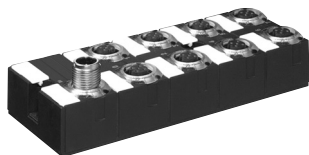


Compact modules

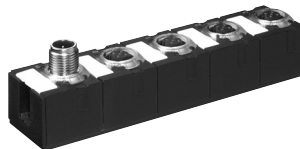
Digital inputs

Protection IP67

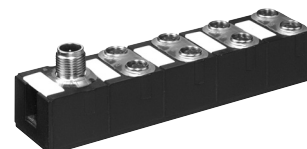
Cube67 DI16 C 8xM12



Cube67 DI8 C 4xM12



Cube67 DI8 C 8xM8



Ordering data	Art.-No.	Art.-No.	Art.-No.
	approvals	approvals	approvals
	UL	UL	UL
	56602	56612	56622
Internal communication			
Module supply	via internal system connection		
Status indicator	U _S : sensor supply and internal supply voltage (green = OK.); U _A : actuator supply (green = OK.)		
Current usage	approx. 50 mA		approx. 30 mA
Terminator	integrated		
Configuration			
PIN 2	input/diagnostic		–
PIN 4	input		–
Inputs			
Sensor supply	24 V DC (18...30.2 V), to EN61131-2, ≤ 200 mA per M8/M12 female		
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible		
Status indicator	yellow LED per input		
Input filter	1 ms		
Diagnostic input			
Sensor supply	24 V DC (18...30.2 V), to EN61131-2, ≤ 200 mA per M12 female		
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible		
Status indicator	red LED per port		
Function	24 V = high = OK. (LED off); 0 V = low = error (LED red)		
Input filter	1 ms		
Diagnostic			
Under voltage sensor	U _S < 18 V (red)		
Communication to bus module	U _S blinking green if no data exchange		
Sensor short-circuit	PIN 2 and PIN 4 red LED per M12 port		PIN 4 LED (red) per input
Diagnostic to DESINA® (PIN 2)	PIN 2 diagnostic with red LED per M12 port		–
General data			
Temperature range	0...+55 °C (storage temperature -20...+75 °C)		
Mounting method	4-hole screw mounting	2-hole screw mounting	
Dimension H x W x D	34.5 x 126 x 50 mm	34.5 x 126 x 30 mm	
Dimension drawing			
Notes	Accessories, terminators and blind plugs see page 2.1.24. Contact layout see page 2.1.25. Connection cables can be found in chapter 1.4... All housings are potted.		

Compact modules

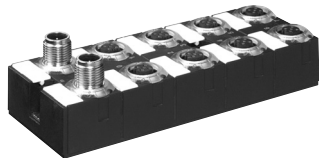
Digital inputs
Digital outputs

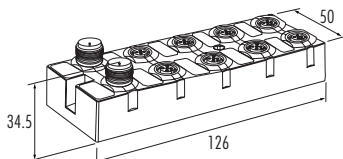
Multifunctional
Parameters free definable

