GSlevel - 4223

Lightweight Liquid Level Sensor

Key Features

- **Compatible use with fuels, oils and coolants**
- **Multiple and custom mounting arrangements**
- **Side or top exit cable options**
- **Lightweight Aluminium design**
- **Operating temperature range: -40°C to +125°C**
- **Custom lengths available: 100 – 750mm**
- **Temperature output option**
- **High or low switch output**

The GSLevel 4223 is a lightweight capacitive liquid level sensor designed to provide accurate and reliable liquid level measurement to variety of applications.

The sensor is a form fit and function replacement for the R-Series sensors as well as bringing the flexibility to be adapted to an almost limitless range of mechanical mounting configurations. Standard stock adaptors are available for 1, 2, 3 & 5 bolt mounting as well as metric male thread designs.

For real product flexibility, you have the ability to design your own custom configurations to suit any flat gasket seal configuration, limitless thread adaptions to both Male and Female threads.

RoHS Compliant

OUTPUT SPECIFICATION

Primary output standard range	0.25 – 4.75V Range is Datum A to Datum B (see drawing on page 2)
Primary output maximum range	0.25 – 10V (configurable through user software. See page 4)
Primary output accuracy	±1% @ 50% FSD (full scale deflection) 20°C
Primary volumetric output	Configurable through user software. See page 4 Tank profiling Wizard or CSV file upload
Secondary output (option N)	Open collector output 50V / 1a max switch to ground (V-)
Secondary output hysteresis (option N)	Configurable through user software. See page 4
Secondary output (option Y)	0.25 - 4.75V. (0.25V = -40°C, 4.75V = +125°C) (not configurable through GSlevel)
Secondary output accuracy (option Y)	+/-1.5°C between 0°C and +125°C +/-2.0°C between -40°C and 0°C

ELECTRICAL

Supply voltage	5-32VDC
Supply current	<20mA
Interface	Compatible with RS232
Resolution	10 bit (1024 points over measurement range)
Sample rate	100Hz

WIRING

Cable	Flying lead, 1000mm
Number of cores	6 with drain wire
Wire size	26AWG 7/0.15
Sleeving	XLPE

ENVIRONMENTAL TESTING AND CERTIFICATION

Ingress Protection	IP68
Shock tested to	BS EN 60068-2-27 (half-sine pulse 25g, 6ms 1000 shocks (positive and negative) in each 3 axis)
Vibration tested to	Resonant frequency search 5 to 2500Hz @ 0.5g peak
Pressure	10 bar (absolute and differential)
Drop	1m (in packaging) on all 3 sides
Thermal shock	to BS EN 60068-2-14, test Na
Dry heat	to BS EN 60068-2-2, test Bb
Cold	to BS EN 60068-2-1, test Ab
Damp heat	to BS EN 60068-2-30, test Db
EMC immunity level	BS EN 60945, BS EN 61326 and BS EN 61000-6-1/2/3/4

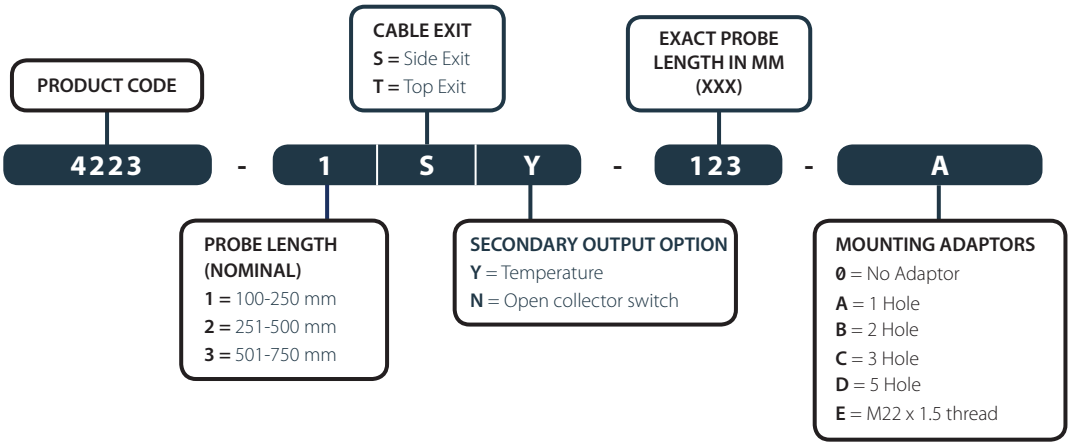
MECHANICAL

Lengths available	100-750mm
Mounting options	1 hole, 2 hole, 3 hole, 5 hole and M22x1.5 threaded
Sealing options	Panel gasket or o-ring
Cable exit options	Top or Side
Weight (100mm)	36.5g (100mm probe with 1000mm cable) +0.34g per mm (probe) thereafter

