



JetSafe Controller

Safely Controlling Machines and Plants

We automate your success.

Control your machinery - easily and safely



Controllers of the JetSafeControl series combine all requirements of your machinery as to productivity and cost effectiveness with an integrated safety concept.

Typical safety functions can very easily be implemented by using existing features. In doing so, you have a comprehensive function library at your disposal, especially for safe drive monitoring. The modular combination of functions via logic blocks lets you set up safety functionalities tailored to your needs.



Industry-specific safety functions

The scalable and modular design of JetSafeControl safety controllers makes them suitable for a multitude of applications in numerous industries. This is supported by predefined function modules which can be integrated into any application program if required.

These features let you implement specific demands posed on the safety concept for your plants and machinery in no time or adapt them just as quickly.



Safety benefits

- Up to PLe / EN 13849 | SIL3 / EN 61508
- Programming / parameterization via serial interface
- Technological functions for monitoring of up to 2 drives
- Expandability:
 - Up to 58 safe digital inputs
 - Up to 22 safe digital outputs
 - 1 safe relay output
 - Up to 6 signaling outputs



Safety functions for drive monitoring

SS1 / SS2 Safe Stop 1 or 2

Monitors the deceleration ramp

SOS Safe Operating Stop

Drive control monitors the position of the stopped motor

SLA Safely Limited Acceleration

Ensures that the axis does not exceed the acceleration limit

SLS Safely Limited Speed

Ensures that the axis does not exceed the speed limit

SLP Safely Limited Position

Ensures that the axis remains within the permissible traversing range

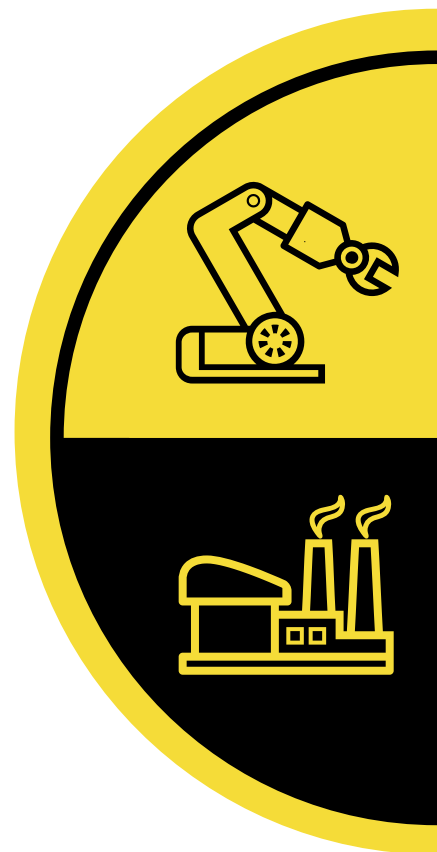
SDI Safe Direction

Monitors the selected direction of motion and detects any deviations

SSM Safe Speed Monitor

Warns when the speed is below a specified limit. As long as it remains below the threshold, the function issues a safety signal

Safety functions to IEC EN 61800-5-2 for drive monitoring require a drive control system featuring STO (Safe Torque Off)





