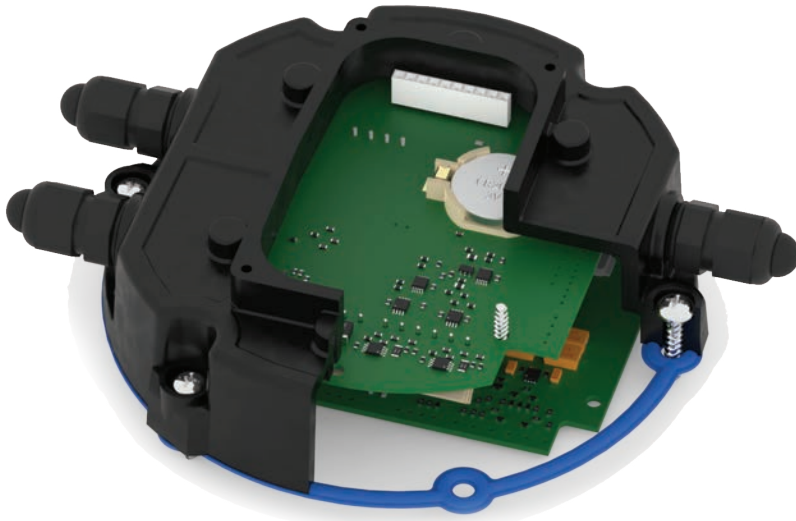# FLOMEC®

QSI ELECTRONICS INTERFACE BOARD

QSI ELECTRONICS INTERFACE

The FLOMEC® QSI I/O Board is a Multi-Functional Economical Unit designed to enhance product functionality and provide fully-featured communication protocols and process output signals for FLOMEC meters, as well as other flowmeter brands.

The fully-featured I/O board ships with a customized operating system to allow for downloadable upgrades and new feature developments.

Programming is easy and can be done using the FLOMEC app via the Bluetooth interface.
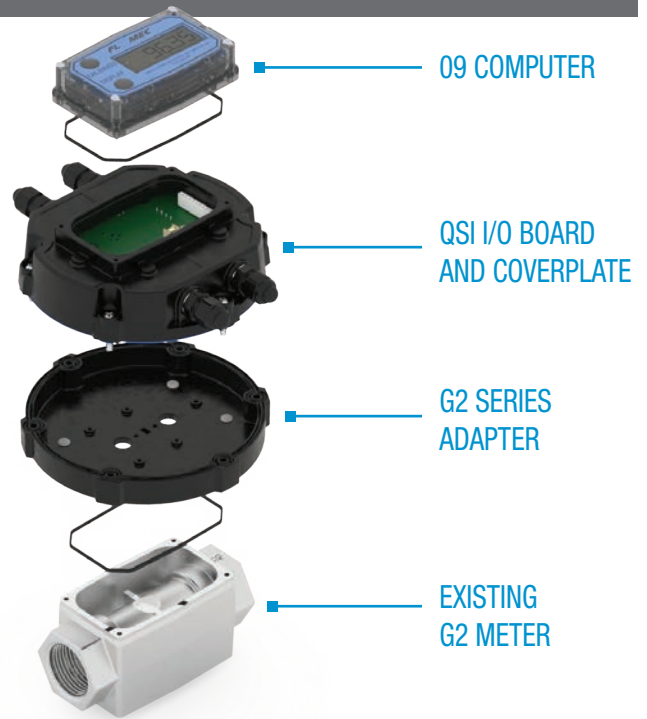

FEATURES / BENEFITS

- Communication options available: Modbus®, RTU and BACnet® MS/TP

- Built-in Bluetooth® Wireless Technology

- External Programming FLOMEC® App available for Mobile Devices

- Receive in-field firmware updates

- Standard process outputs: Pulse out and 4-20mA

PROCESS VARIABLES

- Calculates flow and totals from pick-up coil or digital input pulses

- Measures temperature from PT100 RTDs

- BTU (Heat) meter calculates energy from flow and temperature inputs

- Data logger - stores all measured and calculated variables on internal flash memory

- Access Data Logger information through FLOMEC app

QSI / 09 ON EXISTING METER

09 COMPUTER

QSI I/O BOARD AND COVERPLATE

G2 SERIES ADAPTER

EXISTING G2 METER

FLOMEC®

DISPLAYS & COMMUNICATION

The standard QSI configuration does not come with a display, however, an optional display choice is available.

09 DISPLAY	Field-Configurable - 3 Totals (2 Resettable, 1 Cumulative), Rate of Flow Indication, and 2 Calibrations (Factory and User). *Will not display Energy Consumption.

Energy Consumption can be displayed on the FLOMEC App, or transmitted out via RS485 or pulse out.

QSI with 09 DISPLAY

Three QSI versions are available - all three integrate with the 09 display.

