

Mini DC - Isolators for Photovoltaic

acc. to IEC 60364-7-712



Quality made in 

D1024E202

**Contactors
Motor-Starter**



Mini-Contactors
Contactors
Overload Relays
Compacitor Switching Contactors
Motor-Starters
Modular Contactors

Catalogue **D677E..**

 **BENEDICT**
www.benedict.at

**Circuit
Breakers**



M4-32T.. up to 32A
M4-32R.. up to 32A
M4-63R.. up to 63A
M4-100R.. up to 100A

Catalogue **D795E..**

 **BENEDICT**
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Switches



On-Off-Switches
Changeover Switches
Motor Switches
Step Switches
Main Switches
Modular Switches
Key Operated Switches

Catalogue **D371E..**

 **BENEDICT**
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**Main
Switches**



Emergency Off
Main Switches
On-Off-Switches
Add-On-Module

Catalogue **D656E..**

 **BENEDICT**
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**Capacitor Switching
Contactors**



Contactors for reactive and
non reactive capacitor banks

Catalogue **D385E..**

 **BENEDICT**
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**Manual
Motorstarter**



MU25A up to 32A

Auxiliary Contact Blocks
Trip Alarm Auxiliary Switches
Busbar Connectors
Enclosure

Catalogue **D509E..**

 **BENEDICT**
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Push Buttons



Push Buttons
Emergency Stop
Key Operated Rotary Switches
Rotary Knobs
Illuminated Push Buttons
Assembled Stations

Catalogue **D580E..**

 **BENEDICT**
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**Modular-
Contactors**



Modular Contactors
Accessories
Emergency Off Switches
Main Switches
On-Off Switches
Control Switches

Catalogue **D681E..**

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**DC-Switchgear
for Photovoltaic**



Main Switches
On-Off-Switches
Contactors for DC-Switching

Catalogue **D911E..**

 **BENEDICT**
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**Low Voltage
Control Gear**



Contactors
D.O.L. Starter
Overload Relays
Manual Motor Starter
Main Switches
Cam Switches
Push Buttons
Emergency Stop

Catalogue **D651E..**

 **BENEDICT**
www.benedict.at



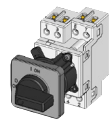
Mini DC-Isolators for Panel Mounting (4 holes)
Lockable Mini DC-Isolators for Panel Mounting (4 holes)

6
6



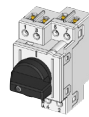
Mini DC-Isolators for Panel Mounting (2 holes)
Lockable Mini DC-Isolators for Panel Mounting (2 holes)

7
7



Mini DC-Isolators for Single Hole Mounting (Ø22,5mm)
Lockable Mini DC-Isolators for Single Hole Mounting (Ø22,5mm)

8
9



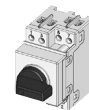
Mini DC-Isolators for Single Hole Mounting (Ø16mm)
Lockable Mini DC-Isolators for Single Hole Mounting (Ø16mm)

9
10



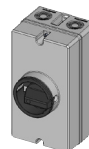
Mini DC-Isolators for Base Mounting
Lockable Mini DC-Isolators for Base Mounting

10
11



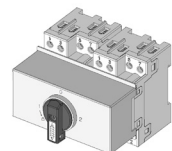
Mini DC-Isolators for Distribution Boards
Lockable Mini DC-Isolators for Distribution Boards

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Lockable Mini DC-Isolators in Plastic Enclosure

12



Changeover Isolators for Panel Mounting, Base Mounting,
Modular Switches

13 - 14



Technical Data
Approvals
Dimensions

15 - 20
19
20 - 29

Ratings

Rated Current

Type	I_{th} open A	DC21B(DC-PV1) 4 poles in series A	at U_e V
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LSM16	16	16	1500
LSM25	25	25	1500
LSM32	32	32	1500
LSM38	45	45	1500

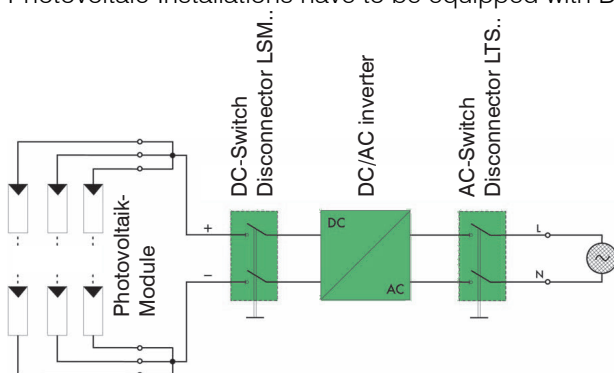
LSMO16	16	16	1500
LSMO25	25	25	1500
LSMO32	32	32	1500
LSMO38	45	45	1500

Mini DC-Switch Disconnectors

Design	Panel mounting 4 hole mounting IP66 ¹⁾	Panel mounting 2 hole mounting IP66 ¹⁾	Single hole Ø22,5mm IP66 ¹⁾	Single hole Ø16mm IP66 ¹⁾

Mini Switch Disconnectors for Photovoltaic

Mini Switch Disconnectors „LSM“ are switch gears for interrupting the DC/AC-Inverter from solar-panels. Photovoltaic-Installations have to be equipped with DC-Isolators acc. to IEC 60364-7-712.



Mini Switch Disconnectors LSM ensure a reliable switching up to 50A at 1200V in the category DC-PV1 (= DC21B).

The construction of the contacts and the material selection guarantee that no oxidations develop (because of small switching frequency) and further it is prevented that inadmissible heating-up is effected.

Mini Switch Disconnectors LSM are equipped with 2 or 4 switchable, singular contacts. By serial or parallel wiring of the contacts the contact rating will be increased. The switching speed by the manually driven handle does not have an effect on the switching attitude of the contacts.

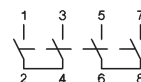
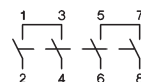
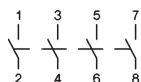
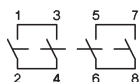
Mounting positions:

No limitations, all kind of positions allowed.

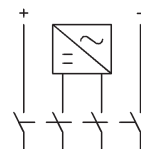
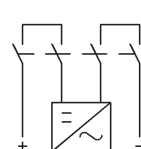
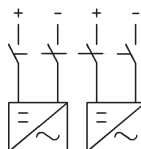
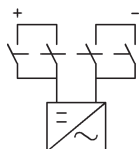
Switching programs

Type	2-pole	2+2-pole 2 poles in series + 2 Pole parallel	4-pole	4-pole 2 jumpers top Input and Output bottom	4-pole 2 jumpers bottom Input and Output top
LSM16 ... LSM38	.. A2	.. A2+2	.. A4(2 x A2)	.. A4O	.. A4U

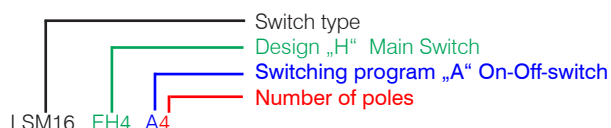
Contact
Wiring diagram



Switching example



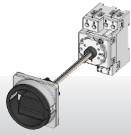
Ordering



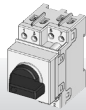
1) Protection in front and built in

Mini DC-Switch Disconnectors

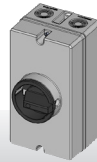
Base mounting with
door coupling, single hole,
Ø22,5mm, IP66¹⁾  UL Type 4X



Modular Switch
IP40¹⁾  UL Open Type

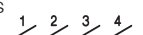
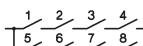


Plastic enclosed
PFL..IP67¹⁾  UL Type 4X



..VZV, VZVH4..	..SMA, SMAH1N..	..PFLH4..
..VZV, VZVH4..	..SMA, SMAH1N..	..PFLH4..
..VZV, VZVH4..	..SMA, SMAH1N..	..PFLH4..
..VZV, VZVH4..	..SMA, SMAH1N..	..PFLH4..
..VZV, VZVH4..	..SMA, SMAH1N..	..PFLH4..

Technical data for DC, acc. to IEC 60947-3, VDE0660

Type			DC-PV1 (= DC21B)								DC-PV2			
			500V	600V	700V	800V	900V	1000V	1200V	1500V	500V	600V	800V	1000V
2 Poles in Series 	LSM16..	A	16	16	16	16	16	10	7	3	16	14	12	4
	LSM25..	A	25	25	25	20	17	11,5	8,5	5	25	21	15	5
	LSM32..	A	32	32	32	23	20	13	10	6	32	27	17	6
	LSM38..	A	45	45	36	30	25	20	10	6	38	31	19	7
2 Poles in Series + 2 parallel 	LSM16..	A	29	29	22	17	16	10	7	3	25	20	12	4
	LSM25..	A	45	36	27	20	17	11,5	8,5	5	39	32	15	5
	LSM32..	A	50	50	32	23	20	13	10	6	50	35	17	6
	LSM38..	A	50	50	36	30	25	20	10	6	50	38	19	7
4 Poles in Series 	LSM16..	A	16	16	16	16	16	16	16	16	16	16	16	16
	LSM25..	A	25	25	25	25	25	25	25	25	25	25	25	25
	LSM32..	A	32	32	32	32	32	32	32	32	32	32	32	32
	LSM38..	A	45	45	45	45	45	38	32	32	45	45	38	38
4 Poles in Series + 2 parallel 	LSMO16..	A	29	29	29	29	29	29	29	20	29	29	21	16
	LSMO25..	A	45	45	45	45	45	45	33	26	45	45	35	25
	LSMO32..	A	50	50	50	50	50	50	50	32	50	50	45	32
	LSMO38..	A	50	50	50	50	50	50	50	32	50	50	50	50

Switching programs

Type

6-poles

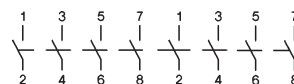
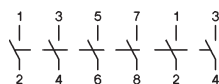
8-poles

LSMO16 ... LSMO38

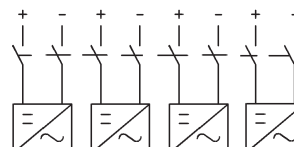
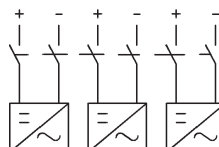
...A6

...A8

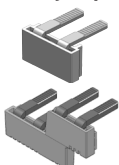
Contact
Wiring diagram



Switching example



Isolated jumpers LSMV... for Series and Parallel switching of contacts (terminals 1-3, 5-7, 2-4, 6-8). Details see page 23.



for switches

Type

VPE

weight

LSM(O)16 ... LSM(O)25 (A4O, A4U, A2+2)

LSMV-B1-1

100

4,80 g/pce.

LSM(O)32 ... LSM(O)38 (A4O, A4U, A2+2)

LSMV-B1-2

100

9,00 g/pce.

LSMO16 ... LSMO25 (A4+2)

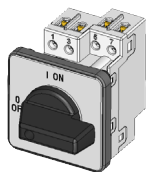
LSMOV-B1

100

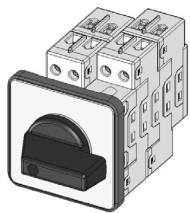
8,90 g/pce.

