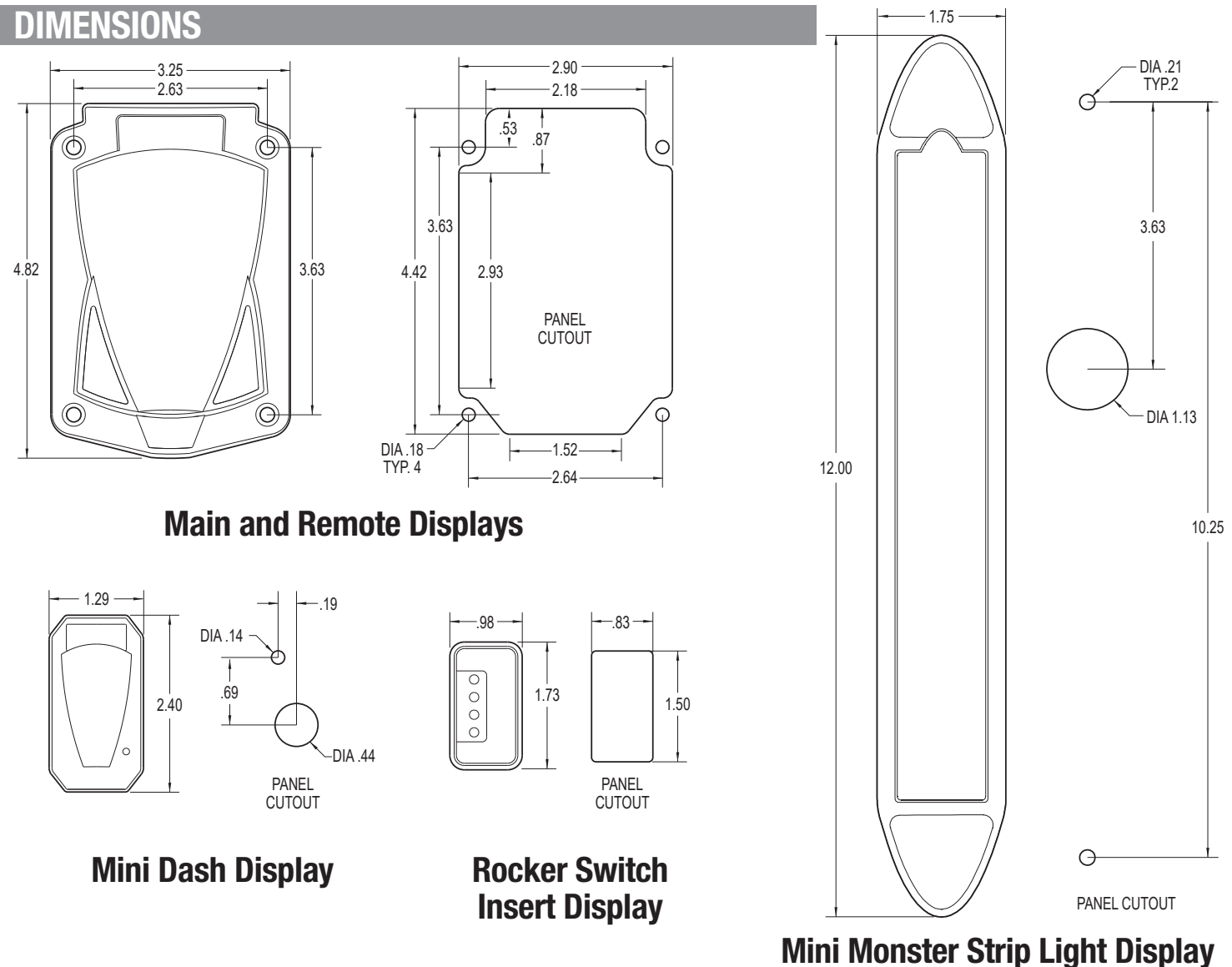


TECHNICAL SPECIFICATIONS

Operating voltage	7 to 32 VDC
Power consumption	
Main Display:	120mA at 13.8VDC, 100mA at 27.6VDC
Mini Dash Display:	80 mA at 13.8VDC, 75mA at 27.6VDC
Rocker Switch Insert Display:	65mA at 13.8VDC, 45mA at 27.6VDC
Mini Monster Display:	1200mA at 13.8VDC, 1050mA at 27.6VDC
Operating temperature range	-40°C to +85°C (-40°F to +185°F)
Storage temperature range	-40°C to +85°C (-40°F to +185°F)
Ingress Protection	IP67
Electrical Protection	Reverse voltage polarity protection on all connections Internal thermal fuses CAN Bus port protected to +/- 40V ESD protected to J1113-13 specifications Transient voltage protected to J1113-11 and J1113-42 Alarm outputs and sensor inputs are protected from reverse polarity, over-current, over-voltage, and voltage transients
Alarm output current (Main display only)	Low side polarity 2A, High side polarity 1A

DIMENSIONS



Soft-Glo Series Tank Level Gauges

J1939 CAN BUS TANK LEVEL MONITORING WITHOUT EYE IRRITATION

The Innovative Controls Inc. Soft-Glo Series Tank Level Gauge System is the next generation in a long line of reliable IC systems. Soft-Glo utilizes IC's highly reliable pressure transducer to accurately measure tank volume and deliver tank level information to the viewer in a revolutionary way.

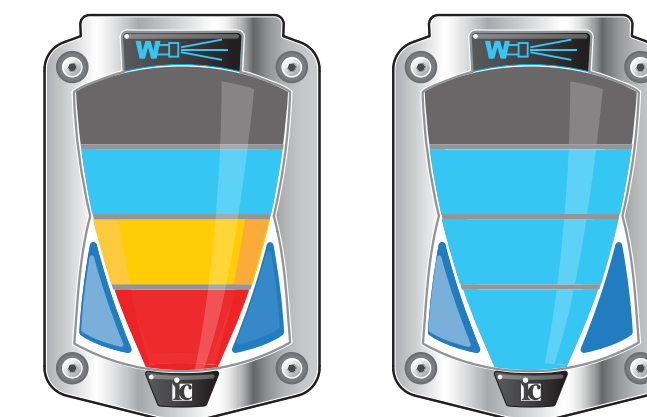
The display modules are divided into four distinct sections that show the volume of Water or Class A Foam or Class B Foam in the tank using multi-color RGB superbright LEDs. Tank level indication is enhanced by a 180° wide-angle diffusion lens in front of the LEDs. The LEDs are diffused by a proprietary method that creates an illumination effect that remains bright and visible in sunlight but eliminates the typical irritation to an operator's eyes traditionally caused by bright LEDs at night.

IC Soft-Glo displays are available in various sizes and treatments: pump panel main displays, in-cab mini displays and mini monster strip lights. Each display is available in multiple color, icon and bezel options designed to designate the display as either a Water, Foam A, Foam B, or Generic Foam display.



FEATURES

- Soft-Glo diffused lens eliminates hot spots
- 4 level display
- Can be accurately calibrated for any shape tank
- 180 degree viewing angle
- Multiple user-selectable color schemes
- Highly accurate, highly reliable pressure sensor
- Automatic dimming or fixed brightness levels
- Many bezel and labelling options
- Adjustable alarm or auto tank fill control output
- J1939 CAN-based communication
- -40C to +85C (-40F to +185F) operating temperature
- Protection against reverse power polarity
- 12VDC or 24VDC operation



