



The leading system for liquid level measurement in smaller storage tanks.

Honeywell Enraf's OptiLevel HLS 3010HF tank gauging system is the best choice for above and underground storage facilities. The OptiLevel tank gauging system can be used for all applications in petroleum and petrochemical installations. The state of the art HLS 3010HF level sensor and designed system architecture enable open interfacing to Honeywell Enraf's Entis inventory systems and other protocols. A microprocessor inside the head of the level sensor calculates reliable liquid level and temperature data and calculates the tank volume. The sensor can also be interfaced directly to a PC or fuel island terminal.

Technical specifications OptiLevel Atmospheric version

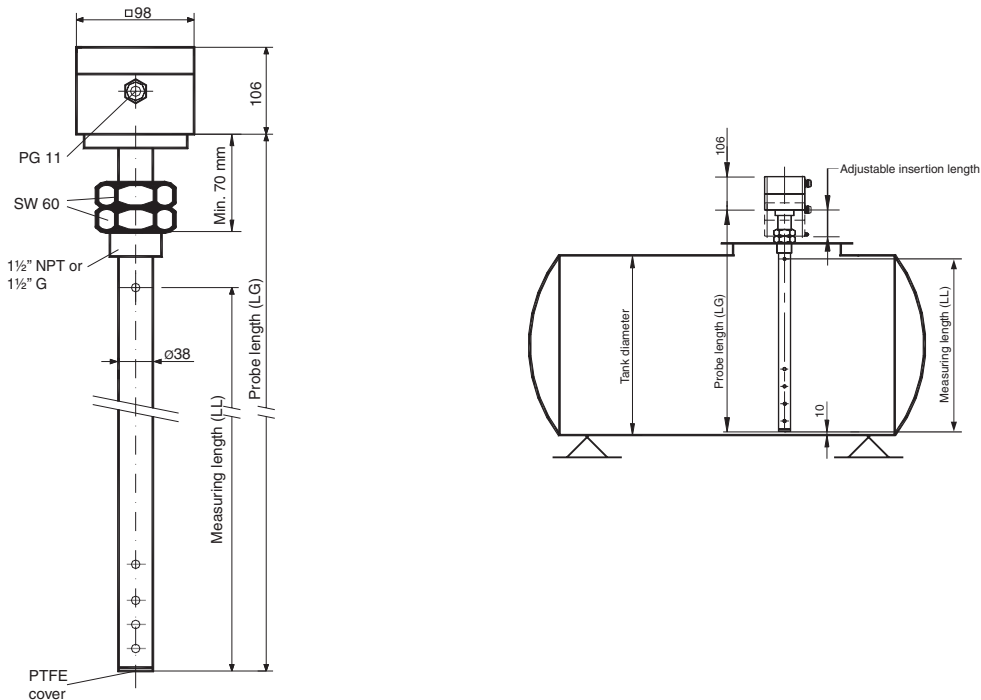
Measuring specifications		High accuracy version (Pos 1 = H)	
Level measuring accuracy	:	± 1 mm (0.08")	
Level measuring resolution	:	0.1 mm	
Relative permittivity	:	$2 < \epsilon_r < 3$ (petroleum, diesel fuel, kerosene ...)	
Measuring range bottom	:	23 mm above sensor bottom	
Temperature measuring	:	0 - 100 °C (± 1 °C) -20 - 100 °C (± 2 °C)	
Water level measuring	:	in the lowest 100 mm of sensor from sensor bottom	
Measuring specifications		Industrial version (Pos 1 = I)	
Level measuring accuracy	:	± 10 mm	
Level measuring resolution	:	0.1 mm	
Relative permittivity	:	$1.5 < \epsilon_r < 80$	
Measuring range bottom	:	23 mm above sensor bottom	
Temperature measuring	:	0 - 100 °C (± 1 °C) -20 - 120 °C (± 2 °C)	
Environmental			
Operating pressure	:	1.5 bar standard	
Operating temperature	:	-25 °C to 60 °C for electronics -25 °C to 100 °C for sensor	
Protection class sensor	:	IP 68	
Explosion protection	:		
- Protection class	:	EEx ia IIB T4 (PTB)	
- Sensor circuits	:	Intrinsically safe - Zone 0	
Electrical			
Supply voltage	:	12 VDC via OptiLevel supply unit (to be ordered separately)	
Transmission			
Protocol	:	Enraf fieldbus (GPU protocol)	HEC protocol, ASCII (compatible to the OptiLevel system)
Baudrate	:	300,7,O,1 1200,7,O,1	300,8,N,1 (standard) 1200,8,N,1
Options			
Connection cable HLS 3010HF level sensor to OptiLevel supply unit			
Type	:	3x 0.75 mm ² shielded	
Length	:	per meter	3881.754
	:	25 m - spooled	3881.755
	:	50 m - spooled	3881.756
	:	100 m - spooled	3881.757
	:	> 100 m - spooled	3881.758
Mounting flange 2" 150 lbs r.f. Stock finish Acc. to ANSI B 16.5 ASTM A105 with G 1½" Acc. to DIN ISO 228/1 threaded mounting hole	:		0189.101
Mounting flange B 50 ND 16 Acc. to DIN 2527 with G 1½" Acc. to DIN ISO 228/1 threaded mounting hole	:		0189.100
The PET comes complete with			
Carrying case	:		
Battery charger	:	For type to be selected see Identification code	
IR-adaptor	:	Part number 0847.380	
EN bus adapter	:	Part number 1847.812	