1) Protection in front and built in

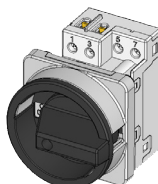
Mini DC-Isolators for Panel Mounting, 4 holes, Plate 64, IP66, Type 3R



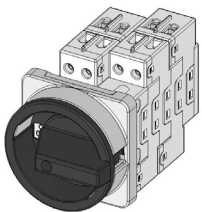
DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 E A2	1	0,18
25A	11,5A	2	1	LSM25 E A2	1	0,18
32A	13A	2	1	LSM32 E A2	1	0,18
45A	20A	2	1	LSM38 E A2	1	0,18
29A	10A	2	1	LSM16 E A2+2	1	0,24
36A	11,5A	2	1	LSM25 E A2+2	1	0,24
50A	13A	2	1	LSM32 E A2+2	1	0,24
50A	20A	2	1	LSM38 E A2+2	1	0,24
16A	16A	2	2	LSM16 E A4	1	0,23
25A	25A	2	2	LSM25 E A4	1	0,23
32A	32A	2	2	LSM32 E A4	1	0,23
45A	38A	2	2	LSM38 E A4	1	0,23
16A	16A	4	1	LSM16 E A4O	1	0,25
25A	25A	4	1	LSM25 E A4O	1	0,25
32A	32A	4	1	LSM32 E A4O	1	0,25
45A	38A	4	1	LSM38 E A4O	1	0,25
16A	16A	4	1	LSM16 E A4U	1	0,25
25A	25A	4	1	LSM25 E A4U	1	0,25
32A	32A	4	1	LSM32 E A4U	1	0,25
45A	38A	4	1	LSM38 E A4U	1	0,25
16A	10A	2	3	LSMO16 E A6	1	0,50
25A	11,5A	2	3	LSMO25 E A6	1	0,50
32A	13A	2	3	LSMO32 E A6	1	0,50
45A	20A	2	3	LSMO38 E A6	1	0,50
16A	10A	2	4	LSMO16 E A8	1	0,52
25A	11,5A	2	4	LSMO25 E A8	1	0,52
32A	13A	2	4	LSMO32 E A8	1	0,52
45A	20A	2	4	LSMO38 E A8	1	0,52



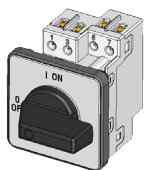
Lockable Mini DC-Isolators for Panel Mounting, 4 holes, Plate 64, IP66, Type 3R



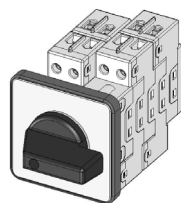
16A	10A	2	1	LSM16 EH4 A2	1	0,19
25A	11,5A	2	1	LSM25 EH4 A2	1	0,19
32A	13A	2	1	LSM32 EH4 A2	1	0,19
45A	20A	2	1	LSM38 EH4 A2	1	0,19
29A	10A	2	1	LSM16 EH4 A2+2	1	0,25
36A	11,5A	2	1	LSM25 EH4 A2+2	1	0,25
50A	13A	2	1	LSM32 EH4 A2+2	1	0,25
50A	20A	2	1	LSM38 EH4 A2+2	1	0,25
16A	16A	2	2	LSM16 EH4 A4	1	0,24
25A	25A	2	2	LSM25 EH4 A4	1	0,24
32A	32A	2	2	LSM32 EH4 A4	1	0,24
45A	38A	2	2	LSM38 EH4 A4	1	0,24
16A	16A	4	1	LSM16 EH4 A4O	1	0,26
25A	25A	4	1	LSM25 EH4 A4O	1	0,26
32A	32A	4	1	LSM32 EH4 A4O	1	0,26
45A	38A	4	1	LSM38 EH4 A4O	1	0,26
16A	16A	4	1	LSM16 EH4 A4U	1	0,26
25A	25A	4	1	LSM25 EH4 A4U	1	0,26
32A	32A	4	1	LSM32 EH4 A4U	1	0,26
45A	38A	4	1	LSM38 EH4 A4U	1	0,26
16A	10A	2	3	LSMO16 EH4 A6	1	0,51
25A	11,5A	2	3	LSMO25 EH4 A6	1	0,51
32A	13A	2	3	LSMO32 EH4 A6	1	0,51
45A	20A	2	3	LSMO38 EH4 A6	1	0,51
16A	10A	2	4	LSMO16 EH4 A8	1	0,53
25A	11,5A	2	4	LSMO25 EH4 A8	1	0,53
32A	13A	2	4	LSMO32 EH4 A8	1	0,53
45A	20A	2	4	LSMO38 EH4 A8	1	0,53



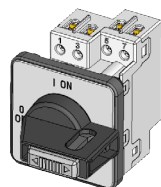
Mini DC-Isolators for Single Hole Mounting, 2 holes, Plate 64, IP66, Type 3R



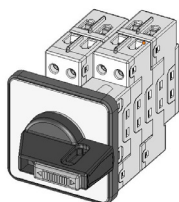
DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 E2 A2	1	0,18
25A	11,5A	2	1	LSM25 E2 A2	1	0,18
32A	13A	2	1	LSM32 E2 A2	1	0,18
45A	20A	2	1	LSM38 E2 A2	1	0,18
29A	10A	2	1	LSM16 E2 A2+2	1	0,24
36A	11,5A	2	1	LSM25 E2 A2+2	1	0,24
50A	13A	2	1	LSM32 E2 A2+2	1	0,24
50A	20A	2	1	LSM38 E2 A2+2	1	0,24
16A	16A	2	2	LSM16 E2 A4	1	0,23
25A	25A	2	2	LSM25 E2 A4	1	0,23
32A	32A	2	2	LSM32 E2 A4	1	0,23
45A	38A	2	2	LSM38 E2 A4	1	0,23
16A	16A	4	1	LSM16 E2 A4O	1	0,25
25A	25A	4	1	LSM25 E2 A4O	1	0,25
32A	32A	4	1	LSM32 E2 A4O	1	0,25
45A	38A	4	1	LSM38 E2 A4O	1	0,25
16A	16A	4	1	LSM16 E2 A4U	1	0,25
25A	25A	4	1	LSM25 E2 A4U	1	0,25
32A	32A	4	1	LSM32 E2 A4U	1	0,25
45A	38A	4	1	LSM38 E2 A4U	1	0,25
16A	10A	2	3	LSMO16 E2 A6	1	0,50
25A	11,5A	2	3	LSMO25 E2 A6	1	0,50
32A	13A	2	3	LSMO32 E2 A6	1	0,50
45A	20A	2	3	LSMO38 E2 A6	1	0,50
16A	10A	2	4	LSMO16 E2 A8	1	0,52
25A	11,5A	2	4	LSMO25 E2 A8	1	0,52
32A	13A	2	4	LSMO32 E2 A8	1	0,52
45A	20A	2	4	LSMO38 E2 A8	1	0,52



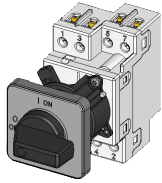
Mini DC-Isolators for Panel Mounting, 2 holes, Plate 64, IP66, Type 3R



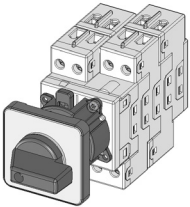
16A	10A	2	1	LSM16 E2H1 A2	1	0,19
25A	11,5A	2	1	LSM25 E2H1 A2	1	0,19
32A	13A	2	1	LSM32 E2H1 A2	1	0,19
45A	20A	2	1	LSM38 E2H1 A2	1	0,19
29A	10A	2	1	LSM16 E2H1 A2+2	1	0,25
36A	11,5A	2	1	LSM25 E2H1 A2+2	1	0,25
50A	13A	2	1	LSM32 E2H1 A2+2	1	0,25
50A	20A	2	1	LSM38 E2H1 A2+2	1	0,25
16A	16A	2	2	LSM16 E2H1 A4	1	0,24
25A	25A	2	2	LSM25 E2H1 A4	1	0,24
32A	32A	2	2	LSM32 E2H1 A4	1	0,24
45A	38A	2	2	LSM38 E2H1 A4	1	0,24
16A	16A	4	1	LSM16 E2H1 A4O	1	0,26
25A	25A	4	1	LSM25 E2H1 A4O	1	0,26
32A	32A	4	1	LSM32 E2H1 A4O	1	0,26
45A	38A	4	1	LSM38 E2H1 A4O	1	0,26
16A	16A	4	1	LSM16 E2H1 A4U	1	0,26
25A	25A	4	1	LSM25 E2H1 A4U	1	0,26
32A	32A	4	1	LSM32 E2H1 A4U	1	0,26
45A	38A	4	1	LSM38 E2H1 A4U	1	0,26
16A	10A	2	3	LSMO16 E2H1 A6	1	0,51
25A	11,5A	2	3	LSMO25 E2H1 A6	1	0,51
32A	13A	2	3	LSMO32 E2H1 A6	1	0,51
45A	20A	2	3	LSMO38 E2H1 A6	1	0,51
16A	10A	2	4	LSMO16 E2H1 A8	1	0,53
25A	11,5A	2	4	LSMO25 E2H1 A8	1	0,53
32A	13A	2	4	LSMO32 E2H1 A8	1	0,53
45A	20A	2	4	LSMO38 E2H1 A8	1	0,53



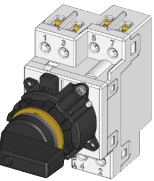
Mini DC-Isolators for Single Hole Mounting, Ø22,5mm, Plate 48, IP66, Type 4X cUL_{us}



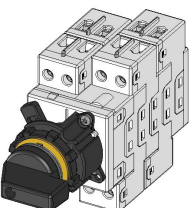
DC-PV1 (=DC21B) 600V 1000V		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
16A	10A	2	1	LSM16 Z A2	1	0,17
25A	11,5A	2	1	LSM25 Z A2	1	0,17
32A	13A	2	1	LSM32 Z A2	1	0,17
45A	20A	2	1	LSM38 Z A2	1	0,17
29A	10A	2	1	LSM16 Z A2+2	1	0,22
36A	11,5A	2	1	LSM25 Z A2+2	1	0,22
50A	13A	2	1	LSM32 Z A2+2	1	0,22
50A	20A	2	1	LSM38 Z A2+2	1	0,22
16A	16A	2	2	LSM16 Z A4	1	0,21
25A	25A	2	2	LSM25 Z A4	1	0,21
32A	32A	2	2	LSM32 Z A4	1	0,21
45A	38A	2	2	LSM38 Z A4	1	0,21
16A	16A	4	1	LSM16 Z A4O	1	0,23
25A	25A	4	1	LSM25 Z A4O	1	0,23
32A	32A	4	1	LSM32 Z A4O	1	0,23
45A	38A	4	1	LSM38 Z A4O	1	0,23
16A	16A	4	1	LSM16 Z A4U	1	0,23
25A	25A	4	1	LSM25 Z A4U	1	0,23
32A	32A	4	1	LSM32 Z A4U	1	0,23
45A	38A	4	1	LSM38 Z A4U	1	0,23
16A	10A	2	3	LSMO16 Z A6	1	0,50
25A	11,5A	2	3	LSMO25 Z A6	1	0,50
32A	13A	2	3	LSMO32 Z A6	1	0,50
45A	20A	2	3	LSMO38 Z A6	1	0,50
16A	10A	2	4	LSMO16 Z A8	1	0,52
25A	11,5A	2	4	LSMO25 Z A8	1	0,52
32A	13A	2	4	LSMO32 Z A8	1	0,52
45A	20A	2	4	LSMO38 Z A8	1	0,52



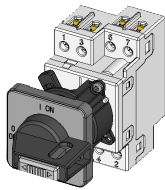
Mini DC-Isolators for Single Hole Mounting, Ø22,5mm, without Plate, IP66, Type 4X cUL_{us}



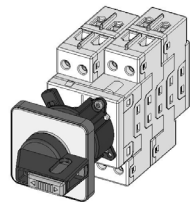
16A	10A	2	1	LSM16 ZO A2	1	0,15
25A	11,5A	2	1	LSM25 ZO A2	1	0,15
32A	13A	2	1	LSM32 ZO A2	1	0,15
45A	20A	2	1	LSM38 ZO A2	1	0,15
29A	10A	2	1	LSM16 ZO A2+2	1	0,19
36A	11,5A	2	1	LSM25 ZO A2+2	1	0,19
50A	13A	2	1	LSM32 ZO A2+2	1	0,19
50A	20A	2	1	LSM38 ZO A2+2	1	0,19
16A	16A	2	2	LSM16 ZO A4	1	0,18
25A	25A	2	2	LSM25 ZO A4	1	0,18
32A	32A	2	2	LSM32 ZO A4	1	0,18
45A	38A	2	2	LSM38 ZO A4	1	0,18
16A	16A	4	1	LSM16 ZO A4O	1	0,19
25A	25A	4	1	LSM25 ZO A4O	1	0,19
32A	32A	4	1	LSM32 ZO A4O	1	0,19
45A	38A	4	1	LSM38 ZO A4O	1	0,19
16A	16A	4	1	LSM16 ZO A4U	1	0,19
25A	25A	4	1	LSM25 ZO A4U	1	0,19
32A	32A	4	1	LSM32 ZO A4U	1	0,19
45A	38A	4	1	LSM38 ZO A4U	1	0,19
16A	10A	2	3	LSMO16 ZO A6	1	0,45
25A	11,5A	2	3	LSMO25 ZO A6	1	0,45
32A	13A	2	3	LSMO32 ZO A6	1	0,45
45A	20A	2	3	LSMO38 ZO A6	1	0,45
16A	10A	2	4	LSMO16 ZO A8	1	0,47
25A	11,5A	2	4	LSMO25 ZO A8	1	0,47
32A	13A	2	4	LSMO32 ZO A8	1	0,47
45A	20A	2	4	LSMO38 ZO A8	1	0,47



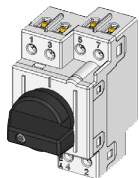
Mini DC-Isolators for Single Hole Mounting, Ø22,5mm, Plate 48, IP66, Type 4X



