

Logic Controller **CONTAMINATION CONTROL SYSTEM (CCS) gold**



DEVELOPED FOR AVIATION REFUELLING APPLICATIONS

Fully automatic touchscreen controller for use in combination with the AFGUARD® Electronic Water Sensor. The Contamination Control System (CCS) provides an easy to use interface that is constantly processing the actual water content in aviation fuels. The CCS is designed to process a warning/alarm signal if free water reaches a critical level. The logic controller is compliant to JIG Technical Bulletin No. 110 regarding alert, alarm and data storage requirements. There are two versions of the CCS available, entitled gold or silver version depending on the requirement. The CCS gold has a configurable colour touch screen that can display the actual water content. Connected to a flashing lamp it will provide an alert through sensor measurements. The CCS silver version is designed to be integrated into third party PLCs that are AFGUARD®-ready, and fully configurable to customer needs.



APPLICATION AREA

- To process the actual water content during into-plane fuelling

TECHNICAL DATA

- Power supply: 24 V DC $\pm 10\%$
- Degree of protection: IP65
- Signal transfer: Ethernet, LAN, WIFI
- Connections: 8 digital input: 24 V DC $\pm 10\%$, 4 digital output: 24 V DC, 4 analog input: 0...20 mA, 3 relay output
- Communication protocol: Modbus TCP
- Operating temperature range: -30°C (-22°F) to + 60 °C (140°F)

FEATURES

The CCS provides alarm indication when water content reaches a critical level. It offers close range connectivity via Ethernet and WiFi connection for longer range connectivity.

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CONNECTION

- Communication to smartphones and tablets with Android or iOS operating system
- Connection of up to two AFGUARD®
- dP-Transmitter with a signal output of 4...20 mA
- Connection of registers and other flow signals (pulsed on 4...30 mA)

DIAGNOSTICS

- Status: O.K.

19.02.19
15:38:47

Contamination Control System



O.K.

Refueling

Flow Rate	Total Fuel	Fueling Timer
0 l/min	0 l	waiting...

Pressure monitoring

SLUGGUARD

Measured DP	Status
0.00 bar	N/A

Free Water Detection

act. Inlet	avg. Inlet	act. Outlet	avg. Outlet
0.7 ppm	-- ppm	0.2 ppm	-- ppm

Info

History

Setup

- Status: Warning
Sensor indication between 15 ppm and 30 ppm of free water (Alert Level)

21.02.19
13:15:33

Contamination Control System



Water Warning Outlet

Refueling

Flow Rate

Total Fuel

Fueling Timer

0 l/min

0 l

00:02:38

Pressure monitoring

SLUGGUARD

Measured DP

Status

No Water

Free Water Detection

act. Inlet

avg. Inlet

act. Outlet

avg. Outlet

N/A

N/A

15.8 ppm

-- ppm

Info

Reset Alarm

History

Setup

- Status: Alarm
Sensor indication at or above 30 ppm of free water (Alarm Level), giving a different flashing lamp indication from Alert Level or An Alarm Level will be activated for sensor indications at or above 50 ppm of free water for >5 sec

20.02.19
12:24:51

Contamination Control System



Water Alarm Outlet

Refueling

Flow Rate	Total Fuel	Fueling Timer
88.8 l/min	16874 l	00:14:25
Pressure monitoring	SLUGGUARD	
Measured DP	Status	
0.01 bar	No Water	
Free Water Detection		
act. Inlet	avg. Inlet	act. Outlet
N/A	N/A	30.8 ppm
		2.6 ppm

Info

Reset Alarm

History

Setup