Diode Modules / Assembly Modules





MKS-D

Diode modules, which snap onto DIN-rail to EN 50022 and 50035 with single diode outputs onto terminals or resp. commonly joined on one side.

Page 3.14.2



MKS-LDP

Diode modules, which snap onto DIN-rail to EN 50022 and 50035. Pairs of joined diodes with common control for lamp test applications.

Page 3.14.3



MKS-BCD

Diode modules, which snap onto DIN-rail to EN 50022 and 50035. Diode logic to convert from hexadecimal in binary code.

Page 3.14.3



MKS-M

Assembly modules can put together as desired via 2×4 or 2×8 soldering tags which lead to the terminals. Snap onto DIN-rail to EN 50022 and 50035.

Assembly modules can put together as desired via 2×16 soldering tags which lead to the terminals. Snaps onto DIN-rail to EN 50022 and 50035.

Page 3.14.4



MP

Assembly modules can be put together as desired via 2 x 6, 2 x 12 or 2 x 16 soldering tags which lead to the terminals. Snaps onto DIN-rail to EN 50022 .

Page 3.14.4



ML 14

MCVO housing 14-poles. In the housing there is a bread board for use as desired. Connection is via screw terminals. Snaps onto DIN-rail to EN 50022 and 50035.

Page 3.14.4



DIN-rail mounting diode modules

MKS-D

Individually wired to screw terminals



Diodes with common potential



, ,	•	
Circuit diagram		
·	1 2 3 4 5 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 2 3 4 5 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Ordering data	ArtNo.	ArtNo.

Ordering data		ArtNo.	ArtNo.
Circuit	No. of diodes		
Single	6	67063	
Single	10	67066	
Com. potential anode	10		67040
Com. potential anode	20		¹¹ 67052
Com. potential cathode	10		67045
Com. potential cathode	20		67057
Technical data			

Diode type

universal diode 1300 V, 1 A Wiring method screw terminals 4 mm² Temperature range -20...+60 °C Mounting method DIN-rail mounting to EN 50022 and 50035

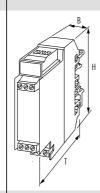
Description

diode modules are also available for the suppression of inductive loads (valves, contactors, motors etc.)

Dimensions H x B x T

86 x 22,5 x 62 mm 67063	86 x 22,5 x 62 mm	67040
86 x 45 x 62 mm 67066	86 x 45 x 62 mm	67052
	86 x 22,5 x 62 mm	67045
	86 x 45 x 62 mm	67057

Dimension drawing



Notes

¹⁾An alternative version with different terminal arrangement as specified by VW is Art.-No. 602925 (VW No. A236478)



DIN-rail mounting MKS-LDP MKS-BCD diode modules Diodes wired in pairs with common potential Diode logic for converting hexadecimal into binary numbers Circuit diagram 10 Picture: com. potential anode ABCD **Ordering data** Art.-No. Art.-No. Circuit No. of diodes 67072 Com. potential anode 5 pairs Com. potential anode 10 pairs 67096 Com. potential cathode 5 pairs 67077 10 pairs Com. potential cathode 67098 67079 Technical data Diode type universal diode 1300 V, 1 A Wiring method screw terminals 4 mm² Temperature range -20...+60 °C Mounting method DIN-rail mounting to EN 50022 and 50035 Description diode gathered for lamp test function diodes gathered to convert hexadecimal to binary numbers Dimensions H x B x T 86 x 22,5 x 62 mm 67072 86 x 67,5 x 62 mm 67079 86 x 45 x 62 mm 67096 86 x 22,5 x 62 mm 67077 86 x 45 x 62 mm 67098 **Dimension drawing** Notes Lamp test module 12-way in housing 63 x 90 x 30 mm with soldering tags for 12 resistors Art.-No. 60184

Assembly Modules



				ELEKTRON	IK
Assembly modules for the self-wiring of components	MKS-M Screw terminals connected to solder tag pairs	ML 14 MCVO-Housing 14-pole with bread board		MP Screw terminals connected to solder tag pairs	
	CE				
Circuit diagram					
	1 2 3 4 5 6 7 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 9 10 11 12 13 14 15 16	Bread board 8 9 10 11 12 13 14		1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Ordering data	ArtN	0.	ArtNo.	ArtN	0.
Pairs of solder tags					
4	670	81		420	01
6				6200 1)6203	
8	670	83		020.	
12				620 ⁻	10
14			92200		
16				6203	20
Technical data	050 11 10 150				
<u>Voltage</u> Current	max. 250 V AC/DC max. 5 A Art.·No. 67081: 2,5 A				
Dist. between tag pairs	40 mm ArtNo. 67081: 30 mm			24 mm	
Wiring method	screw terminals 4 mm ² ; connected to solder ta	n pairs spacing 5 mm		24 111111	
Material	flame retardant plastic	g pairs spasing s min			
Housing	enclosed			base open	
Temperature range	-20+60 °€				
Mounting method	DIN-rail mounting			DIN-rail mounting	
D' ' 11 D T	to EN 50022 and 50035			to EN 50022 or screw fixing	
Dimensions H x B x T	86 x 22,5 x 62 mm 670	81 75 x 22,5 x 102 mm	92200	63 x 45 x 36 mm 620	ıΩ1
	86 x 45 x 62 mm 670		92200	90 x 63 x 36 mm 620	
	00 X 10 X 02 11111			63 x 70 x 36 mm 620	
				63 x 90 x 36 mm 620	
Dimension drawing					
	B H	B H		H H	
Notes	¹⁾ ArtNo. 62030 has a spacing between solder	1			