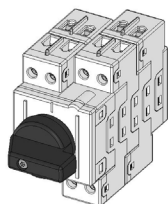
DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 ZH1 A2	1	0,17
25A	11,5A	2	1	LSM25 ZH1 A2	1	0,17
32A	13A	2	1	LSM32 ZH1 A2	1	0,17
45A	20A	2	1	LSM38 ZH1 A2	1	0,17
29A	10A	2	1	LSM16 ZH1 A2+2	1	0,22
36A	11,5A	2	1	LSM25 ZH1 A2+2	1	0,22
50A	13A	2	1	LSM32 ZH1 A2+2	1	0,22
50A	20A	2	1	LSM38 ZH1 A2+2	1	0,22
16A	16A	2	2	LSM16 ZH1 A4	1	0,21
25A	25A	2	2	LSM25 ZH1 A4	1	0,21
32A	32A	2	2	LSM32 ZH1 A4	1	0,21
45A	38A	2	2	LSM38 ZH1 A4	1	0,21
16A	16A	4	1	LSM16 ZH1 A4O	1	0,23
25A	25A	4	1	LSM25 ZH1 A4O	1	0,23
32A	32A	4	1	LSM32 ZH1 A4O	1	0,23
45A	38A	4	1	LSM38 ZH1 A4O	1	0,23
16A	16A	4	1	LSM16 ZH1 A4U	1	0,23
25A	25A	4	1	LSM25 ZH1 A4U	1	0,23
32A	32A	4	1	LSM32 ZH1 A4U	1	0,23
45A	38A	4	1	LSM38 ZH1 A4U	1	0,23
16A	10A	2	3	LSMO16 ZH1 A6	1	0,50
25A	11,5A	2	3	LSMO25 ZH1 A6	1	0,50
32A	13A	2	3	LSMO32 ZH1 A6	1	0,50
45A	20A	2	3	LSMO38 ZH1 A6	1	0,50
16A	10A	2	4	LSMO16 ZH1 A8	1	0,52
25A	11,5A	2	4	LSMO25 ZH1 A8	1	0,52
32A	13A	2	4	LSMO32 ZH1 A8	1	0,52
45A	20A	2	4	LSMO38 ZH1 A8	1	0,52



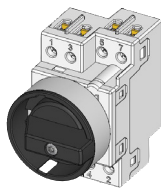
Mini DC-Isolators for Single Hole Mounting, Ø16mm, without Plate, IP66, Type 4X



16A	10A	2	1	LSM16 Z16 A2	1	0,15
25A	11,5A	2	1	LSM25 Z16 A2	1	0,15
32A	13A	2	1	LSM32 Z16 A2	1	0,15
45A	20A	2	1	LSM38 Z16 A2	1	0,15
29A	10A	2	1	LSM16 Z16 A2+2	1	0,19
36A	11,5A	2	1	LSM25 Z16 A2+2	1	0,19
50A	13A	2	1	LSM32 Z16 A2+2	1	0,19
50A	20A	2	1	LSM38 Z16 A2+2	1	0,19
16A	16A	2	2	LSM16 Z16 A4	1	0,18
25A	25A	2	2	LSM25 Z16 A4	1	0,18
32A	32A	2	2	LSM32 Z16 A4	1	0,18
45A	38A	2	2	LSM38 Z16 A4	1	0,18
16A	16A	4	1	LSM16 Z16 A4O	1	0,19
25A	25A	4	1	LSM25 Z16 A4O	1	0,19
32A	32A	4	1	LSM32 Z16 A4O	1	0,19
45A	38A	4	1	LSM38 Z16 A4O	1	0,19
16A	16A	4	1	LSM16 Z16 A4U	1	0,19
25A	25A	4	1	LSM25 Z16 A4U	1	0,19
32A	32A	4	1	LSM32 Z16 A4U	1	0,19
45A	38A	4	1	LSM38 Z16 A4U	1	0,19
16A	10A	2	3	LSMO16 Z16 A6	1	0,45
25A	11,5A	2	3	LSMO25 Z16 A6	1	0,45
32A	13A	2	3	LSMO32 Z16 A6	1	0,45
45A	20A	2	3	LSMO38 Z16 A6	1	0,45
16A	10A	2	4	LSMO16 Z16 A8	1	0,47
25A	11,5A	2	4	LSMO25 Z16 A8	1	0,47
32A	13A	2	4	LSMO32 Z16 A8	1	0,47
45A	20A	2	4	LSMO38 Z16 A8	1	0,47

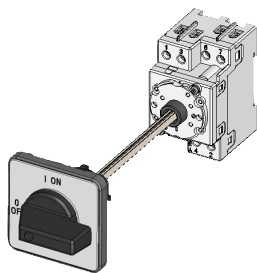


Lockable Mini DC-Isolators for Single Hole Mounting, Ø16mm, Plate 48, IP66, Type 4X



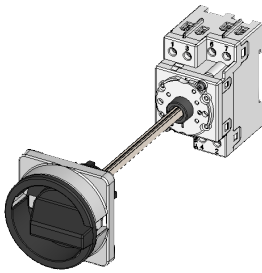
DC-PV1 (=DC21B) 600V 1000V		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
16A	10A	2	1	LSM16 Z16H448 A2	1	0,19
25A	11,5A	2	1	LSM25 Z16H448 A2	1	0,19
32A	13A	2	1	LSM32 Z16H448 A2	1	0,19
45A	20A	2	1	LSM38 Z16H448 A2	1	0,19
29A	10A	2	1	LSM16 Z16H448 A2+2	1	0,25
36A	11,5A	2	1	LSM25 Z16H448 A2+2	1	0,25
50A	13A	2	1	LSM32 Z16H448 A2+2	1	0,25
50A	20A	2	1	LSM38 Z16H448 A2+2	1	0,25
16A	16A	2	2	LSM16 Z16H448 A4	1	0,24
25A	25A	2	2	LSM25 Z16H448 A4	1	0,24
32A	32A	2	2	LSM32 Z16H448 A4	1	0,24
45A	38A	2	2	LSM38 Z16H448 A4	1	0,24
16A	16A	4	1	LSM16 Z16H448 A4O	1	0,26
25A	25A	4	1	LSM25 Z16H448 A4O	1	0,26
32A	32A	4	1	LSM32 Z16H448 A4O	1	0,26
45A	38A	4	1	LSM38 Z16H448 A4O	1	0,26
16A	16A	4	1	LSM16 Z16H448 A4U	1	0,26
25A	25A	4	1	LSM25 Z16H448 A4U	1	0,26
32A	32A	4	1	LSM32 Z16H448 A4U	1	0,26
45A	38A	4	1	LSM38 Z16H448 A4U	1	0,26
16A	10A	2	3	LSMO16 Z16H448 A6	1	0,51
25A	11,5A	2	3	LSMO25 Z16H448 A6	1	0,51
32A	13A	2	3	LSMO32 Z16H448 A6	1	0,51
45A	20A	2	3	LSMO38 Z16H448 A6	1	0,51
16A	10A	2	4	LSMO16 Z16H448 A8	1	0,53
25A	11,5A	2	4	LSMO25 Z16H448 A8	1	0,53
32A	13A	2	4	LSMO32 Z16H448 A8	1	0,53
45A	20A	2	4	LSMO38 Z16H448 A8	1	0,53

Mini DC-Isolators for Base Mounting, w. Door Clutch, Single Hole, Plate 64, IP66, Type 4X



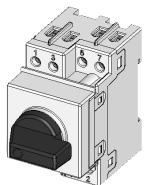
16A	10A	2	1	LSM16 VZV A2	1	0,20
25A	11,5A	2	1	LSM25 VZV A2	1	0,20
32A	13A	2	1	LSM32 VZV A2	1	0,20
45A	20A	2	1	LSM38 VZV A2	1	0,20
29A	10A	2	1	LSM16 VZV A2+2	1	0,26
36A	11,5A	2	1	LSM25 VZV A2+2	1	0,26
50A	13A	2	1	LSM32 VZV A2+2	1	0,26
50A	20A	2	1	LSM38 VZV A2+2	1	0,26
16A	16A	2	2	LSM16 VZV A4	1	0,24
25A	25A	2	2	LSM25 VZV A4	1	0,24
32A	32A	2	2	LSM32 VZV A4	1	0,24
45A	38A	2	2	LSM38 VZV A4	1	0,24
16A	16A	2	1	LSM16 VZV A4O	1	0,26
25A	25A	2	1	LSM25 VZV A4O	1	0,26
32A	32A	2	1	LSM32 VZV A4O	1	0,26
45A	38A	2	1	LSM38 VZV A4O	1	0,26
16A	16A	2	1	LSM16 VZV A4U	1	0,26
25A	25A	2	1	LSM25 VZV A4U	1	0,26
32A	32A	2	1	LSM32 VZV A4U	1	0,26
45A	38A	2	1	LSM38 VZV A4U	1	0,26

Lockable Mini DC-Isolators for Base Mounting, w. Door Clutch, Single Hole, Plate 64, IP66, Type 4X



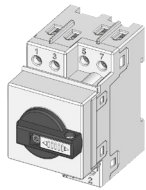
DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 VZVH4 A2	1	0,21
25A	11,5A	2	1	LSM25 VZVH4 A2	1	0,21
32A	13A	2	1	LSM32 VZVH4 A2	1	0,21
45A	20A	2	1	LSM38 VZVH4 A2	1	0,21
29A	10A	2	1	LSM16 VZVH4 A2+2	1	0,27
36A	11,5A	2	1	LSM25 VZVH4 A2+2	1	0,27
50A	13A	2	1	LSM32 VZVH4 A2+2	1	0,27
50A	20A	2	1	LSM38 VZVH4 A2+2	1	0,27
16A	16A	2	2	LSM16 VZVH4 A4	1	0,25
25A	25A	2	2	LSM25 VZVH4 A4	1	0,25
32A	32A	2	2	LSM32 VZVH4 A4	1	0,25
45A	38A	2	2	LSM38 VZVH4 A4	1	0,25
16A	16A	4	1	LSM16 VZVH4 A4O	1	0,27
25A	25A	4	1	LSM25 VZVH4 A4O	1	0,27
32A	32A	4	1	LSM32 VZVH4 A4O	1	0,27
45A	38A	4	1	LSM38 VZVH4 A4O	1	0,27
16A	16A	4	1	LSM16 VZVH4 A4U	1	0,27
25A	25A	4	1	LSM25 VZVH4 A4U	1	0,27
32A	32A	4	1	LSM32 VZVH4 A4U	1	0,27
45A	38A	4	1	LSM38 VZVH4 A4U	1	0,27

Mini DC-Isolators for Distribution Boards, IP40, Open Type



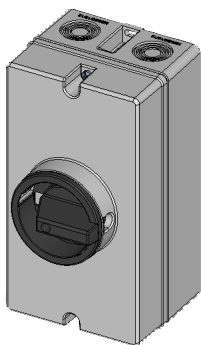
16A	10A	2	1	LSM16 SMA A2	1	0,18
25A	11,5A	2	1	LSM25 SMA A2	1	0,18
32A	13A	2	1	LSM32 SMA A2	1	0,18
45A	20A	2	1	LSM38 SMA A2	1	0,18
29A	10A	2	1	LSM16 SMA A2+2	1	0,22
36A	11,5A	2	1	LSM25 SMA A2+2	1	0,22
50A	13A	2	1	LSM32 SMA A2+2	1	0,22
50A	20A	2	1	LSM38 SMA A2+2	1	0,22
16A	16A	2	2	LSM16 SMA A4	1	0,20
25A	25A	2	2	LSM25 SMA A4	1	0,20
32A	32A	2	2	LSM32 SMA A4	1	0,20
45A	38A	2	2	LSM38 SMA A4	1	0,20
16A	16A	4	1	LSM16 SMA A4O	1	0,22
25A	25A	4	1	LSM25 SMA A4O	1	0,22
32A	32A	4	1	LSM32 SMA A4O	1	0,22
45A	38A	4	1	LSM38 SMA A4O	1	0,22
16A	16A	4	1	LSM16 SMA A4U	1	0,22
25A	25A	4	1	LSM25 SMA A4U	1	0,22
32A	32A	4	1	LSM32 SMA A4U	1	0,22
45A	38A	4	1	LSM38 SMA A4U	1	0,22

