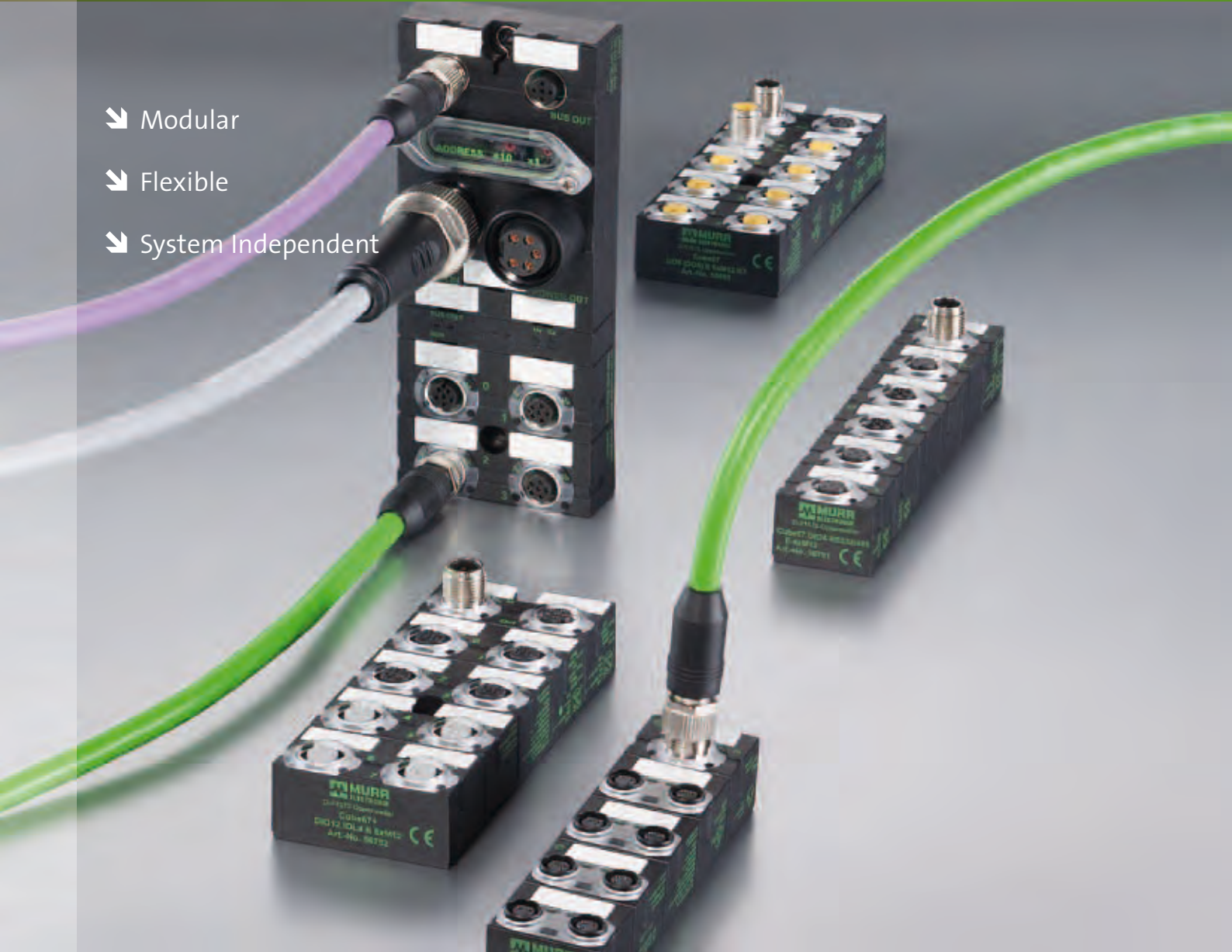


CUBE67 AND CUBE20

Economic Decentralization

- ↘ Modular
- ↘ Flexible
- ↘ System Independent



cube67⁺

The plus for added flexibility.



DECENTRALIZED INSTALLATION INNOVATIVE SOLUTIONS WITH CUBE67 AND CUBE67+

Many applications possible



YOUR PLUS FOR INCREASED FLEXIBILITY

Cube67 stands for balanced and economic solutions. Murrelektronik's innovative fieldbus system features simplified yet modern decentralized installations from the ground up. Now the new Cube67+ has a plus that means even more flexibility.

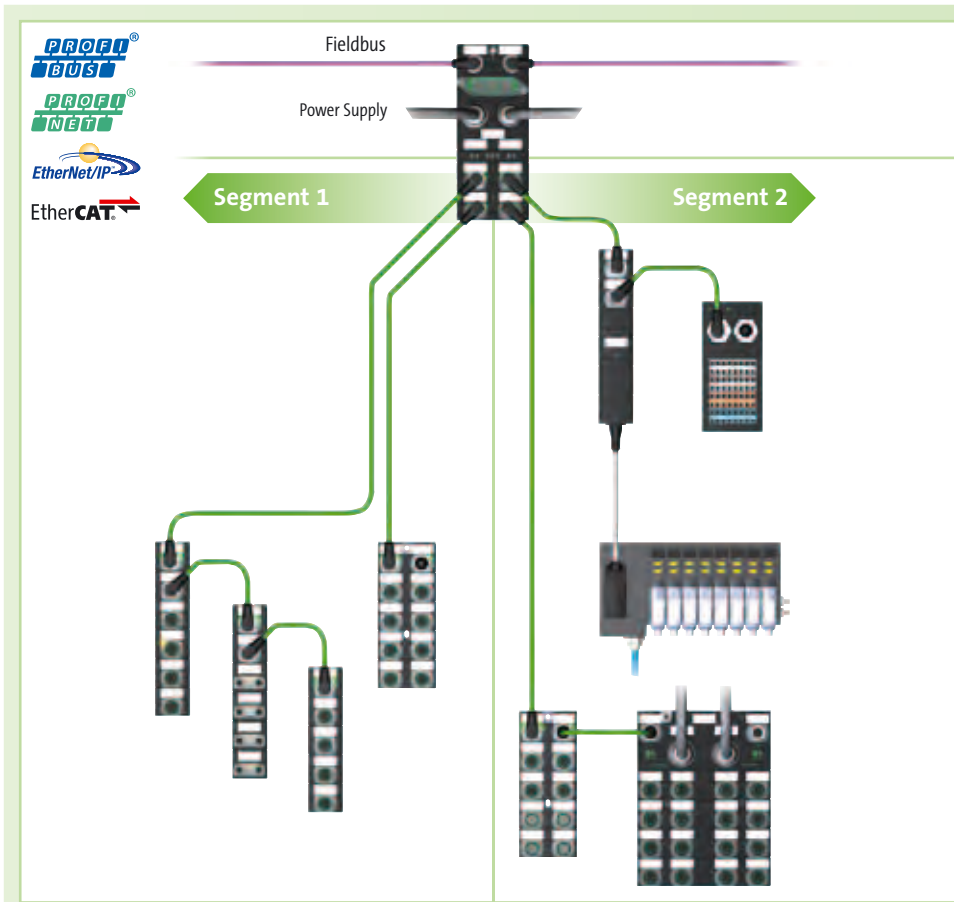
Cube67+ is a new, innovative bus node. With this module, Murrelektronik is expanding the practice-proven Cube67 System. Now fieldbus installations are even more optimized, no matter what the application.

Cube67+: the plus is for...

- + an increased number of modules up to 2 x 16 modules
- + increased cable lengths for installations up to 2 x 30 meters
- + modules that can be installed at any position on the hybrid cable
- + daisy chaining of the power supply at the bus node

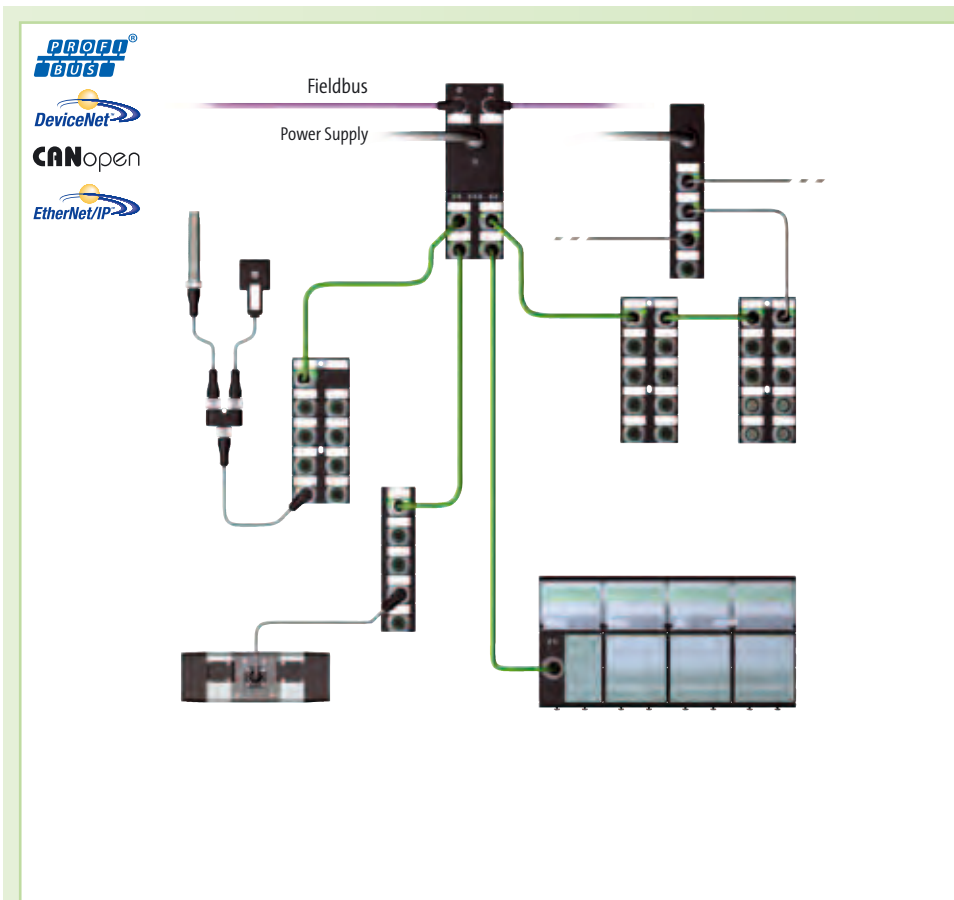
Cube67+: the plus is for increased flexibility in decentralized installation technology. Now with even more modules, longer cables and higher performance.

