

- ↘ Metal cutting machine tools
- ↘ Assembly and handling equipment
- ↘ Mechanical engineering

## ECONOMICAL INSTALLATION CONCEPTS

Murrelektronik is your partner



# EVERYTHING FROM A SINGLE SOURCE



## MURRELEKTRONIK IS A SPECIALIST

For market segments, including:

- Machine tool manufacturing
- Machine and plant engineering
- Assembly and handling equipment
- Food processing machines
- Automotive industry
- Storage and logistics

## MURRELEKTRONIK SEES THE BIG PICTURE

- As a solution provider for decentralized installation technology
- In simple commissioning with “plug & play”
- Full diagnostics
- In the available space in the control cabinet



## CONFIDENCE IN THE RIGHT INSTALLATION CONCEPTS

Machine tool manufacturing is a wide-ranging industry. The needs and wishes of customers for decentralized installations are as diverse as the machines and plants themselves. Of course, there is also a common theme: Cost-effectiveness, low overall costs, and increased competitiveness are always required.

Top installation concepts should link all I/O points to the controller in an economical way. Murrelektronik offers the necessary experience to take on this challenge. Customers can select from a variety of passive and active installation concepts and different structures (ring structures, linear structures, star topologies) – many different combinations are possible.

## COMPETENT CONSULTATION SERVICE

Our consultants will be glad to visit you and take a look at your machine. They will identify challenges and, together with you, develop ideas and concepts for your machine and system installation.

## FACTS ABOUT MURRELEKTRONIK

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- Worldwide presence with 26 branches and many partners
- 2 million items in stock ensure fast delivery
- 65,000 different products in use worldwide with specific national approvals such as UL and CSA

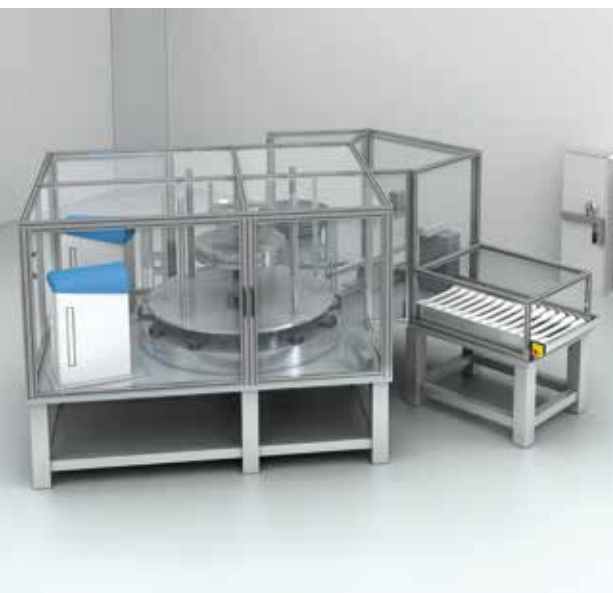
# APPLICATIONS



## METAL CUTTING MACHINE TOOLS

In metal cutting machine tools, workpieces are machined under the intensive influence of coolants and lubricants. The material feed, the direct processing area, and the removal of chips form a closed system. Recommended Murrelektronik products for machine tools are, e.g., MVK Metal, MVK Metal Safety, Impact67, Cube67, and passive distribution boxes – which are used by many leading machine tool manufacturers.

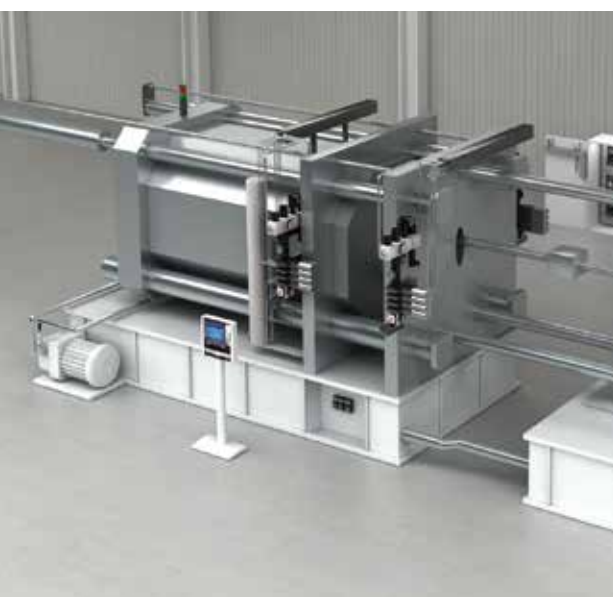
Murrelektronik modules for use in metal cutting machine tools are fully encapsulated and sealed. They are resistant to coolants and lubricants and are robust against vibration and shock. The modules make it possible to “change the controller not the system” – a definite unique selling point of the Cube67 system.