Lockable Mini DC-Isolators for Distribution Boards, IP40, Open Type



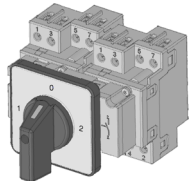
DC-PV1 (=DC21B)		Poles in Series	Number of Strings	Type	Pack pcs.	Weight kg/pce.
600V	1000V					
16A	10A	2	1	LSM16 SMAH1N A2	1	0,18
25A	11,5A	2	1	LSM25 SMAH1N A2	1	0,18
32A	13A	2	1	LSM32 SMAH1N A2	1	0,18
45A	20A	2	1	LSM38 SMAH1N A2	1	0,18
29A	10A	2	1	LSM16 SMAH1N A2+2	1	0,22
36A	11,5A	2	1	LSM25 SMAH1N A2+2	1	0,22
50A	13A	2	1	LSM32 SMAH1N A2+2	1	0,22
50A	20A	2	1	LSM38 SMAH1N A2+2	1	0,22
16A	16A	2	2	LSM16 SMAH1N A4	1	0,20
25A	25A	2	2	LSM25 SMAH1N A4	1	0,20
32A	32A	2	2	LSM32 SMAH1N A4	1	0,20
45A	38A	2	2	LSM38 SMAH1N A4	1	0,20
16A	16A	4	1	LSM16 SMAH1N A4O	1	0,22
25A	25A	4	1	LSM25 SMAH1N A4O	1	0,22
32A	32A	4	1	LSM32 SMAH1N A4O	1	0,22
45A	38A	4	1	LSM38 SMAH1N A4O	1	0,22
16A	16A	4	1	LSM16 SMAH1N A4U	1	0,22
25A	25A	4	1	LSM25 SMAH1N A4U	1	0,22
32A	32A	4	1	LSM32 SMAH1N A4U	1	0,22
45A	38A	4	1	LSM38 SMAH1N A4U	1	0,22

Mini DC-Isolators in Plastic Enclosure, IP67, Type 4X

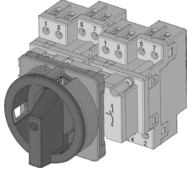


16A	10A	2	1	LSM16 PFLH4 A2	1	0,42
25A	11,5A	2	1	LSM25 PFLH4 A2	1	0,42
32A	13A	2	1	LSM32 PFLH4 A2	1	0,42
45A	20A	2	1	LSM38 PFLH4 A2	1	0,42
29A	10A	2	1	LSM16 PFLH4 A2+2	1	0,50
36A	11,5A	2	1	LSM25 PFLH4 A2+2	1	0,50
50A	13A	2	1	LSM32 PFLH4 A2+2	1	0,50
50A	20A	2	1	LSM38 PFLH4 A2+2	1	0,50
16A	16A	2	2	LSM16 PFLH4 A4	1	0,49
25A	25A	2	2	LSM25 PFLH4 A4	1	0,49
32A	32A	2	2	LSM32 PFLH4 A4	1	0,49
45A	38A	2	2	LSM38 PFLH4 A4	1	0,49
16A	16A	4	1	LSM16 PFLH4 A4O	1	0,51
25A	25A	4	1	LSM25 PFLH4 A4O	1	0,51
32A	32A	4	1	LSM32 PFLH4 A4O	1	0,51
45A	38A	4	1	LSM38 PFLH4 A4O	1	0,51
16A	16A	4	1	LSM16 PFLH4 A4U	1	0,51
25A	25A	4	1	LSM25 PFLH4 A4U	1	0,51
32A	32A	4	1	LSM32 PFLH4 A4U	1	0,51
45A	38A	4	1	LSM38 PFLH4 A4U	1	0,51

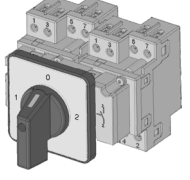
Changeover Isolators for Panel Mounting, 4 holes, Plate 64, IP66, Type 3R

		DC-PV1 (=DC21B)		AC21B 440V	Poles in Series	Type	Pack pcs.	Weight kg/pce.
		600V	1000V					
		16A	16A	16A	4	LSM16 E U4 ¹⁾	1	0,40
		25A	25A	25A	4	LSM25 E U4 ¹⁾	1	0,40
		32A	32A	32A	4	LSM32 E U4 ¹⁾	1	0,40
		45A	38A	45A	4	LSM38 E U4 ¹⁾	1	0,40
		16A	16A	16A	4	LSM16 E U4ACDC ²⁾	1	0,40
		25A	25A	25A	4	LSM25 E U4ACDC ²⁾	1	0,40
		32A	32A	32A	4	LSM32 E U4ACDC ²⁾	1	0,40
		45A	38A	45A	4	LSM38 E U4ACDC ²⁾	1	0,40
		16A	16A	-	4	LSM16 E U4DC ³⁾	1	0,48
		25A	25A	-	4	LSM25 E U4DC ³⁾	1	0,48
		32A	32A	-	4	LSM32 E U4DC ³⁾	1	0,48
		45A	38A	-	4	LSM38 E U4DC ³⁾	1	0,48

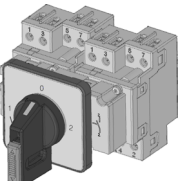
Changeover Isolators for Panel Mounting, 4 holes, lockable, Plate 64, IP66, Type 3R

		16A	16A	16A	4	LSM16 EH4 U4 ¹⁾	1	0,43
		25A	25A	25A	4	LSM25 EH4 U4 ¹⁾	1	0,43
		32A	32A	32A	4	LSM32 EH4 U4 ¹⁾	1	0,43
		45A	38A	45A	4	LSM38 EH4 U4 ¹⁾	1	0,43
		16A	16A	16A	4	LSM16 EH4 U4ACDC ²⁾	1	0,43
		25A	25A	25A	4	LSM25 EH4 U4ACDC ²⁾	1	0,43
		32A	32A	32A	4	LSM32 EH4 U4ACDC ²⁾	1	0,43
		45A	38A	45A	4	LSM38 EH4 U4ACDC ²⁾	1	0,43
		16A	16A	-	4	LSM16 EH4 U4DC ³⁾	1	0,51
		25A	25A	-	4	LSM25 EH4 U4DC ³⁾	1	0,51
		32A	32A	-	4	LSM32 EH4 U4DC ³⁾	1	0,51
		45A	38A	-	4	LSM38 EH4 U4DC ³⁾	1	0,51

Changeover Isolators for Panel Mounting, 2 holes, Plate 64, IP66, Type 3R

		16A	16A	16A	4	LSM16 E2 U4 ¹⁾	1	0,40
		25A	25A	25A	4	LSM25 E2 U4 ¹⁾	1	0,40
		32A	32A	32A	4	LSM32 E2 U4 ¹⁾	1	0,40
		45A	38A	45A	4	LSM38 E2 U4 ¹⁾	1	0,40
		16A	16A	16A	4	LSM16 E2 U4ACDC ²⁾	1	0,40
		25A	25A	25A	4	LSM25 E2 U4ACDC ²⁾	1	0,40
		32A	32A	32A	4	LSM32 E2 U4ACDC ²⁾	1	0,40
		45A	38A	45A	4	LSM38 E2 U4ACDC ²⁾	1	0,40
		16A	16A	-	4	LSM16 E2 U4DC ³⁾	1	0,48
		25A	25A	-	4	LSM25 E2 U4DC ³⁾	1	0,48
		32A	32A	-	4	LSM32 E2 U4DC ³⁾	1	0,48
		45A	38A	-	4	LSM38 E2 U4DC ³⁾	1	0,48

Changeover Isolators for Panel Mounting, lockable, 2 holes, Plate 64, IP66, Type 3R

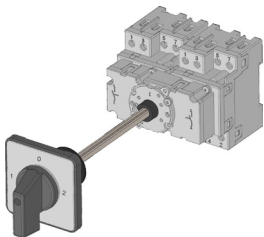
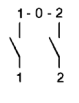
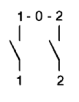
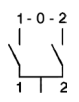
		16A	16A	16A	4	LSM16 E2H1 U4 ¹⁾	1	0,41
		25A	25A	25A	4	LSM25 E2H1 U4 ¹⁾	1	0,41
		32A	32A	32A	4	LSM32 E2H1 U4 ¹⁾	1	0,41
		45A	38A	45A	4	LSM38 E2H1 U4 ¹⁾	1	0,41
		16A	16A	16A	4	LSM16 E2H1 U4ACDC ²⁾	1	0,41
		25A	25A	25A	4	LSM25 E2H1 U4ACDC ²⁾	1	0,41
		32A	32A	32A	4	LSM32 E2H1 U4ACDC ²⁾	1	0,41
		45A	38A	45A	4	LSM38 E2H1 U4ACDC ²⁾	1	0,41
		16A	16A	-	4	LSM16 E2H1 U4DC ³⁾	1	0,49
		25A	25A	-	4	LSM25 E2H1 U4DC ³⁾	1	0,49
		32A	32A	-	4	LSM32 E2H1 U4DC ³⁾	1	0,49
		45A	38A	-	4	LSM38 E2H1 U4DC ³⁾	1	0,49

1) For all applications, jumpers not included

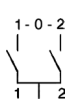
2) Changeover Isolators AC/DC, 2 jumpers for DC side are enclosed

3) Changeover Isolators for DC, prewired

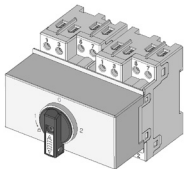
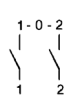
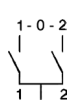
Changeover Isolators for Base Mounting, w. Door Clutch, Single Hole, Plate 64, IP66, Type 4X

		DC-PV1 (=DC21B)		AC21B	Poles	Type	Pack	Weight
		600V	1000V	440V	in Series		pcs.	kg/pce.
		16A	16A	16A	4	LSM16 VZV U4 ¹⁾	1	0,45
		25A	25A	25A	4	LSM25 VZV U4 ¹⁾	1	0,45
		32A	32A	32A	4	LSM32 VZV U4 ¹⁾	1	0,45
		45A	38A	45A	4	LSM38 VZV U4 ¹⁾	1	0,45
		16A	16A	16A	4	LSM16 VZV U4ACDC ²⁾	1	0,45
		25A	25A	25A	4	LSM25 VZV U4ACDC ²⁾	1	0,45
		32A	32A	32A	4	LSM32 VZV U4ACDC ²⁾	1	0,45
		45A	38A	45A	4	LSM38 VZV U4ACDC ²⁾	1	0,45
		16A	16A	-	4	LSM16 VZV U4DC ³⁾	1	0,50
		25A	25A	-	4	LSM25 VZV U4DC ³⁾	1	0,50
		32A	32A	-	4	LSM32 VZV U4DC ³⁾	1	0,50
		45A	38A	-	4	LSM38 VZV U4DC ³⁾	1	0,50

Changeover Isolators for Base Mounting, lockable, w. Door Clutch, Single Hole, Plate 64, IP66, Type 4X

		16A	16A	16A	4	LSM16 VZVH4 U4 ¹⁾	1	0,45
		25A	25A	25A	4	LSM25 VZVH4 U4 ¹⁾	1	0,45
		32A	32A	32A	4	LSM32 VZVH4 U4 ¹⁾	1	0,45
		45A	38A	45A	4	LSM38 VZVH4 U4 ¹⁾	1	0,45
		16A	16A	16A	4	LSM16 VZVH4 U4ACDC ²⁾	1	0,45
		25A	25A	25A	4	LSM25 VZVH4 U4ACDC ²⁾	1	0,45
		32A	32A	32A	4	LSM32 VZVH4 U4ACDC ²⁾	1	0,45
		45A	38A	45A	4	LSM38 VZVH4 U4ACDC ²⁾	1	0,45
		16A	16A	-	4	LSM16 VZVH4 U4DC ³⁾	1	0,50
		25A	25A	-	4	LSM25 VZVH4 U4DC ³⁾	1	0,50
		32A	32A	-	4	LSM32 VZVH4 U4DC ³⁾	1	0,50
		45A	38A	-	4	LSM38 VZVH4 U4DC ³⁾	1	0,50

Changeover Isolators for Distribution Boards, lockable, lower handle, IP40, Open Type

		16A	16A	16A	4	LSM16 SMAH1N U4 ¹⁾	1	0,40
		25A	25A	25A	4	LSM25 SMAH1N U4 ¹⁾	1	0,40
		32A	32A	32A	4	LSM32 SMAH1N U4 ¹⁾	1	0,40
		45A	38A	45A	4	LSM38 SMAH1N U4 ¹⁾	1	0,40
		16A	16A	16A	4	LSM16 SMAH1N U4ACDC ²⁾	1	0,40
		25A	25A	25A	4	LSM25 SMAH1N U4ACDC ²⁾	1	0,40
		32A	32A	32A	4	LSM32 SMAH1N U4ACDC ²⁾	1	0,40
		45A	38A	45A	4	LSM38 SMAH1N U4ACDC ²⁾	1	0,40
		16A	16A	-	4	LSM16 SMAH1N U4DC ³⁾	1	0,45
		25A	25A	-	4	LSM25 SMAH1N U4DC ³⁾	1	0,45
		32A	32A	-	4	LSM32 SMAH1N U4DC ³⁾	1	0,45
		45A	38A	-	4	LSM38 SMAH1N U4DC ³⁾	1	0,45

1) For all applications, jumpers not included

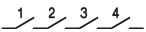
2) Changeover Isolators AC/DC, 2 jumpers for DC side are enclosed