Protection IP67

Cube67 DI016 C 8xM12

Cube67 DI016 C 8xM12 1.6A



Ordering data	Art.-No.	Art.-No.
approvals		approvals
UL	56600	filed for UL 56640
Internal communication		
Module supply	via internal system connection	
Status indicator	U _S : sensor supply and internal supply voltage (green = OK.); U _A : actuator supply (green = OK.)	
Current usage	approx. 50 mA	
Terminator	integrated	
Configuration		
PIN 2	input/output/diagnostic	
PIN 4	input/output	
Inputs		
Sensor supply	24 V DC (18...30.2 V), to EN61131-2, ≤ 200 mA per M12 female	
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible	
Status indicator	yellow LED per input	
Input filter	1 ms	
Diagnostic input		
Sensor supply	24 V DC (18...30.2 V), to EN61131-2, ≤ 200 mA per M12 female	
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible	
Status indicator	red LED per port	
Function	24 V = high = OK. (LED off); 0 V = low = error (LED red)	
Input filter	1 ms	
Outputs		
Actuator supply (M12 left row)	24 V DC (18...30.2 V), to EN61131-2 via system connection (total max. 4 A)	
Actuator supply (M12 right row)	24 V DC (18...30.2 V), to EN61131-2 via separate supply (total max. 4 A)	
Switching current per output	0.5 A short-circuit and overload protected	1.6 A short-circuit and overload protected
Lamp load	10 W	
Max. switching frequency	resistive load 50 Hz, inductive load 5 Hz	
Status indicator	output activated LED yellow; output short-circuit LED red; fault connection LED red	
Diagnostic		
Under voltage sensor/system	U _S < 18 V (red)	
Under voltage actuator	U _A < 18 V (red) (if parameterized as output)	
Communication to bus module	U _S blinking green if no data exchange	
Actuator short-circuit	PIN 2 and/or PIN 4 red LED per output	
Sensor short-circuit	PIN 2 and/or PIN 4 red LED per input	
Diagnostic to DESINA® (PIN 2)	PIN 2 diagnostic with red LED per M12 port	
Actuator warning	PIN 2 and/or PIN 4 red LED per output	
General data		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)	
Mounting method	4-hole screw mounting	
Dimension H x W x D	34.5 x 126 x 50 mm	
Dimension drawing		
		
Notes	<p>Accessories, terminators and blind plugs see page 2.1.24. Contact layout see page 2.1.25. Connection cables can be found in chapter 1.4... All housings are potted.</p>	

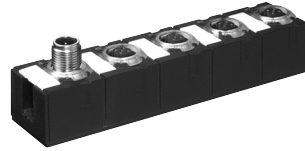
Compact modules

Digital inputs
Digital outputs

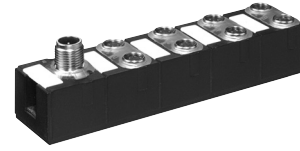
Multifunctional
Parameters free definable

Protection IP67

Cube67 DI08 C 4xM12



Cube67 DI08 C 8xM8



Ordering data	Art.-No.	Art.-No.
approvals		approvals
UL	56610	UL
		56620
Internal communication		
Module supply	via internal system connection	
Status indicator	U _s : sensor supply and internal supply voltage (green = OK.); U _a : actuator supply (green = OK.)	
Current usage	approx. 30 mA	
Terminator	integrated	
Configuration		
PIN 2	input/output/diagnostic	
PIN 4	input/output	
Inputs		
Sensor supply	24 V DC (18...30.2 V), to EN61131-2, ≤ 200 mA per M8/M12 female	
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible	
Status indicator	yellow LED per input	
Input filter	1 ms	
Diagnostic input		
Sensor supply	24 V DC (18...30.2 V), to EN61131-2, ≤ 200 mA per M12 female	—
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible	—
Status indicator	red LED per port	—
Function	24 V = high = OK. (LED off); 0 V = low = error (LED red)	—
Input filter	1 ms	—
Outputs		
Actuator supply	24 V DC (18...30.2 V), to EN61131-2 via system connection (total max. 4 A)	
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	
Status indicator	output activated yellow LED; output short-circuit red LED; fault connection red LED	
Diagnostic		
Under voltage sensor/system	U _s < 18 V (red)	
Under voltage actuator	U _a < 18 V (red) (if parameterized as output)	
Communication to bus module	U _s blinking green if no data exchange	
Actuator short-circuit	PIN 2 and/or PIN 4 red LED per output	PIN 4 red LED per output
Sensor short-circuit	PIN 2 and/or PIN 4 red LED per input	PIN 4 red LED per input
Diagnostic to DESINA® (PIN 2)	PIN 2 diagnostic with red LED per M12 port	—
Actuator warning	PIN 2 and/or PIN 4 red LED per output	PIN 4 red LED per output
General data		
Temperature range	0...+ 55 °C (storage temperature - 20...+ 75 °C)	
Mounting method	2-hole screw mounting	
Dimension	H x W x D	34.5 x 126 x 30 mm
Dimension drawing		
Notes	Accessories, terminators and blind plugs see page 2.1.24. Contact layout see page 2.1.25. Connection cables can be found in chapter 1.4... All housings are potted.	

