

● Process instrumentation

From catalog to call

Why process instrumentation OEMs need a trusted AI coworker for technical knowledge.

● Live in 3 weeks ● Cited ● Isolated

What is the max process pressure for the 2-inch transmitter?

Model TX-200 is rated to 600 psi at 250°F per the IOM table on page 12.

● IOM · Page 12

01 Why fragmented documentation slows instrumentation teams down

02 Alessia: an AI coworker for process instrumentation

Bring product context into every call · Ask in plain language · See the source

03 Getting started: live in weeks

[Executive summary](#)

Confident answers, on the first call

Instrumentation OEMs compete on more than product performance — they compete on how fast and how confidently their people can answer a technical question.

A sizing question, a material-compatibility check, a max-pressure rating: these decide whether a sale closes, whether a service call gets resolved on the first try, and whether a customer trusts the brand. The information to answer those questions almost always exists. It's in the catalog, the IOM, the cut sheet, the bulletin. The problem is access.

That access problem is getting harder to ignore. In a 2026 survey of manufacturing executives conducted by CADDi and SME, 79% named the skilled-labor shortage their single biggest challenge — and for instrumentation OEMs, the people leaving are the applications engineers who carry a product line's sizing rules and edge cases in their heads.

This whitepaper introduces **Alessia**, Back Bay Automation's AI coworker for process instrumentation teams. Alessia indexes catalogs, IOMs, and cut sheets and turns them into cited, page-sourced answers — so sales can hold its ground on a technical question, applications engineers stop getting interrupted for routine sizing lookups, and service reps can verify a spec before they put it in writing to a customer.

We look at three places in the instrumentation sales and support cycle where shared product knowledge changes the outcome — the sales call, the applications desk, and the service ticket — and how Alessia closes the gap between “let me get back to you” and a cited answer delivered while the customer is still on the line.

01

Why fragmented documentation slows instrumentation teams down

Process instrumentation OEMs carry deep product lines — transmitters, sensors, valves, and controllers, each with its own IOM, cut sheet, and catalog entry, often spanning multiple revisions. That depth is a selling point. It's also the reason a simple customer question can turn into a scavenger hunt.

SALES

Before	Dig through shared drives while the customer waits	With Alessia	Cited answer from the catalog in seconds
--------	--	--------------	--

APPLICATIONS

Before	Interrupt senior engineers for every sizing question	With Alessia	Self-serve from IOMs with page-level sources
--------	--	--------------	--

SERVICE

Before	Email engineering to confirm a spec before replying	With Alessia	Open the exact page and verify before you share
--------	---	--------------	---

1.9M

skilled workers the U.S. process and manufacturing sector could be short by 2033, as the applications engineers who hold catalog knowledge retire faster than they can be replaced.

National Association of Manufacturers, The State of the Manufacturing Workforce, 2025

None of this is a knowledge problem — the documentation exists and is usually accurate. It's an access problem: the right page, in the right document, for the right model, at the moment someone needs it, and before the person who best knows it retires.

Alessia gives instrumentation teams a shared layer of product knowledge — indexed catalogs and IOMs, searchable in plain language, with every answer traceable back to the page it came from.

02

Alessia: an AI coworker for process instrumentation

Alessia is built for the demands of modern instrumentation operations: dense technical documentation, model-specific specs, and customers who expect an answer while they're still on the phone.

2.1 — Bring product context into every call

Sales teams shouldn't need to be product experts on every SKU to hold a technical conversation. Alessia surfaces specs, materials, and compatibility from indexed catalogs and IOMs in the moment a rep needs them — so the call keeps moving instead of stalling on “let me check and call you back.”

2.2 — Respond to customer questions faster

Applications and service teams spend a disproportionate amount of time re-answering questions the documentation already covers: sizing tables, temperature and pressure limits, material compatibility. Alessia turns those tables and cut sheets into cited answers in seconds, so routine questions get resolved without pulling a senior engineer off their own work — and every answer comes with the page it was drawn from, so a rep can verify before quoting or emailing a customer.

2.3 — Preserve expertise across the team

The way your best applications engineers answer hard questions is itself an asset — one that usually leaves the building when they do. Alessia captures how those questions get answered so that institutional expertise compounds across the team instead of living in one person's head, and new hires ramp against real, verified answers rather than tribal knowledge.

What that looks like day to day

Three things make Alessia usable on a live call, not just in a training demo.

01 Ask in plain language

Technical service teams type the question the way they'd ask a coworker. Alessia searches catalogs, IOMs, and cut sheets and streams the answer back as it reads.

- No special keywords needed
- Answers stream in as she reads
- Only uses your uploaded docs

02 Compare models quickly

Applications teams pull limits and materials side by side while a customer is still on the line, instead of opening five PDFs to build the comparison themselves.

- Compare options from the same catalog
- Material and temperature limits cited
- Follow ups stay in context

03 See the source

Every answer shows which page it came from, with a built-in PDF viewer, so reps verify before quoting or emailing a customer.

- Page numbers on every answer
- Built-in PDF viewer
- Tap a citation to jump to that page

What is the max process pressure for the 2-inch transmitter?

Model TX-200 is rated to 600 psi at 250°F per the IOM table on page 12.

- [IOM · Page 12](#)

01 Secure document upload and indexing

Hand off your existing document library as-is.

02 Pilot with one product line first

Prove the model on a single family before expanding.

03 Typical rollout in about three weeks

From document handoff to a working pilot your team can pressure-test against real questions.

Conclusion

The technical conversation is the sales conversation

The instrumentation OEMs that win the technical conversation are the ones whose people can answer with confidence — on the first call, with a source they can point to. The documentation to do that already exists. What's been missing is a way to put it in front of the person who needs it, at the moment they need it.

Alessia is that layer: a shared, cited, AI coworker for process instrumentation, built on your own catalogs and IOMs.

See Alessia on your documentation.

Hand off your catalog library and pressure-test Alessia against how
sales, applications, and service work today.

[Book a demo](#)

- Live in 3 weeks
- Cited
- Isolated

backbayautomation.com

Sales · Applications · Service · Alessia for process instrumentation