MSDD in Metal design

The new generation front panel interface sets new scale in point stability and modularity.

With the help of the MSDD front panel interface, programmers, diagnostic devices, data loggers, printers or monitors can be easily connected to the PLC; without opening the cabinet door. This is another plug-in solution for your control cabinet.

Along with the standard plastic MSDD Murrelektronik now offers this improved version with higher mechanical, chemical and temperature resistance. The hinged lid and optional locking mechanism, protects against dirt and unauthorized use.

By using modular assembly in either single or double versions, various combinations of integrated connectors can be provided with this new front panel interface.

From the protection grounding connection outlet to the VGA-connector, almost all is in standard delivery program. Additionally, accessories such as a locking ring, on the closed hinged lid, round the system.



- Single and double version
- hinged lids
- Modular and professional design
- High mechanical resistance
- Simple mounting
- Integrated outlets for European
- Operating voltage indicator
- (SUB-MIN-D, RJ 45, PS2 etc.)
- **IP65 Protection**
- High temperature resistance





- Separated and lockable

- and American markets
- Wide range of data connector-



Single version



Double version



Assorted combination possibilities with modular design



Simple mounting

Energy...

...integrated main sockets

Germany (VDE)

Great Britain (BS)

USA (NEMA 5-15)

Switzerland (Type 12)

...integrated data connectors

• SUB-D female and male connectors (9, 15, 25, 37 and 50-pole)

(VGA-monitor connection) **Network Connectors**

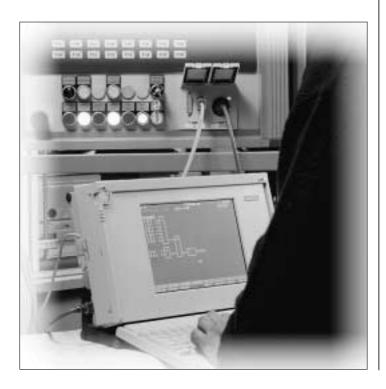
France (UTE)

Information...

PC-Interface

(RJ 45)





The connection to the outside world!

With front panel interface MSDD, you have a simple, unproblematic and optimal connector interface in your switch gear, connection box or command desk.

With the system startup and service work it is frequently necessary that the programmer equipment communicates with the controller, and at the same time the control device of the command terminals serve as the display element to observe. With the front panel interface you have the possibility to directly produce the connection of the operator terminal with the control. Through a time involved diagnosis design you are ensured an effective switching on.

You must not always immediately send your products to an expensive technician since we have the PLC-absentee diagnosis today, which is very significant. You will realize this with an electronic interface and a modem. In most there is a built in casing that can be placed next to the switch gear, in there you find the control.

Problems lie often in the connection between PLC and diagnosis accessory, there the switch gear door must be opened. With the MSDD produced by Murrelektronik using interface is so simple, it's child's play.



MSDD in metal model

IP65 Protection.

Plug socket and Sub-Min-D connector(s) for mounting panel wall or operator panels.

This allows a quick and problem free connection of service equipment (PC, Programming unit, Printer etc.)

From page 3.14.7



MSDD in plastic model

IP54 Protection.

Front panel interface with socket outlet with grounding contact and SUB-MIN-D connector in field-tested model.

From page 3.14.9



MSVD

The plug sockets snaps onto DIN-rail to EN 50022

Suitable for mounting in control panels where a German or French plug socket is needed. Grey and yellow versions are available.