Identification code OptiLevel Atmospheric version

Pos 1 Version																															
H		High accuracy																													
I		Industrial																													
Pos 2 Operating pressure																															
A		1.5 bar atmospheric conditions																													
Pos 3 Process connection																															
N		1½" NPT																													
G		1½" G																													
Pos 4 Data transmission																															
G		Enraf GPU protocol																													
H		Hectronic Heclevel protocol																													
Pos 5, 6, 7 Data transmission																															
3		0		1		OptiLevel Atmospheric version																									
Pos 8 Probe length (standard)																															
A		Standard length		LG = 2100		LL = 1600																									
B		Standard length		LG = 2500		LL = 2000																									
C		Standard length		LG = 3000		LL = 2500																									
D		Standard length		LG = 3400		LL = 2900																									
E		Standard length		LG = 3500		LL = 3000																									
S		Special length		0800 < LG < 6000 (see also Pos 9 ... 16)																											
Pos 9, 10, 11, 12 Special probe length LG in steps of 100 mm																															
*		*		0		0		Range 0800 - 6000 (if Pos 8 = S)																							
Pos 13, 14, 15, 16 Measuring length LL in steps of 100 mm																															
*		*		0		0		Range 0600 - LG-200 (if Pos 8 = S) *																							
Typical identification code																															
H		A		N		G		3		0		1		S		2		7		0		0		1		6		0		0	
Your identification code																															
A				3		0		1						0		0				0		0									

Note

- *) - Minimum length: LL = 0600 mm and LG = 0800 mm
- Maximum length: LL = 5800 mm and LG = 6000 mm
- Minimum difference between LL and LG: 200 mm
- Maximum difference between LL and LG: n.a.



