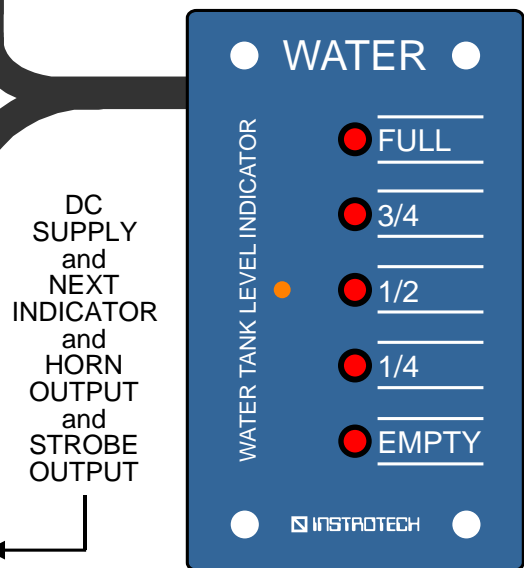
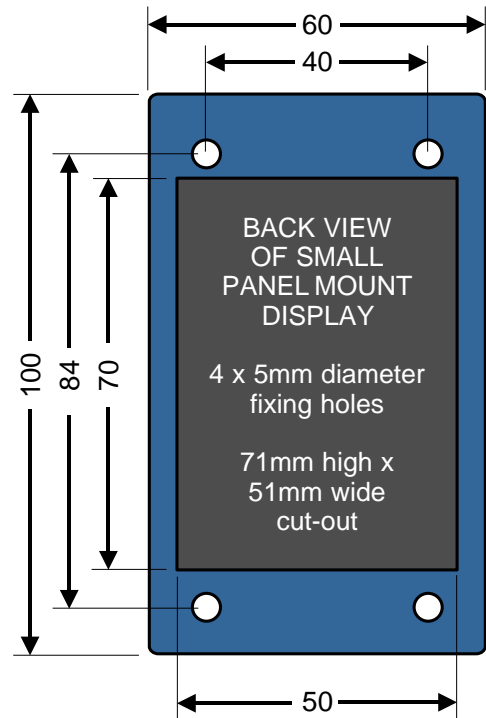
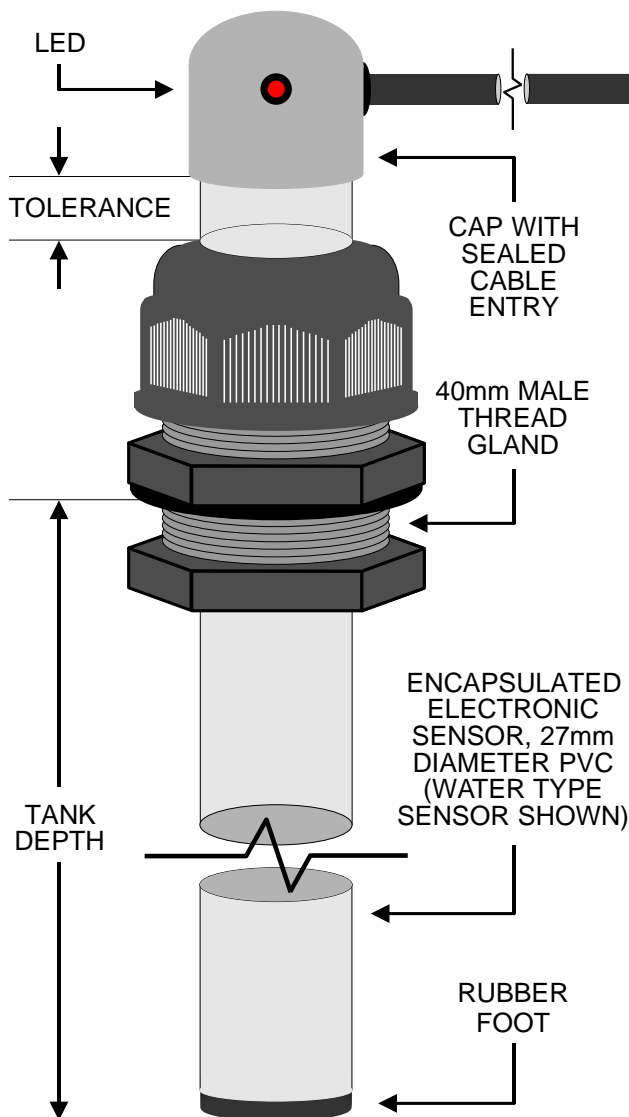