CUBE67+



cube67+

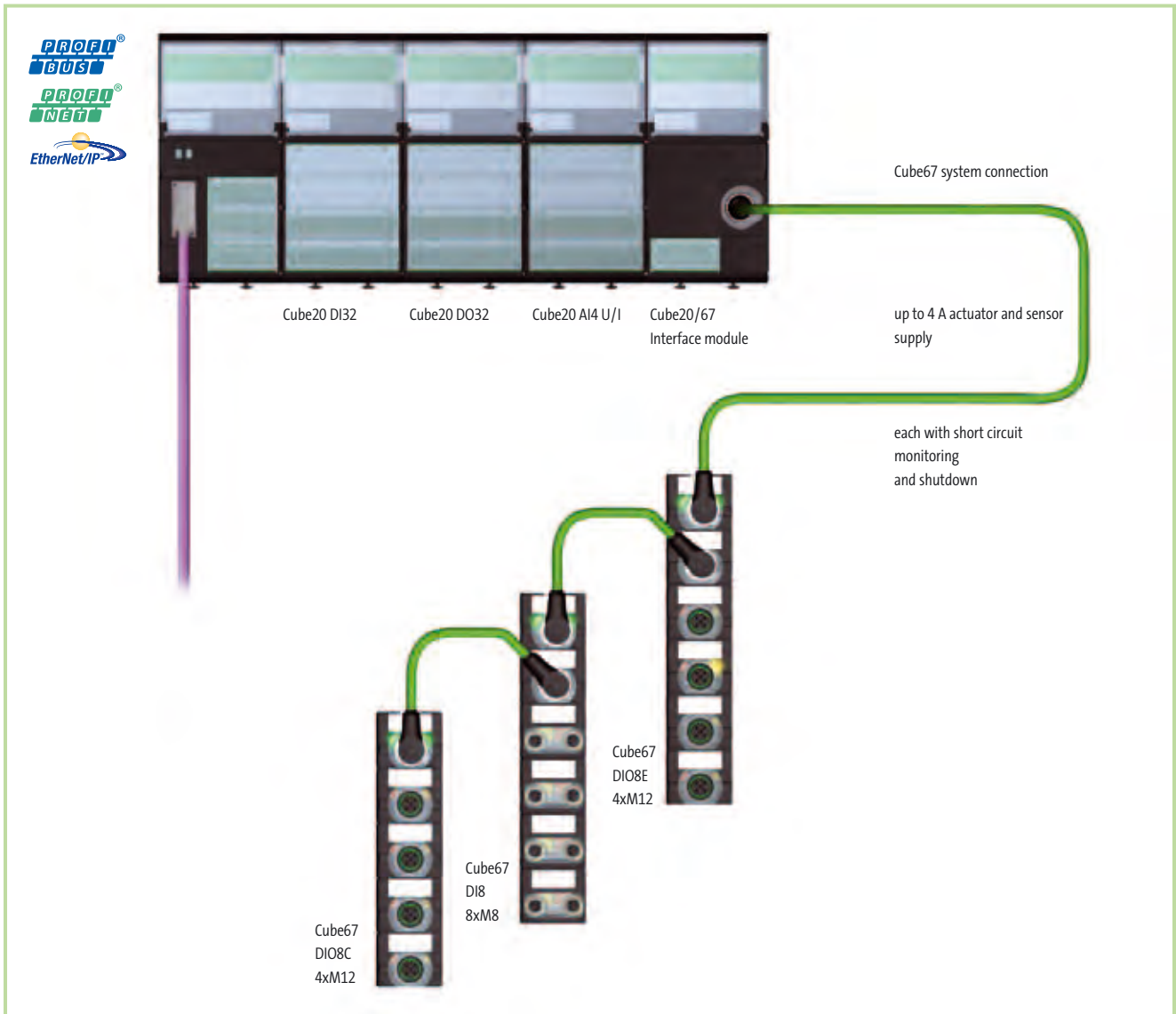
- 2 segments
- Per segment:
 - 16 modules
 - 30 meters cable length
- Diagnostics per I/O pin
- Display per pin
- Topology
 - Star/line
- Transfer type
 - Change of state
- System connection
 - Hybrid cable M12
- Addressing
 - Automatically



cube67

- 4 lines
- Per line:
 - 4 modules
 - 10 meters cable length
- Diagnostics per I/O pin
- Display per pin
- Topology
 - Star/line
- Transfer type
 - Change of State
- System connection
 - Hybrid cable M12
- Addressing
 - Automatically

CUBE20/67



SYSTEM DESCRIPTION CUBE20/67

- Number of modules per bus node - 15
- Addressing - automatically
- Cube67 system connection - hybrid line
- max. Cube67 system connection - 10 m
- Topology - linear
- Data security - hamming – distance 6
- Transfer type - change of state

DIAGNOSTICS

- | | |
|--------|-------------------------------|
| Cube20 | - short circuit sensor supply |
| | - actuator short circuit |
| | - under voltage |
| Cube67 | - sensor short circuit |
| | - actuator short circuit |
| | - under voltage |
| | - wrong connection |
| | - DESINA diagnostics |

DISPLAY

- Module OK - green
- Initialization/ no data exchange - green blinking
- Diagnostics - red
- Signal status - yellow

ECONOMIC DECENTRALIZATION – MODULAR, COMPACT AND RUGGED

- The I/O level is where it's needed – right in the machine, and close to the sensors and actuators, – not occupying one large area or being concentrated in the control cabinet
- Reduced dimensions ensure compact and space-saving machine design
- LEDs close to each sensor/actuator
- Easily expandable
- Shortest sensor and actuator cabling
- Reduces cable costs
- Saves space in the machine or the control cabinet
- Switching matrices is no longer needed

"BECOME INDEPENDENT OF THE PLC PROTOCOL" MAKE A BUS CHANGE INSTEAD OF SYSTEM CHANGE – NOW CHANGE ONLY THE BUS NODE

This makes the machine installation independent of the controls and the fieldbus. That means that the application can be adapted to the end user's PLC specifications without having to modify the I/O periphery. The benefits of an efficient installation with Cube67 are maintained.

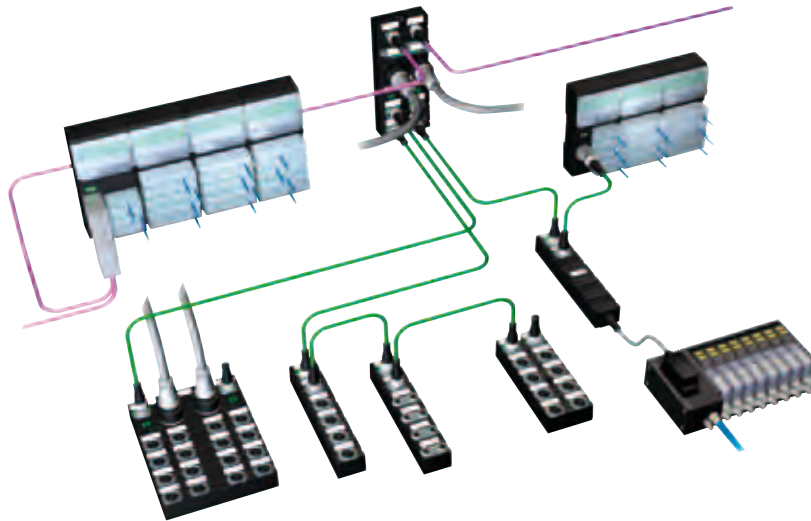
- Standardize the installation
- Flexible response to all end user specifications possible
- Configure the machine only once
- Create the documentation only once
- System skills needed only once
- Minimize inventory

BUS NODE



MULTIFUNCTIONAL I/O MODULES





MACHINE OPTIONS MANAGEMENT SIMPLE, OPTIONAL RETROFITTING – AT THE TOUCH OF A BUTTON

As a rule, each machine variation or optional enhancement requires an individual hardware configuration, and with it a separate software.

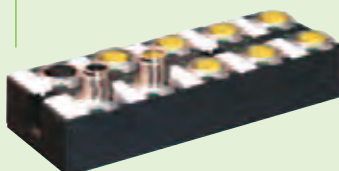
With Murrelektronik's integrated Machine Options Management, virtually configure the fully enhanced version. The system automatically adapts to the actual hardware structure in the real machine. Elaborate software adaptation and administration for each type of machine are no longer necessary. The variety of software is reduced to one version per machine series.

PROFIBUS and PROFINET bus nodes of the Cube20, Cube67, and Cube67+ series support the Machine Options Management function.

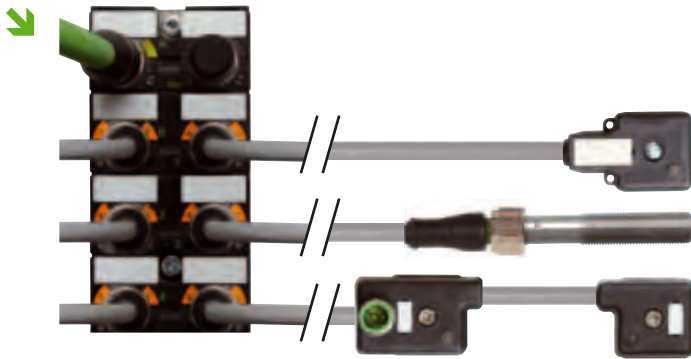
VALVE CLUSTER INTERFACES

SAFE OUTPUTS

TERMINAL MODULES



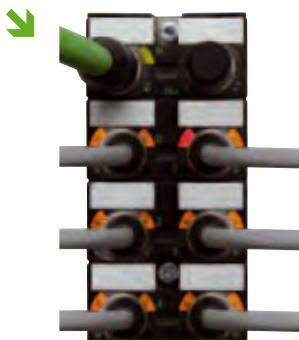
CUBE67 AND CUBE67+ FEATURES AND BENEFITS



Maximum flexibility through multifunctional I/Os

The two signals per port, either input, diagnostics input or output, all can be independently configured.

- Avoid unused reserves
- Double valves require only one port



"Fault detection instead of troubleshooting" – comprehensive diagnostics

Detailed information on type and location of the fault or error.

- Only the affected port shuts down
- Minimizes downtime
- Enable remote maintenance



"Assemble and plug in – that's all!"

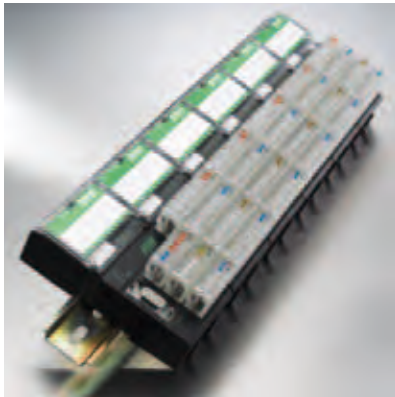
Quick and simple plug connections replace elaborate wiring.

- Avoids wiring errors
- Shortens start-up time
- Quick swapping of cables

SIMPLIFY YOUR INSTALLATION

Cube67 and Cube67+ are the new benchmark in automation. Small, multifunctional I/O modules and the variety of different interfaces are the key to simplified installations. They can be installed close to sensors and loads. This saves installation time and offers benefits for service work because of easy trouble-shooting.

CUBE20 – INNOVATIVE INSTALLATION TECHNOLOGY



Cube20 is a fieldbus I/O station with modular expandability, which can be integrated along with the Cube67 I/O system. Cube20 is designed for the requirements of modern wiring in control cabinets. High costs from dealing with many individual components are reduced when you use Cube20 thanks to the compact design and a high channel density of 32 channels per I/O module. With 488 channels on 90 cm, Cube20 can easily save space and you get more flexibility. Cube20 features maintenance-free plug terminals for single-wire connectivity that is standard in control cabinets.

PRACTICAL APPLICATION

Cube20 I/O modules are galvanically separated and have an integrated power input terminal. This simplifies the implementation of different potential groups and does not require additional power modules.

Of course, Cube20 features the same convenient diagnostic options as Cube67. This facilitates troubleshooting and minimizes downtime.



Convenient Channel Diagnostics

Transparent connection terminals provide a full view of I/O state and diagnostics

- Rapid and convenient failure localization
- Minimizes downtime
- Increases productivity

NEW IDEAS FOR AN EFFICIENT INSTALLATION

- Easier handling by a reduced number of individual components
- Compact design equals high channel density
- I/O connections with maintenance-free terminals
- Integrated power input terminals for practical applications

CUBE20 AND CUBE67 HAVE GROWN TOGETHER

Cube20 modules can be operated on Cube67 bus nodes. This offers new installation options for many users.

With the Cube20/67 interface module, you can operate Cube67 modules on Cube20 bus nodes. The interface module connects Cube67 modules to the Cube20 station from a distance of up to 10 meters. It doesn't require an additional Cube67 bus node. This reduces costs and facilitates the installation.



CUBE20 BUS NODE WITH MACHINE OPTIONS MANAGEMENT

Cube20 offers the same Machine Options Management features as Cube67 (see page 8).

With Cube20, you can now create one configuration that maps the full configuration of the machine for all hardware options. The system automatically adapts to the actual hardware structure in the real machine.

PROFIBUS and PROFINET bus nodes support the Machine Options Management function.