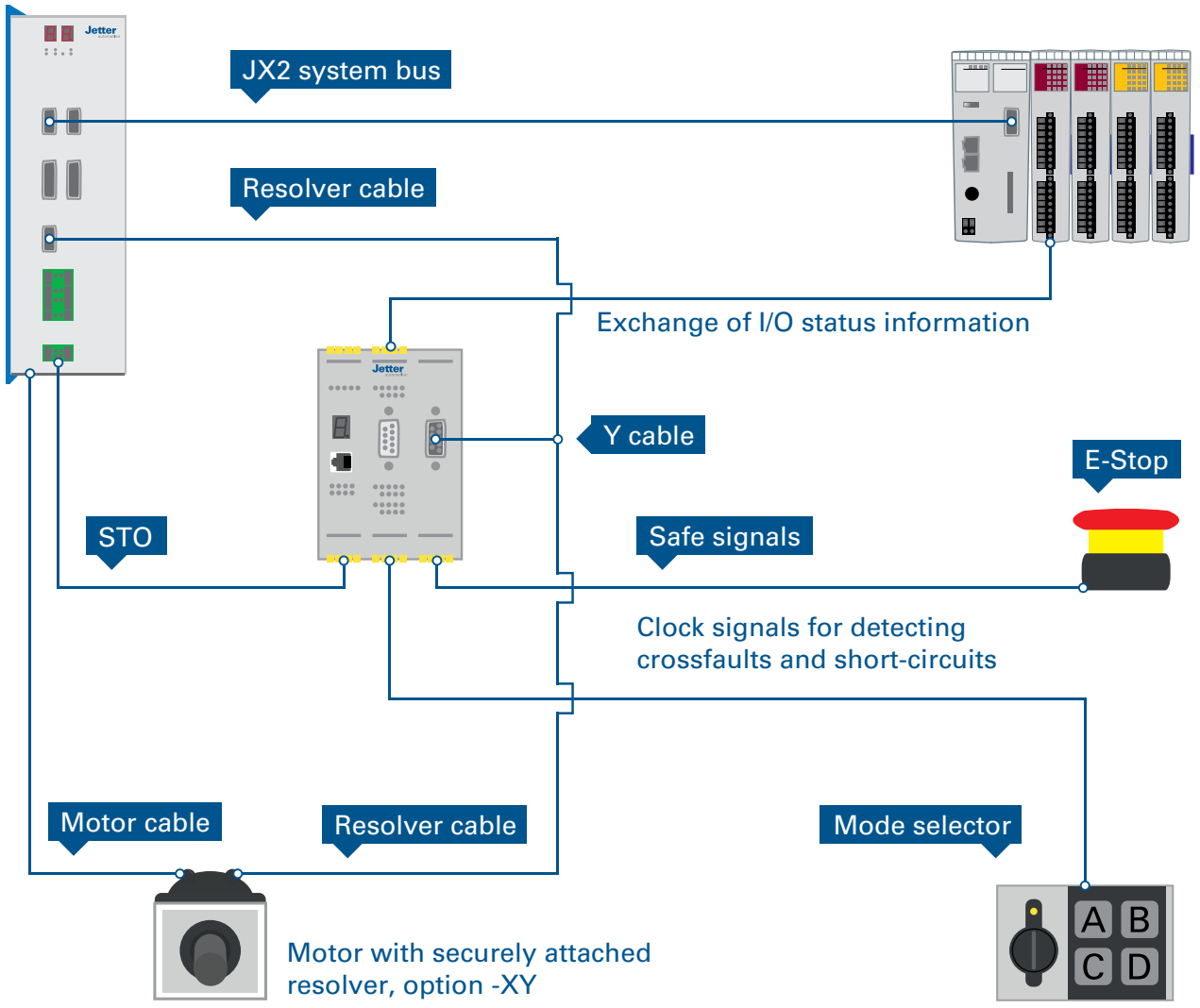
Safety functions for drive monitoring

Pre-configured functions for input devices and sensors

- Enabling key
- Emergency stop
- Door interlock switch
- Two-hand pushbutton
- Light curtain
- etc.

Numerous built-in technological functions allow for quick and cost-effective implementation of safety-related requirements.

Controllers of the JetSafeControl series come with safety functions already integrated into the firmware. Thus, they enable an efficient implementation of application-oriented enhancements. All drive monitoring functions to EN 61800-5-2 are supported.



