Hitelecom®

PRESSURE SENSOR

H Series | External Probe

Wireless Pressure Monitoring



KEY INDICATORS

Measuring Range	Accuracy	Wireless	Protection	Battery Life
0-100 MPa* Multiple options	±0.5% FS High-precision option*	4G / NB-IoT / LoRa	IP68 Transmitter enclosure	Over 10 years* Four hours reporting

OVERVIEW

The Hitelecom H Series wireless pressure sensor measures pressure at a selected liquid or gas connection and reports readings over 4G, NB-IoT or LoRa, depending on the model. Follow water, compressed-air and hydraulic systems with remote records and configured alerts. Select the pressure range, probe assembly, process interface and reporting profile for the installation.

FEATURES

CLOUD

Send pressure records to Hitelecom Cloud or an agreed customer / private platform through MQTT.

GREEN

Battery-powered operation. Published life exceeds 10 years at four-hours reporting; profile-dependent.*

IP68

IP68 enclosure protection supports exposed installations. Match the probe and process connection to the site.

NFC

NFC supports activation, device onboarding and local maintenance configuration.

OTA

Remote firmware upgrades support maintenance of the configured device and platform.

CUSTOMIZATION

Select the range, thread, probe / cable, radio variant and platform integration for the project.

APPLICATIONS


Water tanks


Compressed air


Machine hydraulics


Fire-water systems


Hydraulic test bench


Food process lines


Irrigation headworks

Representative pressure applications; probe and process connection are selected for each installation.

Item		Description
Physical Characteristics	Product models	H200 / H300 / H500
	Power supply	Battery-powered, ultra-low-power design.
	Battery life	Over 10 years: 10-min sampling, 4-hours reporting; 25°C ambient, normal signal.*
	SIM card	Type1: Standard IoT SIM Card Type2: Embedded SIM (eSIM option)
	Antenna	Built-in
	Size	135*66*66
	Installation	Ear / lug mount, pole clamp or slot mounting options.
	Local configuration	NFC activation, onboarding and maintenance setup.
Connectivity	Wireless options	4G Cat.1 / NB-IoT / LoRa, by selected model.
	Data protocol	MQTT; platform configuration agreed for the deployment.
	LTE-FDD bands	B1 / B3 / B5 / B8 (published 4G configuration).
	LTE-TDD bands	B34 / B38 / B39 / B40 / B41 (published 4G configuration).
Pressure Sensor	Measuring range	0-1 / 1.6 / 3.5 / 7 / 10 / 20 / 35 / 100 MPa; select one span.*
	Accuracy	±0.5% FS; higher-precision customization available.
	Annual stability	±0.2% FS / year (separate from measurement accuracy).
	Overload limit	Published family limit: ≤2 × full scale; confirm selected span.*
	Pressure reference	Gauge / absolute / differential requirements specified per project.

LTE bands are published 4G family references. Regional modem, SIM, antenna and LoRa / gateway settings depend on the supplied variant.

SPECIFICATIONS

Item		Description
Probe Assembly	Process connection	Thread and process interface selected for the pressure point.
	Wetted materials	Specify the liquid / gas, seals and compatible wetted materials.
	Probe and cable	Probe form, cable arrangement and length by configuration.
	Medium temperature	Process and cleaning temperature limits specified for the probe.
Waterproof Rating	Physical body protection	IP68 (transmitter enclosure)
	Ingress protection	IP67/IP68
Reliability	Electrostatic discharge immunity	Contact discharge: 6 kV; air discharge: 8 kV
	Surge immunity	Differential mode: 1 kV; common mode: 2 kV
	Fast transient burst	Power supply circuit: 2 kV
Environmental Range	Operating temperature	-30°C to +75°C (transmitter platform reference)
	Operating humidity	5% to 95% RH (non-condensing)
	Storage temperature	-40°C to +85°C (transmitter platform reference)
Integration	Data destination	Hitelecom Cloud or an agreed customer / private platform.
	Data interface	Agree MQTT payload, pressure units, device IDs and topics.
	Threshold alerts	Configure pressure limits and the user-notification workflow.

* Ranges are separate configured spans; 35 / 100 MPa are published PDF options. FS means full scale. Overload is outside the calibrated range and is not a burst rating; confirm the limit for the selected span.

* Battery life: published >10 years with four-hours reporting. Service life depends on sampling, battery configuration, network conditions and temperature; agree the supplied-model operating profile.

Item		Description
Smart Functions	Remote upgrades	OTA firmware updates through the configured platform.
	Reporting profile	Agree sampling and transmission intervals for the process.
Ordering & Configuration	Regional radio variant	Select radio, regional bands, SIM / gateway and site coverage.
	Project requirements	Specify range, medium, connection, mounting and documents.
	OEM / ODM options	Range, probe / cable, thread and private-platform integration.
Certification References CCC / CE / FCC / RoHS	Safety	EN IEC 62368-1:2020+A11:2020
	Health	EN IEC 62311:2020
	EMC	ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-52 V1.2.1 (2021-11)
	Radio	ETSI EN 301 908-1 V15.2.1 (2023-01) ETSI EN 301 908-13 V13.2.1 (2022-02)
	Frequency range	FDD B1: 1920-1980 MHz TX; 2110-2170 MHz RX FDD B3: 1710-1785 MHz TX; 1805-1880 MHz RX FDD B8: 880-915 MHz TX; 925-960 MHz RX TDD B40: 2300-2400 MHz TX / RX
	Maximum output power	FDD B1: 22.89 dBm max. FDD B3: 23.23 dBm max. FDD B8: 24.02 dBm max. TDD B40: 22.24 dBm max.
	Modulation	QPSK, 16QAM

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