

- → Hygienic
- **№** Flexible
- **≥** Modular

# **MODERN INSTALLATION CONCEPTS**

Murrelektronik as partner to the food industry



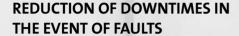




#### **VERSATILE: PROCESSES IN THE FOOD & BEVERAGE AREA**

HIIIIIIIII III





**HYGIENIC DESIGN** 

MODERN INSTALLATION CONCEPTS

SAFETY FOR OPERATORS AND MACHINES

USE OF FORWARD-LOOKING TECHNOLOGIES



TOTAL COST OF OWNERSHIP

SIMPLE COMMISSIONING

\*\*\*\*\*\*

THE PERSON NAMED IN

ENERGY EFFICIENCY AND MANAGEMENT

**REDUCED CLEANING TIMES** 

#### CHALLENGES IN THE DESIGN AND SELECTION OF PLANT AND MACHINERY

The food industry places extreme demands on plant and machinery, from the processing itself through to primary, secondary and final packaging.

Forward-looking technologies are essential in order to meet the growing demands for flexibility and modularity. The use of IO-Link-compatible sensors and actuators can be a big step in the right direction.

Increasing demands on the hygienic design of the production environment increase the cost of components. Modern installation concepts with decentralized IO modules or passive distributors can counteract this development.

For these applications and many other situations, Murrelektronik offers solutions that are ideally adapted to the requirements of this sector of industry.

#### **MURRELEKTRONIK FACTS**

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

# MURRELEKTRONIK IS A STRONG PARTNER FOR YOU

For many industries and market segments, such as:

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

# MURRELEKTRONIK IS ORGANIZED INTO FOUR PRODUCT FIELDS

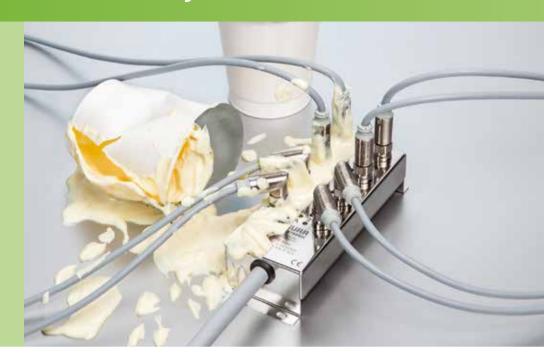
- Electronics in the control cabinet
- Interfaces
- · Connection technology
- I/O systems

### **MVP12 STEEL**

### Stainless Steel Distribution System in IP69K

## RESISTANT AND FUNCTIONAL

- Durable protection level IP69K
- Sealed stainless steel housing and threaded sleeves in V4A (1.4404)
- Cables made of FDA-approved materials (CRF 21, 177.2600)
- · Use of cleaning-resistant plastics
- LED status display directly at the plug-in point



#### PASSIVE STAINLESS STEEL DISTRIBUTION BSYSTEM

Description	Cable length	Art. no.:
MVP12 Steel distribution system, 8-port, with LED	3 m	8044-78510-4530300
MVP12 Steel distribution system, 8-port, with LED	5 m	8044-78510-4530500
MVP12 Steel distribution system, 8-port, with LED	10 m	8044-78510-4531000
MVP12 Steel distribution system, 8-port, with LED	15 m	8044-78510-4531500
MVP12 Steel distribution system, 8-port, with LED	20 m	8044-78510-4532000
MVP12 Steel distribution system, 8-port, with LED	25 m	8044-78510-4532500
MVP12 Steel distribution system, 8-port, with LED	30 m	8044-78510-4533000



#### FLANGE CONNECTORS IN HYGIENIC DESIGN

Hygienic design: These flange connectors have no edges or recesses in which undesired microorganism growth can occur. Instead, they incorporate only curves that are easy to clean thoroughly.

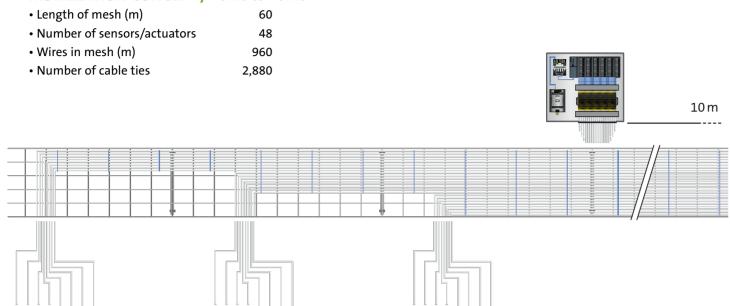


- 4-, 5-, 8-, 12-pin
- · A-, B-, D-coding available
- Encapsulated PP multi-strand wire 0.34 mm² (AWG22)
- 0.2 m, 0.5 m, 1.0 m standard strand lengths
- Anti-rotation lock for easy installation
- Protection level IP69K