TANK LEVEL SENSORS AND INDICATORS

Model 1684-GEN for Fire Appliances

- ☑ No floats or moving parts
- ☑ Non-corrosive materials
- ☑ Microprocessor control
- ☑ Self-integrity checking
- ☑ Sunlight viewable LED displays
- ☑ Optional automatic low light dimming
- ☑ Easy to fit to new or existing tanks
- ☑ Panel or surface mount displays
- ☑ Fully encapsulated electronics
- ☑ Low level warning and outputs
- ☑ Outputs for alarms or setpoints
- ☑ Overcurrent protection
- ☑ C-Tick EMC compliant
- ☑ Made in Australia

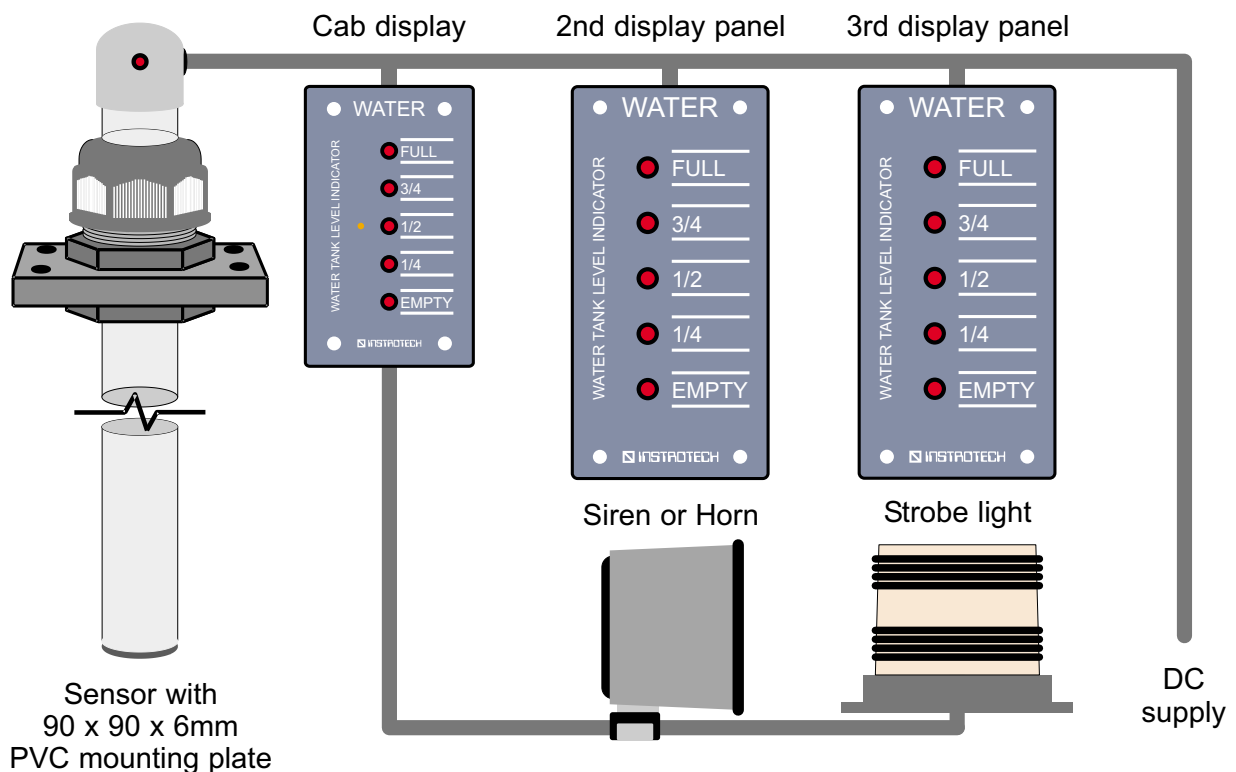


DISCLAIMER: Whilst every care has been taken in the design and manufacture of this product to ensure long and reliable service no claims for consequential damages of any nature whatsoever will be accepted whether installed by Instrotech Australia Pty Ltd or any other party.