NEW MODULES, NEW FUNCTIONS

- Efficient installations by the compatibility of Cube20 and Cube67
- Minimum software requirements thanks to Machine Options Management
- Over 100 different Cube20 and Cube67 modules offer the right module for any application

OVERVIEW

CUBE20

Bus node

Cube20	BN-P	DI8	56001
Cube20	BN-PNIO	DI8	56006
Cube20	BN-E	DI8	56005

Digital inputs	Cube20	DI32	56112
	Cube20	DI32 NPN/PNP	56121
Digital inputs/outputs	Cube20	DI16 DO16	56168
	Cube20	DO16 2A	56117
Digital outputs	Cube20	DO32	56118
	Cube20	DO16 2A K3	56127
	Cube20	AI4 U/I	56200
Analog inputs	Cube20	AI4 RTD	56230
	Cube20	AI4 TH	56240
	Cube20	AO4 U/I	56220
Analog outputs	Cube20	AO4 U/I	56220

CUBE67

Bus node

Cube67+	BN-P	PROFIBUS-DP	56521
Cube67	BN-P	PROFIBUS-DP	56501
Cube67	BN-P	PROFIBUS-DP (DESINA*/ECOFAS*)	56531
Cube67+	BN-PNIO	PROFINET IO	56526
Cube67+	BN-E	EtherNet-IP	56525
Cube67	BN-E	EtherNet-IP	56505
Cube67	BN-DN	DeviceNet	56507
Cube67	BN-C	CANopen	56504
Cube67	BN-EC	EtherCAT	56527

System connection
Cube20 BN-C DIO8
56450

System connection
Cube20/67 Interface module
56140

Digital inputs	C - Compact modules	Cube67	DI16	C 8xM12	56602
		Cube67	DI8	C 4xM12	56612
		Cube67	DI8	C 8xM8	56622
	E - Expansion modules	Cube67	DI16	E 8xM12 PNP	56603
		Cube67	DI16	E 8xM12 PNP	56606
		Cube67	DI8	E 4xM12 PNP	56613
		Cube67	DI8	E 4xM12 PNP	56616
		Cube67	DI8	E 8xM8 PNP	56623
		Cube67	DI8	E 8xM8 PNP	56626
		Digital inputs/outputs	C - Compact modules	Cube67	DIO16
Cube67	DIO8			C 4xM12	56610
Cube67	DIO8			C 8xM8	56620
Cube67	DIO16			C 8xM12 1.6 A	56640
E - Expansion modules	Cube67		DIO8	E 4xM12 1A	56631
	Cube67		DIO16	E 8xM12	56601
	Cube67		DIO8	E 4xM12	56611
	Cube67		DIO16/DO16	E 16xM12 1.6/2 A	56641
	Cube67		DIO32	E 16xM12 0.5 A	56642
	Cube67		DIO8	E 8xM8	56621
	Cube67		DIO8	E Cable	56661
	Cube67		DIO16	E Cable	56662
	Cube67		DI16 DO16	E Cable	56671

Digital inputs/outputs**E - Expansion modules**

Cube67	DIO8 DI8	E TB Box	56681	Cube67	DIO8	E Cable 0,5 m	56661
Cube67	DIO8 DI8	E TB Box	5668100	Cube67	DIO8	E Cable 2 m	5666100
Cube67	DIO8 DI8	E TB Rail	56691	Cube67	DIO16	E Cable 0,5 m	56662
Cube67	DIO8	E M16 0,5 A	56663	Cube67	DIO16	E Cable 1,5 m	5666200
Cube67	DIO8	E Cable M12 ID	5666500	Cube67	DIO16/DO16	E Cable 0,5 m	56671

Digital outputs**E - Expansion modules**

Cube67	DO8 E Valve	FESTO CPV	5665500	Cube67	DO24 E Valve	FESTO CPA	5665605
Cube67	DO8 E Valve	FESTO CPV (SUB-D9)	5665501	Cube67	DO32 E Valve	BOSCH HF02/03-LG, HF04 (Sub-D25)	5665606
Cube67	DO8 E Valve	FESTO MPA	5665502	Cube67	DO32 E Valve	SMC Serie VQC (M27)	5665607
Cube67	DO7	E Cable M12 Modlight	5665503	Cube67	DO32 E Valve	MAC VALVES	5665609
Cube67	DO16 E Valve		56651	Cube67	DO32 E Valve	VESTA (SUB-D37)	5665610
Cube67	DO8 E Valve		56655	Cube67	DO24 E Valve	VESTA (SUB-D25)	5665611
Cube67	DO32 E Valve		56656	Cube67	DO20 E Valve	FESTO VTSA	5665613
Cube67	DO16 E Valve	FESTO CPV	5665100	Cube67	DO32 E Valve	SMC Serie VQC (SUB-D25)	5665614
Cube67	DO16 E Valve	PARKER Serie V	5665101	Cube67	DO32 E Valve	FESTO CPA-SC	5665615
Cube67	DO16 E Valve	FESTO CPV-SC (SUB-D15)	5665102	Cube67	DO32 E Valve	FESTO MPA-L	5665616
Cube67	DO16 E Valve	FESTO CPV-SC (SUB-D26)	5665103	Cube67	DO32 E Valve	BOSCH HF02/03-LG (Sub-D 44)	5665617
Cube67	DO16 E Valve	FESTO VTSA	5665105	Cube67	DO22 E Valve	NUMATICS GENERATION 2000	5665618
Cube67	DO16 E Valve	METAL WORK HDM	5665106	Cube67	DO24 E Valve	FESTO MPA-L (SUB-D25)	5665619
Cube67	DO16 E Valve	NORGREN V20, V22	5665110				
Cube67	DO16 E Valve	NORGREN VM10	5665111				
Cube67	DO16 E Valve	NORGREN V20, 22B	5665112				
Cube67	DO16 E Valve	SMC Serie SV, VQ, SY	5665113				
Cube67	DO16 E Valve	SMC Serie VQC (M27)	5665114				
Cube67	DO16 E Valve	NORGREN V20, V22	5665115				
Cube67	DO16 E Valve	MAC VALVES	5665116				
Cube67	DO16 E Valve	FESTO MPA	5665118				
Cube67	DO24 E Valve	NORGREN VM10	5665600				
Cube67	DO24 E Valve	FESTO MPA	5665601				
Cube67	DO32 E Valve	BOSCH HF03	5665602				
Cube67	DO32 E Valve	NORGREN VM10	5665603				
Cube67	DO32 E Valve	SMC Serie SV	5665604				

Safe outputs**C - Compact modules**

Cube67	DO16	C Valve K3	56650
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Cube67	DO8	C Valve K3	5665003
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E - Expansion modules

Cube67	DO6/DO6	E 6xM12 K3	56605
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Analog inputs**C - Compact modules**

Cube67	AI4	C 4xM12 (I)	56730
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Cube67	AI4	C 4xM12 (U)	56700
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Cube67	AI4	C 4xM12 RTD	56740
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Cube67	AI4	C 4xM12 TH	56748
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E - Expansion modules

Cube67	AI4	E 4xM12 (I)	56731
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Cube67	AI4	E 4xM12 (U)	56701
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Cube67	AI4	E 4xM12 RTD	56741
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Cube67	AI4	E 4xM12 TH	56749
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Analog outputs**C - Compact modules**

Cube67	AO4	C 4xM12 (I)	56720
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Cube67	AO4	C 4xM12 (U)	56710
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E - Expansion modules

Cube67	AO4	E 4xM12 (I)	56721
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Cube67	AO4	E 4xM12 (U)	56711
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Function modules

Cube67+	DIO12 IOL4	E 8xM12	56765
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Cube67	Logic	E 4xM12	56771
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Cube67	CNT2	C 4xM12	56750
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Cube67+	DIO4 RS232/485	E 4xM12	56761
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Cube67	DIO4 RS485	E 3xM12	56760
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CUBE67 BUS NODE

Bus node



Cube67+ BN-P

PROFIBUS-DP



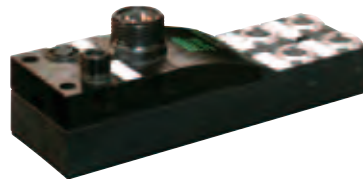
Ordering data	Approval	Art. No.
	cULus	56521
Connections		
Fieldbus	M12 male/female, B-coded, 5 pole	
Supply voltages sensor/system/actuator	7/8" male/female, 5 pole, max. 8 A	
Cube67 system connections	M12 female, A-coded, 6-pole, max. 4 A	
Fieldbus		
Operating voltage	24 V DC (18...30.2 V), acc. to EN61131-2	
Transfer protocol	PROFIBUS-DP	
Addressing	0...99 via rotary encoder switch	
Transfer rate	up to 12 Mbit/s	
System connection		
Ports	4	
Module diagnostics		
Fieldbus	LED, acc. to standards	
Supply voltage sensor/system/actuator	per system port $U_S < 18\text{ V}$ (LED red)/ $U_A < 18\text{ V}$ (LED red)	
Peripheral fault	M12 port-related LED (red)	
Dimensions H x W x D		
	40.5 x 151 x 62 mm	

Bus node



Cube67 BN-P

PROFIBUS-DP



Cube67 BN-P

ECOFAST®



Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56501	-	56531
Connections				
Fieldbus	M12 male/female, B-coded, 5 pole		hybrid connector, CU	
Supply voltages sensor/system/actuator	7/8" connector, 5-pole, max. 9 A		hybrid connector, max. 9 A	
Cube67 system connections	M12 female, A-coded, 6-pole, max. 4 A			
Fieldbus				
Operating voltage	24 V DC (18...30.2 V), acc. to EN61131-2			
Transfer protocol	PROFIBUS-DP			
Addressing	0...99 via rotary encoder switch			
Transfer rate	up to 12 Mbit/s			
System connection				
Ports	4			
Module diagnostics				
Fieldbus	LED, acc. to standards			
Supply voltage sensor/system/actuator	per system port $U_S < 18\text{ V}$ (LED red)/ $U_A < 18\text{ V}$ (LED red)			
Peripheral fault	M12 port-related LED (red)			
Dimensions H x W x D				
	50.7 x 151 x 50 mm		59 x 151 x 50 mm	

CUBE67 BUS NODE

Bus node



Cube67+ BN-PNIO

PROFINET-IO



Cube67+ BN-E

EtherNet-IP



Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56526	cULus	56525
Connections				
Fieldbus	M12 female, D-coded, 5 pole			
Supply voltages sensor/system/actuator	7/8" male/female, 5 pole, max. 8 A			
Cube67 system connections	M12 female, A-coded, 6-pole, max. 4 A			
Fieldbus				
Operating voltage	24 V DC (18...30.2 V), acc. to EN61131-2			
Transfer protocol	PROFINET-IO		EtherNet/IP	
Addressing	name allocation via PROFINET IO			
Transfer rate	100 MBit/s Full Duplex		10/100 Mbit/s Full Duplex	
System connection				
Ports	4			
Module diagnostics				
Fieldbus	LED, acc. to standards			
Supply voltage sensor/system/actuator	per system port U _S <18 V (LED red)/U _A <18 V (LED red)			
Peripheral fault	M12 port-related LED (red)			
Dimensions H x W x D	40.5 x 151 x 62 mm			

Bus node



Cube67+ BN-E

EtherNet-IP



Ordering data	Approval	Art. No.
	cULus	56525
Connections		
Fieldbus	M12 female, D-coded, 5 pole	
Supply voltages sensor/system/actuator	7/8" male/female, 5 pole, max. 8 A	
Cube67 system connections	M12 female, A-coded, 6-pole, max. 4 A	
Fieldbus		
Operating voltage	24 V DC (18...30.2 V), acc. to EN61131-2	
Transfer protocol	EtherNet/IP	
Addressing	DHCP, BOOTP, or IP address via rotary switch	
Transfer rate	10/100 MBit/s Full Duplex	
System connection		
Ports	4	
Module diagnostics		
Fieldbus	LED, acc. to standards	
Supply voltage sensor/system/actuator	per system port U _S <18 V (LED red)/U _A <18 V (LED red)	
Peripheral fault	M12 port-related LED (red)	
Dimensions H x W x D	40.5 x 151 x 62 mm	

CUBE67 BUS NODE

Bus node



Cube67 BN-E

EtherNet/IP



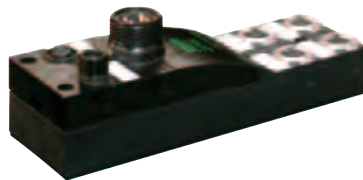
Ordering data	Approval	Art. No.
	cULus	56505
Connections		
Fieldbus	M12 male, D-coded, 4-pole	
Supply voltages sensor/system/actuator	7/8" connector, 5-pole, max. 9 A	
Cube67 system connections	M12 female, A-coded, 6-pole	
Fieldbus		
Operating voltage	24 V DC (18...30.2 V), acc. to EN61131-2	
Transfer protocol	EtherNet/IP acc. to ODVA, conformance tested	
Addressing	DHCP, BOOTP, or IP address via rotary switch	
Transfer rate	100 Mbit/s	
System connection		
Ports	4	
Module diagnostics		
Fieldbus	LED, acc. to standards	
Supply voltage sensor/system/actuator	per system port U _S <18 V (LED red)/U _A <18 V (LED red)	
Peripheral fault	port-related LED (red)	
Dimensions H x W x D		
	50.7 x 151 x 50 mm	