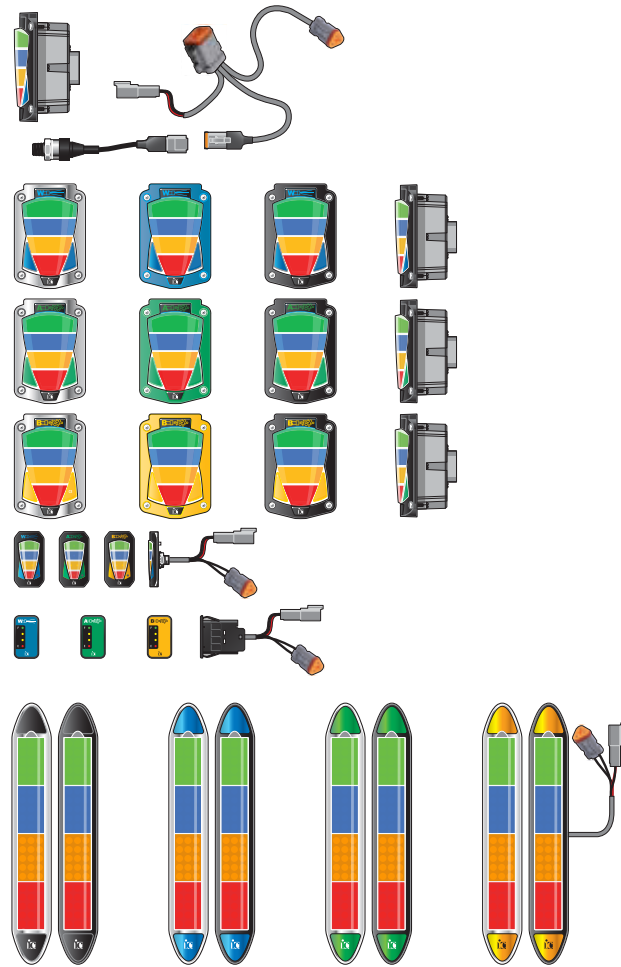
Multiple user-selectable color schemes



DISPLAY PART NUMBERS

Description	Part Number
Soft-Glo Water Level Display Kit	3050869-XX
Soft-Glo Class A Foam Level Display Kit	3050870-XX
Soft-Glo Class B Foam Level Display Kit	3050871-XX
Soft-Glo Generic Foam Level Display Kit	3050872-XX
Water Display with Chrome Bezel	3050852-01-W
Water Display with Black Bezel	3050852-02-W
Water Display with Blue Bezel	3050852-03-W
Class A Foam Display with Chrome Bezel	3050852-01-FA
Class A Foam Display with Black Bezel	3050852-02-FA
Class A Foam Display with Green Bezel	3050852-04-FA
Class B Foam Display with Chrome Bezel	3050852-01-FB
Class B Foam Display with Black Bezel	3050852-02-FB
Class B Foam Display with Yellow Bezel	3050852-05-FB
Mini Dash Water Display	3050853-W
Mini Dash Foam A Display	3050853-FA
Mini Dash Foam B Display	3050853-FB
Rocker Switch Insert Water Display	3050846-W
Rocker Switch Insert Foam A Display	3050846-FA
Rocker Switch Insert Foam B Display	3050846-FB
Generic Mini Monster Display with Chrome Bezel	3050854-01-G
Generic Mini Monster Display with Black Bezel	3050854-02-G
Mini Monster Water Display with Chrome Bezel	3050854-01-W
Mini Monster Water Display with Black Bezel	3050854-02-W
Mini Monster Foam A Display with Chrome Bezel	3050854-01-FA
Mini Monster Foam A Display with Black Bezel	3050854-02-FA
Mini Monster Foam B Display with Chrome Bezel	3050854-01-FB
Mini Monster Foam B Display with Black Bezel	3050854-02-FB

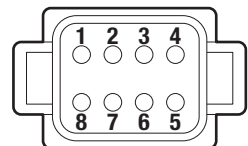
Add -NN suffix to part number for customer logo option



ACCESSORY PART NUMBERS

Description	Part Number
Tank Pressure Transducer	3030376
Wiring Harness for Main Display	4000689-XX
Wiring Harness for Additional Displays	4000690-XX
Power Cable	4000691-XX
J1939 CAN Cable	4000653-XX
J1939 T-Adaptor	4008119
J1939 Termination Plug	4008120

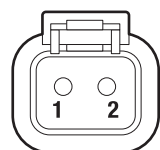
-XX suffix is cable length in feet



Main And Remote Displays

Deutsch DT15-08SA Connector	
Terminal	Description
1	+12VDC (Battery) Power
2	Ground
3	Pressure Transducer Sensor Ground
4	Pressure Transducer Output Signal
5	Pressure Transducer Power +5V
6	Alarm or Automatic Tank Fill Control, Active High at 20% or less, Active Low at 80%
7	J1939 CAN Low Signal
8	J1939 CAN High Signal

