



OptiLevel HLS 6010 level measuring gauge

For reliable continuous level measurement of fuels such as **diesel with and without organic content (up 100%), petrol without and with all ethanol components, LPG, AdBlue and a variety of other liquids.**

The gauge uses the proprietary Hectronic capacitive comparison method and does not contain any moving parts (no float).

TECHNICAL DATA	HLS 6010 measuring gauge
Tank size (height)	Standard 1,600, 2,000, 2,500, 2,900 and 3,000 mm
Product measurement	Resolution: 0.04 mm Repeatability: 0.1 mm Measuring as of 23 mm from lower edge of gauge
Water measurement	Resolution: 0.1 mm Measuring as of 23 mm from lower edge of gauge
Temperature measurement	Resolution: 0.1°C
IP degree of protection	Gauge IP68
Explosion protection	II 1/2 G Ex ia IIB T4 Ga/Gb Gauge current circuit: Intrinsically safe zone 0
Lightening and voltage surge protection	Directly integrated into the gauge and the supply
Installation type	Threaded, infinitely height adjustable Standard thread: 1½", width across flats = 60 mm Optional thread: NPT 1½", width across flats = 60 mm Thread Autogas LPG: NPT 1½", width across flats = 60 mm
Materials with medium contact	1.4301 stainless steel, Teflon, Viton
Working pressure	Standard variants 1.5 bar Autogas LPG variant Up to 25 bar
Operating temperature	-25 - 60 °C for ambient air -25 - 100 °C for medium (for use in hazardous areas max. 60 °C)
Power supply	Via OptiLevel Supply, up to 250 m cable length (Cable 3 x 0.75 mm ² , shielded, light blue jacket)
Communication protocols	HLS protocol, H protocol (optional) other protocols with additional controller
Approvals Certificates	ATEX, IECEx, VU + others locally OIML R85/2008
Media	Fuels, kerosene, Autogas LPG, AdBlue and many more
Wireless network	As an alternative to wired installation, if no empty cable ducts are available and cable routing is too expensive (see separate wireless data sheet)



OptiLevel HLS 6010 level measuring gauge

Detailed information

The gauge uses the capacitive comparison method developed by Hectronic for measurement (independently of the tank wall and tank shape). The electrodes are protected in a rugged gauge tube. This method is not subject to wear. It detects changes in the liquid and automatically adapts to the new medium. Thus, the same gauge can be used for different media without changing accessories, or having to remove the gauge. No regular maintenance required.

The gauge is connected to the OPTILEVEL Supply. The Supply is the EX barrier, and isolates each gauge electrically.

The Supply is connected to the host system via an RS 232 interface. POS systems can be cost-effectively connected directly to the Supply if they support the HLS protocol, or H protocol (optional). Other functions and protocols are possible via additional OptiLevel controllers. The gauge determines the fill level [0.1 mm], water level [mm] and the temperature [0.1 °C]. The strapping table can be uploaded directly to the gauge, following which the volume [0.1 l] can also be retrieved.

The data are transmitted digitally using a tamper-resistant approach.

Installation is extremely easy. The gauge is bolted into a 1.5" thread (or 2" with a reducing piece). The gauge cable is connected directly and protected in the gauge head. The simple configuration can be completed conveniently using a laptop with OptiLevel Config on the OptiLevel Supply. The gauge electronics are built into the gauge head. In case of service needs, the electronics can be individually replaced without removing the gauge, as only the indestructible measuring tube.



OptiLevel Supply

The OptiLevel Supply is the power supply unit and the ex barrier for gauges in areas with risk of explosion and also the interface to the higher-level system.

Lightning and voltage surge protection are integrated with the system as a factory standard.



TECHNICAL DATA	OptiLevel Supply
Power supply	230V / 50Hz (optional 110V/ 60Hz)
Explosion protection	II (1) G [EEx ia] IIB
IP degree of protection	IP 20
Ambient temperature	-20° to +60°C
Approvals Certificates	ATEX, IECEx, VU + others locally OIML R85/2008
Gauge	Power and communication electrically isolated for each gauge.
Supply variants	Supply 1, 4, 5 or 8 (channels for gauge connection)
Maximum number of gauges	32 gauges (4 x Supply 8 cascaded)
Output (parent system)	RS-232, up to 20m cable length
Dimensions	W 300 x H 230 x D 85mm Housing: ABS, weight approx. 2.2 kg

OptiLevel Supply variants	Article number
Supply 1 (for connecting 1 gauge)	5000.10 03 00 00
Supply 4 (for connecting 4 gauges)	5000.10 03 01 00
Supply 5 (for connecting 5 gauges)	5000.10 03 05 00
Supply 8 (for connecting 8 gauges)	5000.10 03 02 00
Supply 5 TA (built into autofuel terminal, for 5 gauges)	5000.10 03 05 05

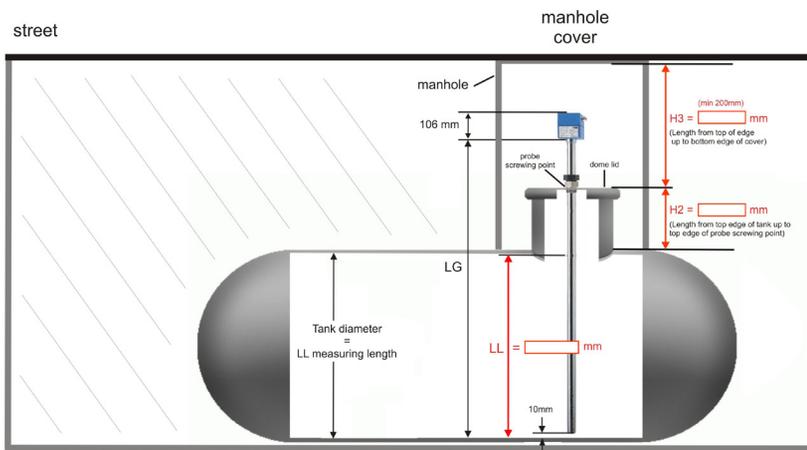
Detailed information

Up to 8 gauges can be connected to one OPTILEVEL Supply.

Up to 4 x Supply can be cascaded. This means that up to 32 gauges can be addressed via a single RS-232 connection.

The Supply TA-5 variant can be installed directly in Hectronic autofuel terminal to save space (outside the area with explosion risk).

HLS 6010 installation example



Order numbers OptiLevel HLS 6010 gauges

HLS 6010 gauge variants	Article number
HLS 6010 standard (G thread)	5000.06 00 xx xx
HLS 6010 standard (NPT thread)	5000.06 01 xx xx
HLS 6010 LPG	5000.06 11 xx xx
HLS 6010 AdBlue	5000.06 20 xx xx
HLS 6010 density	5000.06 30 xx xx

HLS 6010 gauge variants	Article number
HLS 6010 LG=2.100 LL=1.600	5000.06 xx 21 00
HLS 6010 LG=2.500 LL=2.000	5000.06 xx 25 00
HLS 6010 LG=3.000 LL=2.500	5000.06 xx 30 00
HLS 6010 LG=3.400 LL=2.900	5000.06 xx 34 00
HLS 6010 LG=3.500 LL=3.000	5000.06 xx 35 00

Other lengths are available as custom lengths (LL 600-5800, LG between 800 and 6000 (typically, LG=LL = 200...500))



Hectronic GmbH
 Allmendstrasse 15
 79848 Bonndorf, Deutschland
 Tel.: +49 (0) 77 03 - 93 88 0
 Fax: +49 (0) 77 03 - 93 88 60
 mail@hectronic.com

www.hectronic.com