

Logic for Fuel Transfer from Main Storage Tank to Day Tank

Some gensets have fuel tanks located near the engines called day tanks. These tanks have a ready fuel supply for the genset. These tanks require frequent re-fueling from a much larger capacity fuel storage tank. The control of transfer pumps to keep the day tanks filled can be a difficult task. The DGC-2020 has programmable logic that allows the control of the fuel transfer to be simple and fast to develop.

The diagrams shown below are DGC-2020 programmable logic schemes that can be added to the DGC-2020 via its BESTCOMSP^{Plus} PC software to easily implement this functionality. The two schemes use two different methods for controlling the transfer pump.

The first method, shown in Figure 1, uses contacts mounted in the fuel tank to give an indication of the fuel level in the day tank. These contacts are closed when the fuel is above the contact level in the tank and are open with the fuel is below the contact's level in the tank.

The method shown in Figure 2 uses the fuel level sender provided to give a metering indication of the percentage of fuel in the tank. This scheme establishes thresholds from the sender input to start and stop the transfer pump. No additional contact inputs are needed for this method.

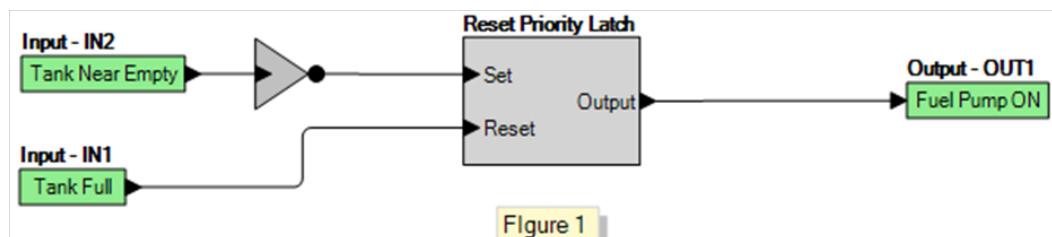


Figure 1: Contacts mounted in the fuel tank to give an indication of the fuel level in the day tank

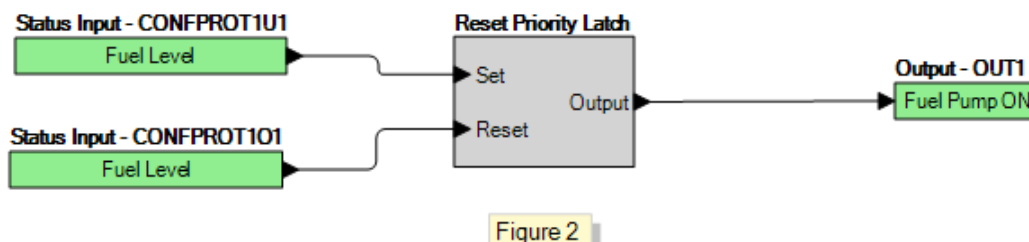


Figure 2: The fuel level sender is used for a metering indication of the percentage of fuel in the tank

These methods use a minimal amount of gates like the inverter (NOT gate) and the Reset Priority latch. Please refer to the DGC-2020 instruction manual for detailed descriptions of the functionality of these gates and feature elements.

For more information on the DGC-2020, consult the Basler factory at 618/654-2341 or visit www.basler.com.



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