3) Changeover Isolators for DC, prewired

Technical Data

Kind of current	Category		Typical applications	Test conditions for the number of on-load operating cycles (normal service)						Test conditions for making and breaking capacities (operation in fault case)					
				Make I _{le}	U _{/U_e}	L/R	Break I _c /I _e	U _r /U _e	L/R	Make I _{le}	U _{/U_e}	L/R	Break I _c /I _e	U _r /U _e	L/R
Direct current	DC21A frequent operation	DC21B infrequent operation	Switching of resistive loads including moderate overloads	1	1	1ms	1	1	1ms	1,5	1,05	1ms	1,5	1,05	1ms
	DC22A frequent operation	DC22B infrequent operation	Switching of mixed resistive a.induct. loads incl. moderate overloads (shunt motors)	1	1	2ms	1	1	2ms	4	1,05	2,5ms	4	1,05	2,5ms
	DC-PV1		Switching of single PV string(s) without reverse- and overcurrents.	1	1	1ms	1	1	1ms	1,5	1,05	1ms	1,5	1,05	1ms
	DC-PV2		Switching of several PV strings with reverse- and overcurrents.	1	1	1ms	1	1	1ms	4	1,05	1ms	4	1,05	1ms

Data according to IEC 60947-3, VDE 0660, GB14048.3 (CCC China)

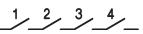
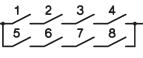
Main contacts			Type	LSM(O)16	LSM(O)25	LSM(O)32	LSM(O)38	
Rated thermal current I _{th}			A	16	25	32	38	
Rated insulation voltage U _i ¹⁾			V	1000	1000	1000	1000	
Rated insulation voltage U _i ²⁾			V	1500	1500	1500	1500	
Distance of contacts (per pole)			mm	8	8	8	8	
Rated operational current I_e DC21B	1 pole	300V	A	-	-	-	-	
		400V	A	-	-	-	-	
		500V	A	-	-	-	-	
		600V	A	-	-	-	-	
		700V	A	-	-	-	-	
		800V	A	-	-	-	-	
		900V	A	-	-	-	-	
		1000V	A	-	-	-	-	
	2 poles in series	500V	A	16	25	32	45	
		600V	A	16	25	32	45	
		700V	A	16	25	32	36	
			800V	A	16	20	23	30
			900V	A	16	17	20	25
			1000V	A	10	11,5	13	20
	1200V		A	7	8,5	10	10	
	1500V	A	3	5	6	6		
	2 poles in series + 2 poles parallel A2 + 2	500V	A	29	45	50	50	
		600V	A	29	45	50	50	
		700V	A	22	27	32	36	
			800V	A	17	20	23	30
			900V	A	16	17	20	25
			1000V	A	10	11,5	13	20
			1200V	A	7	8,5	10	10
		1500V	A	3	5	6	6	
		4 poles in series A4	500V	A	16	25	32	45
			600V	A	16	25	32	45
	700V		A	16	25	32	45	
			800V	A	16	25	32	45
			900V	A	16	25	32	45
			1000V	A	16	25	32	38
			1200V	A	16	25	32	32
	1500V		A	16	20	32	32	
Rated operational current I_e AC21B								
A2, A4	U _e max. 440V	A	16	25	32	45		
A2 + 2	U _e max. 440V	A	29	45	50	50		

1) Suitable at overvoltage category I to III, pollution degree 3 (standard-industry): U_{imp} = 8kV.

2) Suitable at overvoltage category I to III, pollution degree 2 (min. IP55): U_{imp} = 8kV.

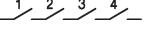
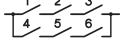
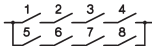
Technical Data

Data acc. to IEC 60947-3, VDE 0660

Main Contacts		Type	LSM(O)16	LSM(O)25	LSM(O)32	LSM(O)38
Rated operational current I_e DC-PV1	1 pole	300V A	16	23	27	-
		400V A	14	22	25	-
	A1 	500V A	10	17	20	-
		600V A	7	12	15	-
		700V A	5	6	7,5	-
		800V A	3	4	5	-
		900V A	3	3	4	-
		1000V A	2	2	3	-
	2 poles in series A2 	500V A	16	25	32	45
		600V A	16	25	32	45
		700V A	16	25	32	36
		800V A	16	20	23	30
		900V A	16	17	20	25
		1000V A	10	11,5	13	20
		1100V A	8	10	-	-
		1200V A	7	8,5	10	10
		1300V A	6	7	-	-
		1400V A	5	6	-	-
		1500V A	3	5	6	6
	2 poles in series + 2 poles parallel A2+2 	500V A	29	45	50	50
		600V A	29	36	50	50
		700V A	22	27	32	36
		800V A	17	20	23	30
		900V A	16	17	20	25
		1000V A	10	11,5	13	20
		1100V A	8	10	-	-
		1200V A	7	8,5	10	10
		1300V A	6	7	-	-
		1400V A	5	6	-	-
		1500V A	3	5	6	6
	4 poles in series A4 	500V A	16	25	32	45
		600V A	16	25	32	45
		700V A	16	25	32	45
		800V A	16	25	32	45
		900V A	16	25	32	45
		1000V A	16	25	32	38
		1100V A	16	25	-	-
		1200V A	16	25	32	32
		1300V A	16	25	-	-
		1400V A	16	25	-	-
		1500V A	16	25	32	32
	4 poles in series + 2 poles parallel A4+2 	500V A	29	45	50	50
		600V A	29	45	50	50
		700V A	29	45	50	50
		800V A	29	45	50	50
		900V A	29	45	50	50
		1000V A	29	45	50	50
		1100V A	29	-	-	-
		1200V A	29	33	50	50
		1300V A	29	-	-	-
		1400V A	29	-	-	-
		1500V A	20	26	32	32

Technical Data

Data acc. to IEC 60947-3, VDE 0660

Main Contacts		Type	LSM(O)16	LSM(O)25	LSM(O)32	LSM(O)38
Rated operational current I_e DC-PV2 1 pole A1 	300V	A	16	23	27	27
	400V	A	14	18	20	20
	500V	A	10	12	14	14
	600V	A	5	6	8	8
	700V	A	1,5	2	3	3
	800V	A	1,5	2	3	3
	900V	A	1	1,5	2	2
	1000V	A	1	1,5	2	2
	2 poles in series	A	16	25	32	38
	A2	A	14	21	27	31
	700V	A	13	19	22	25
		A	12	15	17	19
	800V	A	8	10	12	14
	900V	A	4	5	6	7
	1000V	A	3	4	-	-
	1100V	A	2	3	4	4
	1200V	A	1,5	2	-	-
	1300V	A	1	2	-	-
	1400V	A	1	1,5	2	2
	1500V	A				
2 poles in series + 2 poles parallel A2+2 	500V	A	25	39	50	50
	600V	A	20	32	35	38
	700V	A	13	19	22	25
	800V	A	12	15	17	19
	900V	A	8	10	12	14
	1000V	A	4	5	6	7
	1100V	A	3	4	-	-
	1200V	A	2	3	4	4
	1300V	A	1,5	2	-	-
	1400V	A	1	2	-	-
	1500V	A	1	1,5	2	2
	4 poles in series	A	16	25	32	45
	A4	A	16	25	32	45
	700V	A	16	25	32	45
		A	16	25	32	38
	800V	A	16	25	32	38
	900V	A	16	25	32	38
	1000V	A	16	25	32	38
	1100V	A	16	25	-	-
	1200V	A	13,5	21	27	27
	1300V	A	12	19	-	-
	1400V	A	10,5	16	-	-
	1500V	A	9	14	18	18
3 poles in series + 2 poles parallel A3+2 	500V	A	28	45	50	50
	600V	A	22	38	44	48
	700V	A	20	30	34	35
	800V	A	18	26	29	31
	900V	A	16	22	24	24
	1000V	A	15	18	20	20
	1100V	A	-	-	-	-
	1200V	A	11	13,5	15	15
	1300V	A	-	-	-	-
	1400V	A	-	-	-	-
	1500V	A	4	6,5	8	8
	4 poles in series	A	29	45	50	50
	+ 2 poles parallel	A	29	45	50	50
	A4+2	A	25	40	50	50
	700V	A	21	35	45	50
		A	18	30	37	50
	900V	A	16	25	32	50
	1000V	A	-	-	-	-
	1100V	A	-	-	-	-
	1200V	A	13,5	21	27	27
	1300V	A	-	-	-	-
	1400V	A	-	-	-	-
	1500V	A	9	14	18	18

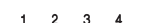
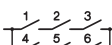
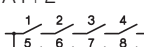
Technical Data

Data according to IEC 60947-3, VDE 0660

Main contacts				Type	LSM(O)16	LSM(O)25	LSM(O)32	LSM(O)38
Rated conditional short-circuit current				kA _{eff}	5	5	5	5
Max. fuse size gL (gG)				A	40	63	80	80
Mechanical life				x10 ³	10	10	10	10
Rated short-time withstand current (1s)	I _{cw}	A2, A4	A	800	900	1000	1000	
			A2+2	A	1300	1500	1700	1700
Short circuit making capacity	I _{cm}	A2, A4	A	800	900	1000	1000	
			A2+2	A	1300	1500	1700	1700
Maximum cable cross sections (incl. jumper LSMV-B1)								
solid or stranded				mm ²	0,5 - 10	0,5 - 10	0,5 - 10	0,5 - 10
flexible				mm ²	0,5 - 6	0,5 - 6	0,5 - 6	0,5 - 6
flexible (+ multicore cable end)				mm ²	0,5 - 6	0,5 - 6	0,5 - 6	0,5 - 6
Size of terminal screw					M4 Pz1	M4 Pz1	M4 Pz1	M4 Pz1
Tightening torque				Nm	1,4	1,4	1,4	1,4
2 cables per clamp without jumper LSMV-B1								
solid or stranded				mm ²	10+(1,5-2,5) / 6+(1,5-6) / 4+(1,5-4)			
flexible				mm ²	(0,5-6)+(0,5-6)			
stranded				AWG	6+(20-14) / 8+(20-12) / 10+(20-10) 12+(20-12)			
solid				AWG	10+(16-10) / 12+(16-12) 14+(16-14)			
Maximum ambient temperature								
Operation		open	°C		-40 to +65			
		enclosed	°C		-40 to +45			
Storage			°C		-50 to +90			
Power loss per switch at I _e max.								
A2				(A)/W	(16)/1	(25)/2,3	(32)/3,7	(45)/7,1
A4				(A)/W	(16)/2	(25)/4,6	(32)/7,4	(45)/14,2
A2+2				(A)/W	(29)/1,5	(45)/3,7	(50)/4,4	(50)/4,4
Contact resistance per pole				mΩ	1,75	1,75	1,75	1,75

Technical Data

Data according to UL508I  File E359344, Category no.: NMSJ, and UL508 c  US File E332938, Category no.: NRNT2, NRNT8

Main contacts	Type	LSM(O)16	LSM(O)25	LSM(O)32	LSM(O)38
Ampere-Rating "General use"	DC				
1 pole	350V	4	5	6	6
	500V	4	5	6	6
	600V	4	5	6	6
2 poles in series	350V	16	25	32	38
A2	500V	16	25	32	38
	600V	16	25	32	38
2 poles in series	350V	29	45	50	50
+ 2 poles parallel	500V	29	38	43	45
A2+2	600V	21	27	33	36
					
4 poles in series	350V	16	25	32	38
A4	500V	16	25	32	38
	600V	16	25	32	36
3 poles in series	350V	16	25	50	50
+ 2 poles parallel	500V	16	25	50	50
A3+2	600V	16	25	45	45
					
4 poles in series	350V	16	25	50	50
+ 2 poles parallel	500V	16	25	50	50
A4+2	600V	16	25	50	50
					
Fuse size (RK5)Industrial Control Switch					
5kA / 600V	A	40	60	80	80
Maximum cable cross sections (incl. jumper LSMV-B1)					
solid or stranded	AWG	16 - 10	16 - 10	16 - 10	16 - 10
flexible	AWG	20 - 6	20 - 6	20 - 6	20 - 6
flexible (+ multicore cable end)	AWG	20 - 6	20 - 6	20 - 6	20 - 6
Size of terminal screw		M4 Pz1	M4 Pz1	M4 Pz1	M4 Pz1
Tightening torque	lb.inch	12,4	12,4	12,4	12,4
Protection class of terminals ¹⁾		IP20	IP20	IP20	IP20

Approvals

Country	USA, UL508I 	US, Canada UL508 	Europe 	China CCC 	CB- certificates	EAC 
Type						
LSM16	o	o	/	o	x	o
LSM25	o	o	/	o	x	o
LSM32	o	o	/	o	x	o
LSM38	o	o	/	o	x	o

o In standard version approved

/ No testing required CE

x pending

- not provided for testing till now

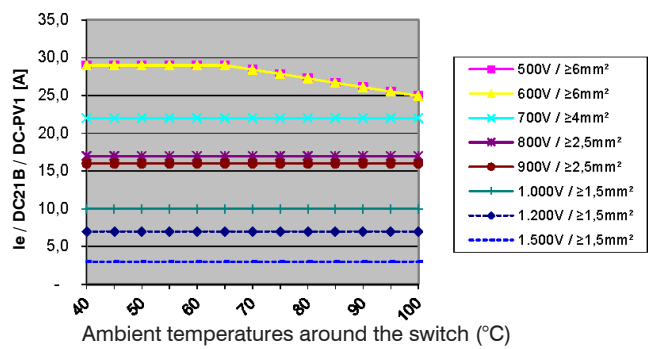
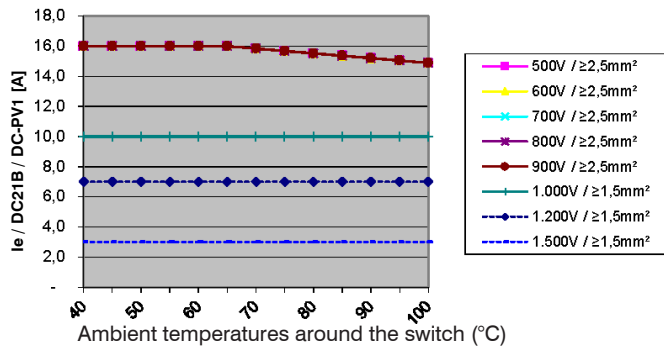
1) Protection degree of the terminals with connected insulated conductor.