Technical specifications OptiLevel High pressure version

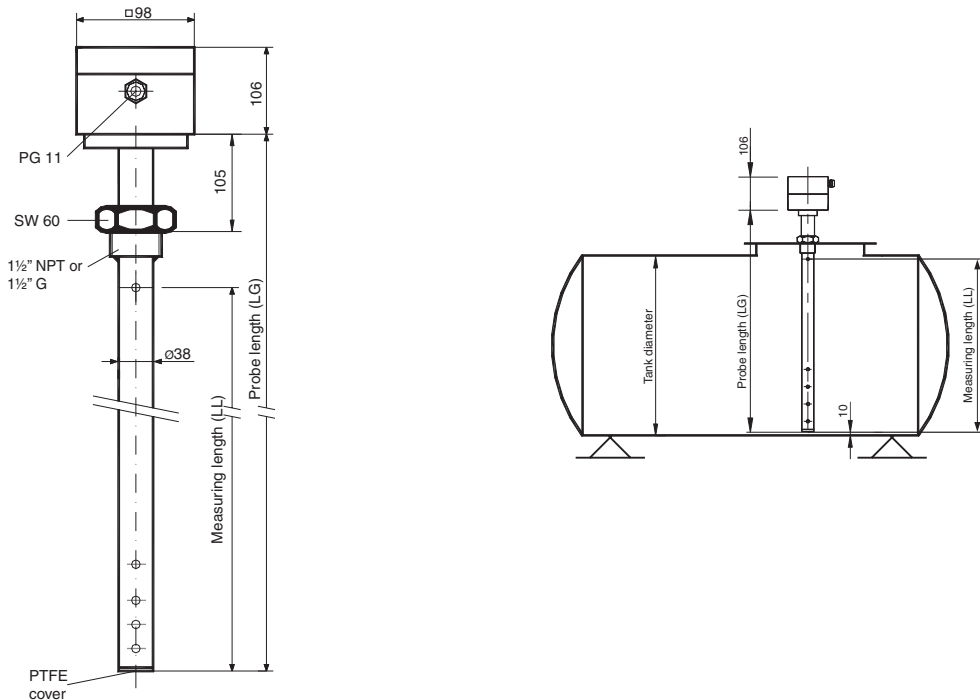
Measuring specifications		High accuracy version (Pos 1 = H)
Level measuring accuracy	:	± 1 mm (0.08")
Level measuring resolution	:	0.1 mm
Relative permittivity	:	$2 < \epsilon_r < 3$ (petroleum, diesel fuel, kerosene ...)
Measuring range bottom	:	23 mm above sensor bottom
Temperature measuring	:	0 - 100 °C (± 1 °C) -20 - 100 °C (± 2 °C)
Measuring specifications		Industrial version (Pos 1 = I)
Level measuring accuracy	:	± 10 mm
Level measuring resolution	:	0.1 mm
Relative permittivity	:	$1.5 < \epsilon_r < 80$
Measuring range bottom	:	23 mm above sensor bottom
Temperature measuring	:	0 - 100 °C (± 1 °C) -20 - 120 °C (± 2 °C)
Environmental		
Operating pressure	:	25 bar standard
Operating temperature	:	-25 °C to 60 °C for electronics -25 °C to 100 °C for sensor
Protection class sensor	:	IP 68
Explosion protection	:	
- Protection class	:	EEx ia IIB T4 (PTB)
- Sensor circuits	:	Intrinsically safe - Zone 0
Electrical		
Supply voltage	:	12 VDC via OptiLevel supply unit (to be ordered separately)
Transmission		
Protocol	:	Enraf fieldbus (GPU protocol)
	:	HEC protocol, ASCII (compatible to the OptiLevel system)
Baudrate	:	300,7,O,1 1200,7,O,1
	:	300,8,N,1 (standard) 1200,8,N,1
Options		
Connection cable HLS 3010HF level sensor to OptiLevel supply unit		
Type	:	3x 0.75 mm ² shielded
Length	:	per meter
	:	25 m - spooled
	:	50 m - spooled
	:	100 m - spooled
	:	> 100 m - spooled
		3881.754
		3881.755
		3881.756
		3881.757
		3881.758
Mounting flange 2" 300 lbs r.f. Stock finish Acc. to ANSI B 16.5 ASTM A105		
with G 1½" Acc. to DIN ISO 228/1 threaded mounting hole		0189.103
Mounting flange B 50 ND 40 Acc. to DIN 2527		
with G 1½" Acc. to DIN ISO 228/1 threaded mounting hole		0189.102

