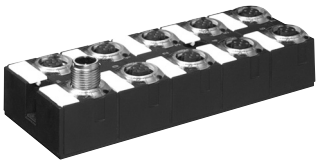
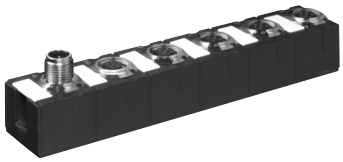
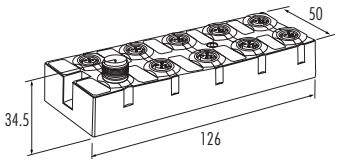
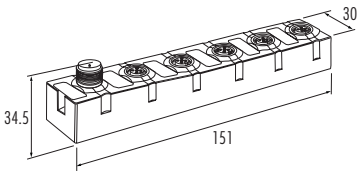
MURR ELEKTRONIK

Expansion modules

Digital inputs
Digital outputs

Multifunctional
Parameters free definable

Protection IP67

	Cube67 DI016 E 8xM12	Cube67 DI08 E 4xM12	Cube67 DIO8 E 4xM12 1A
			
Ordering data	**Art.-No.**	**Art.-No.**	**Art.-No.**
	approvals	approvals	approvals
	UL **56601**	UL **56611**	filed for UL **56631**
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		
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 port		
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		1.0 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	2-hole screw mounting	
Dimension H x W x D	34.5 x 126 x 50 mm	34.5 x 151 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.		

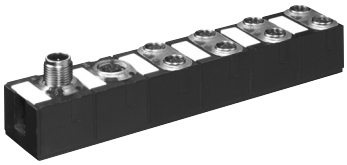
Expansion modules

Digital inputs
Digital outputs

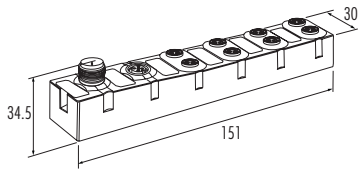
Multifunctional
Parameters free definable

Protection IP67

Cube67 DI08 E 8xM8



Ordering data		**Art.-No.**
	approvals	
	UL	**56621**
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	
Configuration		
PIN 2	–	
PIN 4	input/output	
Inputs		
Sensor supply	≤ 200 mA per M8 female	
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible	
Status indicator	yellow LED per input	
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	
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 4 red LED per output	
Sensor short-circuit	PIN 4 red LED per input	
Diagnostic to DESINA® (PIN 2)	–	
Actuator warning	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 151 x 30 mm	
Dimension drawing		



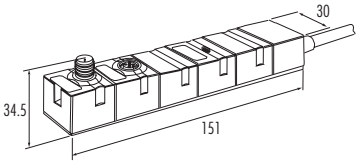
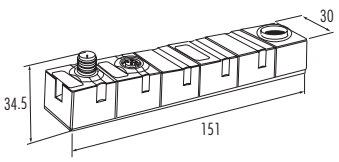
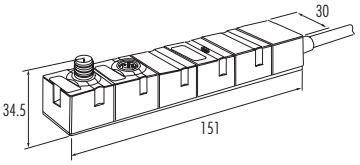
Notes	
	Accessories, terminators and blind plugs see page 2.1.24. Contact layout see page 2.1.25. Connection cables can be found in chapter 1.4… All housings are potted.

Expansion modules

Digital inputs
Digital outputs

Multifunctional
Parameters free definable

Protection IP67

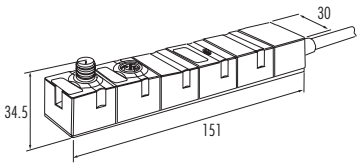
	Cube67 DI08 E Cable	Cube67 DI08 E M16 0.5A	Cube67 DI08 E Cable M12 ID
Ordering data	**Art.-No.**	**Art.-No.**	**Art.-No.**
	approvals	approvals	approvals
	filed for UL **56661**	filed for UL **56663**	filed for UL **5666500**
Internal communication			
Module supply	via internal system connection		
Status indicator	U_S: sensor supply and internal supply voltage (green = OK.); U_A: actuator supply (green = OK.)		
Current usage	approx. 30 mA		
Configuration			
I/O channels	input/output		suitable for EUCHNER type CIT 3PL1M30-STR
Inputs			
Sensor supply	1.6 A	200 mA	suitable for EUCHNER type CIT 3PL1M30-STR
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible		suitable for EUCHNER type CIT 3PL1M30-STR
Input filter	1 ms		
Outputs			
Actuator supply	24 V DC (18…30.2 V), to EN61131-2		suitable for EUCHNER type CIT 3PL1M30-STR
Switching current per output	max. 70 mA	0.5 A short-circuit and overload protected	suitable for EUCHNER type CIT 3PL1M30-STR
Total current for all outputs	total max. 4 A (internal system connection)		suitable for EUCHNER type CIT 3PL1M30-STR
Max. switching frequency	resistive load 50 Hz, inductive load 5 Hz		suitable for EUCHNER type CIT 3PL1M30-STR
Status indicator	combined 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	combined red LED		
Sensor short-circuit	combined red LED		
Connection cable			
Cable construction	10 x 0.34 mm² PVC OBLIY-CY	–	PUR-OB
Length	0.5 m	–	0.5 m
Connector	single wires	–	M12 female 8-pole
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 151 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.		