SPECIFICATIONS : Model 1684-GEN

MEDIA	Water or Foam concentrate (Class A or Class B)
DIMENSIONS	27mm outside diameter sensor, with length to suit application
RESOLUTION	20% steps over tank depth with 5 point LED display
COMMUNICATIONS	Serial, between sensor and LED indicator display panel/s
TEMPERATURE	0 to 70 degrees Celsius operating temperature
TANK SENSOR	PVC sheath, fully encapsulated, IP68
CONNECTIONS	40mm Nylon IP66 threaded gland collar, or 1" BSP male thread
TERMINATIONS	Fixed flying leads, with length to suit application
DISPLAYS	ABS electronics housing, encapsulated, with engraved ABS facia
LED's	High brightness, red, 5mm, 30° viewing angle, 3000mcd intensity
CUT-OUT, SMALL	71mm high x 51mm wide, to suit 70 x 50 x 35mm deep small housing
CUT-OUT, LARGE	101mm high x 51mm wide, to suit 100 x 50 x 25mm deep large housing
POWER SUPPLY	12 to 24VDC standard, others optional

TYPICAL SYSTEMS :



GUARANTEE :

This product is guaranteed against faulty workmanship or defective material, for a period of 2 (two) years from the date of delivery by INSTROTECH.

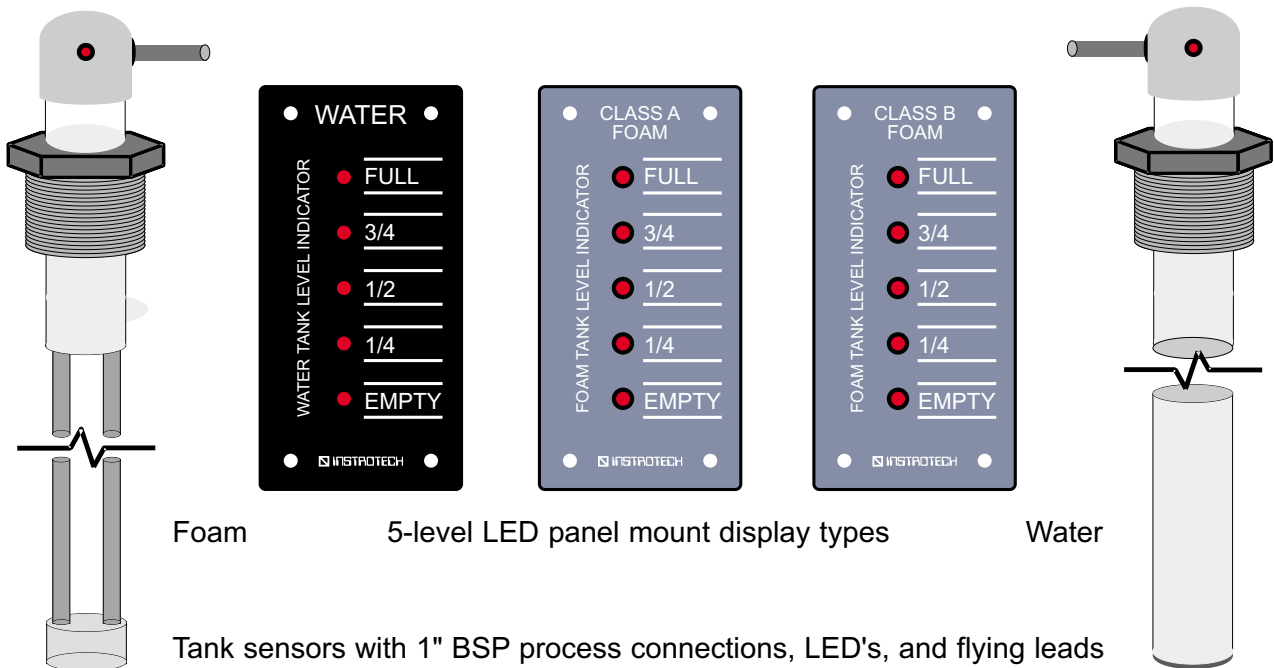
INSTROTECH undertakes to replace without charge all defective equipment which is returned during the period of guarantee (transportation costs prepaid) provided there is no evidence that the equipment has been abused or mishandled in any way.