Q1	Bluetooth®, Coil/Digital Pulse Input, Pulse Output (Scalable Flow or Energy), RS485 (MODbus®, RTU or BACnet® MS/TP), Temperature Inputs, BTU (Heat) Calculator Note: Temperature Inputs require Temp Sensor Probes - see below)
Q2	Bluetooth®, Coil/Digital Pulse Input, Pulse Output (Scalable Flow or Energy), Data Logger, Temperature Inputs, BTU (Heat) Calculator Note: Temperature Inputs require Temp Sensor Probes - see below)
Q3	Bluetooth®, Coil/Digital Pulse Input, Pulse Output (Scalable Flow), Data Logger, 4-20mA

Order (Two) 1" (25 mm) long Temperature sensor probes w/10' (3 m) cable for 1/2" thru 2" meters; (Two) 2" (50 mm) long Temperature sensor probes w/10' (3 m) cable for 3" & 4" meters.

For Android Operating Systems

The FLOMEC® APP with BLUETOOTH® WIRELESS TECHNOLOGY

NEWLY UPDATED FOR EASE OF USE

Completely control the meter configuration from your mobile device. A Special Programming Interface for the QSI is FLOMEC's new application for Android devices. It's free and available for download from the Google Play store, just search for "FLOMEC".

- Monitor all measured and calibrated data points

- Single page screens for easy set-up

- Allows GPI to develop new firmware and deploy to customers

- Makes in-field firmware updates a snap. Downloadable to the QSI using the built-in Bluetooth wireless connection

GET IT ON Google Play   *Just search for "FLOMEC"*

QSI ADAPTERS & WALL MOUNT OPTIONS

The QSI Board and Housing can be retrofitted in the field for use with most FLOMEC® meters. NEMA 4X adapters and a wall mount option are available, to provide a compatible connection with the QSE Mag Meter, FLOMEC Turbine Series Meters (G, G2, TM or A1 Series) and FLOMEC OM Series Positive Displacement Meters.

The QSI Board and Housing are also compatible with many non-FLOMEC products. Any flow meter that has a pick-up coil or a digital pulse operating from 0 to 1000 pulses per second can be connected.

QSE Mag Meter

Standard - Pulse Out (No Display)

Optional:

- With FLOMEC 09 Digital Display
- With any QSI
- With any QSI and 09 Digital Display

FLOMEC Turbine Meters

Any version of the QSI Board and 09 Electronics Display (optional) can be added to the following turbine meter products:

- G2 Series Industrial Grade meters
- TM Series Water meters
- G Series Precision meters

The G Series Adapter Kit comes with two adapter plates, o-ring and hardware; all other turbine meters come with one adapter plate, seal and hardware.

OM Positive Displacement Meters

Any version of the QSI Board and 09 Electronics Display (optional) can be added to OM Meters.

- Adapter Kit contains one adapter plate, o-ring and hardware
- Can use either the reed switch or hall effect sensor output from OM meter to QSI

Remote Wall Mount Panel Option

The QSI Board and Housing (and optional 09 Display) can be remotely mounted to a wall. It will accept the following input signals:

- Coil, Sine wave down to 5 mVpp
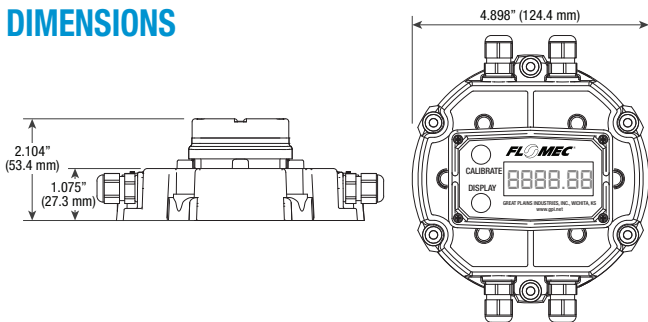- Open Collector Pulse up to 36 V (dc) max

SPECIFICATIONS

Material:	
Cover Plate	Polypropylene
Adapter	Polypropylene

Voltage:	
Min to Max	12 - 36V (dc)
Max Current	125mA (dc)

Temperature:	
Operating	32° to 180° F (0° to 82° C)

Output:	
Pulse Output	Current Sinking Open Collector Type rated to 30mA @ 36V (dc) max.
Pulse Output Units	Flow Totalization in any predefined or custom unit. BTU in one pulse per KBTU.
Pulse Scaling	Customized by user
Analog Output	4-20mA or 0-20mA

Communication:	
Bluetooth®	Programming interface; Supported on Android devices
RS485	Support for Modbus®, RTU and BACnet®/MS TP

Temperature Sensor Type:
Two 3 wire platinum 100ohm RTDs (PT100)

Data Logger Features:
10,000 data points; minimum time between data point 2 min; provides 1 week of data, or can be customized

Real Time Clock:
Used to provide date and time stamp to data points in data log

Coin Cell Battery:
Battery Backup for internal clock

FLOW SENSOR INPUT

Type	Min Input	Max Input	Frequncy
Pick-up Coil	5 mVpp	36V (dc)	0-1 kHz
Open Collector Pulse	2.0V (dc)	36V (dc)	0-3 kHhz