Expansion modules

Digital outputs

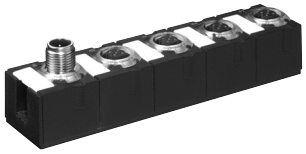
Protection IP67

Ordering data	Cube67 DO8 E Valve	Art.-No.	Cube67 DO16 E Valve	Art.-No.	Cube67 DO32 E Valve	Art.-No.
	label/approvals		label/approvals		label/approvals	
With open ended wires	Cube67 DO8 E Valve/*	**56655**	Cube67 DO16 E Valve/UL	**56651**	Cube67 DO32 E Valve/*	**56656**
With pre-wired multipol connector	Cube67 DO8 E Valve CPV/*	**5665500**	Cube67 DO16 E Valve CPV/*	**5665100**	Cube67 DO32 E Valve VM10/*	**5665600**
	Cube67 DO8 E Valve CPV (9)/*	**5665501**	Cube67 DO16 E Valve V/*	**5665101**	Cube67 DO32 E MPA/*	**5665601**
			Cube67 DO16 E Valve V20/22/*	**5665110**	Cube67 DO32 E HF03/*	**5665602**
			Cube67 DO16 E Valve VM10/*	**5665111**		
			Cube67 DO16 E Valve V20/22B/*	**5665112**		
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					
Outputs						
Actuator supply	24 V DC (18…30.2 V), to EN61131-2, total max. 4 A (internal system connection)					
Switching current per output	max. 70 mA				0.5 A short-circuit and overload protected	
Lamp load	1.5 W				10 W	
Max. switching frequency	resistive load 50 Hz, inductive load 5 Hz					
Status indicator	combined LED; output short-circuit red LED, wire-break red LED					
Diagnostic						
Under voltage 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	combined red LED					
Connection cable						
Cable construction	10 x 0.34 mm² PUR-OB		18 x 0.25 mm² PVC		36 x 0.14 mm² PVC	
Length	0.5 m		0.5 m		0.5 m	
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 151 x 30 mm					
Dimension drawing						

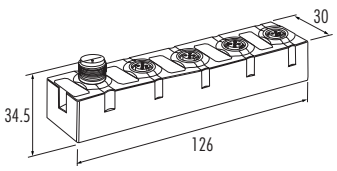


Notes	
	Accessories, terminators and blind plugs see page 2.1.24. Connection cables can be found in chapter 1.4… All housings are potted. *Approvals for UL is filed.

Function modules	Cube67 Logic E 4xM12	Cube67 CNT 2 C 4xM12
Logic module		
Counter module with process preparation		
Protection IP67		

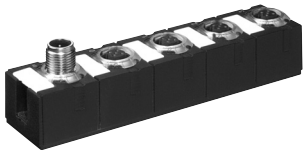


Ordering data	Art.-No.	Art.-No.
	approvals	approvals
	filed for UL **56771**	filed for UL **56750**
Internal communication		
Module supply	via internal system connection	
Status indicator	U_S: sensor supply and internal supply voltage (green = OK.); U_A: actuator supply (green = OK.)	
Current usage	approx. 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 frequence	–	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		

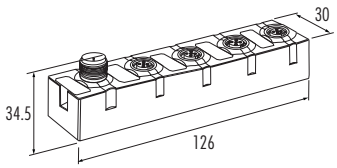


Notes	
	Accessories, terminators and blind plugs see page 2.1.24. Contact layout see page 2.1.26. Connection cables can be found in chapter 1.4… All housings are potted.