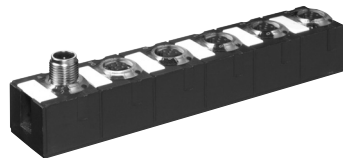
Function modules

Logic module

Counter module with process preparation

Protection IP67

Cube67 Logic E 4xM12



Cube67 CNT 2 C 4xM12



Ordering data	Art.-No.	Art.-No.
approvals		approvals
filed for UL	56771	filed for UL 56750
Internal communication		
Module supply	via internal system connection	
Status indicator	U _S : sensor supply and internal supply voltage (green = OK.); U _A : actuator supply (green = OK.)	
Current usage	approx. 30 mA	
Inputs		
Sensor supply	24 V DC (18...30.2 V), to EN61131-2, ≤ 200 mA per M12 female	
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible	
Status indicator	yellow LED per input	
Input filter	1 ms	
Logic module		
Inputs	6	–
Outputs	2	–
Logical functions	AND/NOR; AND; XOR parameterized	
Counter		
Counter frequency	–	max. 300 kHz
Counter input	–	to EN61131-2
Count depth	–	32 Bit (31 Bit + sign)
Outputs		
Actuator supply	24 V DC (18...30.2 V), to EN61131-2, total max. 4 A (internal system connection)	
Switching current per output	0.5 A short-circuit and overload protected	1.6 A short-circuit and overload protected
Lamp load	10 W	30 W
Max. switching frequency	resistive load 50 Hz, inductive load 5 Hz	
Status indicator	output activated yellow LED; output short-circuit red LED, fault connection red LED red	
Diagnostic		
Under voltage sensor/system	U _S < 18 V (red)	
Under voltage actuator	U _A < 18 V (red)	
Communication to bus module	U _S blinking green if no data exchange	
Actuator short-circuit	PIN 2 and/or PIN 4 red LED per output	
Sensor short-circuit	PIN 2 and/or PIN 4 red LED per input	
Actuator warning	PIN 2 and/or PIN 4 red LED per output	
General data		
Temperature range	0...+55 °C (storage temperature -20...+75 °C)	
Mounting method	2-hole screw mounting	
Dimension	H x W x D	34.5 x 126 x 30 mm
Dimension drawing		
Notes		
Accessories, terminators and blind plugs see page 2.1.24. Contact layout see page 2.1.26. Connection cables can be found in chapter 1.4... All housings are potted.		