Bus node



Cube67 BN-DN

DeviceNet



Cube67 BN-C

CANopen

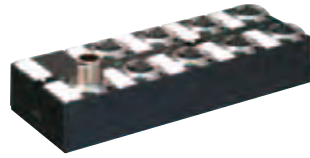
Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56507	cULus	56504
Connections				
Fieldbus	M12 male/female, A-coded, 5 pole			
Supply voltages sensor/system/actuator	7/8" connector, 5-pole, max. 9 A			
Cube67 system connections	M12 female, A-coded, 6-pole, max. 4 A			
Fieldbus				
Operating voltage	24 V DC (18...30.2 V), acc. to EN61131-2			
Transfer protocol	DeviceNet acc. to ODVA		CANopen	
Addressing	0...63 via rotary encoder switch		1...99 via rotary encoder switch	
Transfer rate	125, 250 and 500 kBit/s		10, 20, 50, 125, 250, 500, 800, 1000 kBit/s	
System connection				
Ports	4			
Module diagnostics				
Fieldbus	LED, acc. to standards			
Supply voltage sensor/system/actuator	per system port U _S <18 V (LED red)/U _A <18 V (LED red)			
Peripheral fault	port-related LED (red)			
Dimensions H x W x D				
	50.7 x 151 x 50 mm			

CUBE67 DIGITAL INPUTS

Input modules

– Digital inputs

Cube67 DI16 C 8xM12



Cube67 DI8 C 4xM12



Cube67 DI8 C 8xM8



Ordering data	Approval	Art. No.	Approval	Art. No.	Approval	Art.-No.
	cULus	56602	cULus	56612	cULus	56622
System connection						
Communication and supply voltages	via system hybrid cable					
Terminating resistor	integrated in the module					
I/O ports						
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M8/M12 female					
PIN 2	input/diagnostic					–
PIN 4	input					
Inputs						
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible					
Diagnostic inputs						
Type/function	EN61131-2 compatible/24 V = high = 0 K (LED off); 0 V = low = error (LED red)					–
Module diagnostics						
Supply voltage sensor/system	U _s < 18 V (LED red)					
Peripheral fault	M12 port-related LED (red)					
Dimensions H x W x D	34.5 x 126 x 50 mm			34.5 x 126 x 30 mm		

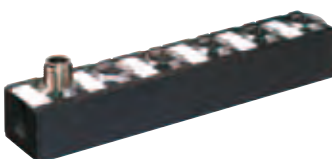
Input modules

– Digital inputs

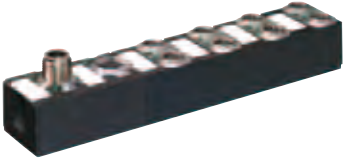
Cube67 DI16 E 8xM12



Cube67 DI8 E 4xM12



Cube67 DI8 E 8xM8

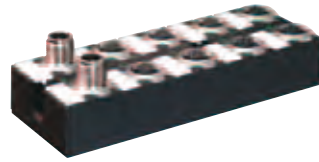


Ordering data	Approval	Art. No.	Approval	Art. No.	Approval	Art. No.
PNP	cULus	56603	cULus	56613	cULus	56623
NPN	cULus	56606	cULus	56616	cULus	56626
System connection						
Communication and supply voltages	via system hybrid cable					
I/O ports						
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M8/M12 female					
PIN 2	input/diagnostic input (only with PNP)					–
PIN 4	input					
Inputs						
PNP/NPN	for 3-wire sensors or mechanical switches, EN61131-2 compatible					
Diagnostic inputs (only with PNP)						
Type/function	EN61131-2 compatible/24 V = high = 0 K (LED off); 0 V DC = low = error (LED red)					–
Module diagnostics						
Supply voltage sensor/system	U _s < 18 V (LED red)					
Peripheral fault	M12 port-related LED (red)					
Dimensions H x W x D	34.5 x 126 x 50 mm			34.5 x 151 x 30 mm		

CUBE67 DIGITAL INPUTS / OUTPUTS

– Multifunctional I/Os

Cube67 DI016 C 8xM12



Cube67 DI08 C 4xM12



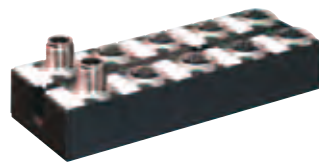
Cube67 DI08 C 8xM8



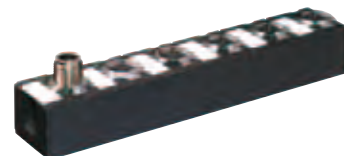
Ordering data	Approval	Art. No.	Approval	Art. No.	Approval	Art. No.
	cULus	56600	cULus	56610	cULus	56620
System connection						
Communication and supply voltages	via system hybrid cable					
Terminating resistor	integrated in the module					
I/O ports						
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M8/M12 female					
PIN 2	input/output/diagnostic input					–
PIN 4	input/output					
Inputs						
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible					
Diagnostic inputs						
Type/function	EN61131-2 compatible/24 V = high = O K (LED off); 0 V = low = error (LED red)					–
Outputs						
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2 via system connection (Σ max. 4 A) and add. supply					
Switching current per output	0.5 A short circuit and overload protected					
Module diagnostics						
Supply voltage sensor/system/actuator	U _S < 18 V (LED red)/U _A < 18 V (LED red)					
Peripheral fault	M12 port-related LED (red)					
Dimensions H x W x D	34.5 x 126 x 50 mm			34.5 x 126 x 30 mm		

– Multifunctional I/Os – Power outputs

Cube67 DI016 C 8xM12 1.6 A



Cube67 DI08 E 4xM12 1 A

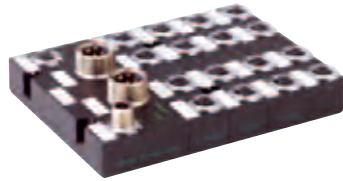


Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56640	cULus	56631
System connection				
Communication and supply voltages	via system hybrid cable			
I/O ports				
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M12 female			
PIN 2	input/output/diagnostic input			
PIN 4	input/output			
Inputs				
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible			
Diagnostic inputs				
Type/function	EN61131-2 compatible/24 V = high = O K (LED off); 0 V = low = error (LED red)			
Outputs				
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, via system connection (Σ max. 4 A)			
Switching current per output	1.6 A short circuit and overload protected		1.0 A short circuit and overload protected	
Module diagnostics				
Supply voltage sensor/system/actuator	U _S < 18 V (LED red)/U _A < 18 V (LED red)			
Peripheral fault	M12 port-related LED (red)			
Dimensions H x W x D	34.5 x 126 x 50 mm		34.5 x 151 x 30 mm	

CUBE67 DIGITAL INPUTS / OUTPUTS

- Multifunctional I/Os
- Digital outputs

Cube67 DIO16 DO16 16xM12 (1.6/2A)



Cube67 DIO32 E - 16xM12



Ordering data	Approval	Art. No.	Art. No.
	cULus pending	56641	56642
System connection			
Communication and supply voltages	via system hybrid cable		
I/O ports			
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M8/M12 female		
PIN 2 (8x M12 left side)	input/output/diagnostic input		
PIN 4 (8x M12 left side)	input/output		
PIN 2 (8x M12 right side)	set on output	input/output/diagnostic	
PIN 4 (8x M12 right side)	set on output	input/output	
Inputs			
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible		
Diagnostic inputs			
Type/function	EN61131-2 compatible/24 V = high = O K (LED off); 0 V = low = error (LED red)		
Outputs			
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, via 7/8" connector (Σ max. 2x 9 A)		
Output load (8x M12 left side)	1.6 A short circuit and overload protection (coincidence factor 50% per port)	max. 0.5 A (short circuit and overload protected)	
Output load (8x M12 right side)	2 A, short circuit and overload protected (Coincidence factor 50% per port)	max. 0.5 A (short circuit and overload protected)	
Module diagnostics			
Supply voltage sensor/system/actuator	U _s <18 V (LED red)/U _A <18 V (LED red)		
Peripheral fault	M12 port-related LED (red)		
Dimensions H x W x D	35 x 151 x 115 mm		

- Multifunctional and user-configurable

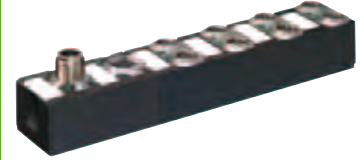
Cube67 DIO16 E 8xM12



Cube67 DIO8 E 4xM12



Cube67 DIO8 E 8xM8



Ordering data	Approval	Art. No.	Approval	Art. No.	Approval	Art. No.
	cULus	56601	cULus	56611	cULus	56621
System connection						
Communication and supply voltages	via system hybrid cable					
I/O ports						
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M8/M12 female					
PIN 2	input/output/diagnostic input				–	
PIN 4	input/output					
Inputs						
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible					
Diagnostic inputs						
Type/function	EN61131-2 compatible/24 V = high = O K (LED off); 0 V = low = error (LED red)				–	
Outputs						
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, via system connection (Σ max. 4 A)					
Switching current per output	0.5 A short circuit and overload protected					
Module diagnostics						
Supply voltage sensor/system/actuator	U _s <18 V (LED red)/U _A <18 V (LED red)					
Peripheral fault	M12 port-related LED (red)					
Dimensions H x W x D	34.5 x 126 x 50 mm		34.5 x 151 x 30 mm			

CUBE67 DIGITAL INPUTS/OUTPUTS

– Multifunctional and user-configurable

Cube67 DI08 E M16 0.5A



Cube67 DI08 E Cable M12 ID



Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56663	cULus pending	5666500
System connection				
Communication and supply voltages	via system hybrid cable			
I/O port			for EUCHNER ID-System Type CIT 3PL1M30-STR	
I/O channels	input/output			
Inputs			for EUCHNER ID-System Type CIT 3PL1M30-STR	
Sensor supply	1.6 A			
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible			
Outputs			for EUCHNER ID-System Type CIT 3PL1M30-STR	
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, \sum max. 4 A (internal system connection)			
Switching current per output	max. 70 mA			
Module diagnostics				
Supply voltage sensor/system/actuator	$U_s < 18$ V (LED red)/ $U_A < 18$ V (LED red)			
Peripheral fault	combined LED (red)			
Connection cable				
Type	2m PUR cable; M16 connector, straight, art. no. 7000-16751-9590200 2m PUR cable; M16 connector, 90°, art. no. 7000-16851-9590200		PUR-OB; 0.2 m, M12 female 8 pole	
Dimensions H x W x D	34.5 x 151 x 30 mm			

– Multifunctional I/Os
– Digital inputs
– Digital outputs

Cube67 DI08 E Cable

Cube67 DI016 E Cable

Cube67 DI16 DO16 E Cable



Ordering data	Approval	Art. No.	Approval	Art. No.	Approval	Art. No.
open-ended wires	cULus	56661	cULus	56662	cULus pending	56671
	2 m	5666100	1,5 m	5666200		
System connection						
Communication and supply voltages	via system hybrid cable					
I/O cable						
Single wires	input/output					
Inputs						
Sensor supply	1.6 A		0.5 A		0.2 A	
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible					
Outputs						
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, \sum max. 4 A (internal system connection)					
Switching current per output	max. 70 mA		0.5 A		0.5 A	
Module diagnostics						
Supply voltage sensor/system/actuator	$U_s < 18$ V (LED red)/ $U_A < 18$ V (LED red)					
Peripheral fault	combined LED (red)					
Connection cable						
Type/length	10 x 0.34 mm ² PVC/0.5 m		20 x 0.14 mm ² PUR/0.5 m		36 x 0.14 mm ² PVC/0.5 m	
Dimensions H x W x D	34.5 x 151 x 30 mm					

