Safe PLC Interface Option, OPCSAFE

The OPCSAFE option is galvanically isolated via an internal DC/DC converter

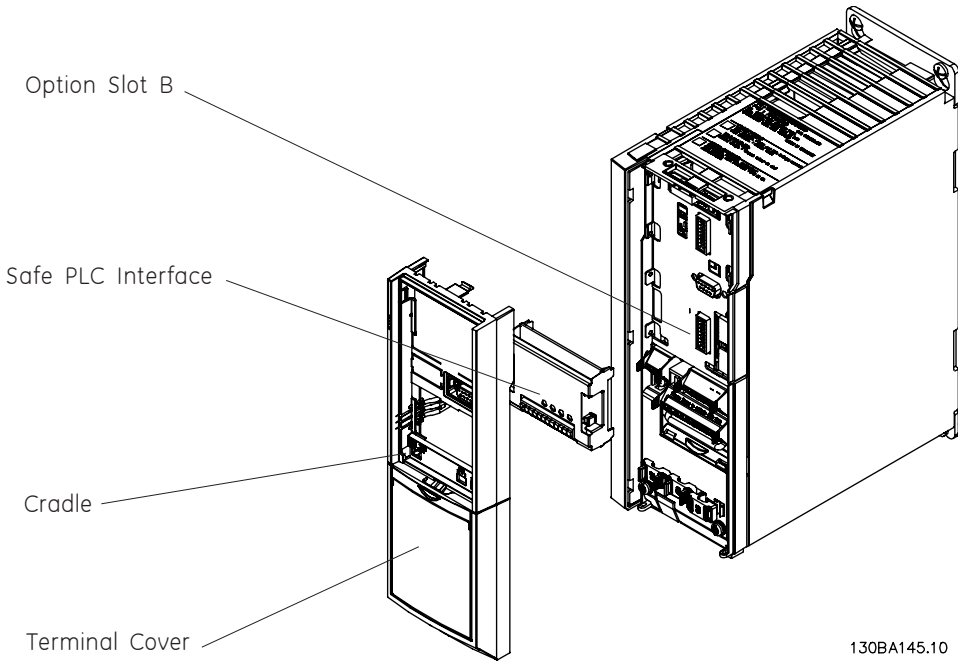
What is the OPCSAFE option:
It is designed to be built in between the Safe dual pole (plus/minus) on the Safe PLC and the Safe Stop input on AF-650 GP. The Safe PLC interface allows the safe output on the Safe PLC, to maintain the test pulses on the plus and minus output without impacting the sensor signal to safe stop T37.

Can be used in combination with safety devices to satisfy the requirement of IEC61800-5-2 SIL 2, ISO13849-1 PL d, and Category 3 (EN954-1) for Safe Torque Off (STO)

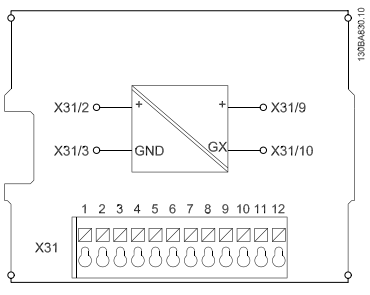
Electrical Data:

Input voltage (DC)	18 to 28 V DC
Typical current input (DC)	60 mAmp
Max. current input (DC)	110 mAmp DC
Max. current inrush (DC)	500 mAmp DC
Output voltage (DC)	20 V DC@Vin = 24 V
Turn on delay	1 mSec
Turn off delay	3 mSec

How to mount the OPCSAFE option:



- Fit the OPCSAFE option in slot B.
- Connect the control cables and relief the cables by the enclosed cable strips.
- Various systems must not be mixed.
- Fit the extended cradle and terminal cover.
- Replace the keypad.
- Connect the input to the Safety PLC's Output.
- Remove the connection betweeen terminal 13 and 37 of the AF-650 GP.

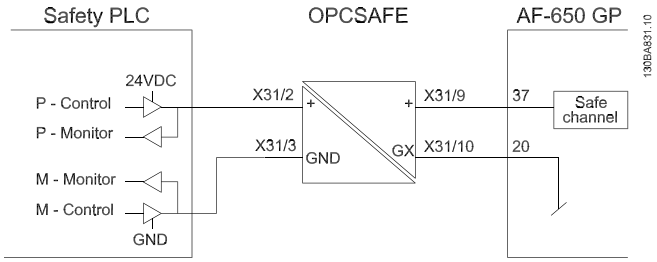


Commissioning Test

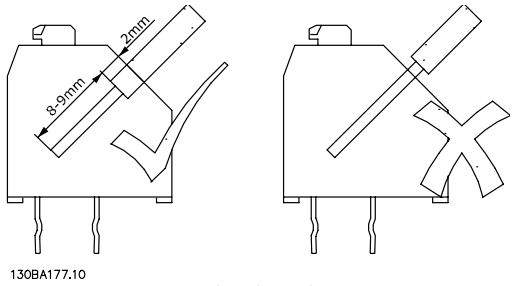
After installation and before first operation, perform a commissioning test of an installation or application making use of AF-650 GP Safe Stop with OPCSAFE.
Moreover, perform the test after each modification of the installation or application, which the AF-650 GP Safe Stop is part of.
A passed commissioning test is a necessary condition for fulfillment of EN 954-1 Cat. 3 of an application with AF-650 GP Safe Stop and OPCSAFE.

The commissioning test:
1. Remove the dual pole voltage supply to OPCSAFE inputs by the safety device while the motor is driven by the AF-650 GP (i.e. mains supply is not interrupted). The test step is passed if the motor reacts with a coast and the mechanical brake (if connected) is activated.
2. Send Reset signal (via Bus, Digital I/O or [Reset] key). The test step is passed if the motor remains in the Safe Stop state and the mechanical brake (if connected) remains activated.
3. Reapply dual pole voltage supply to OPCSAFE inputs. The test step is passed if the motor remains in the coasted state and the mechanical brake (if connected) remains activated.
4. Send Reset signal (via Bus, Digital I/O or [Reset] key). The test step is passed if the motor gets operational again.
5. The commissioning test is passed if all four test steps are passed.

Safety PLC Connection



Wire inserting in OPCSAFE



Correct wire inserting

Do not combine liveparts and PELV systems.

NOTE!
Wires between X31/9 and Terminal 37 have to be short-circuit protected if not inside the cabinet.

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