

Another new regulation?

- Cyber Resilience Act (CRA), Regulation (EU) 2024/2847 of October 2024.
- EU regulations have direct legal effect.
- The CE marking framework has been expanded to include the CRA. Compliance with the CRA therefore complements requirements such as the EMC Directive, the Low Voltage Directive and the Machinery Directive as evidence of compliance with EU digital security requirements.

What is new about this regulation?

- The CRA is the first regulation to address the cybersecurity of products with digital elements that include interfaces enabling direct or indirect connectivity with other devices. It applies to both hardware and software.

What are the objectives of the regulation?

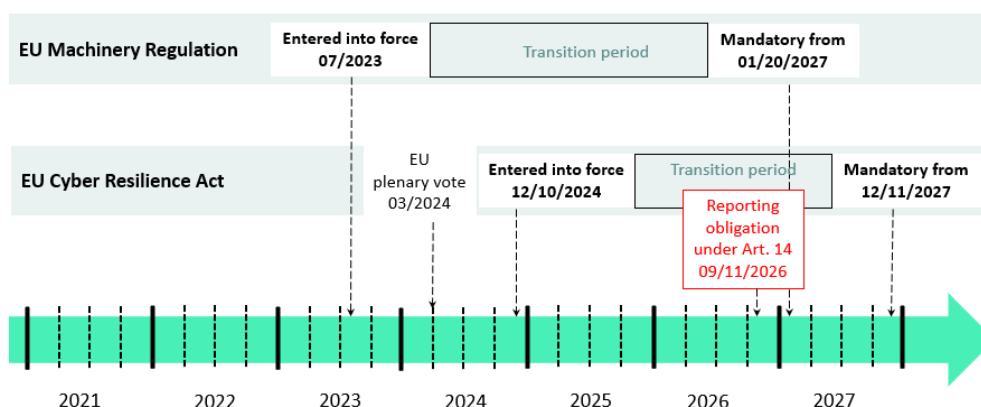
- Increase cybersecurity across the board.
- Establish minimum cybersecurity requirements for products placed on the EU market.
- Require manufacturers to adopt a security-by-design approach.
- Ensure product security throughout the entire lifecycle:
 - Product monitoring obligations for manufacturers and incident reporting mechanisms.
 - Vulnerability management by manufacturers for the product lifetime, and for at least five years.

Why is this necessary?

- Cyberattacks are placing an increasing burden on industry and the economy.
- The high degree of connectivity creates significant risks and potential attack vectors.

Who and what is affected in industry?

- Manufacturers and distributors of components with digital elements
- Machine manufacturers:
 - The new Machinery Regulation (2023/1230) also requires protection against threats posed by malicious third parties and emphasizes compliance with additional cybersecurity requirements.
- IT and IoT devices and systems, control technology.
- Networks and communication interfaces (physical, logical and wireless)
- Software and hardware interfaces



What CRA deadlines must be observed?

- The reporting obligation applies from September 11, 2026, and this includes products that are already on the market!
Manufacturers are subject to mandatory reporting and notification requirements for actively exploited vulnerabilities and security incidents in accordance with Article 14 of the CRA.

The diagram illustrates a distributed drive system architecture. On the left, a large blue cabinet represents the main power supply, marked with a red warning triangle (1) and a green padlock (1). In the center, a 'Kompaktsteuerung' (compact controller) is connected to a 'Servoantriebe' (servo drives) unit via 'Real-Time Ethernet z.B. EtherCAT'. The servo drive unit is connected to 'Servomotoren' (servo motors). A 'USB' port is shown on the servo drive unit, marked with a green padlock (6). To the right, 'E/A's' (input/output modules) are connected to the system. A 'Fernwartung' (remote maintenance) laptop is connected to the system via 'Ethernet TCP/IP', marked with a green padlock (3) and a red warning triangle (3). The laptop is also connected to 'SPS-Programmierung, Visualisierung' (PLC programming, visualization), marked with a green padlock (4) and a red warning triangle (4). A dashed box labeled 'Dezentrale Antrieb Lösungen' (decentralized drive solutions) contains 'Umrückerintegrierte Servomotoren' (converter-integrated servo motors), marked with a green padlock (6) and a red warning triangle (5). A green padlock (5) is also shown on the bottom right of the diagram.

Legend:

- Red warning triangle: Potential areas of exposure
- Green padlock: Protective devices

Examples of potential areas of exposure and protective measures:

- 1 Restrict access to production facilities, equipment and switch cabinets to authorized personnel only.
- 2 Protect control systems against malware and secure fieldbus networks.
- 3 Implement IT security measures to protect both corporate and plant networks.
- 4 Protect PCs against malware and avoid the use of inadequately secured hotspots for wireless connections.
- 5 Protect systems against unauthorized access by means of distributed devices.
- 6 AMKmotion secures areas of exposure at the drive component level:
 - a. Service interfaces on decentralized drives are protected with screw-on covers.
 - b. Central devices are protected against unauthorized access within the switch cabinet.
 - c. EtherCAT is an open, high-performance interface secured through the
 - single-master architecture.
 - Only the EtherCAT master can secure the EtherCAT interface and controls all data exchanged with the drives.
 - No IP traffic.
 - d. Firmware packages are verified for authenticity within the drive. This prevents malware from being hidden within the drives.
 - e. Drives accept only data packets based on the AMKmotion communication protocol, and AIPEX 5 communicates with the drives exclusively through this protocol.
 - f. All AIPEX 5 communication is encrypted and ultimately depends on the protection level of the PC and the underlying IT infrastructure.

- Do not create global administrator accounts for your systems.
- Prevent the use of inadequately secured remote access connections.
- As part of your risk assessment, analyze foreseeable misuse scenarios and implement measures to prevent them wherever possible.