Function modules	**Cube67 DIO4 RS485 E 3xM12**
Digital inputs **Digital outputs**	
Multifunctional **Parameters free definable**	
Serial interface	
Protection IP67	



Ordering data		**Art.-No.**
	approvals	
	filed for UL	**56760**
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	
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	
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	
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	
RS485		
Type	RS485, galvanically separated, M12 female, 5-pole, difference signal	
Transmission parameters	9600 Baud, half douplex, 8 bit, even parity, 1 Stopbit	
Diagnostic		
Under voltage sensor	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	2-hole screw mounting	
Dimension H x W x D	34.5 x 126 x 30 mm	
Dimension drawing		

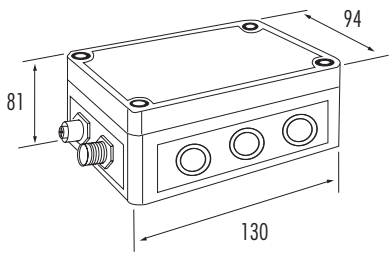
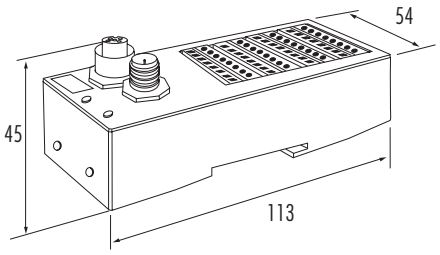


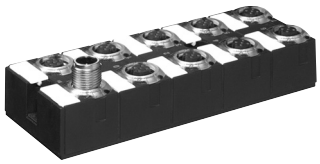
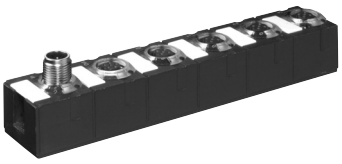
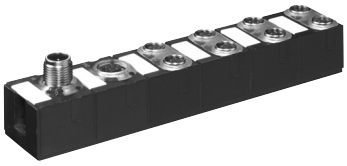
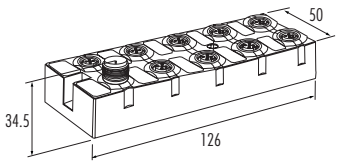
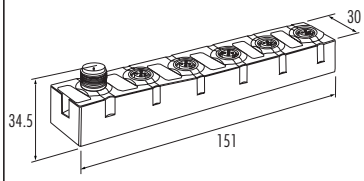
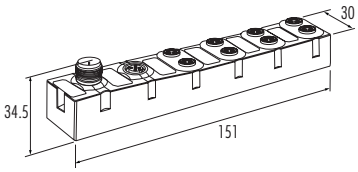
Notes	
	Accessories, terminators and blind plugs see page 2.1.24. Contact layout see page 2.1.25 and 2.1.26. Connection cables can be found in chapter 1.4… S7 function module for SEW MOVIMOT® via www.murrelektronik.com. All housings are potted.

Terminal modules

Digital inputs
Digital outputs

Parameters free definable

	Cube67 DIO8/DI8 E TB Box	Cube67 DIO8/DI8 E TB Rail
Ordering data	**Art.-No.**	**Art.-No.**
	approvals	approvals
	filed for UL **56681**	filed for UL **56691**
With additional common terminals	filed for UL **5668100**	
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	
Configuration		
Terminal row X 0 (8 channels)	input	
Terminal row X 1 (8 channels)	input/output	
Inputs		
Sensor supply	24 V DC (18…30.2 V), to EN61131-2, 8 x ≤ 200 mA	
Type	for 3-wire sensors or mechanical switches, PNP, EN61131-2 compatible	
Status indicator	yellow LED per input	
Input filter	1 ms	
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	
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	LED (red) per output	
Sensor short-circuit	PIN 2 and/or PIN 4 red LED per input	
Diagnostic to DESINA®	diagnostic with red LED per terminal (X 0)	
Actuator warning	red LED per output	
General data		
Protection	IP66	IP20
Temperature range	0…+ 55 °C (storage temperature - 20…+ 75 °C)	
Mounting method	screw mounting	DIN-rail mounting EN60715
Dimension H x W x D	81 x 130 x 94 mm	45 x 113 x 54 mm
Dimension drawing		
		
Notes		
	Accessories, terminators and blind plugs see page 2.1.24. Connection diagrams and contact layout see page 2.1.27 All housings are potted.	

Expansion modules	Cube67 DI16 E 8xM12	Cube67 DI8 E 4xM12	Cube67 DI8 E 8xM8
Digital inputs			
Protection IP67			
Ordering data	**Art.-No.**	**Art.-No.**	**Art.-No.**
	approvals	approvals	approvals
	UL **56603**	UL **56613**	UL **56623**
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
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 DC = high = OK. (LED off); 0 V DC = 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 red LED 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 151 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.		