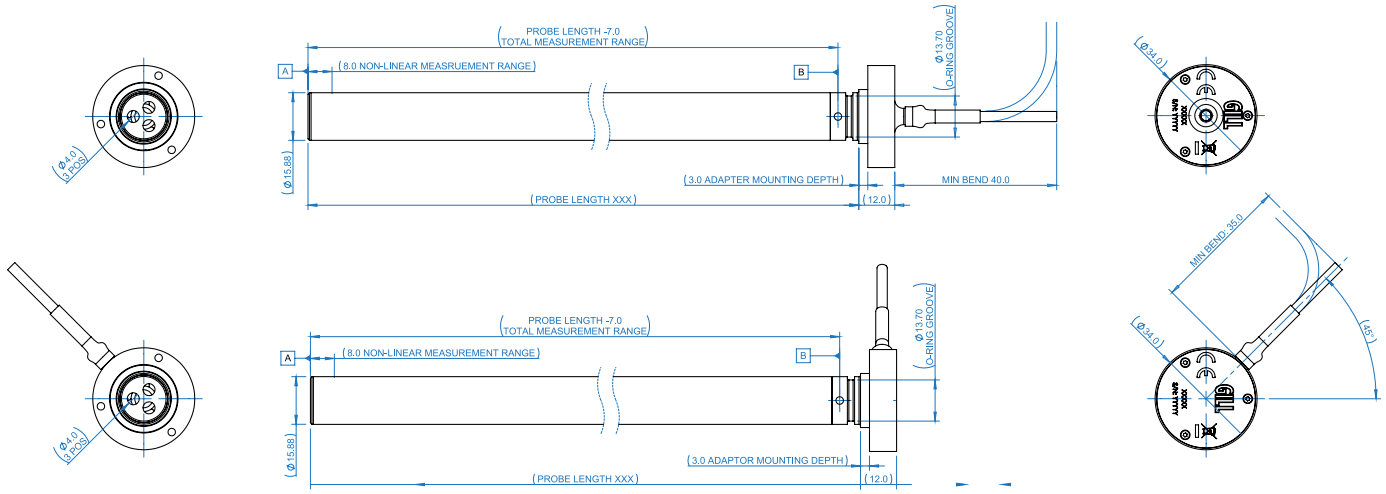
COMPATIBLE MEDIUM

Fuels	Diesel, Gasoline, Biofuels
Oils	Hydraulic, Gear, Motor, Vegetable, Synthetic ester, Polyalphaolefin, Polyglycol
Coolants	Ethylene Glycol, water
Other	Salt water