## ASSEMBLY AND HANDLING EQUIPMENT

In machines and plants for assembling and handling fully processed individual components, Murrelektronik recommends installation concepts with products such as Cube67, AS-Interface modules, Impact67, or passive distribution boxes.

These concepts enable decentralized solutions and create space in the control cabinet. They are dust-proof in compliance with the IP6X protection rating. They allow cost-effective installation concepts even in systems that are distributed over a large area.

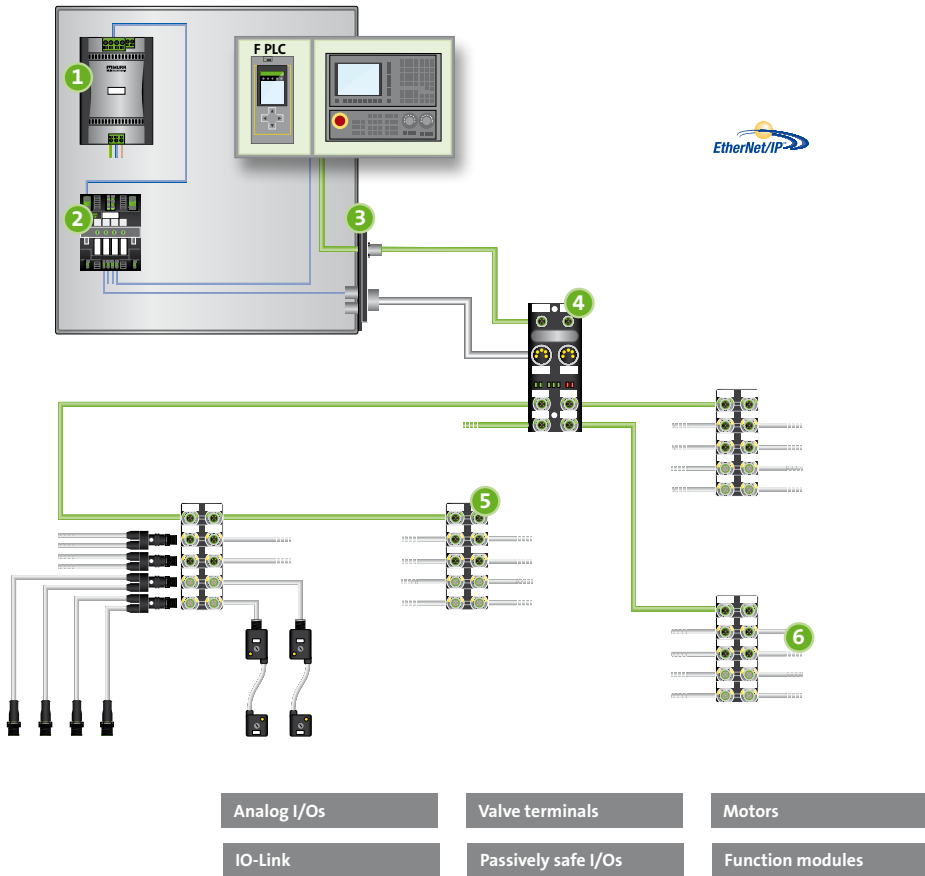


## INJECTION MOLDING MACHINES

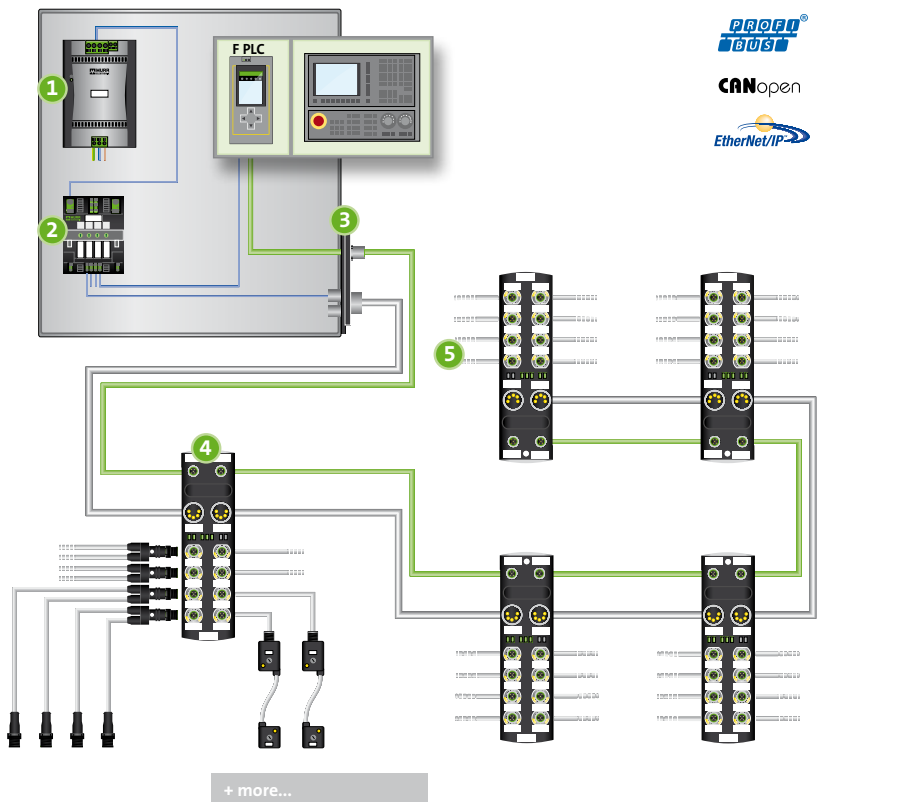
If parts have to be produced with liquid metal or plastic, automation components with a metal housing are essential. For this reason, the MVK Metal field bus module is recommended for installations in the injection molding sector. Solutions with Cube67 or passive distribution boxes are very attractive for handling or feeding applications.