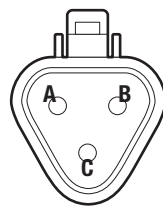
Mating connector is Deutsch DT06-08SA Plug



Mini Monster Strip Light, Mini Dash and Rocker Switch Insert Displays: Power

Deutsch DT04-2P Connector	
Terminal	Description
1	+12VDC (Battery) Power
2	Ground

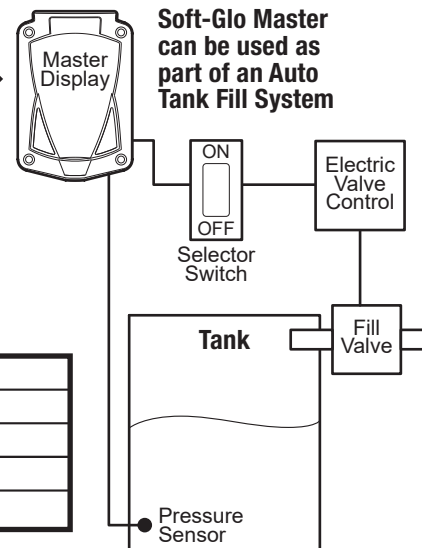
Mating connector is Deutsch DT06-04S Plug



Mini Monster Strip Light, Mini Dash and Rocker Switch Insert Displays: Communication

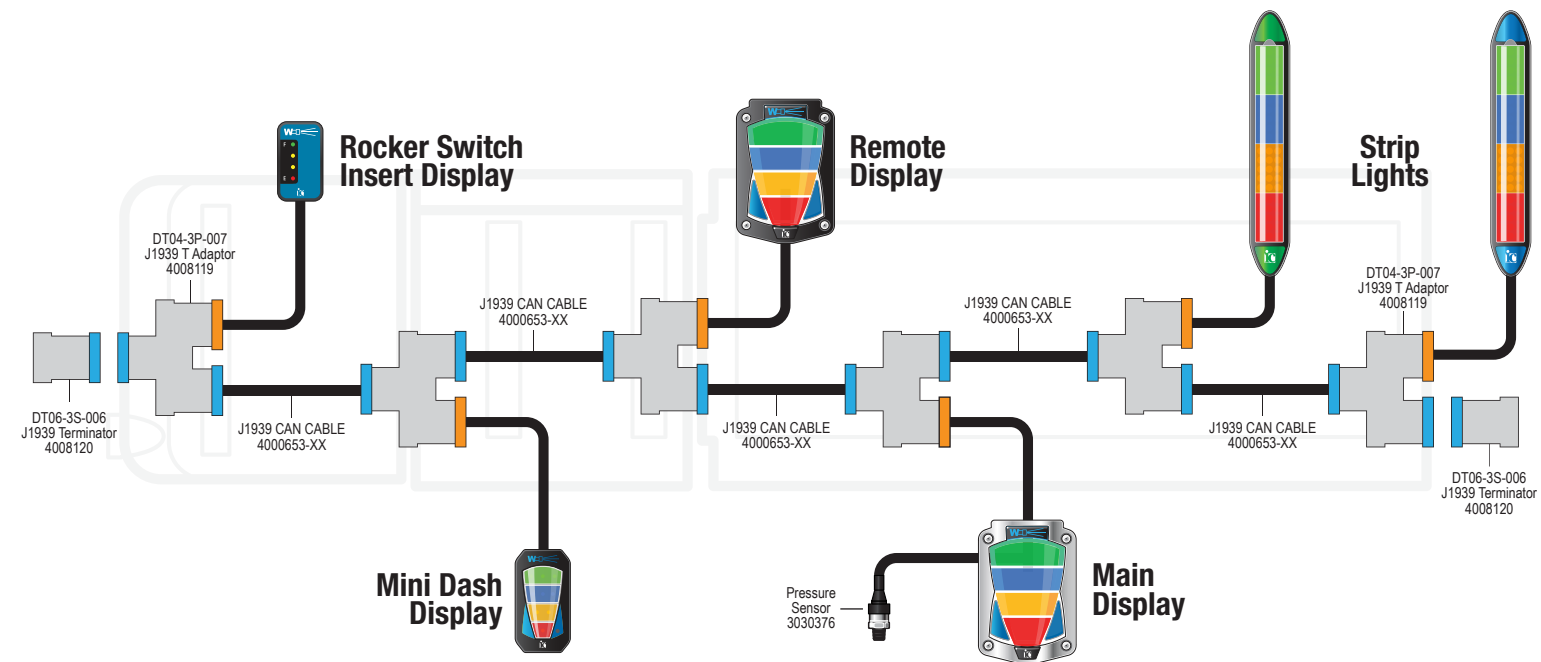
Deutsch DT06-3S Connector	
Terminal	Description
A	J1939 CAN High Signal
B	J1939 CAN Low Signal
C	not used

