Mobile Machine Management

The Generic Dual Path (GDP) subsystem application is for use with vehicles incorporating an independent left and right side pump/motor propel system. The application includes: An application block, supporting plug-in features, and a complete sample application.

Product Highlights

The subsystem application consists of: Application Block, input logic, output logic, fault handling, and calibration, with service pages. The Application Block is the foundation for the GDP application and is supported by the suite of plug-ins.

User-programmable

Subsystem applications allow machine specific tailoring, which is accomplished by using Danfoss PC based PLUS+1® GUIDE (Graphic User Integrated Development Environment) tool set. This environment allows the developer to configure Danfoss PLUS+1® application hardware, select application options, integrate the applications with other subsystem applications, and enhance the application with additional features.

Features

Application Block

- The software core functionality converts steering and propel speed input commands into left and right speed commands. Propel speed is variable from full forward to full reverse. Steering is variable from straight tracking and pivot steer to full counter-rotate.
- The Application Block accepts optional plug-in modules. Plug-ins augment functionality with additional features.

Plug-ins

- Tracker uses closed loop control to correct errors caused by uneven loading, hydraulic volumetric efficiencies, and calibration disparity.
- Antistall monitors engine rpm, and reduces the propel command for engine recovery.
- Trackstall is an option that works in conjunction with antistall and limits the propel output reduction to maintain motor torque.
- Temperature Derate reduces propel command relative to temperature extremes.

Additional Features

- Two-position and variable displacement motors are supported. In both cases, the left and right speed commands are converted into pump and motor output commands.
- Brake release coordinates propel command with the brake release output.

Comprehensive technical literature online at powersolutions.danfoss.com
PLUS+1® GUIDE programmable subsystem application

The PLUS+1® Service Tool pages provide the ability to monitor and tune the operation of devices on the PLUS+1® network. Standard features include: bar graph display, oscilloscope display for trending and tuning, data record, and export feature. All required user modifiable PLUS+1® Service Tool pages are provided with this product. There are additional PLUS+1® Service Tool pages.

Minimum requirements

- PC with PLUS+1® GUIDE, version 8.1 or later
- Gateway supported by the PLUS+1® Service Tool
- PLUS+1® application hardware microcontroller with 256K internal flash memory (Key #10106603)

Software Log Functions page

The Software Log Functions page shows a high-level signal flow from the inputs to the outputs as well as the signal status. Additional pages for configuring, tuning, calibration, and setting parameters are provided.

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<tr>
<th>Description</th>
<th>Danfoss part number</th>
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<tr>
<td>Application software*</td>
<td>11079203</td>
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*Software can be downloaded from: [www.danfoss.com](http://www.danfoss.com)