Identification code OptiLevel High pressure version

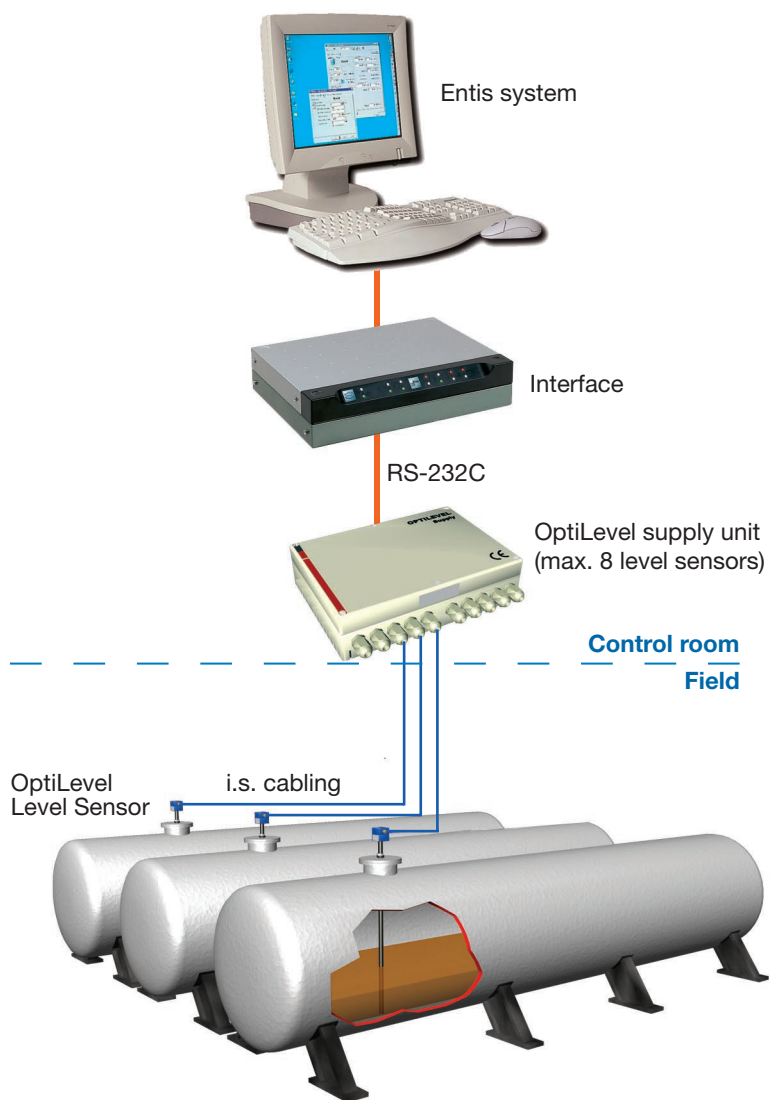
Pos 1 Version																
H	High accuracy															
I	Industrial															
Pos 2 Operating pressure																
H	25 bar pressurized conditions															
Pos 3 Process connection																
N	1½" NPT															
G	1½" G															
Pos 4 Data transmission																
G	Enraf GPU protocol															
H	Hectronic Heclevel protocol															
Pos 5, 6, 7 Data transmission																
3	0	2	OptiLevel High pressure version													
Pos 8 Probe length (standard)																
A	Standard length		LG = 1800			LL = 1600										
B	Standard length		LG = 2200			LL = 2000										
C	Standard length		LG = 2700			LL = 2500										
D	Standard length		LG = 3100			LL = 2900										
E	Standard length		LG = 3200			LL = 3000										
S	Special length		0800 < LG < 6000 (see also Pos. 9 ... 16)													
Pos 9, 10, 11, 12 Special probe length LG in steps of 100 mm																
*	*	0	0	Range 0800 - 6000 (if Pos 8 = S)												
Pos 13, 14, 15, 16 Measuring length LL in steps of 100 mm																
*	*	0	0	Range 0600 - LG-200 (if Pos 8 = S) *												
H	H	N	G	3	0	2	S	4	0	0	0	3	8	0	0	Typical identification code
H				3	0	2			0	0			0	0		Your identification code

Note

- *) -Minimum length: LL = 0600 mm and LG = 0800 mm
- Maximum length: LL = 5800 mm and LG = 6000 mm
- Difference between LL and LG fixed on 200 mm



System configuration



For More Information

To learn more about Honeywell Enraf's solutions, contact your Honeywell Enraf account manager or visit www.honeywellenraf.com

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