In the interests of continuous product improvement, INSTROTECH reserves the right to alter any specification without prior notice.

OPERATION

Model 1684-GEN

TANK LEVEL INDICATING SYSTEMS FOR FIRE APPLIANCES



TYPICAL OPERATING FUNCTIONS:

LED DISPLAYS

1, 2, 3, 4 or 5 LED's are lit based on the liquid level in the tank.

The Empty LED flashes when the liquid level drops to 10%.

* All LED's flash if there are wiring or communication faults.

* The top and bottom LED's flash if there is a Tank Sensor fault.

TANK SENSOR

A blinking Tank Sensor LED shows normal communication with the LED Display/s.

* A permanently lit Tank Sensor LED shows power on only without communication.

LOW ALARM

(where fitted)

The Low level alarm switches on and off when the water level drops to 10%.

The Low level alarm output may be cancelled by a momentary switch which shorts the White wire to negative.

The Low level alarm output times-out automatically after 15 seconds.

HIGH OUTPUT

(where fitted)

The High level output switches positive On when the water level reaches the Full level.

The High level output switches Off when the water drops to the 3/4 level.

START-UP

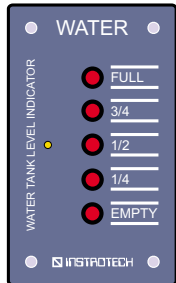
(where fitted)

On powering up, the Low level output will switch on and off twice to indicate that the system is working correctly, after which the LED panel will display the current water level.

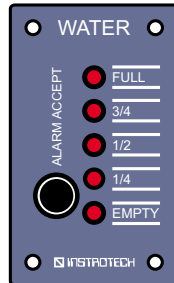
*** IMPORTANT NOTICE - IF THE TOP AND BOTTOM LED's OR ALL LED's AND THE OUTPUTS ARE FLASHING, DO NOT RELY ON THE LEVEL SYSTEM FOR AN INDICATION OF THE LIQUID AVAILABLE SINCE THERE IS A FAULT!**

TYPICAL DISPLAY PANELS Model 1684-GEN

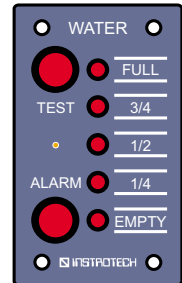
RECESSED OR SURFACE MOUNT SMALL DISPLAYS:



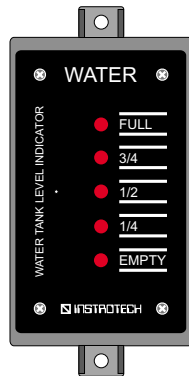
SURFACE MOUNT WITH BLACK FACIA



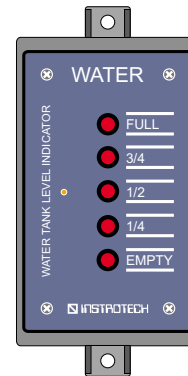
SURFACE MOUNT WITH AUTOMATIC DISPLAY DIMMING



RECESSED WITH AUTOMATIC DISPLAY DIMMING

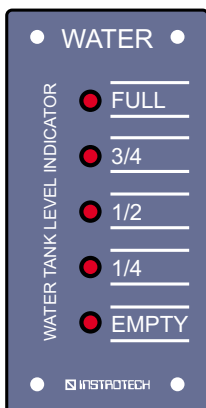


RECESSED WITH ALARM CANCEL SWITCH

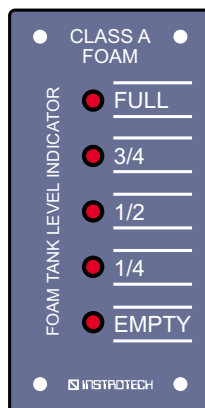


RECESSED WITH ALARM CANCEL AND TEST SWITCHES

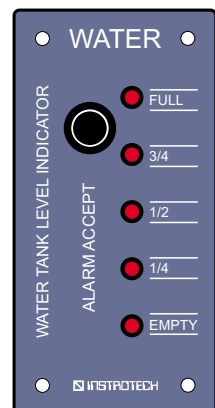
RECESSED MASTER OR SLAVE LARGE DISPLAYS:



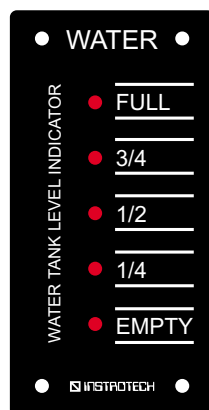
RECESSED BLACK FACIA WATER



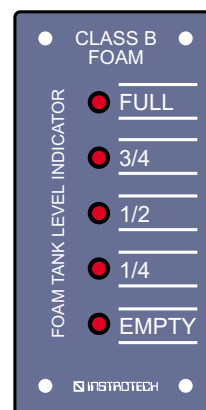
RECESSED BLUE FACIA CLASS B FOAM



RECESSED BLUE FACIA WATER



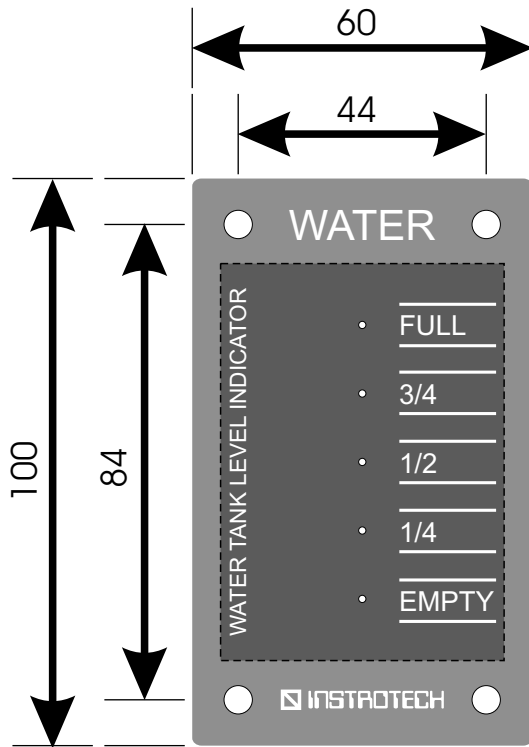
RECESSED BLUE FACIA CLASS A FOAM



RECESSED WITH ALARM CANCEL SWITCH

PANEL MOUNT LED DISPLAY DIMENSIONS

Model 1684-GEN



SMALL DISPLAY:

Faceplate

60 x 100mm high

Enclosure

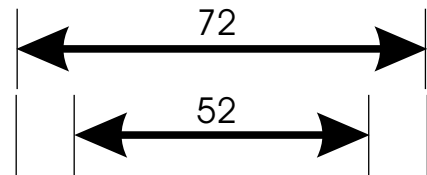
50 x 70 x 35mm deep

Cut-out

51 x 71mm high

Mounting holes

4 x 5mm diameter



LARGE DISPLAY:

Faceplate

72 x 144mm high

Enclosure

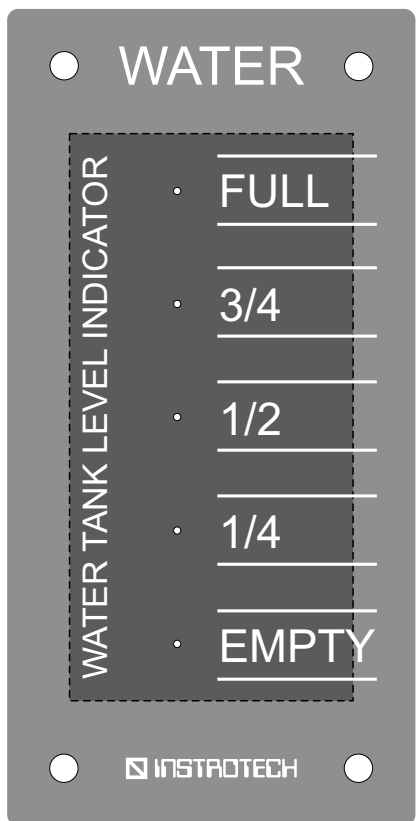
50 x 100 x 25mm deep

Cut-out

51 x 101mm high

Mounting holes

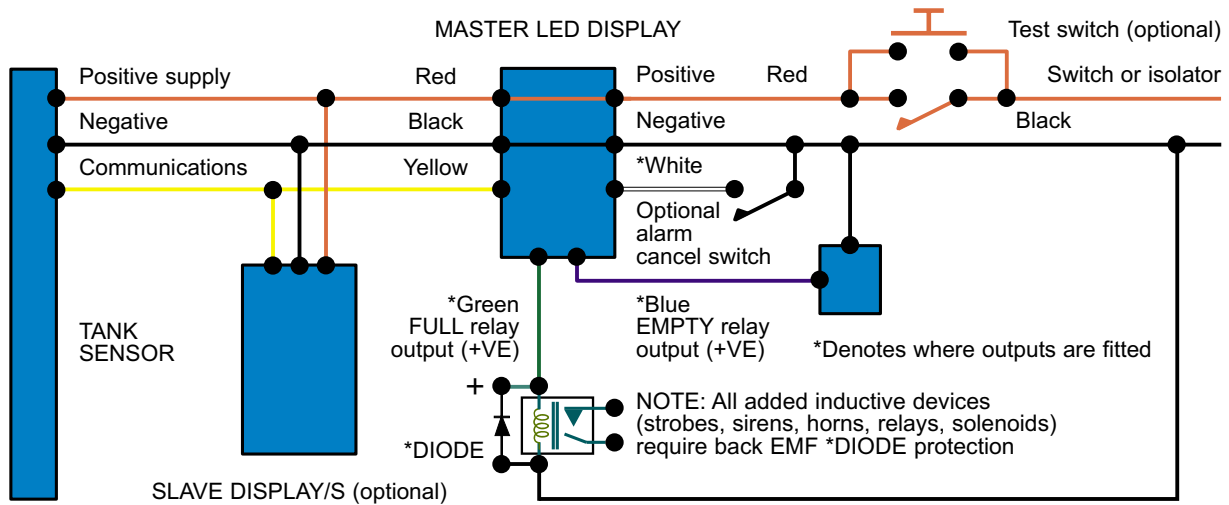
4 x 5mm diameter



INSTALLATION Model 1684-GEN

TANK LEVEL INDICATING SYSTEMS FOR FIRE APPLIANCES

TYPICAL WIRING DIAGRAM :



INSTALLATION NOTES :

*Denotes where outputs are fitted

- 1 All units have internal re-settable overcurrent protection so external fuses are not needed.
- 2 Connect the various units of the system as show in the wiring block diagram above.
- 3 Use interposing relay/s to switch external devices if the current exceeds the 5A 30VDC rating of the internal relays. All inductive devices should have back EMF diode protection!
- 4 The Low level relay output flashes on and off when the Empty LED is flashing*.
- 5 The High relay switches on at the Full level and off when the 3/4 LED switches off*.
- 6 Wiring to multiple LED Displays, and the Tank Sensor, is made in parallel.
- 7 Ensure a good negative connection to the vehicle body or chassis.
- 8 When first installed and powered up, the Master Display top LED will flash 10 times while it downloads the level settings from the Tank Sensor.
- 9 Within 15 seconds, when the Master LED Display indicating the current fluid level is lit, switch off the power to the system. If the tank is empty, the bottom Empty LED will flash on and off.
- 10 Switch on the power to the system again, and any Slave LED Display/s will then be initialised.

WIRING COLOURS :

For wiring, refer also to the labels fixed to the back of the LED display housing/s (typical types shown) →

SUPPORT 1800 999 063

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www.instrotech.com.au
Tel (08) 8373 5677
 Fax +61 8 8373 5667

 Tel 1800 999 063 MODEL 1684-FOAM	 Tel 1800 999 063 MODEL 1684-WATER
POWER SUPPLY (Cable 1) +12 to 24VDC - Red Negative - Black	POWER SUPPLY (Cable 1) +12 to 24VDC - Red Negative - Black
ACN 059 798 337	RELAYS, N/O (Cable 1) Full (+ve) - Green Empty (+ve) - Blue Low alarm cancel - White
TANK PROBE (Cable 2) +12 to 24VDC - Red Negative - Black Communication - Yellow	TANK PROBE (Cable 2) +12 to 24VDC - Red Negative - Black Communication - Yellow



General negative ground new or retrofit, no relay / relay high / low, time-out / no time-out systems, with 1684CFSR circuit and V3 5-level firmware, Jan 2002