The advantages of this solution are that all functions are located in the metal housing and the housing is robust against all forms of external influences. All field bus solutions have optimum diagnostic options and provide a high degree of flexibility.

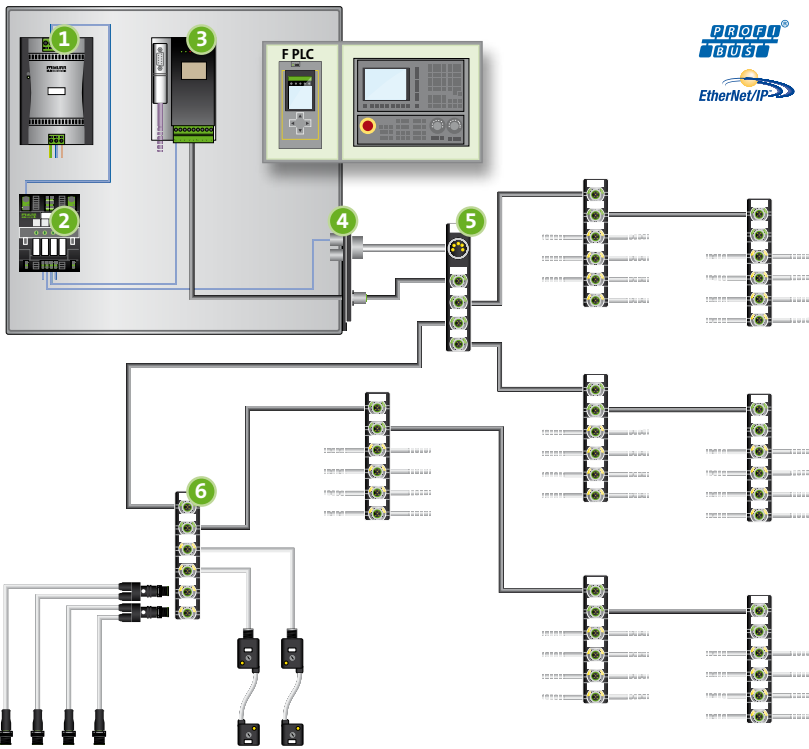
# SOLUTION CONCEPTS



- 1 EMPARRO**
  - Single phase switch mode power supply unit
  - Efficiency up to 95%
  - Slim design
- 2 MICO**
  - Electronic current monitoring
  - Indicates when approaching the maximum load
  - Adjustable current ranges
- 3 MPV CONTROL CABINET COUPLINGS**
  - Durable connections
  - Modular system
  - High degree of protection
- 4 CUBE67 BUS NODE**
  - Change the bus instead of the system
  - Fully potted IP67 modules
  - System cable • System line
- 5 CUBE67 I/O MODULES**
  - Many different models
  - Digital/analog/serial/safe
  - M12/M8/valve cluster/cablecable
- 6 PUR PRE-WIRED**
  - 100% quality tested
  - Wide variety
  - Very resistant cable jacket



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- 3 MPV CONTROL CABINET COUPLINGS**
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- 4 IMPACT67**
  - Predefined I/Os
  - IP67 – rugged and fully potted
  - Single channel diagnostics
- 5 PUR PRE-WIRED**
  - 100% quality tested
  - Wide variety
  - Very resistant cable jacket



  
 + more...