Analog modules for Temperature converter

Analog inputs

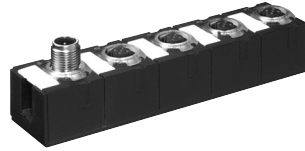
Protection IP67

Cube67 AI C 4xM12 RTD

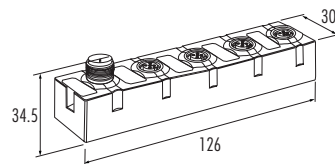
Input module for PT100

Cube67 AI C 4xM12 TH

Input module for thermo elements



Ordering data	Art.-No.	Art.-No.
approvals filed for UL	56740	approvals filed for UL 56748
Internal communication	via internal system connection	
Module supply	U _S : sensor supply and internal supply voltage (green = OK.); U _A : actuator supply (green = OK.)	
Status indicator	approx. 50 mA	
Current usage		
Inputs		
Connection technology	2-, 3-, 4-wire	2-wire
Number of channels	4	4
Accuracy (ambient temperature 0...50 °C)	≤ ± 0.5 %	≤ ± 0.5 %, cold junction combination plug
Technical data		
Sensor types	Pt 100, 200, 500, 1000, Ni 100, 120, 200, 500, 1000, R 0...3000 Ω	K, N, J, E, R
Conversion time	approx. 58 ms per channel	approx. 65 ms per channel
Data format	15 Bit + sign	
Diagnostic		
Under voltage sensor	U _S < 18 V (red)	
Wire-break, upper/low limit	red LED per channel	
General data		
Temperature range	0...+ 55 °C (storage temperature - 20...+ 75 °C)	
Mounting method	2-hole screw mounting	
Dimension	H x W x D	34.5 x 126 x 30 mm
Dimension drawing		



Notes

Accessories, terminators and blind plugs see page 2.1.24. Contact layout see page 2.1.26. Connection cables can be found in chapter 1.4...
All housings are potted.

Analog modules for current and voltage

Protection IP67

Cube67 AI4 C 4xM12 (I)

Input module
Current

Cube67 AI4 C 4xM12 (U)

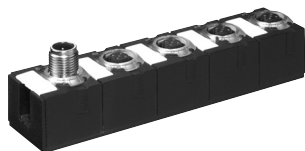
Input module
Voltage

Cube67 AO4 C 4xM12 (I)

Output module
Current

Cube67 AO4 C 4xM12 (U)

Output module
Voltage



Ordering data	Art.-No.	Art.-No.	Art.-No.	Art.-No.
	approvals UL	56730	approvals UL	56700
			approvals UL	56720
			approvals UL	56710
Internal communication				
Module supply	via internal system connection			
Status indicator	U_S : sensor supply and internal supply voltage (green = OK.); U_A : actuator supply (green = OK.)			
Current usage	approx. 50 mA			approx. 75 mA
Inputs/outputs				
Sensor supply	24 V DC (18...30.2 V), ≤ 200 mA		≤ 1.6 A per M12 female via actuator supply	
PIN 2	current input (+)	voltage input (+)	–	–
PIN 4	current input (–)	voltage input (–)	current output	voltage output
Voltage inputs				
Input resistor	–	approx. 1 M Ω m, difference input	–	–
Input range	–	± 10 V DC, 0...10 V DC	–	–
Resolution	–	15 Bit + sign	–	–
Conversion time	–	approx. 2 ms per channel	–	–
Current inputs				
Load	approx. 300 Ω m, difference input	–	–	–
Input range	0...20 mA, 4...20 mA	–	–	–
Resolution	15 Bit	–	–	–
Conversion time	approx. 2 ms per channel	–	–	–
Current outputs				
Load	–	–	≤ 500 Ω m	–
Range	–	–	0...20 mA, 4...20 mA	–
Resolution	–	–	11 Bit	–
Conversion time	–	–	approx. 1 ms per channel	–
Voltage outputs				
Load	–	–	–	≥ 500 Ω m
Output range	–	–	–	± 10 V DC, 0...10 V DC
Resolution	–	–	–	11 Bit + sign
Conversion time	–	–	–	approx. 1 ms per channel
Diagnostic				
Under voltage sensor	$U_S < 18$ V (red)	–	$U_A < 18$ V (red)	–
Under voltage actuator	–	–	$U_A < 18$ V (red)	–
Communication	U_S blinking (green) if no data exchange			
Sensor short-circuit	red LED at M12 plug			
Overl./short-circuit/wire-break/upper/low limit	red LED per channel			
General data				
Temperature range	0...+55 °C (storage temperature -20...+75 °C)			
Mounting method	2-hole screw mounting			
Dimension	H x W x D	34.5 x 126 x 30 mm		
Dimension drawing				
Notes				
Accessories, terminators and blind plugs see page 2.1.24. Contact layout see page 2.1.26. Connection cables can be found in chapter 1.4... All housings are potted.				