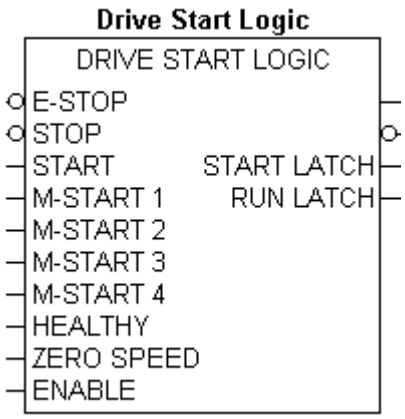
Logic Block/Drive Start Logic - RG354289



Description

This block implements a common set of drive start logic functions. It provides four outputs all of which are provided with senders.

The Start input is connected to the set input of the start latch, the inverted values of Stop, E-Stop, and Health inputs are ORed together and connected to the reset input of the start latch. The start latch is provided for use with pushbutton inputs; it is a level-sensitive, set-dominant type and its output is labled Start Latch.

The run latch has a level-sensitive reset input and a positive-edge sensitive set inpt (i.e. it is set only on a false-to-true transition); it is a set-dominant type.

The output latch is a level-senstive, set-dominant type. See Block Diagram.

Parameters

Enable	Line run input. Expects either true or false.
M-Start 1	Maintained Start input #1. Expects either true or false.
M-Start 2	Maintained Start input #2. Expects either true or false.
M-Start 3	Maintained Start input #3. Expects either true or false.
M-Start 4	Maintained Start input #4. Expects either true or false.
Start	Start input to the start latch. Expects either true or false.
Stop	Stop input (active low) to the start latch. Expects either true or false.
E-Stop	E-stop input (active low). Expects either true or false.
Health	Health input. Expects either true or false.
Zero Speed	Zero speed input. Expects either true or false.
Get Enable	Returns the current state of the Enable input. Either true or false.

Get M-Start 1	Returns the current state of the Maintained Start input #1. Either true or false.
Get M-Start 2	Returns the current state of the Maintained Start input #2. Either true or false.
Get M-Start 3	Returns the current state of the Maintained Start input #3. Either true or false.
Get M-Start 4	Returns the current state of the Maintained Start input #4. Either true or false.
Get Start	Returns the current state of the Start input. Either true or false.
Get Stop	Returns the current state of the Stop input. Either true or false.
Get E-Stop	Returns the current state of the E-Stop input. Either true or false.
Get Health	Returns the current state of the Health input. Either true or false.
Get Zero Speed	Returns the current state of the Zero Speed input. Either true or false.
Get Run Latch	Returns the current state of the run latch. Either true or false.
Get Start Latch	Returns the current state of the start latch. Either true or false.
Get Output	Returns the current state of the output latch. Either true or false.

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M-Start 3	Maintained Start input #3. Expects either true or false.
M-Start 4	Maintained Start input #4. Expects either true or false.

Start	Start input to the start latch. Expects either true or false.
Stop	Stop input to the start latch. Expects either true or false.
E-Stop	E-stop input. Expects either true or false.
Health	Health input. Expects either true or false.
Zero Speed	Zero speed input. Expects either true or false.
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Get Start	Returns the current state of the Start input. Either true or false.
Get Stop	Returns the current state of the Stop input. Either true or false.
Get E-Stop	Returns the current state of the E-Stop input. Either true or false.
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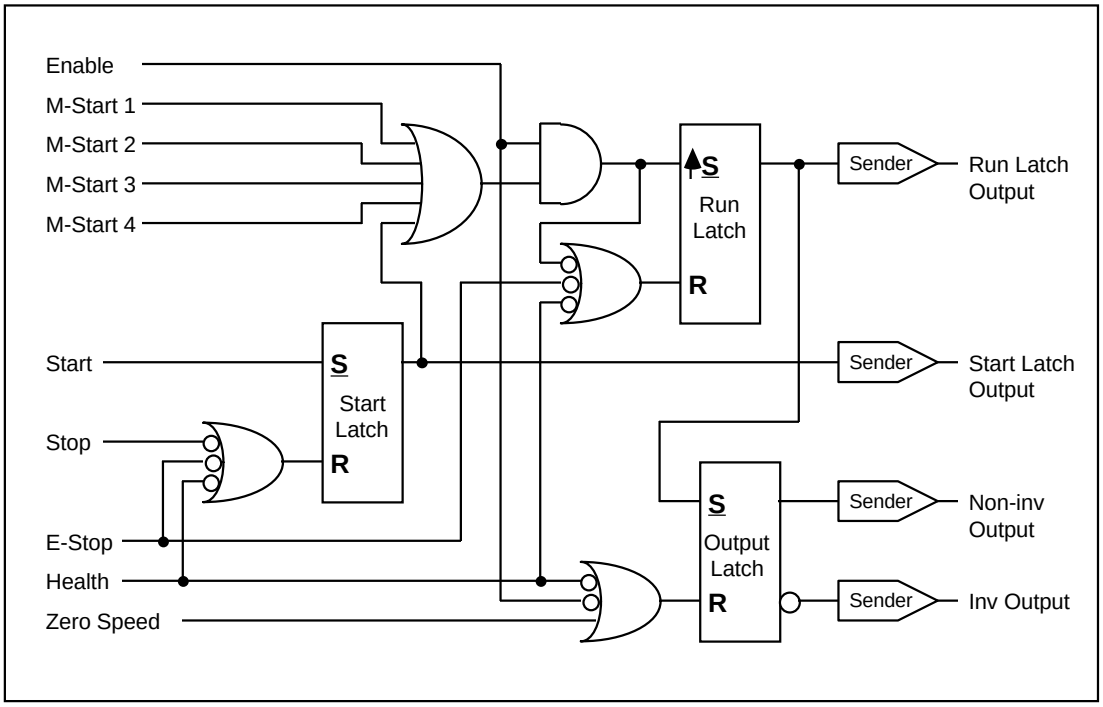
Block Diagram


Enable
M-Start 1
M-Start 2
M-Start 3
M-Start 4
Start
Stop
E-Stop
Health
Zero Speed
S
Start
Latch
R
S
Run
Latch
R
S
Output
Latch
R
Sender
Run Latch
Output
Sender
Start Latch
Output
Sender
Non-inv
Output
Sender
Inv Output