Page 3.14.11



Front panel interface Metal model IP65 Protection

Single version

MSDD



	66	S		
Ordering data				ArtNo.
Version				
German Norm (\	/DE with LED)			67600
American Norm	(NEMA 5-15)			67601
French Norm (I	JTE with LED)			67602
1 x 9-p. + 1 x 9-p. female	SUB-MIN-D			67610
1 x 15-p. + 1 x 15-p. female	SUB-MIN-D			67611
1 x 25-p. + 1 x 25-p. female	SUB-MIN-D			67612
1 x 37-p. female	SUB-MIN-D			67613
1 x 50-p. female	SUB-MIN-D			67614
General data				
Wall thickness		15 mm		
Dimensions H x B x T		114 x 66 x 3262 mm (element dependent)		
Material/housing color/protection		zinc pressure diecasting/grey, other colors on req	uest/IP65 when lid is closed	
Temperature range		-25+60 °C		
Technical data		Recepticle		
Nominal voltage		VDE, UTE: max. 250 V AC	USA: max. 125 V AC	
Nominal current		VDE, UTE: max. 16 A	USA: max. 15 A	
Wiring method/ max. diameter		VDE, UTE: screw terminals/max. 6 mm ²	USA: flat connector/4,8 mm x 0,6 mm/AWG 14-12	
Technical data		Data plug connector SUB-MIN-D		
Nominal voltage		max. 125 V AC/150 V DC		
Nominal current		max. 3 A		
Max. diameter		AWG 20/0,5 mm ²		
Mounting method		soldering		
Locking		UNC 440 bolts		
Dimension drawing				
			Wall cut-out () for mounting	is not centered to
			to the outer edge () of the front p	vanel
			suitable to wall thickness 15 mm	
				2
			and the same of th	Ś
				<u> 1</u> 3
			114	-
		B		
			52*1.0	
			66	
			*	
Accessories				
Locking ring				90965

Accessories		
Locking ring		90965
Pad lock		90966
Locking bolts	Į.	54076
Dust protection cap, when SUB-MIN-D is not	9-pole	92100
used	15-pole	92101
	25-pole	92102
Notes		
	Other versions on request.	



Front panel interface Metal model IP65 Protection

Double version

MSDD

German Norm (VDE with LED)



MSDD

French Norm (UTE with LED)



MSDD

American Norm (NEMA 5-15)



SUB-MIN-D soldering connect.	ArtNo.	ArtNo.	ArtNo.	
Combination with plug socket	AltNo.	AitNo.	Aitiio.	
1 x 9-p. female + 1 x 9-p. female	67700		67802	
1 x 9-p. female + 1 x 9-p. male	67720		0,002	
1 x 9-p. female + 1 x 15-p. female	67706			
1 x 9-p. female + 1 x 25-p. female	67707	67850	67800	
1 x 9-p. female + 1 x 37-p. female	67708			
1 x 9-p. male + 1 x 25-p. female	67722			
1 x 15-p. female + 1 x 15-p. female	67701	67855		
1 x 15-p. female + 1 x 25-p. female	67711			
1 x 15-p. female + 1 x 37-p. female	67712			
1 x 25-p. female + 1 x 25-p. female	67702			
1 x 25-p. female + 1 x 37-p. female	67715			
1 x 50-p. female	67719			
1 x 9-p. female + 9-p. blind cap.	67705			
1 x 15-p. female + 9-p. blind cap.	67710			
1 x 25-p. female + 9-p. blind cap.	67714			
1 x 37-p. female + 9-p. blind cap.	67717			
Data plug connector	ArtNo.	ArtNo.	ArtNo.	
Combination with recepticle				
1 x 15-p. female (HD) + PS2 (6-p. female)	67740			
RJ 45 (8-p. female) pluggable from both sides	67745			
Recepticle	ArtNo.	ArtNo.	ArtNo.	
2 x mains plug	67726			
General data				
Wall thickness	15 mm			
Dimensions H x B x T	114 x 131 x 3262 mm (element dependent)			
Material/housing color/protection	zinc pressure diecasting/grey, other colors on reque	est/IP65 when lid is closed		
Technical data	Recepticle			
Nominal voltage	max. 250 V AC		max. 125 V AC	
Nominal current	max. 16 A		max. 15 A	
Wiring method/ max. diameter	screw terminals/6 mm ²		flat connector 4,8 x 0,6 mm/AWG 14-12	

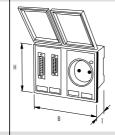
Mounting method
Locking
Dimension drawing

Technical data

Max. nominal voltage

Max. nominal current

Max. diameter



Data plug connector SUB-MIN-D

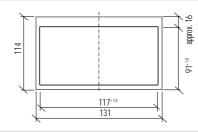
SUB-MIN-D: AWG 20/0,5 mm² (HD: AWG22/0,34 mm²)

SUB-MIN-D: 125 V AC/150 V DC

SUB-MIN-D: UNC 4...40 bolts

SUB-MIN-D: 3 A

SUB-MIN-D: soldering



PS2: 100 V AC/DC

PS2: AWG24/0,22 mm²

PS2: 1 A

PS2: soldering

PS2: snap in

Wall cut-out (———) for mounting is not centered to to the outer edge (————) of the front panel suitable to wall thickness 1...5 mm

suitable to wall thickness 1...5 m

RJ45: 125 V AC/150 V DC

RJ45: both sides pluggable

RJ45: staple for the bolt

RJ45: 1 A

RJ45: -

Notes

Other versions on request. Accessories see on page 3.14.7



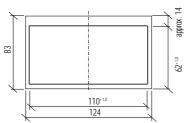
Front panel interface Plastic model IP54 Protection

