 DSEGenset®

 DSE®

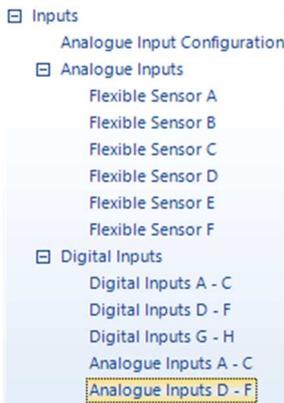# Remote Start Input Functions

1   OVERVIEW

This document describes the *Remote Start Input Functions* of DSE modules, and the priority each input takes. Configuration of inputs is also detailed, along with some practical examples of input priority.

2   CONFIGURING THE MODULE

> ⚠ **NOTE: For further information on module configuration refer to DSE Publication:** *057-151 DSE Configuration Suite PC Software Installation & Operation Manual,* **and the relevant module PC software manual.**

Remote Start Input Functions are configured using the *DSE Configuration Suite* PC software. To configure module inputs, navigate to: *Configuration>Inputs*. The *PLC Functions* may also be used as *Remote Start Input Functions* on supported modules. These are set in the *Configuration>Advanced>PLC>PLC Functions* section of *DSE Configuration Suite*.
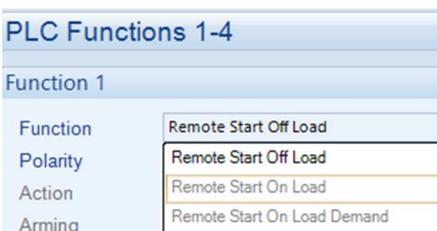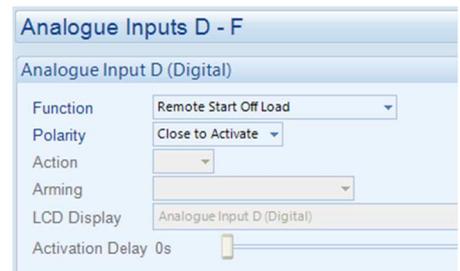
The below images further detail *Remote Start Input Function* configuration:

Flexible Analogue Inputs can be used for *Remote Start Input Functions*. To do so navigate to *Analogue Input Configuration* and change the chosen sensor to *Digital Input*.
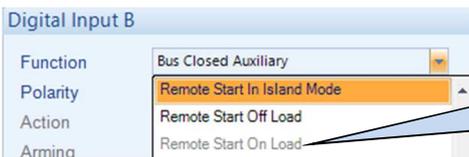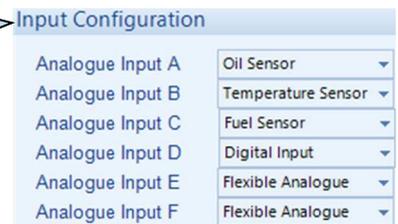
If a *Remote Start Function* is *greyed-out*, it is in use by another input.

This example shows the PLC function of a DSE module being used to activate *Remote Start Off Load* between 14:00 and 15:00 each day. *PLC Function 1* is set as *Remote Start Off Load*, as displayed in the image to the left.
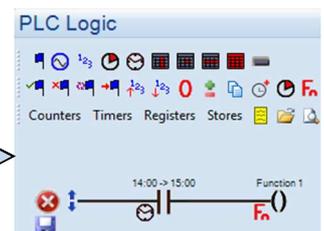
3 REMOTE START INPUT FUNCTIONS

> ⚠️**NOTE: If generator(s) are in manual mode and the engine is not running, *Remote Start Input Functions* will not produce engine start / stop requests. To allow *Remote Start Input Functions* to issue start / stop requests, DSE modules must be in *Auto* mode.**

> ⚠️**NOTE: If generator(s) are in manual mode and the engine is running, the *Remote Start On Load* and *Remote Start In Island Mode* inputs will transfer load to the generator(s). Once the input is removed the generators will remain loaded until instructed to change state by an alarm or manual command.**

The different *Remote Start Input Functions* are listed below in ascending order of priority. If a *Remote Start Input Function* is removed, the DSE module reverts back to the next highest priority *Remote Start Input Function* which is active at that time.

1. ***Remote Start Off Load:*** The module performs the start sequence once *Remote Start Off Load* is activated. The generator then proceeds to run, however the breaker remains open.

2. ***Remote Start On Load Demand (DSE8610 MKI and DSE8610 MKII Only):*** When *Remote Start On Load Demand* is operational the generator will start, stop, parallel with other generators and supply the load in accordance with commands made by the *Load Demand Scheme.* If *Remote Start Off Load* is operative when *Remote Start On Load Demand* becomes active, the generator will run on load when the *Calling For More Sets* command is issued by the *Load Demand Scheme*, thus overriding *Remote Start Off Load*. Once the load requirement drops below the user defined value the *Calling For Less Sets* command is issued. The breaker is then opened, however the set continues to run off load for as long as the *Remote Start Off Load* input remains active, or until a *Stop* command is issued.

3. ***Remote Start On Load:*** The module performs the start sequence once *Remote Start On Load* is activated. The generator proceeds to run on load. If *Remote Start Off Load* and / or *Remote Start On Load Demand* are operative, *Remote Start On Load* overrides them. The generator continues to run on load for the duration *Remote Start On Load* is active, or until a *Stop* command is issued.

4. ***Remote Start In Island Mode (DSE8620, DSE8660 MKI and DSE8660 MKII Only):*** The module performs the start sequence once *Remote Start In Island Mode* is activated. All generator(s) on the MSC link then proceed to run (DSE8660 MKI and DSE8660 MKII only). The generator(s) increase output to match the mains and all load is transferred from mains to generator(s). The Mains breaker is then opened and the generator(s) run in island mode. If any single, or combination of the other *Remote Start Input Functions* are active, *Remote Start In Island Mode* overrides them. The generator(s) will run in island mode for as long as the input is active, or until a *Stop* command is issued.

The above list details only the priority of the *Remote Start Input Functions*. Other *Remote Start Commands* may affect the operation of generator(s) controlled by DSE modules. For further information on *Remote Start* commands contact DSE Technical support:

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4 EXAMPLES

o ***Remote Start On Load* Overrides *Remote Start Off Load:*** *Remote Start Off Load* is active; *Remote Start On Load* is inactive. The engine is running off load. The *Remote Start On Load* input is then activated. The DSE module closes the breaker and puts the generator on load, overriding the *Remote Start Off Load* function.

o ***Remote Start In Island Mode* Overrides *Remote Start On Load* (DSE8620):*** The *Remote Start On Load* input is active and the generator is running in parallel with the mains. The *Remote Start In Island Mode* is then activated. Generator output is increased, until the entire mains load is transferred. The mains breaker is opened, and the generator proceeds to run in island mode.