CUBE67 DIGITAL OUTPUTS

Compact modul

- digital Outputs

Cube67 DO16 Valve



Ordering data		Art.-No.
Multipole connector (0.5 A)	SMC (SUB-D25)	5665000
	SMC-Series SV/VQ	5665001
	FESTO-MPA (SUB-D25)	5665002
	FESTO-CPV (SUB-D25) – GOST	5665004
System connection		
Communication and supply voltages	via system hybrid cable	
Outputs		
Actuator supply	24 V DC (18...30.2 V), to EN 61131-2, max. 4 x 2 A	
Switching current per output	0.5 A, short circuit and overload protected	
Module diagnostics		
Supply voltage system/actuator	$U_S < 18 \text{ V (LED red)}/U_A < 18 \text{ V (LED red)}$	
Peripheral fault	combined LED (red)	
Anschlussleitung		
Type/length	4 x 4 x 0.14 m ² PVC, cross circuit monitoring/0.5 m	
Dimensions H x W x D	34.5 x 151 x 30 mm	

Expansion modul

- Multifunctional I/Os - Digital inputs/outputs

Cube67 DIO8 E Cable

M12



Ordering data	Approval	Art.-No.
DIO8 – 0,5 A (E) 0,5 m (M12)	cULus, GOST	5666201
System connection		
Communication and supply voltages	via system hybrid cable	
Inputs		
Sensor supply	0.5 A	
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible	
Outputs		
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, Σ max. 4 A (internal system connection)	
Switching current per output	max. 60 mA short circuit and overload protected	
Module diagnostics		
Supply voltage system/actuator	$U_S < 18 \text{ V (LED red)}/U_A < 18 \text{ V (LED red)}$	
Peripheral fault	combined LED (red)	
Connection cable		
Type/length	8 x 0.25 mm ² PUR/0.5 m	
Dimensions H x W x D	34.5 x 151 x 30 mm	

CUBE67 DIGITAL OUTPUTS

Valve cluster interface

Cube67 D08 E Valve

Cube67 D016 E Valve

Cube67 D032 E Valve



Ordering data	Approval	Art. No.	Approval	Art. No.	Approval	Art. No.
open-ended wires	cULus	56655	cULus	56651	cULus	56656
with pre-wired multipole plug	for FESTO CPV	5665500	for FESTO CPV	5665100	for NORGREN - VM10, VS18	5665600
	for FESTO CPV (SUB-D9)	5665501	for PARKER V series	5665101	for FESTO MPA	5665601
	for FESTO MPA (output load 0.5 A)	5665502	for NORGREN V20, V22	5665110	for BOSCH HF03	5665602
			for NORGREN VM10	5665111	for NORGREN VM10, VS18	5665603
			for NORGREN V20, 22B	5665112	for SMC series SV, VQ, SY	5665604
			for SMC series SV, VQ, SY	5665113	for FESTO CPA	5665605
			for SMC series VQC (M27)	5665114	for BOSCH HF02 /03-LG, HF04 (Sub-D25)	5665606
			for NORGREN V20, V22	5665115	for SMC series VQC (M27)	5665607
			for MAC Valves (output load 0.5 A)	5665116	for MAC Valves	5665609
			for FESTO MPA (output load 0.5 A)	5665118	for FESTO VTSA	5665613
			for FESTO VTSA	5665105	for VESTA (Sub-D37)	5665610
			for FESTO CPV-SC (Sub-D15)	5665102	for VESTA (Sub-D25)	5665611
			for FESTO CPV-SC (Sub-D26)	5665103	for SMC series VQC (Sub-D25)	5665614
			for METAL WORK HDM	5665106	for FESTO CPA-SC	5665615
					for FESTO MPA-L	5665616
					for BOSCH HF02 /03-LG (Sub-D44)	5665617
					for NUMATICS GENERATION 2000	5665618
					for FESTO MPA-L (Sub-D25)	5665619
System connection						
Communication and supply voltages	via system hybrid cable					
Outputs						
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, Σ max. 4 A (internal system connection)					
Switching current per output	max. 70 mA short circuit and overload protected				0.5 A short circuit and overload protected	
Module diagnostics						
Supply voltage system/actuator	$U_s < 18$ V (LED red)/ $U_A < 18$ V (LED red)					
Peripheral fault	combined LED (red)					
Connection cable						
Type/length	10 x 0.34 mm ² PUR-OB/0.5 m		18 x 0.25 mm ² PVC/0.5 m		36 x 0.14 mm ² PVC/0.5 m	
Dimensions H x W x D	34.5 x 151 x 30 mm					

Modlight interface, for Modlight70 base connection modules

(Art. No. 4000-75070-1500002
Art.-No. 4000-75070-1500003)

Cube67 D07 E Cable M12 Modlight

with pre-wired M12 connector, 8-pole



Ordering data	Approval	Art. No.
	cULus pending	5665503
System connection		
Communication and module supply	via system hybrid cable	
Outputs		
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, Σ max. 4 A (internal system connection)	
Switching current per output	0.5 A short circuit and overload protected	
Module diagnostics		
Supply voltage system/actuator	$U_s < 18$ V (LED red)/ $U_A < 18$ V (LED red)	
Peripheral fault	combined LED (red)	
Connection cable		
Type/length	8 x 0.25 mm ² PUR-OB, M12 female 8 pole/0.5 m	
Dimensions H x W x D	34.5 x 151 x 30 mm	

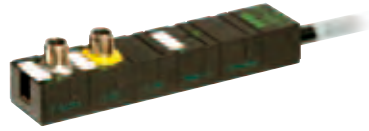
CUBE67 PASSIVE SAFETY OUTPUTS

Valve cluster interface

- Passive safety outputs
- Up to safety category 4/PL e possible with two channel safety function possible

Cube67 D016 C Valve K3

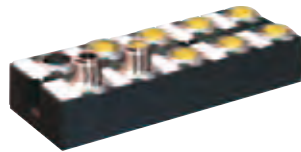
with pre-wired multipole plug



Ordering data	Approval	Art. No.
SUB-D25	cULus	56650
for FESTO CPV (SUB-D9)	cULus	5665003
System connection		
Communication and module supply	via system hybrid cable	
Actuator supply	5 m, Art. No. 7000-15101-1380500 10 m, Art. No. 7000-15101-1381000	
Outputs		
Actuator supply	24 V DC (18...30.2 V), acc. to EN 61131-2 (4 voltage circuits with cross circuit monitoring, Σ max. 2 A)	
Safe actuator circuits	4	
Switching current per output	0.5 A	
Module diagnostics		
Supply voltage system/actuator	$U_s < 18$ V (LED red) / $U_a < 18$ V (LED red)	
Peripheral fault	combined LED (red)	
Connection cable		
Type/length	cross link protection/0.5 m	
Dimensions H x W x D		
	34.5 x 151 x 30 mm	

- Passive safety outputs
- Up to safety category 4/PL e possible with two channel safety function

Cube67 D06 D06 E 6xM12 K3



Ordering data	Approval	Art. No.
	cULus	56605
System connection		
Communication and supply voltages	via system hybrid cable	
I/O ports		
PIN 2	output	
PIN 4	output	
Outputs		
Actuator supply	24 V DC (18...30.2 V), acc. to EN611131-2 (2 circuits Σ each max. 4 A)	
Safe actuator circuits	2	
Switching current per output	1.6 A, short circuit and overload protected	
Module diagnostics		
Supply voltage system/actuator	$U_s < 18$ V (LED red) / $U_a > 18$ V (LED green)	
Peripheral fault	M12 port-related LED (red)	
Dimensions H x W x D		
	34.5 x 126 x 50 mm	

CUBE67 ANALOG INPUTS

For voltage

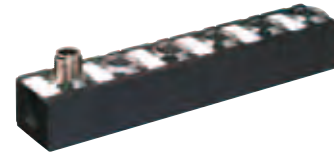
Cube67 AI4 C 4xM12 (U)

Voltage



Cube67 AI4 E 4xM12 (U)

Voltage



Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56700	cULus	56701
System connection				
Communication and supply voltages	via system hybrid cable			
Inputs				
Sensor supply	24 V DC (18...30.2 V), ≤ 200 mA			
PIN 2	voltage input (+)			
PIN 4	voltage input (-)			
Inputs current/voltage				
Number of channels	4			
Input resistance	approx. 1 MOhm, difference input			
Range	± 10 V DC, 0...10 V DC			
Resolution	15 Bit + sign			
Conversion time	approx. 4 ms per channel			
Module diagnostics				
Supply voltage sensor/system	U _s < 18 V (LED red)			
Peripheral fault	M12 port-related LED (red)			
Dimensions H x W x D		34.5 x 126 x 30 mm	34.5 x 151 x 30 mm	

For current

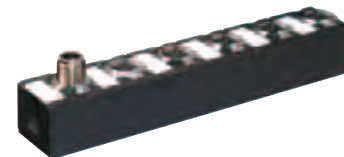
Cube67 AI4 C 4xM12 (I)

Current



Cube67 AI4 E 4xM12 (I)

Current



Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56730	cULus pending	56731
System connection				
Communication and supply voltages	via system hybrid cable			
Inputs				
Sensor supply	24 V DC (18...30.2 V), ≤ 200 mA			
PIN 2	current input (+)			
PIN 4	current input (-)			
Inputs current/voltage				
Number of channels	4			
Input resistance	approx. 300 Ohm, difference input			
Range	0...20 mA, 4...20 mA			
Resolution	15 Bit			
Conversion time	approx. 4 ms per channel			
Module diagnostics				
Supply voltage sensor/system	U _s < 18 V (LED red)			
Peripheral fault	M12 port-related LED (red)			
Dimensions H x W x D		34.5 x 126 x 30 mm	34.5 x 151 x 30 mm	

CUBE67 ANALOG INPUTS

For temperature converter

Cube67 AI4 C 4xM12 RTD

PT100



Cube67 AI4 E 4xM12 RTD

PT100



Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56740	cULus pending	56741
System connection				
Communication and supply voltages	via system hybrid cable			
Inputs				
Connection technology	2, 3, 4 wire			
Number of channels	4			
Accuracy (ambient temperature 0...50 °C)	≤ ± 0.5 %			
Technical Data				
Sensor types	Pt 100, 200, 500, 1000, Ni 100, 120, 200, 500, 1000, R 0...3000 Ω			
Conversion time	approx. 58 ms per channel			
Data format	15 bit + sign			
Module diagnostics				
Supply voltage sensor	U _s <18 V (LED red)			
Wire break, upper/lower limit	LED red per channel			
Dimensions H x W x D	34.5 x 126 x 30 mm		34.5 x 151 x 30 mm	

For temperature converter

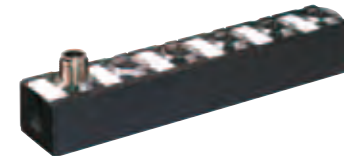
Cube67 AI4 C 4xM12 TH

Thermo elements



Cube67 AI4 E 4xM12 TH

Thermo elements



Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56748	cULus pending	56749
Accessories				
Compensation connector M12 straight				
Compensation connector M12 90°				
				56945
				56946
System connection				
Communication and supply voltages	via system hybrid cable			
Inputs				
Connection technology	2 wire			
Number of channels	4			
Accuracy (ambient temperature 0...50 °C)	≤ ± 0,5%, cold junction compensation inside connector			
Technical Data				
Sensor types	K, N, J, E, R			
Conversion time	approx. 65 ms per channel			
Data format	15 bit + sign			
Module diagnostics				
Supply voltage sensor	U _s <18 V (LED red)			
Wire break, upper/lower limit	LED red per channel			
Dimensions H x W x D	34.5 x 126 x 30 mm		34.5 x 151 x 30 mm	

CUBE67 ANALOG OUTPUTS

For voltage

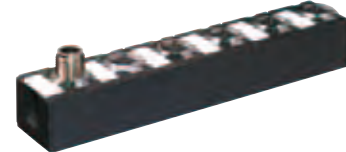
Cube67 AO4 C 4xM12 (U)

Voltage



Cube67 AO4 E 4xM12 (U)