MSDD



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Mounting notes

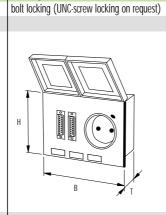


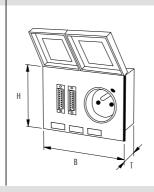
—) for mounting is not centered to to the outer edge (-----) of the front panel suitable to wall thickness 1...2 mm

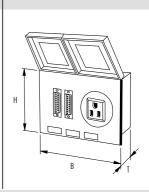
		<u> </u>	K		
Ordering data		ArtNo.	ArtNo.	ArtNo.	
Combination with plug socket		German Norm (VDE with LED)	French Norm (UTE with LED)	American Norm (NEMA 5-15)	
2 x 9-pol. fer	male SUB-MIN-D	67972			
1 x 9-pol. + 1 x 15-pol. fer	male SUB-MIN-D	67973			
1 x 9-pol. + 1 x 25-pol. fer	male SUB-MIN-D	67974	¹) 676057	676070	
1 x 15-pol. fer	male SUB-MIN-D	67975			
	male SUB-MIN-D	67976	¹⁾ 676068	676071	
2 x 15-pol. fer	male SUB-MIN-D	67960	¹⁾ 67965	676072	
2 x 25-pol. fer	male SUB-MIN-D	67977	¹⁾ 676061	676073	
2 x 25-pol. ma	ale SUB-MIN-D	67978			
2 x mains plug		67970	676069	676074	
General data					
Wall thickness		12 mm			
Dimensions H x B x T		92 x 124 x 65 mm			
Material/housing color/protect	ction	polyamide PA6,6/ grey (RAL 7035), black on red	quest/IP54 when lid is closed		
Mains plug socket					
Nominal voltage/nominal curr	rent	max. 250 V AC/max. 16 A		max. 125 V AC/max. 15 A	
Wiring method/max. diameter screw terminals/6 mm		screw terminals/6 mm		flat connector 4,8 x 0,6 mm/AWG 14-12	
Sub-Min-D connector	•				
Nominal voltage/nominal current max. 125 V AC/150 V DC					
Nominal current max. 3 A					
Max. diameter AWG 20/0,5 mm ²					
Mounting method		soldering			

Dimension drawing

Locking







Notes

UNC 4-40 bolt (1 pair) available as accessory Art.-No. 54079.

1) UNC screw fixing

Pre-wired cables with Sub-Min-D connectors can be connected into the MSDD. Art.-No. 676110. for the american market.



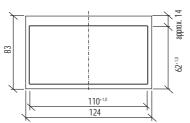
Front panel interface Plastic model IP54 Protection

MSDD



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M	0	un	tir	ıg	no	tes



		^	K		
Ordering data			ArtNo.		ArtNo.
Combination with plug socket		German Norm (VDE with LED)		German Norm (VDE with LED)	
1 x 9-p. male + 1 x 9-p. female	SUB-MIN-D				¹⁾ 676087
1 x 25-p. male + 1 x 25-p. female	SUB-MIN-D		676031		
1 x 25-p. female	SUB-MIN-D		676039		676046
1 x 25-p. female	SUB-MIN-D		¹⁾ 676036		
2 x 25-p. female	SUB-MIN-D		²⁾ 676041		
General data					
Wall thickness		12 mm			
Dimensions H x B x T		92 x 124 x 65 mm			
Material/housing color/protection		polyamide PA6,6/ grey (RAL 7035)/IP54 who	en lid is closed	polyamide PA6,6/ black /IP54 when lid is closed	

Material/housing color/protection polyamide PA6,6/grey (RAL 7035)/IP54 when lid is closed polyamide PA6

Mains plug socket

Nominal voltage max. 250 V AC

Nominal current max. 16 A

Sub-Min-D connector

Nominal voltage max. 125 V AC/150 V DC

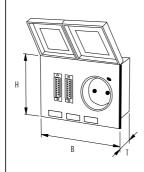
Nominal current max. 3 A

Max. diameter AWG 20 / 0,5 mm²

Mounting method soldering

Locking bolt locking (UNC-screw locking on request)

Dimension drawing



Notes

UNC 4-40 bolt (1 pair) available as accessory Art.-No. 54079

Pre-wired cables with Sub-Min-D connectors can be connected into the MSDD.

1) UNC screw fixing
2) no plug socket



