vendors and other special-interest respondents. But some years, the numbers of some companies’ adherents ebb and flow. In the fourth and fifth places, it doesn’t take a lot of votes to make a difference, and every vote counts.

This year, the Infrastructure group shows no changes at the top. Among the award-winning lower rankings, we welcome Phoenix Contact to Input/Output System; Acopian to Power Supply; Siemens to Wireless Infrastructure; and Alfa and Lapp to the hard-fought Wire & Cable category.

Software is always increasing in its importance to process...
control, where new leaders for 2018 include Honeywell in Alarm Management; Matrikon in OPC Connectivity; and Emerson Automation Solutions in Simulation (with the acquisition of 2017 category winner Mynah Technologies). This year, new and returning companies to the top five include Schneider Electric for Asset Management; Endress+Hauser for Calibration Management; Intergraph for Design/Documentation; Yokogawa for OPC Connectivity; AutomationDirect for PLC Programming; and Aspentech for Simulation software.

One thing that distinguishes an institution is continuity. After early expansion and refinement, the Readers’ Choice Awards categories have proven very durable, and we’ve had few occasions to add, adjust or subtract them. But when it’s appropriate, we do. For example, for 2018, we dropped the Neural Network software category because that functionality is no longer largely seen as distinct from advanced control or simulation.

We accept suggestions for new categories, and in 2019, we plan to add a category for Data Analytics Software. When we add a new category, we may collect survey data for several years before it reaches a level of response that justifies its addition to this report.

Moving on, in the Interfaces category, Rockwell Automation takes the lead for Process Loop Controller; ABB shows up in Annunciator and Panel Display; Emerson Automation Solutions in Operator Interface Terminal; Schneider Electric in Process Loop Controller; and Endress+Hauser in the Recorder category.

Results from the field
For Flow Instrumentation, Emerson Automation Solutions takes the lead in Positive Displacement Flowmeter and Endress+Hauser in Flow Switch. Breaking into the top five, we see ABB for Coriolis, Open Channel and Vortex flowmeters; VEGA Americas for Open Channel; Omega Engineering for Positive Displacement; Sierra for Thermal Mass; and FMC Technologies for Turbine Flowmeter.
FLOW INSTRUMENTATION

**Coriolis Flowmeter**
1. Emerson Automation Solutions
2. Endress+Hauser
3. Krohne
4. Yokogawa
5. ABB

**Magnetic Flowmeter**
1. Emerson Automation Solutions
2. Endress+Hauser
3. Yokogawa
4. ABB
5. Schneider Electric

**Open Channel Flowmeter**
1. Endress+Hauser
2. Siemens Industry
3. Emerson Automation Solutions

**Positive Displacement Flowmeter**
1. Emerson Automation Solutions
2. FMC Technologies
3. Badger Meter
4. Omega Engineering
5. Brooks Instrument

**Turbine Flowmeter**
1. Emerson Automation Solutions
2. Badger Meter
3. Hoffer Flow Controls
4. FMC Technologies
5. Omega Engineering

**Vortex Flowmeter**
1. Emerson Automation Solutions
2. Endress+Hauser
3. Yokogawa
4. Schneider Electric
5. ABB

**Thermal Mass Flowmeter**
1. FCI
2. Endress+Hauser
3. Emerson Automation Solutions
4. Brooks Instrument
5. Sierra

**Ultrasonic Flowmeter**
1. Emerson Automation Solutions
2. Endress+Hauser
3. Yokogawa
4. Siemens Industry
5. GE Automation & Controls

**Variable Area Flowmeter**
1. Brooks Instrument
2. Krohne

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Clearing the bar in Level Instrumentation, we found Magnetrol at the top for Level Switch, Mechanical, and Orion leading for Magnetic Level Indicator. ABB became visible in Capacitance/Admittance/Conductance, Float/Displacer and Non-Contacting Radar Level Gauges, as well as in Level Switch, Vibration. Endress+Hauser broke into the top five for Level Gauge, Magnetostrictive; Sick for Level Gauge, Laser; and VEGA Americas for Level Gauge, Inventory Grade.

In the relatively quiet Temperature & Pressure categories, Emerson Automation Solutions moved into the top spot for Pressure Switch. New and returning to the top five companies are ABB for Pressure Transmitter, Ashcroft for Pressure Switch; Wika for Thermocouple, and Pyromation for Temperature Transmitter. SOR and United Electric both made it into the top five for Temperature Switch, and Flir, Emerson Automation Solutions and Keyence all broke into the newly contested Infrared Temperature Sensor category on the strength of increasing response.