JetSafe - Programming safely

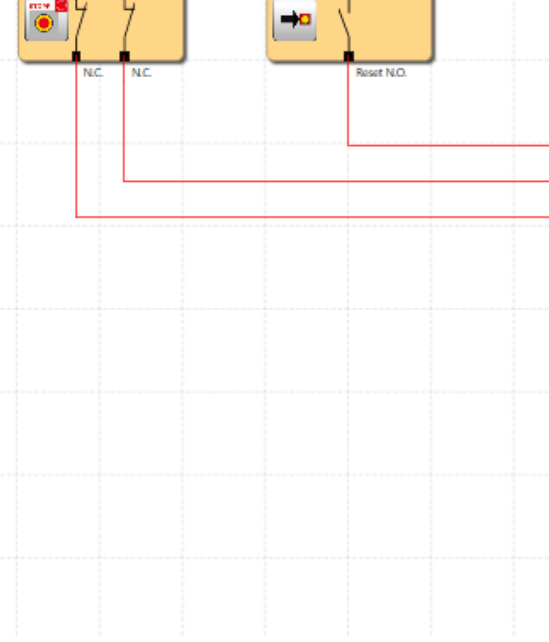
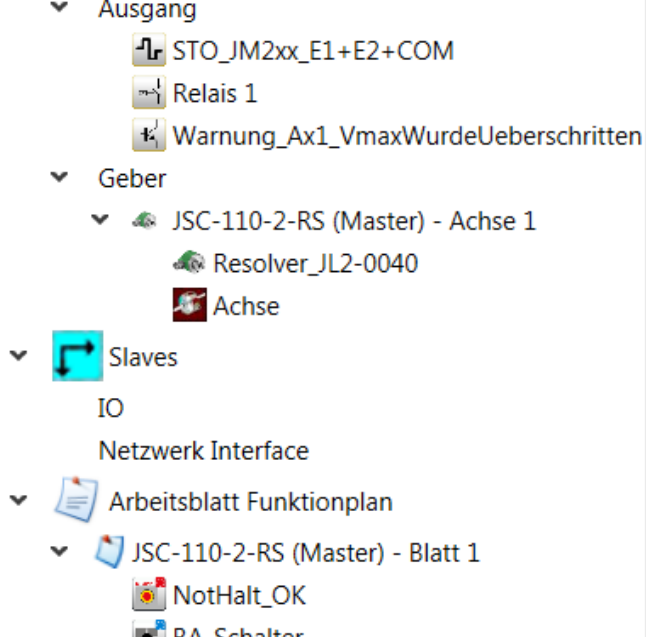


JetSafe is the software tool that lets you program all parameters required for setting up a safety control system. The programming interface can be customized to the needs of the user. Extensive libraries and wizards support you in making all required settings.



Safety features

- Module management | Device assignment
- Control architecture | Control devices | Sensors
- Encoder configuration
- Wiring diagram
- Control system function chart
- Block function
- Monitoring function



Module management | Device assignment

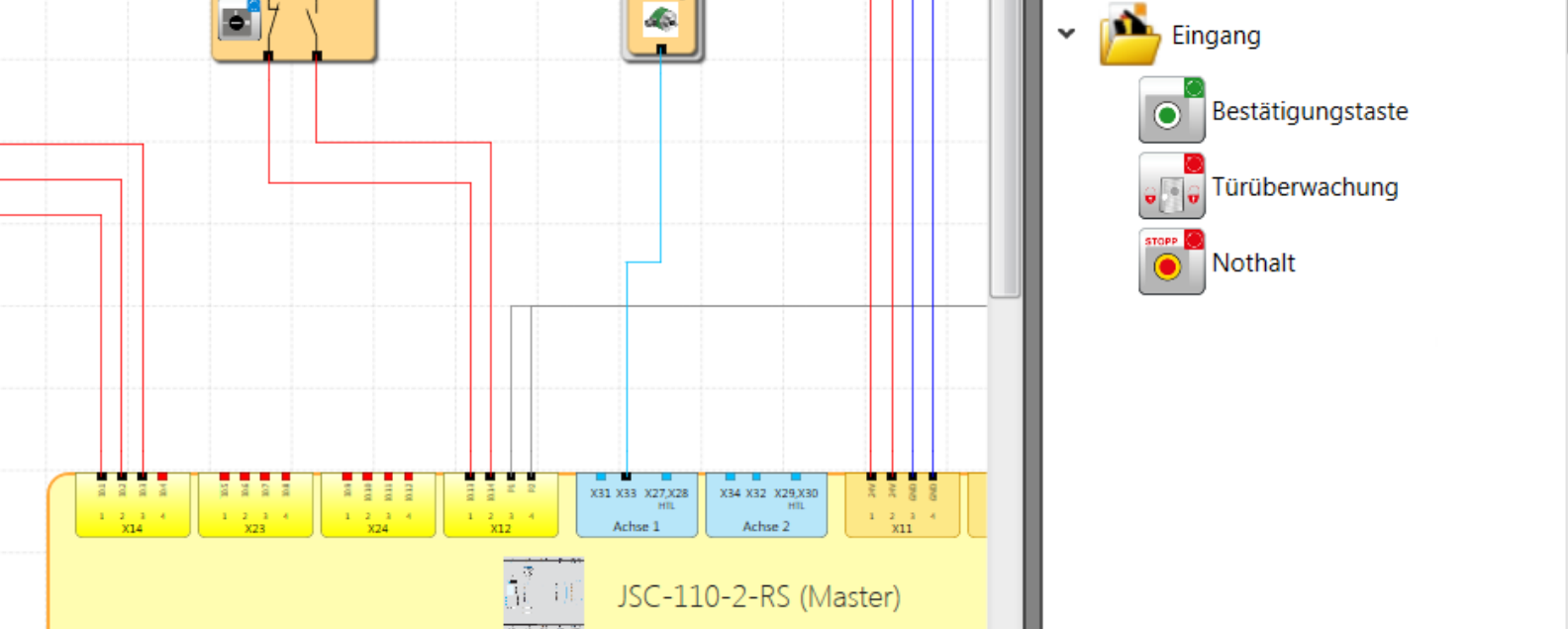
All modules (inputs and outputs | axis monitoring) are assigned to sensors and functions in the plant or machine according to the respective performance requirements.