Mating connector is Deutsch DT04-3P Plug



Soft-Glo Master can be used as part of an Auto Tank Fill System

CAN LAYOUT / WIRING SPECIFICATION



NOTICE

Module / display locations are arbitrary and can be moved / shifted as required according to truck layout. However, backbone (follow blue connectors) and terminators must be implemented as shown. (IC terminators must be at each end of the CAN bus.)

Remote Display Options

The Soft-Glo main display can also be used as a remote display. The display senses when a pressure sensor is attached and automatically switches between functioning as a main or remote display. The Soft-Glow Mini-Cab display is available in two form factors, a miniature version of the main display and a rectangular package that fits into a standard rocker switch panel cutout.

The Soft-Glo Mini-Monster strip light can be used to provide a remote display on the outside of the fire apparatus. The remote displays automatically adjust to the color scheme selected on the main display.

Calibration of Tank Level and Shape

The Soft-Glo main display can be calibrated to accurately measure the volume of rectangular, t-shaped, or elliptical shaped tanks. Nonstandard shaped tanks can be calibrated with either the 4-point or constant-fill methods to provide the highest accuracy possible. The calibration mode is enabled by the installer with a magnet.

J1939 Compatible CAN Communication Link

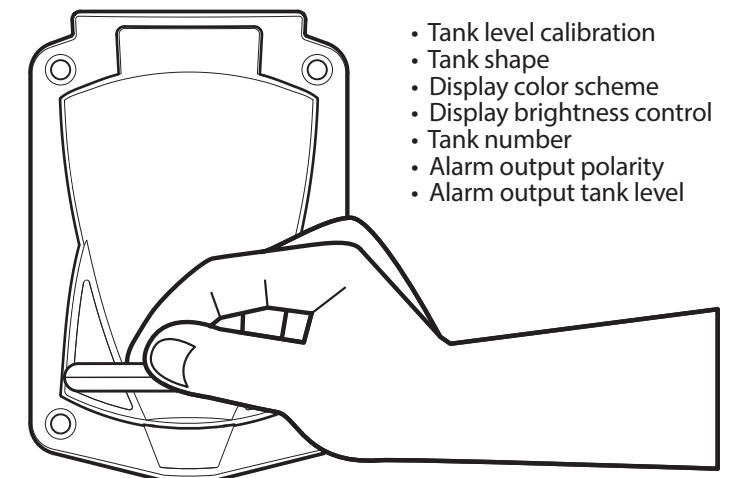
The Soft-Glo system displays interface using J1939 CAN based communication to simplify installation. The Soft-Glo displays can operate with their own dedicated CAN network or on a shared J1939 network. The Soft-Glo system communication format can handle up to four main displays measuring different tank levels on a single J1939 network.

Alarm Output

The Soft-Glo Main display has a configurable discrete output that can be used to control automatic tank fill systems and external alarms. The output can be configured as a low or high side output that activates at a predetermined tank level.

Configuration

The Soft-Glo Main display is configured by the installer using a magnet. Two magnetic sensors are used to navigate the user interface to configure the following display parameters:



- Tank level calibration
- Tank shape
- Display color scheme
- Display brightness control
- Tank number
- Alarm output polarity
- Alarm output tank level