Voltage



Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56710	cULus pending	56711
System connection				
Communication and supply voltages	via system hybrid cable			
Outputs				
Sensor supply	≤ 1.6 A per M12 female via actuator supply			
PIN 4	voltage output			
Outputs voltage				
Number of channels	4			
Load resistance	≥ 500 Ohm			
Range	± 10 V DC, 0...10 V DC			
Resolution	11 Bit + sign			
Conversion time	approx. 1 ms per channel			
Module diagnostics				
Supply voltage system/actuator	U _S < 18 V (LED red)/U _A < 18 V (LED red)			
Peripheral fault	M12 port-related LED (red)			
Dimensions H x W x D	34.5 x 126 x 30 mm		34.5 x 151 x 30 mm	

For current

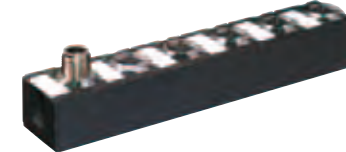
Cube67 AO4 C 4xM12 (I)

Current



Cube67 AO4 E 4xM12 (I)

Current



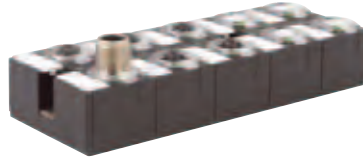
Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56720	cULus pending	56721
System connection				
Communication and supply voltages	via system hybrid cable			
Outputs				
Sensor supply	≤ 1.6 A per M12 female via actuator supply			
PIN 4	current output			
Outputs current				
Number of channels	4			
Load resistance	≤ 500 Ohm			
Range	0...20 mA, 4...20 mA			
Resolution	11 Bit			
Conversion time	approx. 1 ms per channel			
Module diagnostics				
Supply voltage system/actuator	U _S < 18 V (LED red)/U _A < 18 V (LED red)			
Peripheral fault	M12 port-related LED (red)			
Dimensions H x W x D	34.5 x 126 x 30 mm		34.5 x 151 x 30 mm	

CUBE67 FUNCTION MODULES

- Multifunctional and user-configurable
- IO Link Master

 IO-Link

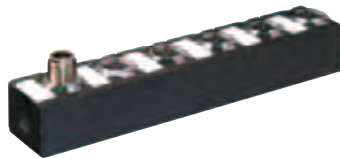
Cube67+ DI012 IOL4 E 8xM12



Ordering data	Approval	Art. No.
	cULus pending	56765
System connection		
Communication and supply voltages	via system hybrid cable	
I/O ports		
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA port 0-3, ≤ 700 mA port 4-7	
PIN 2	input/output/diagnostic input	
PIN4	input/output port 0-3, input/IO Link Master port 4-7	
I/O Link		
Port type	A (B possible without galvanic separation of U_s and U_A)	
Operating mode	SIO, COM1, COM2, COM3	
IO Link specification	1.00	
Inputs		
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible	
Diagnostic inputs		
Type/function	EN61131-2 compatible/24 V = high = O K (LED off); 0 V = low = error (LED red)	
Outputs		
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, via system connection (Σ max. 4 A)	
Switching current per output	1.6 A short circuit and overload protected	
Module diagnostics		
Supply voltage sensor/system/actuator	$U_s < 18$ V (LED red)/ $U_A < 18$ V (LED red)	
Peripheral fault	M12 port-related LED (red)	
Dimensions H x W x D	34.5 x 126 x 50 mm	

Logic module with preprocessing

Cube67 Logic E 4xM12



Ordering data	Approval	Art.No.
	cULus	56771
System connection		
Communication and supply voltages	via system hybrid cable	
Logic function		
Inputs	3 M12 ports per 2 inputs	
Outputs	1 M12 port with 2 outputs	
Logic function	AND/NOR; AND; XOR configurable	
Inputs		
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M12 port	
PIN 2/PIN 4, PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible	
Outputs		
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, Σ max. 4 A (internal system connection)	
Switching current per output	0.5 A short circuit and overload protected	
Module diagnostics		
Supply voltage sensor/system/actuator	$U_s < 18$ V (red)/ $U_A < 18$ V (red)	
Peripheral fault	port-related LED (red)	
Dimensions H x W x D	34.5 x 151 x 30 mm	

CUBE67 FUNCTION MODULES

Counter module with preprocessing

Cube67 CNT 2 C 4xM12



Ordering data	Approval	Art.No.
	cULus	56750
System connection		
Communication and supply voltages	via system hybrid cable	
Counter function		
Counter frequency	max. 300 kHz	
Counter inputs	2, acc. to EN61131-2	
Count depth	32 Bit (31 Bit + sign)	
Inputs		
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M12 port	
PIN 2/PIN 4, PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible	
Outputs		
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, ∑ max. 4 A (internal system connection)	
Outputs	2, (1 output each per counter)	
Switching current per output	1.6 A short circuit and overload protected	
Module diagnostics		
Supply voltage sensor/system/actuator	U _s < 18 V (LED red)/U _A < 18 V (LED red)	
Peripheral fault	port-related LED (red)	
Dimensions H x W x D	34.5 x 126 x 30 mm	

– Multifunctional and user-configurable – Serial interface

Cube67 DIO4 RS485 E 3xM12

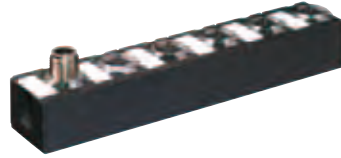


Ordering data	Approval	Art. No.
	cULus	56760
System connection		
Communication and supply voltages	via system hybrid cable	
I/O ports		
PIN 2	input/output/diagnostic	
PIN 4	input/output	
Inputs		
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M12 female	
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible	
Diagnostic inputs		
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M12 female	
Type/function	EN61131-2 compatible/24 V = high = O K (LED off); 0 V = low = error (LED red)	
Outputs		
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, ∑ max. 4 A (internal system connection)	
Switching current per output	0.5 A short circuit and overload protected	
Serial interface		
Type	RS485, galvanically separated, M12 female, 5 pole, B-coded	
Transfer parameter	9.6 kBaud, half duplex, 8 Bit, even parity, 1 stopbit	
Module diagnostics		
Supply voltage sensor/system/actuator	U _s < 18 V (LED red)/U _A < 18 V (LED red) (provided output is parameterized)	
Peripheral fault	M12 port-related LED (red)	
Dimensions H x W x D	34.5 x 126 x 30 mm	

CUBE67 FUNCTION MODULES

- Multifunctional and user-configurable
- Serial interface

Cube67+ DIO4 RS232/485 E 4xM12



Ordering data	Approval	Art. No.
	cULus pending	56761
System connection		
Communication and supply voltages	via system hybrid cable	
I/O ports		
PIN 2	input/output/diagnostic	
PIN 4	input/output	
Inputs		
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M12 female	
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible	
Diagnostic inputs		
Sensor supply	24 V DC (18...30.2 V), acc. to EN61131-2, ≤ 200 mA per M12 female	
Type/function	EN61131-2 compatible/24 V = high = 0 K (LED off); 0 V = low = error (LED red)	
Outputs		
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, ∑ max. 4 A (internal system connection)	
Switching current per output	0.5 A, short circuit and overload protected	
Serial interface		
Type	RS232 or 485, galvanically separated, M12 female, 5 pole, B-coded	
	RS232: up to 230.4 kBaud, full duplex	
	RS485: up to 230.4 kBaud, half duplex	
Module diagnostics		
Supply voltage sensor/system/actuator	U _s < 18 V (LED red)/U _a < 18 V (LED red) (provided output is parameterized)	
Peripheral fault	M12 port-related LED (red)	
Dimensions H x W x D	34.5 x 151 x 30 mm	

CUBE67 DIGITAL INPUTS/OUTPUTS

Terminal connections

– Multifunctional and user-configurable

Cube67 DIO8/DI8 E TB Box

IP65 protection



Cube67 DIO8/DI8 E TB Rail

IP20 protection



Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus pending	56681	cULus	56691
with additional potential terminals	cULus pending	5668100		
System connection				
Communication and supply voltages	via system hybrid cable			
I/O terminals				
Terminal row X 0 (8 channels)	input			
Terminal row X 1 (8 channels)	input/output			
Terminal row X 2 (sensor supply)	24 V DC (18...30.2 V), acc. to EN61131-2, 8 x ≤ 200 mA			
Terminal row X 3 (reference potential)	0 V			
Terminal row X 4 (free potential)	(only with Art. no. 5668100)		–	
Inputs				
PNP	for 3-wire sensors or mechanical switches, EN61131-2 compatible			
Outputs				
Actuator supply	24 V DC (18...30.2 V), acc. to EN61131-2, via system connection (Σ max. 4 A)			
Switching current per output	0.5 A short circuit and overload protected			
Module diagnostics				
Supply voltage sensor/system/actuator	U _s <18 V (LED red)/U _A <18 V (LED red)			
Peripheral fault	channel-related LED (red)			
Dimensions H x W x D	81 x 130 x 94 mm		45 x 113 x 54 mm	

CUBE20 – MODULAR I/O-STATION

Bus node



– Digital inputs

Cube20 BN-P DI8

PROFIBUS-DP



Ordering data	Approval	Art. No.
	cULus	56001
Fieldbus		
Nominal voltage	24 V DC (18 ...30.2 V), acc. to EN61131-2	
Current consumption	max. 150 mA	
Type	PROFIBUS-DP Slave	
Transfer rate	up to 12 Mbit/s	
Addressing	1...99 via rotary switch	
I/O capacity	modular expandability up to max. 15 Cube20/67 modules	
Inputs/outputs		
Nominal voltage	24 V DC (18 ...30.2 V), acc. to EN61131-2	
Connections	pluggable spring clamp terminal; ≤ 12 A, max. 2.5 mm ²	
Digital inputs	8	
Sensor supply U _s	24 V DC (18...30.2 V), acc. to EN61131-2 ≤ 700 mA per module, short circuit/overload protected	
Diagnostics	module related monitoring of actuator supply with diagnostic via the fieldbus and LED status indication	
General data		
Dimensions H x W x D	117 x 56 x 47 mm	

Bus node



– Digital inputs

Cube20 BN-PNIO DI8

PROFINET IO



Ordering data	Approval	Art. No.
	cULus	56006
Fieldbus		
Nominal voltage	24 V DC (18 ...30.2 V), acc. to EN61131-2	
Current consumption	max. 150 mA	
Type	PROFINET IO Slave	
Transfer rate	100 MBit/s Full Duplex	
Addressing	name allocation via PROFINET IO	
I/O capacity	modular expandability up to max. 15 Cube20/67 modules	
Inputs/outputs		
Nominal voltage	24 V DC (18 ...30.2 V), acc. to EN61131-2	
Connections	pluggable spring clamp terminal; ≤ 12 A, max. 2.5 mm ²	
Digital inputs	8	
Sensor supply U _s	24 V DC (18...30.2 V), acc. to EN61131-2 ≤ 700 mA per module, short circuit/overload protected	
Diagnostics	module related monitoring of actuator supply with diagnostic via the fieldbus and LED status indication	
General data		
Dimensions H x W x D	117 x 56 x 47 mm	

CUBE20 – MODULAR I/O-STATION

Bus node

EtherNet/IP[®]

– Digital inputs

Cube20 BN-E D18

EtherNet-IP



Ordering data	Approval	Art. No.
	cULus	56005
Fieldbus		
Nominal voltage	24 V DC (18 ...30.2 V), acc. to EN61131-2	
Current consumption	max. 150 mA	
Type	EtherNet-IP Slave	
Transfer rate	10/100 MBit/s Full Duplex	
Addressing	DHCP, BOOTP, or IP address via rotary switch	
I/O capacity	modular expandability up to max. 15 Cube20/67 modules	
Inputs/outputs		
Nominal voltage	24 V DC (18 ...30.2 V), acc. to EN61131-2	
Connections	pluggable spring clamp terminal; ≤ 12 A, max. 2.5 mm ²	
Digital inputs	8	
Sensor supply U _s	24 V DC (18...30.2 V), acc. to EN61131-2 ≤ 700 mA per module, short circuit/overload protected	
Diagnostics	module related monitoring of actuator supply with diagnostic via the fieldbus and LED status indication	
General data		
Dimensions H x W x D	117 x 56 x 47 mm	

