

REGISTRY (formerly known as SENSOR)

The screenshot shows the AWI Registry web application interface. At the top, there is a navigation bar with the AWI logo, a home icon, a 'Browse' button, a search bar containing the word 'temperature', and a 'LOGIN' button. On the left side, there is a sidebar with various filters: 'Parent Device Type' (listing Buoy, Mooring, Station, Pack_Ice, Vessel), 'Subdevice Type' (listing temperature sensor, MicroCAT, meteorological package, CTD), 'Expeditions' (listing M160, moes_stern1, moes_stern2), 'Parameters' (listing temperature, latitude, longitude, date and time, pressure), 'Action type' (listing Deployment, Information, Total failure, Recovery, Mount), and 'Action' (listing PS122-1, Initial configuration). The main content area displays a table of search results for 'temperature'. The table has columns: Info, Long Name, Short Name, URN, Item State, and Tools. It lists various temperature sensors and their associated metadata. At the bottom of the table, it says 'Showing 1 to 15 of 1517 entries' and there is a pagination control showing page 1 of 101.

Info	Long Name	Short Name	URN	Item State	Tools
1	Temperature, Water	SBE38	vessel:heincke:tsg:sbe38	public	↑
1	Conductivity-Temperature-Depth Probe	underway_ctd_240	vessel:polarstern:underway_ctd_240	public	↑
1	temperature sensor	107er_071cm	station:bayelva:cr1000_soil09:107er_071cm	public	↑
1	Air temperature and relative humidity	HMP	laboratory:mcan2018:majcs:hmp	public	↑
1	Humidity and Temperature Sensor HMT333	HMT333	aircraft:polar5:hmt333	public	↑
1	ibutton temperature	Dart_Temps_18	pack_ice:ice_ps:dart_temps_18	public	↑
1	ibutton temperature	Dart_Temps_19	pack_ice:ice_ps:dart_temps_19	public	↑
1	ibutton temperature	Dart_Temps_20	pack_ice:ice_ps:dart_temps_20	public	↑
1	ibutton temperature	Dart_Temps_6	pack_ice:ice_ps:dart_temps_6	public	↑
1	Infrared temperature	ts_3285_UCB	pack_ice:ice_ps:flux_tower_12m_ucb:ts_3285_ucb	public	↑
1	Temperature Sensor No 1 with Magnet for Logger DK 312 No 3	T_Sensor_DK312_HSVA_3_1	vessel:polarstern:logger_dk312_hsva_3_1:sensor_dk312_hsva_3_1	public	↑
1	bottom temperature recorder	Tpop_60	mooring:tpop_60	public	↑
1	bottom temperature recorder	Tpop_67	mooring:tpop_67	public	↑
1	bottom temperature recorder	Tpop_72	mooring:tpop_72	public	↑
1	bottom temperature recorder	Tpop_57	mooring:tpop_57	public	↑

Related Links

- REST services <https://registry.awi.de/api/>
- SensorML output <https://registry.awi.de/rest/sensors/device/getDeviceAsSensorML/625> (example for ID 625)
- JSON output including children: <https://registry.awi.de/rest/sensors/device/getDetailedItem/458?includeChildren=true> (example for ID 458)
- Videos <https://www.youtube.com/channel/UCIjKBoLBjy8XASA3QKrRx4/>

REGISTRY.awi.de aims to create an authoritative repository for managing platform, device and sensor-related information. It was launched in August 2016 and it will be continuously improved in the form of bi-annual release packages. It supports:

- Autocompletion of **station metadata** (required under "Actions") for all **large and medium-sized german research vessels** (Polarstern, Sonne, Meteor, Alkor, Heincke, Merian and Poseidon) using PANGAEA expedition catalogue
- Metadata **versioning** including minting of **PIDs** for individual versions along with **citation**. Example: <https://hdl.handle.net/10013/sensor.7bdbc478-a4c9-4eb9-917d-9a89ee098774#subItemID=625&subItemEventID=3634>
- **Provenance metadata** for repositories as **good-scientific practice**. Example: <https://doi.pangaea.de/10.1594/PANGAEA.857507> links dataset in PANGAEA to sensor description, under event information <https://hdl.handle.net/10013/sensor.664525cf-45b9-4969-bb88-91a1c5e97a5b>
- Management and discovery of standard **sensor-specific** information (e.g. manufacturer information, inventory number, history of actions, precision, photos, etc),
- Management and discovery of **data-specific** information (calibration reports, physical characterization of individual sensors, etc),
- Management of **parameter properties** that trigger the **automatic quality flagging**
- Management of specification for **automatic data transfer** and ingest
- Bookkeeping of **ownership/affiliation** of devices
- **Machine-friendly** access to metadata. Example: OGC compliant output standards,
- Sensor properties are used in machine-friendly **monitoring of data streams** in near real-time (see [DASHBOARD](#))
- **Re-use** in AWI-operated portals and various national and international service infrastructures. Example: <https://data.awi.de/?site=platforms>
- Use on board of **RV Polarstern** including **synchronization of DSHIP** action log with sensor actions

Recommended videos