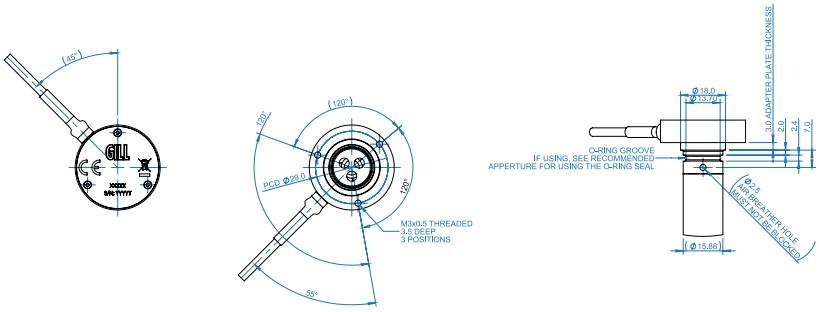
PART NUMBER CONFIGURATOR



CABLE EXIT OPTIONS



CUSTOM ADAPTOR DESIGN INFO



TOLERANCES

LINEAR	1 Decimal place ±0.1mm
	2 Decimal places ±0.05mm
ANGULAR	±1°

CABLE LOOM

	WIRE COLOUR	DESIGNATION
	RED	+V
	BLACK	-V (GROUND)
	ORANGE	PRIMARY OUTPUT
	BLUE	SECONDARY OUTPUT
	GREEN	Rx
	WHITE	Tx

CONNECTION TO CONFIGURATION CABLE

GILL REF: 1484-00-086

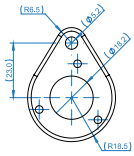
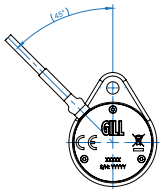
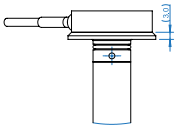
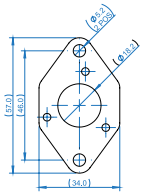
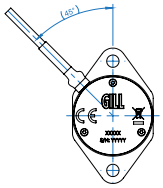
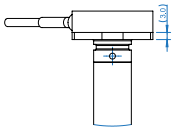
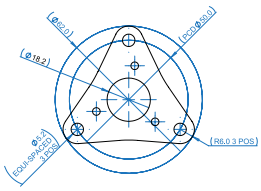
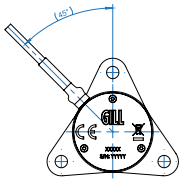
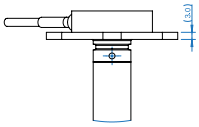
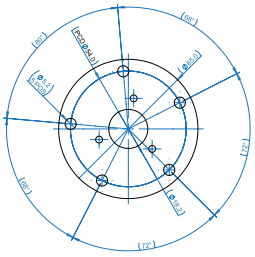
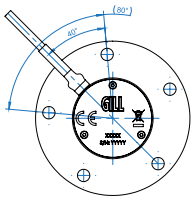
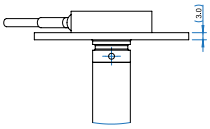
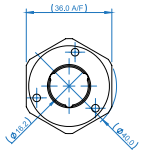
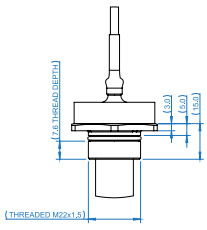
	SENSOR WIRE		CONFIGURATION CABLE
	RED		RED
	BLACK		BLACK
	GREEN		ORANGE
	WHITE		YELLOW

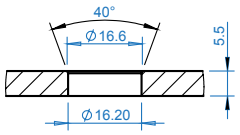
MOUNTING ADAPTORS

Design Notes – Adaptors & Fitting

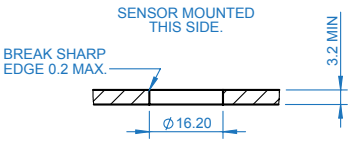
Each adaptor is supplied in a kit which includes 3 x M3 CSK screws, with pre-applied adhesive, Fluorosilicone O-rings and a Fluorosilicone Gasket (options A through D only).

Notes – Adaptors can be fitted in 3 orientations (+/- 120° from top dead centre of TOP VIEW below)
Top Exit cable can be selected for use with options A through D
(Side exit cable shown for illustration only purposes)

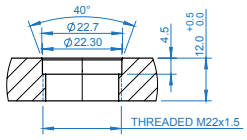
	ADAPTOR	TOP VIEW	SIDE VIEW
A (1 HOLE)			
B (2 HOLE)			
C (3 HOLE)			
D (5 HOLE)			
E (THREADED)			



RECOMMENDED MOUNTING APPERTURE
FOR USING THE O-RING SEAL.
USE WITH 1 HOLE FLANGE ADAPTOR.
CAN BE USED WITH 2/3/5 HOLE ADAPTORS.