DIMENSIONS

4.898" (124.4 mm)

2.104" (53.4 mm)

1.075" (27.3 mm)

FLOMEC
CALIBRATE
DISPLAY
8888.88
GREAT PLAINS INDUSTRIES, INC., WICHITA, KS
www.gpi.net

APPROVALS

CE CSA
C   US

Service & Warranty: For technical assistance, warranty replacement or repair contact your **FLOMEC®** or **GPI®** distributor:

In North or South America: **888-996-3837 /** Outside North or South America: **+61 2 9540 4433 / FLOMEC.net**

available at

ProconIT
Procon Instrument Technology

Units:	
Temperature	degree Fahrenheit or degree Celsius
Totalization	Gallon, Litre, Imperial Gallon, Quart, Barrel, Cubic Centimetre, Cubic Metre, Ounces, Cubic Feet
Rate	units/second, units/minute, units/hour, units/day
Energy Units	Btu, kBtu, Mbtu, Wh, kWh, MWh, Joules, kJ, Ton
Energy Rate	All energy total units/day, units/hr, units/min or units/s

ACCESSORIES

Part No.	Description
145504-01	KIT, ADAPTER, OM-QSI1-Q09 DISPLAY
145504-02	KIT, ADAPTER, OM-QSI2-Q09 DISPLAY
145504-03	KIT, ADAPTER, OM-QSI3-Q09 DISPLAY
145504-04	KIT, ADAPTER, OM-QSI1-NO DISPLAY
145504-05	KIT, ADAPTER, OM-QSI2-NO DISPLAY
145504-06	KIT, ADAPTER, OM-QSI3-NO DISPLAY
145504-07	KIT, ADAPTER, OM-QSI1-DISPLAY READY
145504-08	KIT, ADAPTER, OM-QSI2-DISPLAY READY
145504-09	KIT, ADAPTER, OM-QSI3-DISPLAY READY
145505-01	KIT, ADAPTER, G2-QSI1-Q09 DISPLAY
145505-02	KIT, ADAPTER, G2-QSI2-Q09 DISPLAY
145505-03	KIT, ADAPTER, G2-QSI3-Q09 DISPLAY
145505-04	KIT, ADAPTER, G2-QSI1-NO DISPLAY
145505-05	KIT, ADAPTER, G2-QSI2-NO DISPLAY
145505-06	KIT, ADAPTER, G2-QSI3-NO DISPLAY
145505-07	KIT, ADAPTER, G2-QSI1-DISPLAY READY
145505-08	KIT, ADAPTER, G2-QSI2-DISPLAY READY
145505-09	KIT, ADAPTER, G2-QSI3-DISPLAY READY
145506-01	KIT, ADAPTER, G SERIES-QSI1-Q09 DISPLAY
145506-02	KIT, ADAPTER, G SERIES-QSI2-Q09 DISPLAY
145506-03	KIT, ADAPTER, G SERIES-QSI3-Q09 DISPLAY
145506-04	KIT, ADAPTER, G SERIES-QSI1-NO DISPLAY
145506-05	KIT, ADAPTER, G SERIES-QSI2-NO DISPLAY
145506-06	KIT, ADAPTER, G SERIES-QSI3-NO DISPLAY
145507-01	KIT, ADAPTER, TM-QSI1-Q09 DISPLAY
145507-02	KIT, ADAPTER, TM-QSI2-Q09 DISPLAY
145507-03	KIT, ADAPTER, TM-QSI3-Q09 DISPLAY
145507-04	KIT, ADAPTER, TM-QSI1-NO DISPLAY
145507-05	KIT, ADAPTER, TM-QSI2-NO DISPLAY
145507-06	KIT, ADAPTER, TM-QSI3-NO DISPLAY
145507-07	KIT, ADAPTER, TM-QSI1-DISPLAY READY
145507-08	KIT, ADAPTER, TM-QSI2-DISPLAY READY
145507-09	KIT, ADAPTER, TM-QSI3-DISPLAY READY
145508-01	KIT, ADAPTER, REMOTE-QSI1-Q09 DISPLAY
145508-02	KIT, ADAPTER, REMOTE-QSI2-Q09 DISPLAY
145508-03	KIT, ADAPTER, REMOTE-QSI3-Q09 DISPLAY
145508-04	KIT, ADAPTER, REMOTE-QSI1-NO DISPLAY
145508-05	KIT, ADAPTER, REMOTE-QSI2- NO DISPLAY
145508-06	KIT, ADAPTER, REMOTE-QSI3- NO DISPLAY
145508-07	KIT, ADAPTER, REMOTE-QSI1- DISPLAY READY
145508-08	KIT, ADAPTER, REMOTE-QSI2- DISPLAY READY
145508-09	KIT, ADAPTER, REMOTE-QSI3- DISPLAY READY

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