Technical Data

Example for maximum currents according to ambient temperatures and cable cross sections:

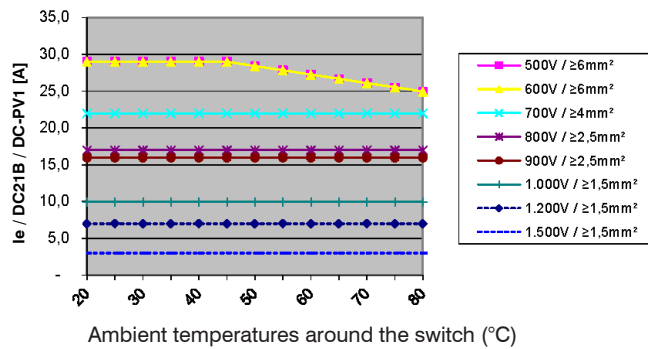
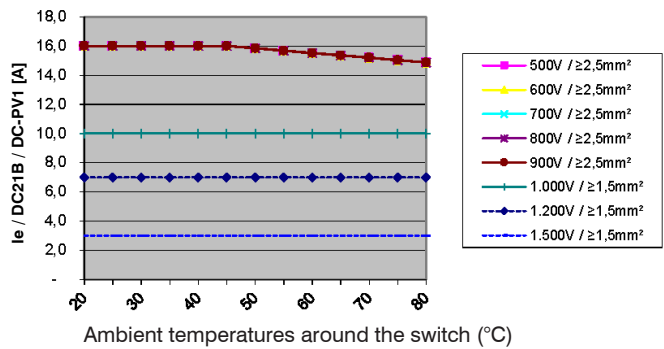
Switch **open** LSM(O)16..., 2 contacts in series (A2)

Switch **open** LSM(O)16 ..., 2 contacts in series + 2 parallel (A2+2)



Switch **enclosed** LSM(O)16 PFL..., 2 contacts in series (A2)

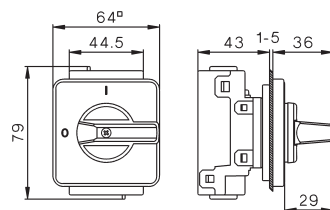
Switch **enclosed** LS16(M)O PFL..., 2 contacts in series + 2 parallel (A2+2)



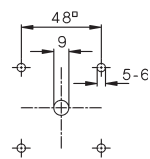
All data about maximum currents according to ambient temperatures and cable cross sections for switches LSM(O)16.. to LSM(O)38.. (open or enclosed) please find under ➡ www.benedict.at (Button "Customers").

Dimensions:

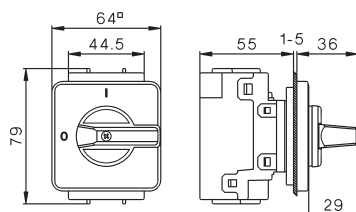
**LSM16 E.. up to LSM38 E..
..A2**



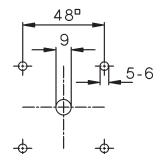
Mounting hole



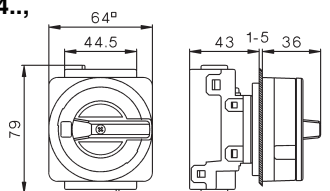
**LSM16 E.. up to LSM38 E..
..A2+2, ..A4**



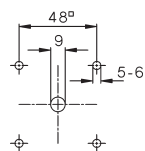
Mounting hole



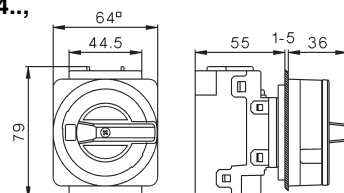
**LSM16 EH4.. up to LSM38 EH4..
..A2**



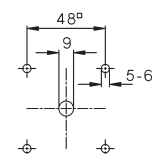
Mounting hole



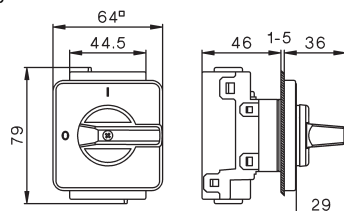
**LSM16 EH4.. up to LSM38 EH4..
..A2+2, ..A4**



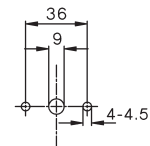
Mounting hole



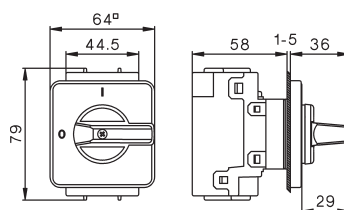
**LSM16 E2.. up to LSM38 E2..
..A2**



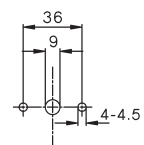
Mounting hole



**LSM16 E2.. up to LSM38 E2..
..A2+2, ..A4**

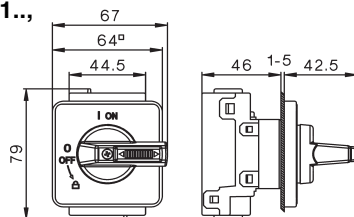


Mounting hole

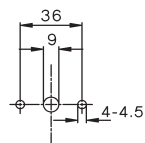


Dimensions:

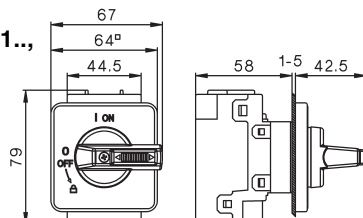
LSM16 E2H1.. up to LSM38 E2H1..
..A2



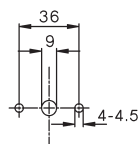
Mounting hole



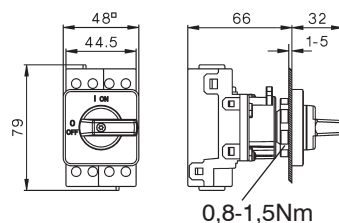
LSM16 E2H1.. up to LSM38 E2H1..
..A2+2, ..A4



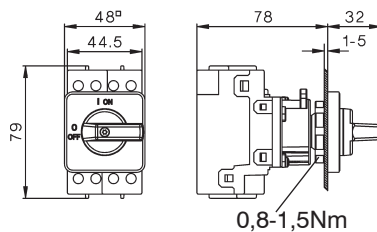
Mounting hole



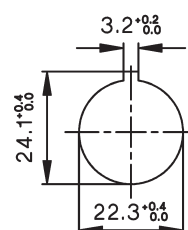
LSM16 Z.. up to LSM38 Z..
..A2



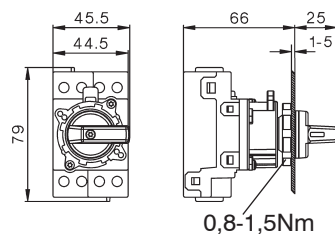
LSM16 Z.. up to LSM38 Z..
..A2+2, ..A4



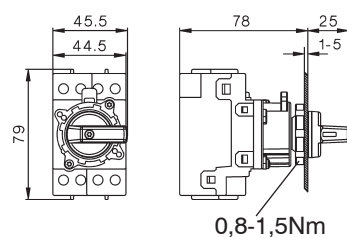
Detailed view - Mounting
hole for LSM16 Z(O)..
up to LSM38 Z(O)..



LSM16 ZO.. up to LSM38 ZO..
..A2

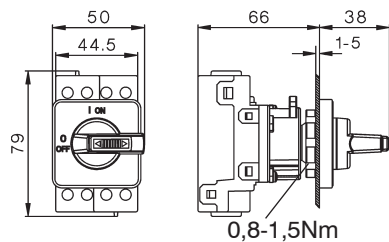


LSM16 ZO.. up to LSM38 ZO..
..A2+2, ..A4

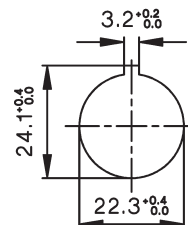


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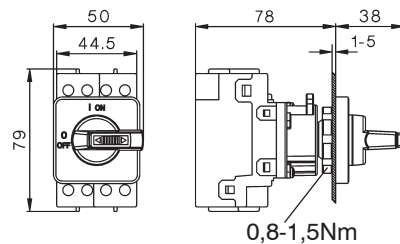
LSM16 ZH1.. up to LSM38 ZH1..
..A2



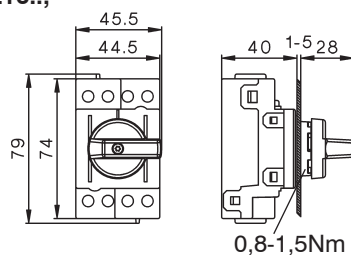
Detailed view - Mounting
hole for LSM16 ZH1..
up to LSM38 ZH1..



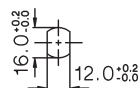
LSM16 ZH1.. up to LSM38 ZH1..
..A2+2, ..A4



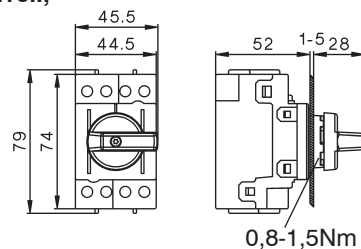
LSM16 Z16.. up to LSM38 Z16..
..A2



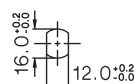
Mounting hole



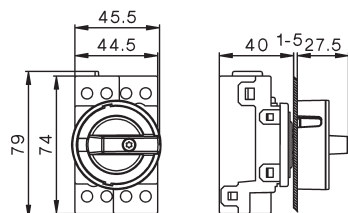
LSM16 Z16.. up to LSM38 Z16..
..A2+2, ..A4



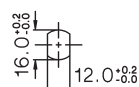
Mounting hole



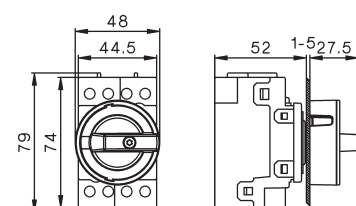
LSM16 ZH448.. up to LSM38 Z16H448..
..A2



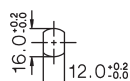
Mounting hole



LSM16 ZH448.. up to LSM38 ZH448..
..A2+2, ..A4

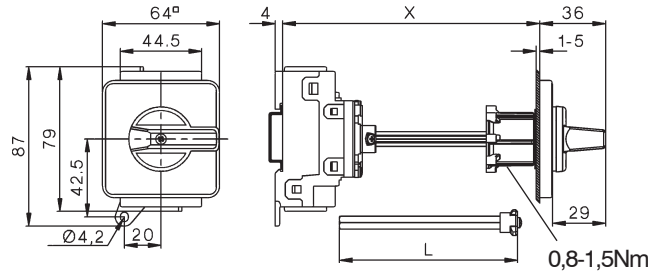


Mounting hole



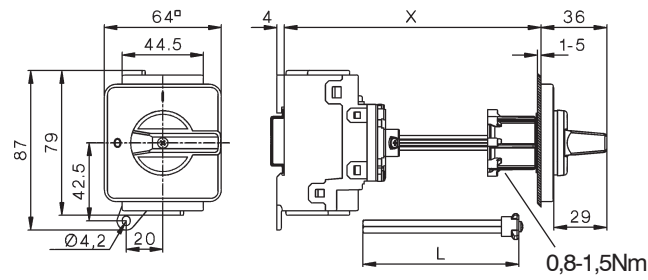
Dimensions:

LSM16 VZV.. up to LSM38 VZV..
..A2



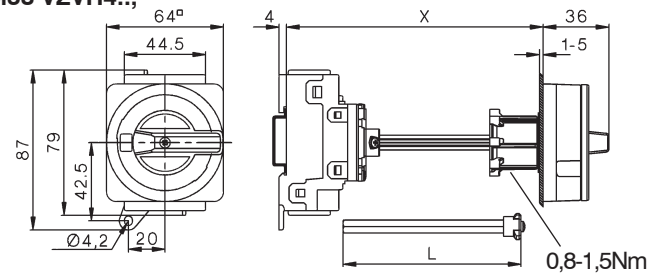
$$X_{\max} = 182, L = 155,5$$
$$(X_{\min} = 59,5)$$
$$L = X - 26,5 \pm 3$$

LSM16 VZV.. up to LSM38 VZV..
..A2+2, ..A4



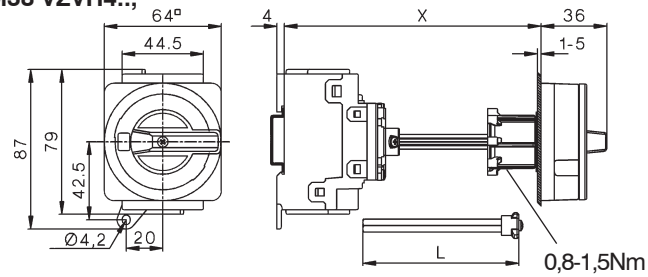
$$X_{\max} = 194, L = 155,5$$
$$(X_{\min} = 71,5)$$
$$L = X - 38,5 \pm 3$$

LSM16 VZVH4.. up to LSM38 VZVH4..
..A2



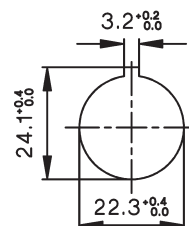
$$X_{\max} = 182, L = 155,5$$
$$(X_{\min} = 59,5)$$
$$L = X - 26,5 \pm 3$$

LSM16 VZVH4.. up to LSM38 VZVH4..
..A2+2, ..A4



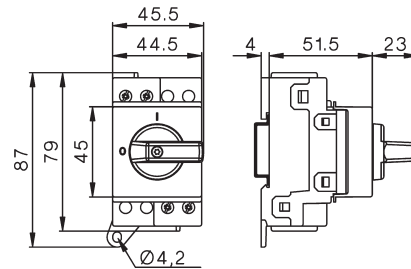
$$X_{\max} = 194, L = 155,5$$
$$(X_{\min} = 71,5)$$
$$L = X - 38,5 \pm 3$$

Detailed view - Mounting
hole for LSM16 VZV(H)..
up to LSM38 VZV(H)..

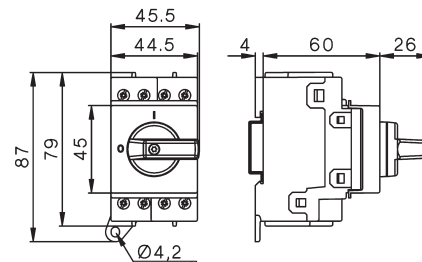


Dimensions:

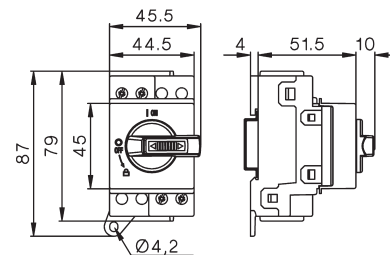
LSM16 SMA.. up to LSM38 SMA..
..A2



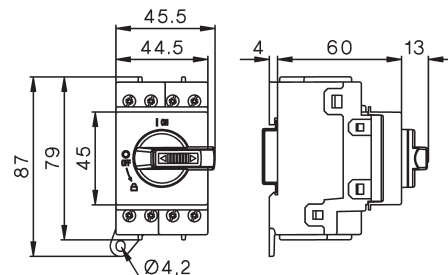
LSM16 SMA.. up to LSM38 SMA..
..A2+2, ..A4



LSM16 SMAH1N.. up to LSM38 SMAH1N..
..A2

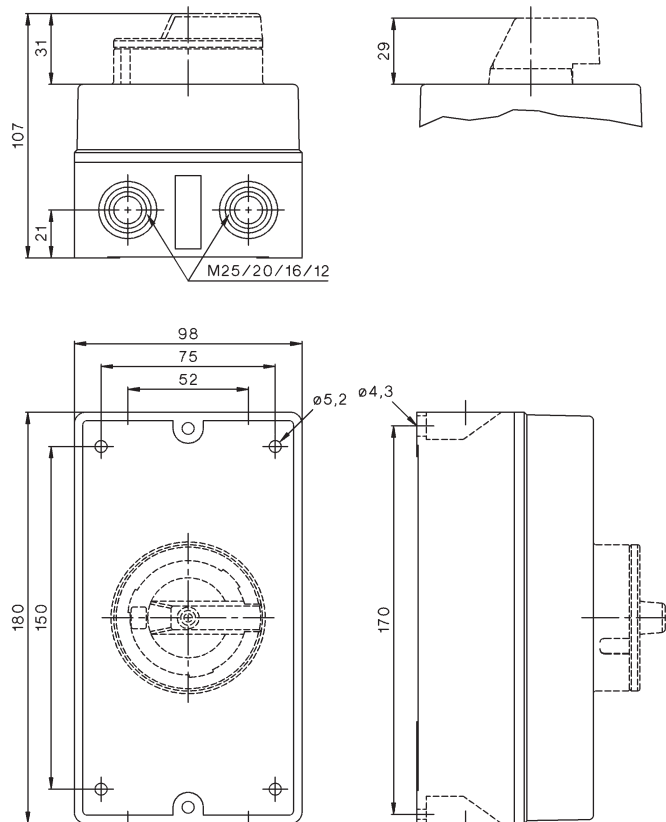


LSM16 SMAH1N.. up to LSM38 SMAH1N..
..A2+2, ..A4

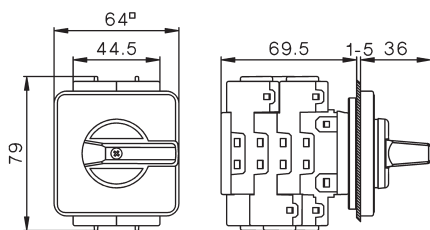


Dimensions:

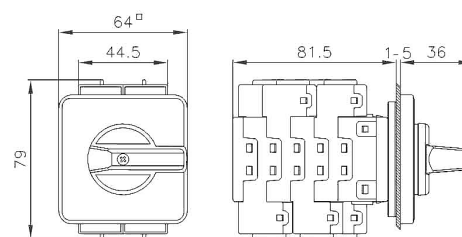
LSM16 PFLH4.. up to LSM38 PFLH4..
..A2, ..A2+2, ..A4



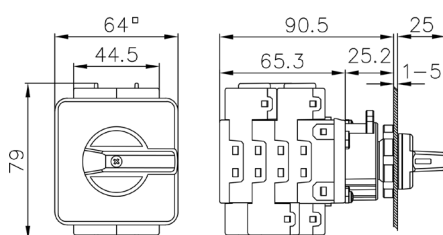
LSMO16 E.. up to LSMO38 E..
..A6



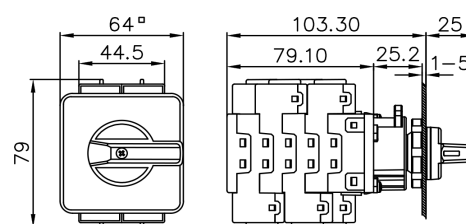
LSMO16 E.. up to LSMO38 E..
..A8



LSMO16 Z.. up to LSMO38 Z..
..A6

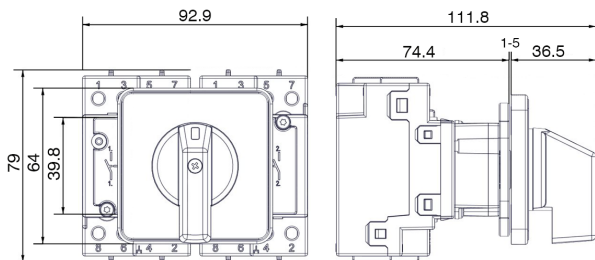


LSMO16 Z.. up to LSMO38 Z..
..A8

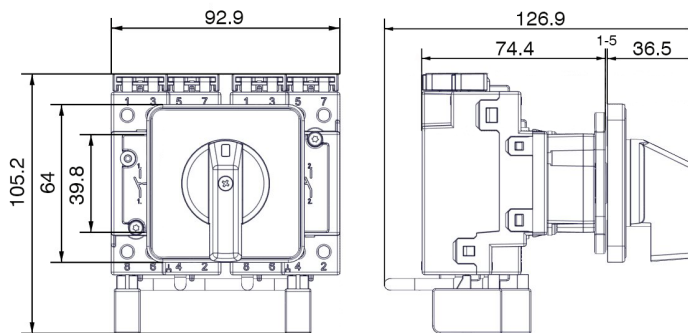


Dimensions:

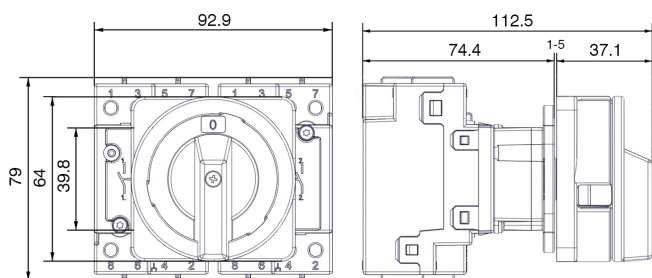
**LSM16 E U4 up to LSM38 E U4,
LSM16 E U4ACDC up to LSM38 E U4ACDC**



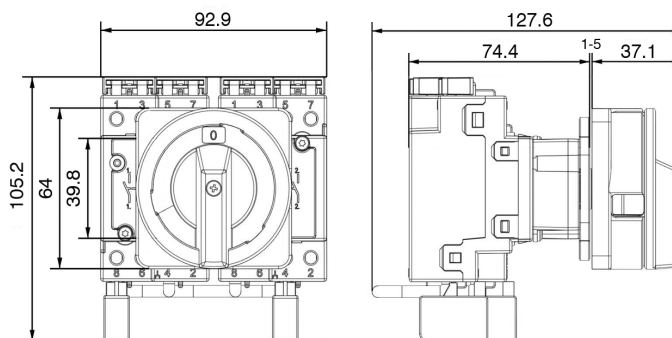
LSM16 E U4DC up to LSM38 E U4DC



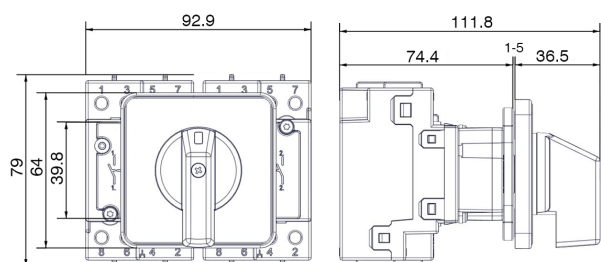
**LSM16 EH4 U4 up to LSM38 EH4 U4,
LSM16 EH4 U4ACDC up to LSM38 EH4 U4ACDC**



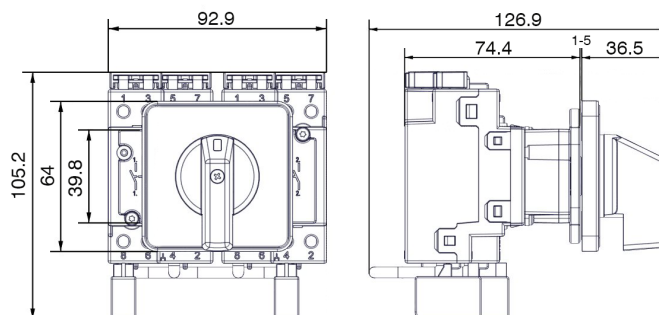
LSM16 EH4 U4DC up to LSM38 EH4 U4DC



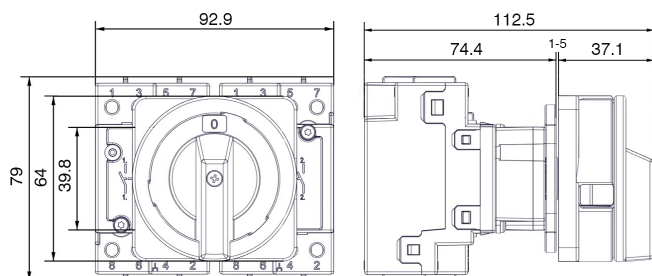
**LSM16 E2 U4 up to LSM38 E U4,
LSM16 E2 U4ACDC up to LSM38 E U4ACDC**