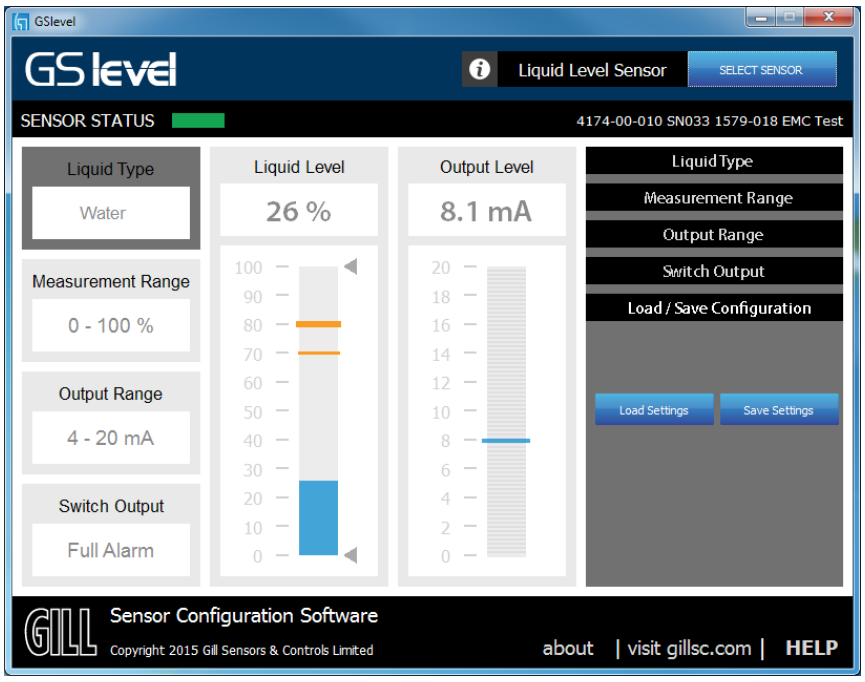


RECOMMENDED MOUNTING APPERTURE
FOR THE PANEL GASKET SEAL.
CAN BE USED WITH 2/3/5 HOLE FLANGE
ADAPTORS.

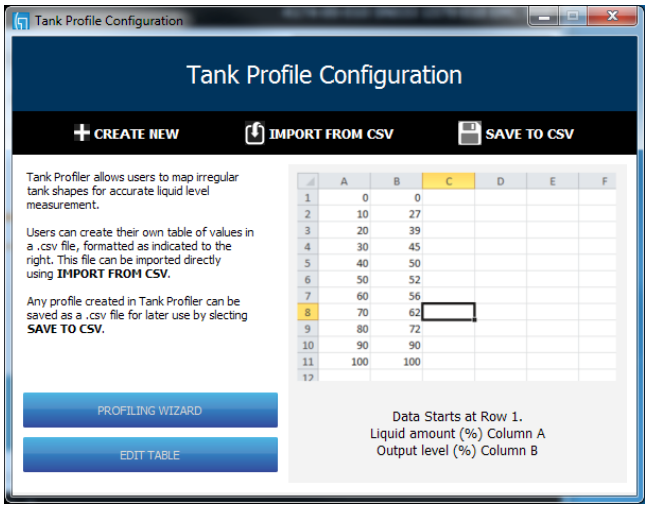


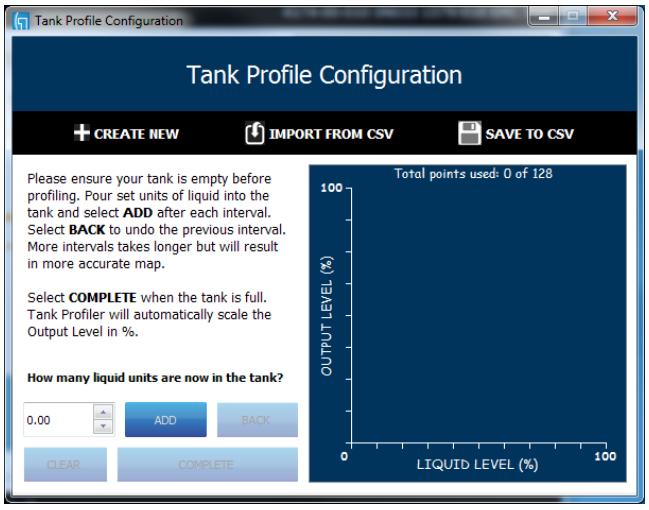
RECOMMENDED MOUNTING
APPERTURE FOR FOR USE WITH
M22x1.5 THREADED FLANGE ADAPTOR

CONFIGURATION USER INTERFACE



TANK PROFILING WIZARD





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