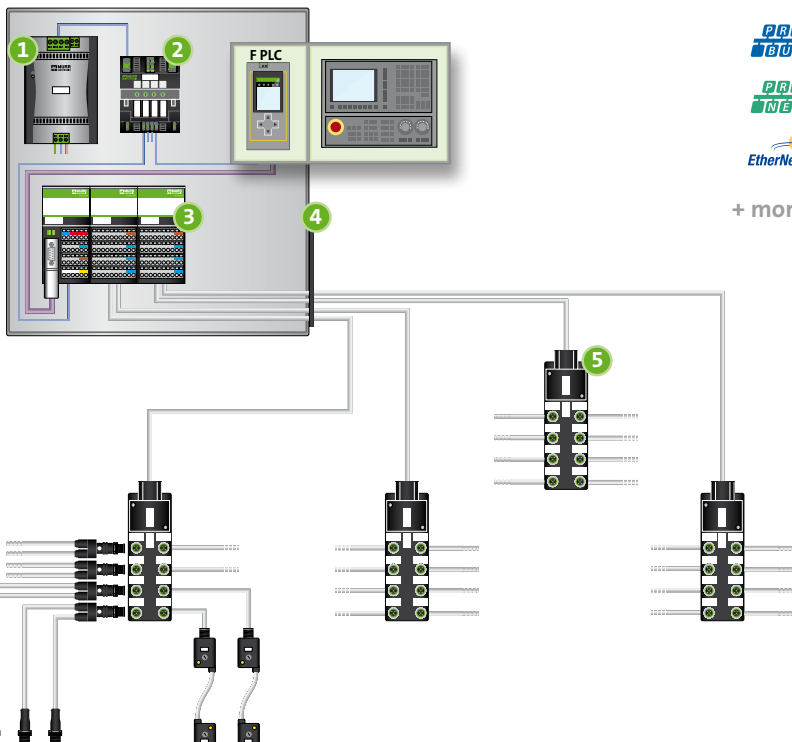
Digital I/Os

Analog I/Os

Passively safe I/Os

+ more...

- 1 EMPARRO**
  - Single phase switch mode power supply unit
  - Efficiency up to 95%
  - Slim design
- 2 MICO**
  - Electronic current monitoring
  - Indicates when approaching the maximum load
  - Adjustable current ranges
- 3 ASI GATEWAY**
  - Easy and fast set-up
  - Integrated diagnostics
  - Rugged metal housing
- 4 MPV CONTROL CABINET COUPLINGS**
  - Durable connections
  - Modular system
  - High degree of protection
- 5 ASI DISTRIBUTION BOXES**
  - ASI round cabling
  - Star topology system cable
  - 7/8" supply
- 6 MASI68**
  - ASI station
  - System connection with M12 round cable
  - Very rugged because module is fully potted




  
  
 + more...

Digital I/Os

Analog I/Os

+ more...

- 1 EMPARRO**
  - Single phase switch mode power supply unit
  - Efficiency up to 95%
  - Slim design
- 2 MICO**
  - Electronic current monitoring
  - Indicates when approaching the maximum load
  - Adjustable current ranges
- 3 CUBE20**
  - IP20 I/O system
  - Flat and compact design
  - Easy to operate
  - Up to 488 inputs and outputs
- 4 CABLE ENTRY PLATE**
  - Easy to install
  - No separation for transport
  - Low material costs
- 5 EXACT12**
  - Passive distribution box
  - Diagnostics via LED
  - Electronics completely molded
- 6 PUR PRE-WIRED**
  - 100% quality tested
  - Wide variety
  - Very resistant cable jacket



# TECHNOLOGIES



## EASY TO USE – PLUG & PLAY

MKV Metal and Impact67 IO-Link field bus modules take you directly to where you want to go. They are ideal for integrating IO-Link devices into installation solutions. The advantages: fast integration, short commissioning times, and maximum flexibility.

This easy integration is made possible by “IODD On Board”, an innovative technology from Murrelektronik. The sensor and actuator parameter data stored in the IODD (IO Device Description) are directly integrated into the GSDML files of the Murrelektronik MVK Metal and Impact67 field bus modules.

Free of configurable modules save time. The auto-configuration mode makes fast commissioning a reality. Since the parameters for the digital inputs and outputs do not have to be set, the channels do as the control system commands. The pin-granular diagnostics can quickly find any error.



## OPTIMUM PROTECTION FOR HUMANS AND MACHINES

Optimum protection for humans and machines: Safety engineering is a high priority in the automation industry. Murrelektronik decentralized installation concepts enable higher safety categories to be achieved for the entire system. Murrelektronik offers various solutions with an outstanding price-performance ratio for various applications and requirements.

With the MVK Metal Safety and Cube20S, Murrelektronik also offers high-end safety solutions. In these solutions, safe inputs and outputs are realized in connection with a safe controller (F-PLC or CNC). If the PROFINET/PROFIsafe or PROFIBUS/PROFIsafe field bus protocol is used, reliable transmission of safety-relevant data is ensured. This achieves even the highest safety categories. Comprehensive diagnostic options facilitate operation. Competent and individual customer consultation on questions related to safety engineering goes without saying at Murrelektronik.



[www.murrelektronik.com](http://www.murrelektronik.com)

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