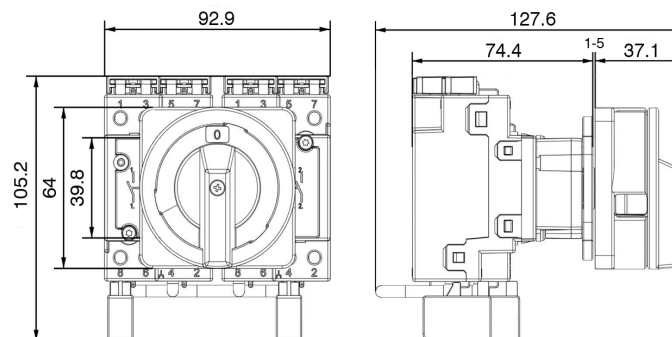
LSM16 E2 U4DC up to LSM38 E U4DC



**LSM16 E2H4 U4 up to LSM38 EH4 U4,
LSM16 E2H4 U4ACDC up to LSM38 EH4 U4ACDC**

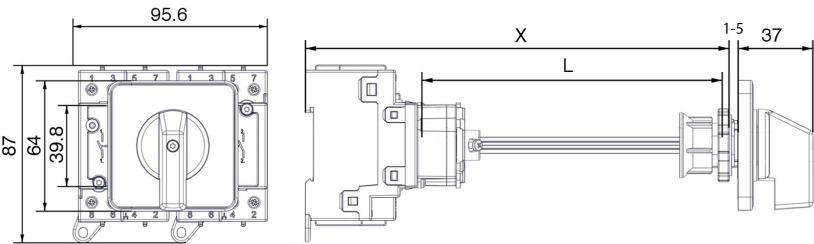


LSM16 E2H4 U4DC up to LSM38 EH4 U4DC

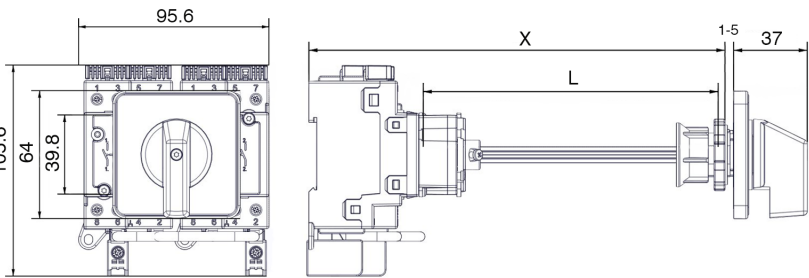


Dimensions:

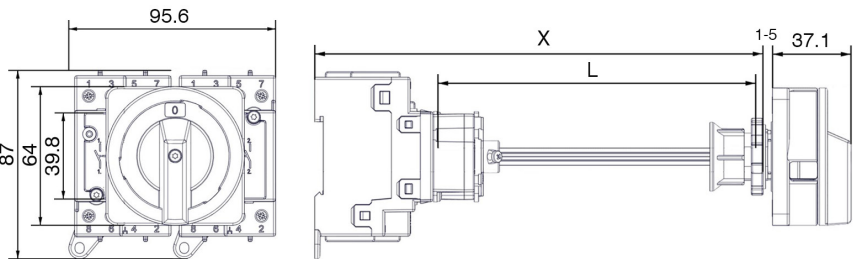
**LSM16 VZV U4 up to LSM38 VZV U4,
LSM16 VZV U4ACDC up to LSM38 VZV U4ACDC**



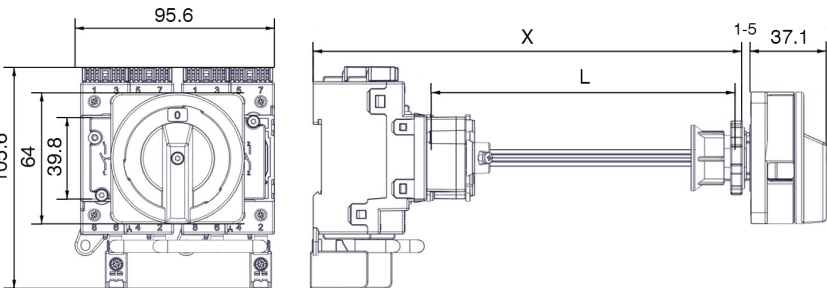
LSM16 VZV U4DC up to LSM38 VZV U4DC



**LSM16 VZVH4 U4 up to LSM38 EH4 U4,
LSM16 VZVH4 U4ACDC up to LSM38 EH4 U4ACDC**



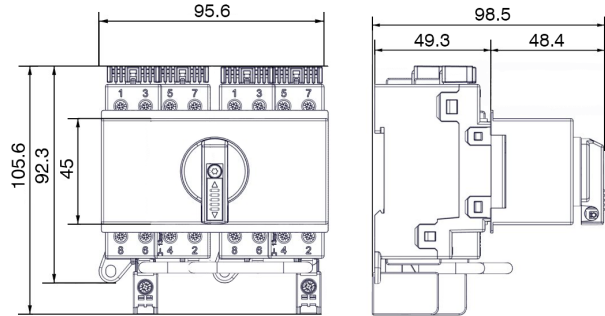
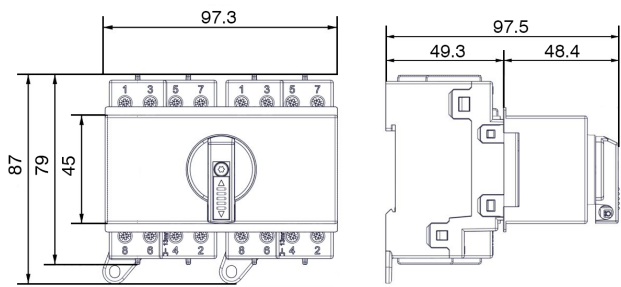
LSM16 VZVH4 U4DC up to LSM38 VZVH4 U4DC



Dimensions:

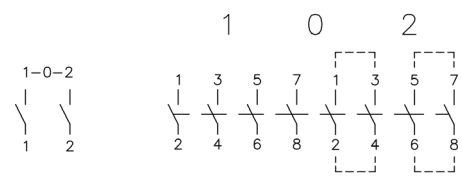
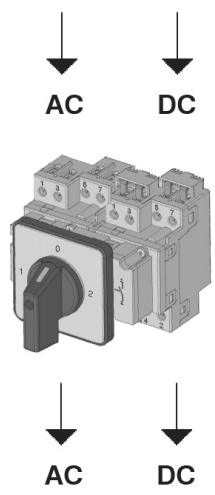
LSM16 SMAH1N U4 up to LSM38 SMAH1N U4,
LSM16 SMAH1N U4ACDC up to LSM38 SMAH1N U4ACDC

LSM16 SMAH1N U4DC up to LSM38 SMAH1N U4DC

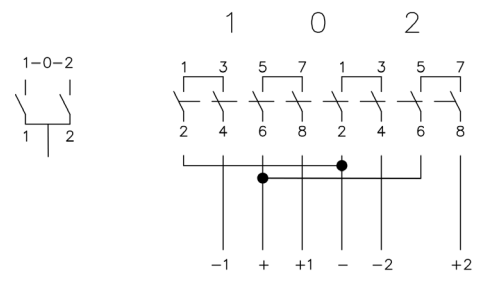
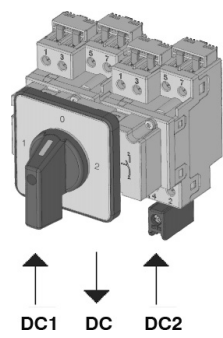


Changeover Isolators - Applications:

LSM.. U4ACDC (2 pcs. jumpers attached)



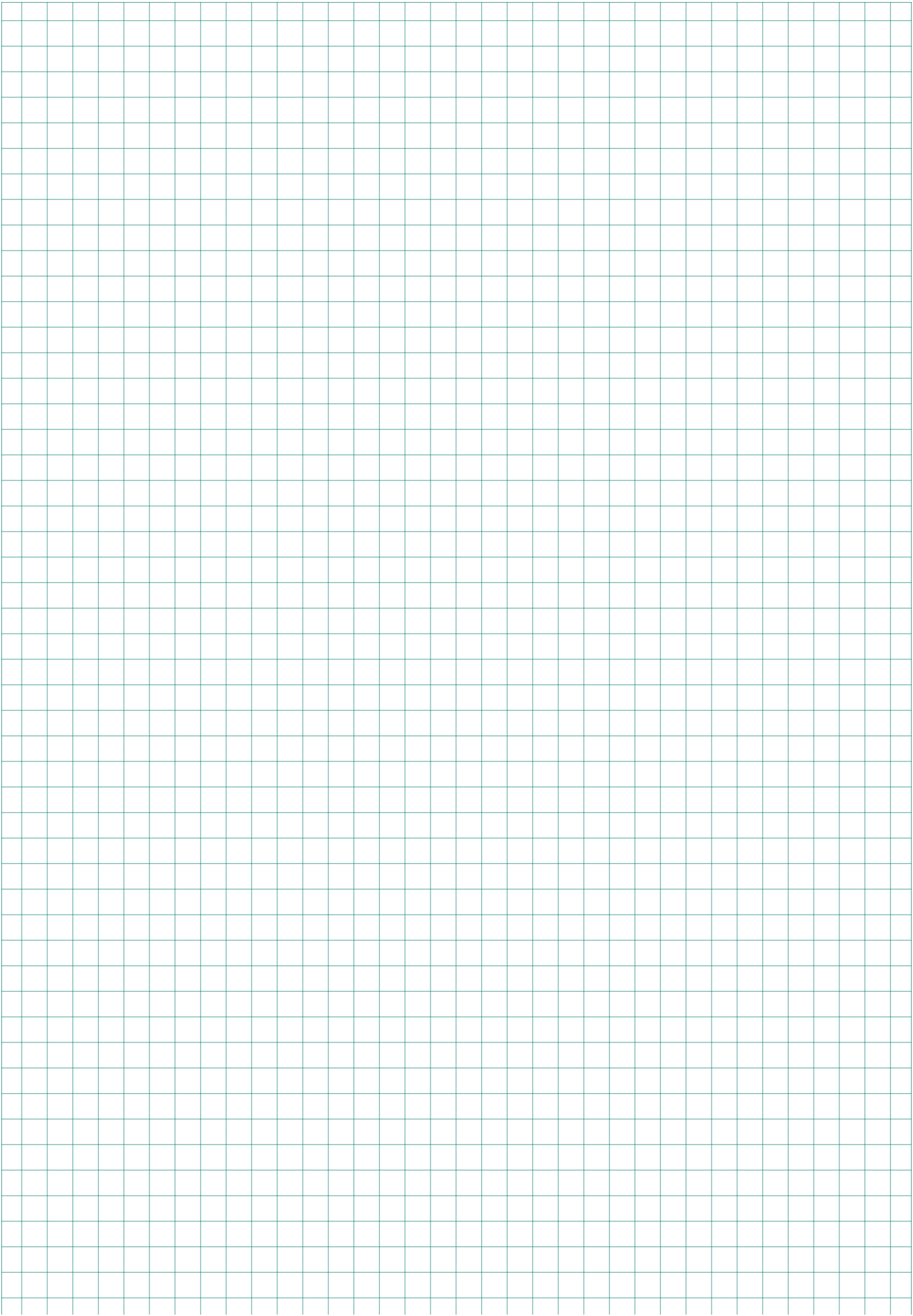
LSM.. U4DC (prewired)



Isolated jumpers LSMV-.. for Series and Parallel switching of contacts:

Type	LSM16	LSM25	LSM32	LSM38
A4O A4U	2 x  LSMV-B1-1 N		2 x  LSMV-B1-2 N	
A4B	1 x  LSMV-B1-1 N	1 x  LG11852	1 x  LSMV-B1-2 N	1 x  LG11852
A4+2	4 x  LSMV-B1-1 N			

Type	LSMO16	LSMO25	LSMO32	LSMO38
A4+2	4 x  LSMV-B1-1 N			
	2 x  LSMOV-B1			





Quality made in 

D1024E202



Lieblgasse 7, A-1220 Wien
 Telefon: + 43 1 251 51 - 0
 Fax: + 43 1 251 51 - 89
 e-mail: sales@benedict.at
www.benedict.at