Cube67/20 System Connection

– Multifunctional I/Os

Cube20 BN-C DIO8

Cube67 system connection



Ordering data	Approval	Art. No.
	cULus	56450
Fieldbus		
Nominal voltage	24 V DC (18 ...30.2 V), acc. to EN61131-2	
Current consumption	max. 80 mA	
Type	Cube67 I/O module	
Addressing	automatically	
I/O capacity	modular expandability up to max. 3 Cube20 modules	
Inputs/outputs		
Nominal voltage	24 V DC (18 ...30.2 V), acc. to EN61131-2	
Connections	pluggable spring clamp terminal; ≤ 12 A, max. 2.5 mm ²	
Multifunctional channels	8 channels alternatively inputs/outputs acc. to EN 61131-2, output load up to 0.5 A/channel, short circuit and overload protected	
Sensor supply U _s	24 V DC (18...30.2 V), acc. to EN61131-2 ≤ 700 mA per module	
Diagnostic output	single channel diagnostic via the fieldbus and LED	
Diagnostic input	module related monitoring of actuator supply with diagnostic via the fieldbus and LED status indication	
General data		
Dimensions H x W x D	117 x 56 x 47 mm	

CUBE20 – MODULAR I/O-STATION

Input module

– Digital I/Os

Cube20 DI32



Ordering data	Approval	Art. No.
	cULus	56112
Internal communication		
Module supply	via system connection	
Current consumption	max. 25 mA	
Inputs		
Number	32	
Sensor voltage U_i	24 V DC (18 ... 30.2 V), acc. to EN 61131-2 via pluggable spring clamp terminals, max. 2.5 mm ²	
Sensor supply U_s	24 V DC (18...30.2 V), acc. to EN61131-2 ≤ 700 mA per module, short circuit/overload protected	
Type	PNP acc. to EN61131-2	
Status indicator	LED yellow per input	
Input filter	1 ms	
Diagnostics	module related monitoring of actuator supply with diagnostic via the fieldbus and LED status indication	
General data		
I/O connection	spring clamp plug-in terminals max. 2.5 mm ²	
Dimensions H x W x D	117 x 56 x 47 mm	

Input module

– Digital I/Os

Cube20 DI32 NPN/PNP



Ordering data	Approval	Art. No.
	cULus	56121
Internal communication		
Module supply	via system connection	
Current consumption	max. 25 mA	
Inputs		
Number	32	
Sensor voltage U_i	24 V DC (18 ... 30.2 V), acc. to EN 61131-2 via pluggable spring clamp terminals, max. 2.5 mm ²	
Sensor supply U_s	24 V DC (18...30.2 V), acc. to EN61131-2 ≤ 700 mA per module, short circuit/overload protected	
Type	PNP or NPN acc. to EN61131-2	
Status indicator	LED yellow per input	
Input filter	1 ms	
Diagnostics	module related monitoring of actuator supply with diagnostic via the fieldbus and LED status indication	
General data		
I/O connection	spring clamp plug-in terminals max. 2.5 mm ²	
Dimensions H x W x D	117 x 56 x 47 mm	

CUBE20 – MODULAR I/O-STATION

Output module

– Digital I/Os

Cube20 D032



Ordering data	Approval	Art. No.
	cULus	56118
Internal communication		
Module supply	via system connection	
Current consumption	max. 25 mA	
Outputs		
Number	32	
Actuator voltage U_A	24 V DC (18 ... 30.2 V), acc. to EN61131-2 via spring clamp terminals, ≤ 12 A, max. 2.5 mm ²	
Switching current per output	0.5 A, short circuit and overload protected	
Lamp load	10 W	
Max. switching frequency	resistive load 50 Hz, inductive load 5 Hz	
Diagnostic	single channel diagnostic via the fieldbus and LED	
General data		
I/O connection	spring clamp plug-in terminals max. 2.5 mm ²	
Dimensions H x W x D	117 x 56 x 47 mm	

Output module

– Digital I/Os

Cube20 D016 2A



Ordering data	Approval	Art. No.
	cULus	56117
Internal communication		
Module supply	via system connection	
Current consumption	max. 25 mA	
Outputs		
Number	16	
Actuator voltage U_A	24 V DC (18 ... 30.2 V), acc. to EN61131-2 via spring clamp terminals, ≤ 12 A, max. 2.5 mm ²	
Switching current per output	2 A, short circuit and overload protected	
Lamp load	40 W	
Max. switching frequency	resistive load 50 Hz, inductive load 5 Hz	
Diagnostic	single channel diagnostic via the fieldbus and LED	
General data		
I/O connection	spring clamp plug-in terminals max. 2.5 mm ²	
Dimensions H x W x D	117 x 56 x 47 mm	

CUBE20 – MODULAR I/O-STATION IP67/IP20

Input/Output module

– Digital I/Os

Cube20 DI16 DO16



Ordering data	Approval	Art. No.
	cULus pending	56168
Internal communication		
Module supply	via system connection	
Current consumption	max. 25 mA	
Inputs		
Number	16	
Sensor voltage U_i	24 V DC (18 ... 30.2 V), acc. to EN 61131-2 via pluggable spring clamp terminals, max. 2.5 mm ²	
Sensor supply U_s	24 V DC (18...30.2 V), acc. to EN61131-2 ≤ 700 mA per module, short circuit/overload protected	
Type	PNP acc. to EN61131-2	
Input filter	1 ms	
Diagnostic input	module related monitoring of actuator supply with diagnostic via the fieldbus and LED status indication	
Outputs		
Number	16	
Actuator voltage U_A	24 V DC (18 ... 30.2 V), acc. to EN 61131-2 via pluggable spring clamp terminals, max. 2.5 mm ²	
Switching current per output	0.5 A, short circuit and overload protected	
Lamp load	10 W	
Max. switching frequency	resistive load 50 Hz, inductive load 5 Hz	
Diagnostics	single channel diagnostic via the fieldbus and LED	
General data		
I/O connection	spring clamp plug-in terminals max. 2.5 mm ²	
Dimensions H x W x D	117 x 56 x 47 mm	

CUBE20 – MODULAR I/O-STATION IP67/IP20

Input module
Output module

– Analog I/Os

Cube20 AI4 U/I

Input module



Cube20 AO4 U/I

Output module

Ordering data	Approval	Art. No	Approval	Art. No.
	cULus	56200	cULus	56220
Internal communication				
Module supply	via system connection			
Current consumption	30 mA from the system, 105 mA from external (U)			
Inputs/outputs				
Number of channels	4 analog inputs		4 analog outputs	
Supply voltage	24 V DC (18 ... 30.2 V), acc. to EN 61131-2 via pluggable spring clamp terminals, max. 2.5 mm ²			
Sensor supply	24 V DC (18 ... 30.2 V), acc. to EN 61131-2 via pluggable spring clamp terminals, max. 2.5 mm ²			
Input type	difference voltage/current input		–	
Voltage inputs				
Input resistance	≥ 1 MOhm acc. to EN 61131-2		–	
Range/resolution	-10 V...+10 V, 0...10 V/15 Bit + sign		–	
Conversion time	≤ 2 ms per channel		–	
Current inputs				
Load resistance	≤ 300 Ohm acc. to EN 61131-2		–	
Range/resolution	0...20 mA, 4...20 mA/15 Bit		–	
Conversion time	<2 ms per channel		–	
Voltage outputs				
Load resistance	–		≥ 1000 Ohm acc. to EN 61131-2	
Range/resolution	–		-10 V ... +10 V, 0...10 V/ 15 Bit + sign	
Conversion time	–		≤ 1 ms per channel	
Current outputs				
Load resistance	–		≤ 600 Ohm acc. to EN 61131-2	
Range/resolution	–		0...20 mA, 4...20 mA/ 15 Bit	
Conversion time	–		≤ 1 ms per channel	
General data				
I/O connection	pluggable spring clamp terminals max. 2.5 mm ²			
Dimensions H x W x D	117 x 56 x 47 mm			

CUBE20 - MODULAR I/O-STATION IP67/IP20

Input module

- Temperature converter
- Analog I/Os

Cube20 AI4 RTD

for resistors and temperature



Cube20 AI4 TH

for thermo elements



Ordering data	Approval	Art. No.	Approval	Art. No.
	cULus	56230	cULus	56240
Internal communication				
Module supply	via system connection			
Current consumption	25 mA from the system, 70 mA from external U _i		25 mA from the system, 45 mA from external U _i	
Analog inputs				
Number of channels	4			
Resolution	15 Bit + sign			
Inputs				
Measuring resistors	Pt100, 200, 500; Ni100, 120, 200, 500, 1000, R 0...3000 Ohm		–	
Conversion time	approx. 600 ms per channel		max. 300 ms per channel	
Input type	3 wire input; +Rx, RLx, -Rx		2 wire input, integrated cold junction compensation	
Thermo elements	–		K, N, E, J, R	
Supply voltage	24 V DC (18 ... 30.2 V), acc. to EN 61131-2 via pluggable spring clamp terminals, max. 2.5 mm ²			
General data				
I/O connection	spring clamp plug-in terminals max. 2.5 mm ²			
Dimensions H x W x D	117 x 56 x 47 mm			

System Connection Cube20/67

Cube20/67 Interface module



Ordering data	Approval	Art. No.
	cULus	56140
Fieldbus		
Nominal voltage	24 V DC (18 ...30.2 V), acc. to EN61131-2	
Current consumption	max. 25 mA	
Type	Cube20 module	
I/O capacity	modular Cube20/67 fieldbus station: max. 16 modules (Cube20 bus node + 15 Cube20/67 modules)	
Cube67 system supply		
Cube67 system connection	max. 10 m	
Connections	pluggable spring clamp terminal; ≤ 12 A, max. 2.5 mm ²	
Sensor supply U _S	24 V DC (18...30.2 V), acc. to EN61131-2 ≤ 4 A	
Actuator supply U _A	24 V DC (18...30.2 V), acc. to EN61131-2 ≤ 4 A	
Module diagnostics		
Communication	LED green	
Undervoltage sensor supply U _S	U ≥ 18 V (LED green), U < 18 V (LED red)	
Undervoltage actuator supply U _A	U ≥ 18 V (LED green), U < 18 V (LED red)	
General data		
Dimensions H x W x D	117 x 56 x 47 mm	

ACCESSORIES

Cube67 Power distributor

Cube67 PD 7/8"



Ordering data	Approval	Art. No.
	cULus	56955
Voltage input		
Operating voltage	24 V DC (18...30.2 V), acc. to EN61131-2	
Connection technology	7/8" male, 5-pole	
Current load	max. 9 A	
Voltage outputs		
Number	4	
Connection technology	M12 female, 6-pole	
Current capacity	max. 4 A	
Short circuit protection	electronically	
Module diagnostics		
Supply voltage	M12 port-related LED (green)	
Peripheral faults	M12 port-related LED (red)	
General data		
Dimensions H x W x D	34.5 x 151 x 30 mm	

Isolation plug connector for Cube67 system cable

Cube67 FSC Pin M12



Cube67 FSC Socket M12 Mount



Cube67 FSC Socket M12



Ordering data	Art. No.	Art. No.	Art. No.
	56947	56948	56949
Technical Data			
Operating voltage	24 V DC		
Operating current	4 A		
Connection	M12 female 6-pole, Han-Brid® male, 6-pole	M12 male 6 pole, Han-Brid® female, 6-pole	
Mating cycles Han-Brid®	≥ 500		
Dimensions H x W x D	74 x 33.5 x 28.5 mm	80.5 x 40 x 40 mm	80.5 x 34 x 32 mm

ACCESSORIES

PROFIBUS Repeater

– 2 segments



MPR67



Ordering data	Approval	Art. No.
	cULus	56960
Voltage input		
Operating voltage	24 V DC (18...30.2 V), acc. to EN61131-2	
Module supply	via PIN 4 sensor supply (7/8" power)	
Current consumption	approx. 80 mA	
Transfer protocol	PROFIBUS-DP	
Transfer rate	up to 12 Mbit/s	
Status indication		
Communication to fieldbus	green static = OK	
Internal communication U _S	static = OK, blinking = no data transfer	
Supply voltage		
Sensor voltage	via 7/8" power, max. 9 A	
Dimensions H x W x D	36 x 151 x 30 mm	