### **INSTALLATION CONCEPTS**

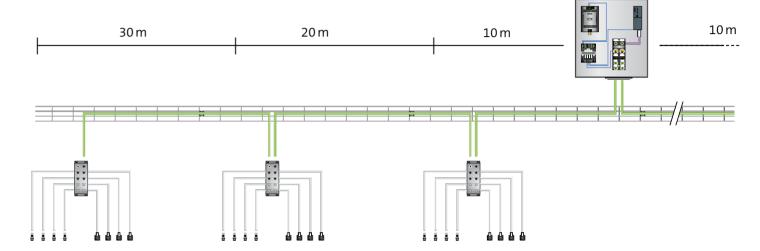
## For the Food Industry

#### **INSTALLATION CONCEPT / Point to Point**



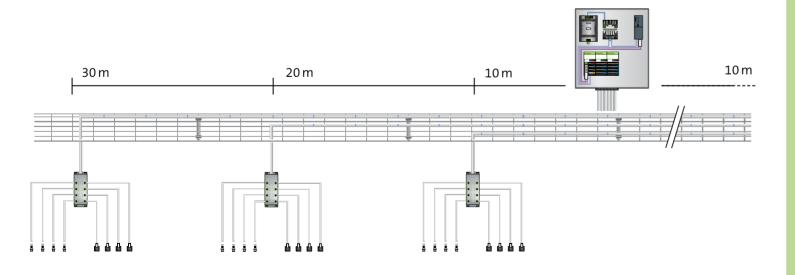
#### **INSTALLATION CONCEPT /** Modular

<ul> <li>Length of mesh (m)</li> </ul>	60
<ul> <li>Number of sensors/actuators</li> </ul>	48
• Wires in mesh (m)	60
<ul> <li>Number of cable ties</li> </ul>	180



#### **INSTALLATION CONCEPT / Passive**

<ul> <li>Length of mesh (m)</li> </ul>	60
<ul> <li>Number of sensors/actuators</li> </ul>	48
• Wires in mesh (m)	120
<ul> <li>Number of cable ties</li> </ul>	360





#### **HYGIENIC MACHINE INSTALLATION**

For hygienic installations, two installation concepts have typically been used up to now. For easy cleaning it is important that sufficient space is left between the cables.

Variant 1: Many individual cables are run along stainless steel connectors and fastened roughly every 30 centimeters with a cable tie made of clearly visible blue plastic.

Variant 2: The cables are fastened by tediously threading them through a stainless steel mesh.

Forward-looking installation concepts reduce installation time and simplify maintenance and service. Wiring work in hygienic areas can be greatly simplified by using passive distributors or field bus technology.

### CUBE67 F&B

## Stainless Steel Field Bus Modules in IP69K



# DECENTRALIZED INSTALLATION UP TO ZONE 1

- Durable protection level IP69K
- · Sealed stainless steel housing
- · Easy to clean
- Proven Cube67 technology
- IO-Link integration

#### CUBE67

Description	I/Os	Art. no.:
Cube67 DIO16 E 8xM12 HD	DIO16	5660160
Cube67 DIO8 E 4xM12 HD	DIO8	5661160
Cube67+ DIO12 IOL4 V1.1 E 8xM12 HD	DIO4 RS232/422/485	5676660
Accessories		Art. no.:
M12 bus termination connector for CUBE67 F&B		7014-15041-0000000
M12 male 90° / M12 female 90° shielded Cube67 PVC		7014-46041-522XXXX*
M12 male 0° / M12 female 0° shielded Cube67 PVC		7014-46061-522XXXX*

<sup>\*</sup>Add the 4-digit cable length to the article number. Length xxxx in cm, e.g.  $1.5 \, \text{m} = 0150$ .



#### **M12 POLYPROPYLENE CONNECTORS**

Murrelektronik offers M12 polypropylene variants that satisfy the latest requirements for hygienic design, making them suitable for use in these zones.



- · Made of highly durable and robust polypropylene
- FDA-approved materials
- Designed based on the requirements of the EHEDG
- For an extended temperature range of -40...+105 °C
- Excellent pressure-washer resistance thanks to protection level IP69K
- Ice-blue color makes dirt easy to see
- V4A stainless steel metal parts (1.4404)



www.murrelektronik.com

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