Control architecture | Control devices | Sensors

All major control devices and sensors used in safety technology, such as light curtains, door contacts, or emergency stop devices are already preconfigured and can be selected by clicking the corresponding icon. In the terminal diagram, these elements are automatically linked with the module to which they are connected physically.

Encoder configuration

To be able to reliably capture speed or position information of axes combined to a group, one or several sensors are required. For this purpose, a separate menu exists where you can configure the sensors and enter their technical parameters. This lets you easily verify whether input data are correct without any previous knowledge of the sensors.



Wiring diagram

Once the safety controller, as well as the sensors and actuators have been configured, the wiring diagram is automatically created.

Control system function chart

Monitoring functions can be linked using logic operations. Speed, acceleration and position of several axes are monitored as regards their relation to each other. The documentation on all monitoring tasks can be set up individually.

Block function

A library holds already tested function modules to choose from. It lets you, of course, define modules of your own, protect them or save them to the library for future reuse.

Monitoring function

A comprehensive range of motion monitoring functions is available, such as monitoring of speed, standstill, range, and direction. These functions can directly be parameterized in a context-oriented way.

JetSafeControl series – Compact and modular

	JSC-110	JSC-110-1-RS	JSC-110-2-RS
Maximum number of add-on modules	2	2	2
Safe digital inputs	14	14	14
Safe digital IOs	-	-	-
Safe digital outputs, p-p/p-n switching	2	2	2
Safe relay outputs	1	1	1
Signaling outputs	2	2	2
Clock outputs	2	2	2
Safe axis monitoring	-	Yes	Yes
Maximum number of axes	-	1*	2*
Encoder interfaces	-	Incl. TTL, SinCos, SSI, proximity switch, incr. HTL, resolver	Incl. TTL, SinCos, SSI, proximity switch, incr. HTL, resolver
Physical dimensions (HxDxW)	100x115x45 mm	100x115x67.5 mm	100x115x112.5 mm

* Up to 2 encoders per axis

	JSX1-DIO22
Safe digital inputs	12
Safe digital IOs	10
Safe digital outputs, p-p/p-n switching	-
Safe relay outputs	-
Signaling outputs	2
Clock outputs	2
Physical dimensions (HxDxW)	100x115x45 mm

Further details and order information are available on request.



Jetter AG at a glance

For decades, the name Jetter AG has stood for highest demands on automation solutions that are used in a wide range of industrial and mobile automation sectors. Products and components by Jetter AG stand out thanks to their high degree of system integrity and diversity. Our in-house R&D departments (hardware and software), as well as our production plants in Germany allow us to always act in a quick and flexible manner. This, combined with a comprehensive range of Professional Services, enables us to put almost any customer request into practice.

Jetter AG
Graeterstrasse 2
71642 Ludwigsburg | Germany

Phone +49 7141 2550-0
Fax +49 7141 2550-425
info@jetter.de
www.jetter.de