PROFIBUS Repeater

– 3 segments


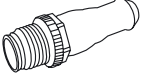




MPR67+



Ordering data	Approval	Art. No.
	cULus pending	56965
Voltage input		
Operating voltage	24 V DC (18...30.2 V), acc. to EN61131-2	
Module supply	via PIN 4 sensor supply (7/8" power)	
Current consumption	approx. 80 mA	
Transfer protocol	PROFIBUS-DP	
Transfer rate	up to 12 Mbit/s	
Status indication		
Communication to fieldbus	green static = OK	
Internal communication U _S	static = OK, blinking = no data transfer	
Supply voltage		
Sensor voltage	via 7/8" power, max. 9 A	
Dimensions H x W x D	36 x 151 x 30 mm	

ACCESSORIES

Blind plugs			Art. No.	
	Screw plug M12	plastic	set 10 pieces 58627	
	Screw plug M8	plastic	set 10 pieces 3858627	
	Screw plug 7/8"	plastic	set 1 piece 55385	
	Diagnostic blind plug M12 Bridge PIN 1 to PIN 2		set 1 piece 7000-13481-000 0000	
	Locking cap M12	plastic	set 4 pieces 56951	
	Locking cap 7/8"	plastic	set 1 piece 55384	
Label accessories			Art. No.	
	for Cube67 Label plate		set 20 pieces 55318	
	for Cube20 Label sheet		label sheet with 40 labels 56113	
Ground strap			Art. No.	
	Ground strap		4 mm ² 100 mm for hole M4 4000-71001-041 0004	
Cube67 adapter plate			Art. No.	
	for Cube67 bus node		56961	
	for Cube67 modules	(8xM12)	56962	
	for Cube67 modules	(4xM12) or (8xM8)	56963	
Connection accessories			Art. No.	
	Cube20 Common terminal block	(40 terminal points)	brown/blue	56109
			blue/yellow	56110
			blue/yellow/brown/blue	56111
			gray/gray/brown/blue	56078
			gray/gray/yellow/blue	56079
			yellow/blue/yellow/blue	56080
			brown/blue/brown/blue	56081
			4 x blue/brown	56083
			4 x gray	56084
			–	56082
–	–			
	PROFIBUS connector	(for rigid cables)	insulation displacement technology (90°)	55585
			insulation displacement technology (180°)	55584
			with PD interface, IDC technology (90°)	55586
	PROFIBUS connector	(for flexible cables)	insulation displacement technology (90°)	55587
			insulation displacement technology (180°)	55583
			with PD interface, IDC technology (90°)	55588
PROFIBUS-Stecker M12		with PD interface M12 (90°)	7000-99441-0000000	
	Cube20 Coding pieces for terminals		set 20 pairs	56115

ACCESSORIES

Cube67 Connector	for external actuator supply	Cable length	(xxxx)	Art. No.
	M12 connector female straight, with open ended wires 2-pole	1.50 m 2.00 m 2.50 m	(0150) (0200) (0250)	7000-15001-414xxxx
	M12 connector female 90°, with open ended wires 2-pole	1.50 m 2.00 m 2.50 m	(0150) (0200) (0250)	7000-15021-414xxxx
Cube67 Connection cables	for external actuator supply	Cable length	(xxxx)	Art. No.
	M12 connection cable male straight, female straight 2-pole	0.30 m 0.60 m 1.00 m 1.50 m 2.00 m	(0030) (0060) (0100) (0150) (0200)	7000-46001-414xxxx
	M12 connection cable male 90°, female 90° 2-pole	0.30 m 0.60 m 1.00 m 1.50 m 2.00 m	(0030) (0060) (0100) (0200)	7000-46021-414xxxx
Cube67 Connection cables	Hybrid cable for communication and supply	Cable length	(xxxx)	Art. No.
	M12 connection cable male straight, female straight shielded, 6-pole	0.15 m 0.30 m 0.60 m 1.00 m 1.50 m	(0015) (0030) (0060) (0100) (0150)	^{1) 2)} 7000-46041-802xxxx
	M12 connection cable male 90°, female 90° shielded, 6-pole	0.15 m 0.30 m 0.60 m 1.00 m 1.50 m	(0015) (0030) (0060) (0100) (0150)	^{1) 2)} 7000-46061-802xxxx
Cube67 T-coupler	for actuator supply			Art. No.
	T-coupler M12/M12, female/male straight, A-coded, 6 pole, shielded	–		7000-46101-000 0000
Terminating resistor	M12	for		Art. No.
	straight, A-coded, 6-pole straight, B-coded, 4-pole straight, A-coded, 5 pole	Cube67 PROFIBUS DeviceNet, CANopen		7000-15041-000 0000 7000-14041-000 0000 7000-13461-000 0000
	straight, A-coded, 6-pole	actuator supply from Cube67 + bus node		7000-15051-000 0000
Note	Differing cable lengths can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps. ¹⁾ suitable for C-tracks, ²⁾ suitable for robots			

ACCESSORIES









Connectors		Cable length	(xxxx)	Art. No.
	M12 connector male straight, with open ended wires shielded, B-coded	1.50 m	(0150)	¹ 7000-14051-841xxxx ² 7000-14051-840xxxx
		3.00 m	(0300)	
		5.00 m	(0500)	
		7.50 m	(0750)	
		10.00 m	(1000)	
	M12 connector male 90°, with open ended wires shielded, B-coded	1.50 m	(0150)	¹ 7000-14081-841xxxx ² 7000-14081-840xxxx
		3.00 m	(0300)	
		5.00 m	(0500)	
		7.50 m	(0750)	
		10.00 m	(1000)	
	M12 connector female straight, with open ended wires shielded, B-coded	1.50 m	(0150)	¹ 7000-14061-841xxxx ² 7000-14061-840xxxx
		3.00 m	(0300)	
		5.00 m	(0500)	
		7.50 m	(0750)	
		10.00 m	(1000)	
	M12 connector female 90°, with open ended wires shielded, B-coded	1.50 m	(0150)	¹ 7000-14071-841xxxx ² 7000-14071-840xxxx
		3.00 m	(0300)	
		5.00 m	(0500)	
		7.50 m	(0750)	
		10.00 m	(1000)	
Connection cables	PROFIBUS	Cable length	(xxxx)	Art. No.
	M12 connection cable male straight, female straight shielded, B-coded	0.30 m	(0030)	¹ 7000-44001-841xxxx ² 7000-44001-840xxxx
		0.60 m	(0060)	
		1.00 m	(0100)	
		1.50 m	(0150)	
		2.00 m	(0200)	
	M12 connection cable male 90°, female straight shielded, B-coded	0.30 m	(0030)	¹ 7000-44021-841xxxx ² 7000-44021-840xxxx
		0.60 m	(0060)	
		1.00 m	(0100)	
		1.50 m	(0150)	
		2.00 m	(0200)	
Connectors	DeviceNet, CANopen	Cable length	(xxxx)	Art. No.
	M12 connector male straight, with open ended wires shielded, A-coded	1.50 m	(0150)	¹ 7000-13105-803xxxx
		3.00 m	(0300)	
		5.00 m	(0500)	
		7.50 m	(0750)	
		10.00 m	(1000)	
	M12 connector male 90°, with open ended wires shielded, A-coded	1.50 m	(0150)	¹ 7000-13125-803xxxx
		3.00 m	(0300)	
		5.00 m	(0500)	
		7.50 m	(0750)	
		10.00 m	(1000)	
	M12 connector female straight, with open ended wires shielded, A-coded	1.50 m	(0150)	¹ 7000-13225-803xxxx
		3.00 m	(0300)	
		5.00 m	(0500)	
		7.50 m	(0750)	
		10.00 m	(1000)	

Note

Differing cable lengths can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

¹) suitable for C-tracks, ²) suitable for robots

ACCESSORIES

Connectors	DeviceNet, CANopen	Cable length	(xxxx)	Art. No.
	M12 connector female 90°, with open ended wires shielded, A-coded	1.50 m 3.00 m 5.00 m 7.50 m 10.00 m	(0150) (0300) (0500) (0750) (1000)	¹ 7000-13251-803xxxx
Connection cables	DeviceNet, CANopen	Cable length	(xxxx)	Art. No.
	M12 connection cable male straight, female straight shielded, A-coded	1.50 m 3.00 m 5.00 m 7.50 m 10.00 m	(0150) (0300) (0500) (0750) (1000)	¹ 7000-40531-803xxxx
	M12 connection cable male 90°, female 90° shielded, A-coded	1.50 m 3.00 m 5.00 m 7.50 m 10.00 m	(0150) (0300) (0500) (0750) (1000)	¹ 7000-40551-803xxxx
Connectors	PROFINET, EtherNET/IP	Cable length	(xxxx)	Art. No.
	M12 connector male straight, with open ended wires shielded, D-coded	1.50 m 3.00 m 5.00 m 7.50 m 10.00 m	(0150) (0300) (0500) (0750) (1000)	¹ 7000-14541-796xxxx ³ 7000-14541-798xxxx
	M12 connector male 90°, with open ended wires shielded, D-coded	1.50 m 3.00 m 5.00 m 7.50 m 10.00 m	(0150) (0300) (0500) (0750) (1000)	¹ 7000-14561-796xxxx ³ 7000-14561-798xxxx
Connection cables	PROFINET, EtherNET/IP	Cable length	(xxxx)	Art. No.
	M12 connection cable male straight, male straight shielded, D-coded	1.50 m 3.00 m 5.00 m 7.50 m 10.00 m	(0150) (0300) (0500) (0750) (1000)	¹ 7000-44511-796xxxx ³ 7000-44511-798xxxx
	M12 connection cable male 90°, male 90° shielded, D-coded	1.50 m 3.00 m 5.00 m 7.50 m 10.00 m	(0150) (0300) (0500) (0750) (1000)	¹ 7000-44561-796xxxx ³ 7000-44561-798xxxx
	M12-RJ45 connection cable male straight, male straight shielded, D-coded	1.50 m 3.00 m 5.00 m 7.50 m 10.00 m	(0150) (0300) (0500) (0750) (1000)	¹ 7000-44711-796xxxx

Note

Differing cable lengths can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

¹) suitable for C-tracks, ²) suitable for robots, ³) suitable for C-tracks, jacket color violet

ACCESSORIES

Connection cable	PROFINET, EtherNET/IP	Cable length	(xxxx)	Art. No.
	RJ45-RJ45 connection cable male straight, male straight shielded	1.50 m 3.00 m 5.00 m 7.50 m 10.00 m	(0150) (0300) (0500) (0750) (1000)	¹⁾ 7000-99711-796xxxx
7/8" Plug connector	Power supply	Cable length	(xxxx)	Art. No.
	7/8" round plug connector female straight, with open ended wires, PUR, wire cross section 1.5 mm ² female straight, with open ended wires, PUR/PVC, wire cross section 1.5 mm ²	1.50 m 3.00 m 5.00 m 7.50 m 10.00 m	(0150) (0300) (0500) (0750) (1000)	¹⁾ 7000-78021-961XXXX 7000-78021-965XXXX
	7/8" round plug connector female 90°, with open ended wires, PUR, wire cross section 1.5 mm ² female 90°, with open ended wires, PUR/PVC, wire cross section 1.0 mm ²	1.50 m 3.00 m 5.00 m 7.50 m 10.00 m	(0150) (0300) (0500) (0750) (1000)	¹⁾ 7000-78051-961XXXX 7000-78051-965XXXX
7/8" Connection cables	Power supply	Cable length	(xxxx)	Art. No.
	7/8" connection cable male straight, female straight, PUR wire cross section 1.5 mm ² male straight, female straight, PUR/PVC, wire cross section 1.0 mm ²	0.30 m 0.60 m 1.00 m 1.50 m 2.00 m	(0030) (0600) (0100) (0150) (0200)	¹⁾ 7000-50021-961XXXX 7000-50021-965XXXX
	7/8" connection cable male 90°, female 90°, PUR wire cross section 1.5 mm ² male 90°, female 90°, PUR/PVC, wire cross section 1.0 mm ²	0.30 m 0.60 m 1.00 m 1.50 m 2.00 m	(0030) (0060) (0100) (0150) (0200)	¹⁾ 7000-50051-961XXXX 7000-50051-965XXXX
7/8" T-coupler	Power supply			Art. No.
	T-coupler 7/8", male straight, female straight 5-pole	–		7000-50061-000 0000

Note

Differing cable lengths can be ordered in 0.2 m steps, from 2 m on in 0.5 m steps.

¹⁾ suitable for C-tracks



stay connected

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