While we mention many companies as “new or returning” to the top five for tabulation, none of them are unfamiliar to those of us who tabulate the awards. They often have won in the past, and invariably have spent some years with scores just a little too low to be included on the published pages.

### Level Instrumentation

<table>
<thead>
<tr>
<th>Category</th>
<th>Top 5 Companies</th>
</tr>
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<tbody>
<tr>
<td>Infrared Imaging/Thermography</td>
<td>1. Fluke 2. FLIR Systems</td>
</tr>
</tbody>
</table>
Analysts and everything else

Process analyzers are ripe for technology-driven advances, and present increasing opportunities for process industry companies that want to raise productivity and quality. Among the Analyzers categories, Emerson Automation Solutions has taken the lead in Process Spectrometer. ABB is in the top five for Density/Concentration Analyzer; Ametek for Humidity/Moisture Analyzer and Stack Gas/Emissions Analyzer; and Thermo Fisher Scientific for Process Spectrometer and Process Chromatograph.

The number-one positions in the Final Control Elements categories show no changes from 2017. New or returning companies include GE Energy and Honeywell for Electric Valve Actuator; GE Energy for Pneumatic Valve Actuator; Samson for On/Off Valve; and Yaskawa for Electric Motor Drive. This year in the Electric Motor category, we combined votes for ABB and Baldor, which contributed enough room near the top to add Toshiba and U.S. Motors.

Along with systems, software, sensors, I/O and the networks that get signals to and from the instrumentation and final control elements, reliable control relies on field components from data acquisition systems and remote terminal units to enclosures and calibrators.

Hence, we come to the Elsewhere in the Field categories. Here, we also find no differences from 2017 in the companies at the top of the rankings. Further down the lists, we see that Hubbell Weigmann is now among the top five for Enclosure; Honeywell Process Solutions for Portable Calibrator; Hy-Lok for Instrument Fittings; and Rockwell Automation for Vibration Instrumentation.

Cautions, thanks and congratulations

As we close out the chronicle of the 2018 Readers' Choice Awards, we remind you that anybody can publish a list, or sit with their pals in a conference room and agree on their opinions. As you review this year’s winners, remember that the fill-in-the-blank format of the Control surveys mean every supplier has an equal chance—the choices are not limited to a selection of entries chosen by vendors, editors or other people who are not practicing process automation professionals.

As part of the survey instructions, we ask end users to vote only in those categories where they have personal experience. A vote for a specific company should mean the respondent has found its products to be better than other companies’ in that category.

While we ask respondents to write in the name of the company, some write in the names or numbers of specific products or software packages. We do our best to recognize and translate these responses into parent company names.
Every vendor named in the accompanying tables has been designated as offering the best value by a significant number of respondents. But be aware: since more respondents have experience with companies that have higher installed base or market share, the results are inevitably biased toward the larger companies. Furthermore, there are certainly small companies that don’t make the list, no matter how excellent their technologies, just because they are relatively unknown. If you have a favorite smaller supplier, consider yourself fortunate, and don’t be concerned that they aren’t in our Readers’ Choice Awards.

We’ve done our best to get experienced automation professionals, people who have the necessary perspective and wisdom to judge, without prejudice or penalty, who makes the best stuff for process control. In summary, the Control Readers’ Choice Awards offer a reference list of brands that readers like you say offer the best—a veritable Who’s Who of plant equipment, software and service providers.

Again, we express our appreciation to all the respondents, who took the time to share their valuable wisdom by selecting our winners, and we congratulate each listed vendor on being recognized in our Readers’ Choice Awards.

### FINAL CONTROL ELEMENTS

#### Control Valve
1. Emerson Automation Solutions
2. GE Energy
3. Flowserve
4. Samson Controls
5. Metso

#### Electric Valve Actuator
1. Emerson Automation Solutions
2. Rotork Controls
3. Flowserve
4. Auma Actuators
5. (tie) GE Energy
6. (tie) Honeywell

#### Pneumatic Valve Actuator
1. Emerson Automation Solutions
2. Flowserve
3. Rotork
4. Samson
5. GE Energy

#### On/Off Valve
1. Emerson Electric*
2. Metso
3. Flowserve
4. Apollo
5. Samson

* Includes Emerson Industrial Automation (ASCO) and Emerson Automation Solutions brands

#### Electric Motor Drive
1. Rockwell Automation
2. ABB
3. Siemens Industry
4. Schneider Electric
5. Yaskawa

#### Electric Motor
1. ABB/Baldor Electric
2. Siemens Industry
3. GE Power Conversion
4. WEG
5. (tie) Toshiba
6. (tie) U.S. Motors

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