

IMSA TECHNICAL MEMO IWSC #22-02

To: All IMSA WeatherTech SportsCar Championship Series Competitors

From: IMSA Competition

Date: November 15, 2021

Re: 2022 Fuel Flow Sensors

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IMSA is implementing two updates to fuel measurement technologies used in the WeatherTech SportsCar Championship (IWSC) effective at the start of the 2022 season. The phased rollout of the updates is Class specific and is detailed as follows:

Onboard Fuel Flow Sensor (Applies to DPi, GTD-PRO, GTD):

Since 2018, IMSA has utilized Sentronics ET onboard fuel flow sensors as part of the scrutineering system. This is a fundamental sensor of the scrutineering system and has served the purpose well over the years.

The Sentronics ET-100 (DPi) and ET-200 (GTD-PRO, GTD) fuel flow meters will no longer be supported and will be superseded by the Sentronics GT-100 sensor, which is a drop-in replacement.

ET-100 (DPi) and ET-200 (GTD-PRO, GTD) sensors with valid time remaining on the 150-hour calibration runtime limit will be permitted in 2022 competition. The runtime channel is provided via CAN from the IMSA Scrutineering Logger.

Ordering information for the GT-100 sensor is on the following pages.



Autonomous Tank Fuel Sensor (Applies to all IWSC Classes):

Beginning in the 2017 season, IMSA introduced the Autonomous Tank Fuel Level Sensor as a tool to measure refueling flow rates. All Classes in IWSC have been required to use a Series mandated level sensor, which requires a volumetric calibration of the sensor to the autonomous tank on a periodic basis.

IMSA's philosophy of continuous improvement will see the introduction in 2022 of a new Sentronics Autonomous Tank Fuel Flow Sensor utilizing similar technology to the Onboard Fuel Flow Sensor.

The Sentronics RigFlow sensor is designed around new common autonomous tank hardware consisting of the following parts:

- New fuel elbow from RPXpress required for RigFlow integration to the Autonomous Tank
- Adapter loom from CMS required for RigFlow integration to the IMSA Pit Lane Fuel Network

Details on the elbow, loom, and installation will be available in the upcoming release of 2022 Technical Regulations.

Advantages of the new flow sensor include improved measurement performance and a sensor calibration that is independent of the autonomous tank. This sensor rollout is the initial implementation of a multiphase update to IMSA's fuel data network and data sharing.

For 2022, the RigFlow sensor is required for DPI and GTD-PRO only. The current (2021 specification) Tank Level sensors are no longer required for these Classes, but will remain a requirement for LMP2, LMP3, and GTD in 2022.

Ordering information for the RigFlow sensor is on the following pages.



IMSA IWSC CUSTOMER BULLETIN
INTRODUCTION OF GT-100-01 FUEL FLOW METER
4 November 2021

As previously communicated by the IMSA Technical Department, the current ET-100-01 and ET-200-01 Sentronics FlowSonic fuel flow meter (FFM) models required in the DPI, GTD Pro, and GTD classes of the IMSA WeatherTech SportsCar Championship will be replaced by the single GT-100-01 model for 2022. The notes below provide a comprehensive guide to the process of transitioning from the old to the new model.

Transitional Use of ET-100-01 and ET-200-01 FFMs

Effective 14 November 2021, the ET-100-01 and ET-200-01 models will no longer be supported for IWSC use by Sentronics. However, Sentronics and IMSA have agreed that IWSC teams will be permitted to use ET-100-01 or ET-200-01 units in competition during 2022 up to the runtime limit of 150 hours at their own risk and not covered by any Sentronics support, service, or warranty, after which these sensors will become ineligible for racing and customers will need to purchase GT-100-01 sensors.

Residual Use of ET-100-01 and ET-200-01 FFMs

Any continued use of ET-100-01 or ET-200-01 meters for non-competition purposes (such as bench testing) will be at the sole risk of the customer and not covered by any Sentronics support, service, or warranty. For calibration of unsupported ET-100-01 or ET-200-01 sensors, customers are advised to contact Calibra Technology.

WEC Use of GT-100-01 FFM

GT-100-01 FFM sensors purchased by IWSC entrants may be used in FIA World Endurance Championship events subject to separate calibration in WEC-issued fuel to WEC specification (available directly from Calibra Technology at orders@calibratechnology.com).

GT-100-01 FFM Pricing

The purchase price of the GT-100-01 FFM will be £4,200 ex-works and exclusive of all taxes. A standard service including recalibration at a cost of £895 ex-works and exclusive of all taxes will continue to be required at intervals of 150 hours runtime or at the end of each racing season (defined as 30 November), whichever comes first. This is to ensure timely access to all sensors for off-season servicing (including upgrades) and recalibration (including in any new IMSA-specified fuel).

Availability of GT-100-01 FFM

To facilitate off-season customer research, development, and testing, the GT-100-01 FFM will be available for purchase from 15 November 2021. Sensors will be calibrated in IMSA E10 or E20 standard-issue fuel, depending on each team's designated competition class.

Please contact Sentronics at sales@sentronics.com with any questions. We look forward to continuing to deliver the highest quality technology and support to our IWSC team and engine supplier customers in 2022 and beyond.

2022 IMSA IWSC ORDER FORM

IMPORTANT: Use of the FlowSonic GT-100-01 fuel flow sensor is mandatory in DPi, GTD Pro, and GTD. The RigFlow HI-250-01 pit refuelling tank flow sensor is required in DPi and GTD Pro only for 2022. To guarantee delivery in time for the 2022 Roar Before the 24, this form must be submitted no later than **30 November 2021**.

Customer Name			
Class		DPi	GTD Pro
Team Engineering Contact			
Name			
Email		Telephone	
Team Accounts Contact			
Name			
Email		Telephone	
Invoice Address			
Street Address			
Town/City		State/Province	
Zip code/Post code		Country	
Delivery Address			
Street address			
Town/City		State/Province	
Zip code/Post code		Country	
Order			
<i>Part number</i>	<i>Description</i>	<i>Quantity</i>	<i>Price</i>
GT-100-01	DPi/GTD Pro/GTD Fuel Flow Sensor		GBP 4200.00
HI-250-01	DPi/GTD Pro Pit Tank Flow Sensor		GBP 4200.00
HI-BD4179-00-00	DPi/GTD Pro Pit Tank Flow Sensor Flight Case		GBP 385.00

By signing below, I agree on behalf of the above named customer to pay for the items ordered at the listed price and accept in full the attached Sentronics Limited Terms of Supply (including the obligation to pay all shipping, import duty, customs handling, and insurance costs).

Signature	
Name	Date

Payment Instructions

Order confirmations and *pro forma* invoices will be issued upon receipt of the completed order form. Payment by wire transfer to the account below is due prior to delivery.

Account name: Sentronics Client Account	DUNS code: 21-975-3919
Account number: 25740334	BIC/Swift code: NWBKGB2L
Branch sort code: 52-21-34	IBAN code: GB25NWBK52213425740334
HI-BD4179-00-00	