

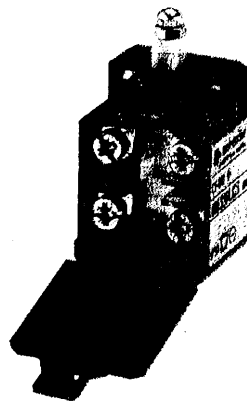
Plastic bodied compact limit switches

Combi C2

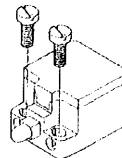
For confined spaces
With two mounting options
Protection class IP 30
With snap-shut, hinged lid



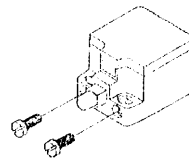
- Compact switches for safety or control applications
- 3 different contact configurations available as slow-action and snap-action
- All normally-closed contacts are positive break ⊕
- Two channel safety control possible
- Galvanically isolated terminals, type Zb
- Approvals UL, CSA, BG (applied for)
- Rectangular cable inlets (8.5 x 3.5 mm) for 4 x 1-mm² flexible lead
- 4 screw-type connections (M3,5) with self-lifting clamps
- PBT enclosure, glass-fibre reinforced, self-extinguishing UL 94-V0
- Lid, PC UL 94-V0
- 2 mm contact opening of slow-action system according to EN 81-1 for lift applications



Mounting



a) 2 holes for M4 screws



b) 2 captive M3 nuts for end mounting (depending on type)

Switching elements

Switching element	Switch function	Switch contact	Designation	Voltage	Continuous current
Slow-action	change-over	1NC/1NO	U1Z	250 V	10 A
Snap-action	change-over	1NC/1NO	SU1Z	250 V	10 A
Slow-action	normally-closed	2NC	A2Z	250 V	10 A
Snap-action	normally-closed	2NC	SA2Z	250 V	10 A
Slow-action	normally-open	2NO	E2	250 V	10 A
Snap-action	normally-open	2NO	SE2	250 V	10 A



Designation
Part no.
Switching diagram
⊕ positive break according to IEC 947-5-1 Chap. 3
Za: changeover contact is not galvanically isolated
Zb: changeover contact is galvanically isolated
Slow-action contact/snap-action contact
Gasket inside (iw)/outside (w)

Contact travel mm (inch)
Tol. ± 0.25 mm



Actuating force N
Tol. ± 10%

Switch angle degree
Tol. ± 3.5°



Actuating torque Ncm
tol. ± 10%

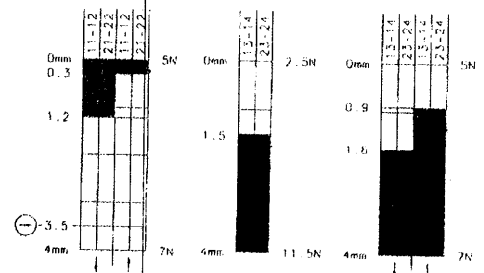
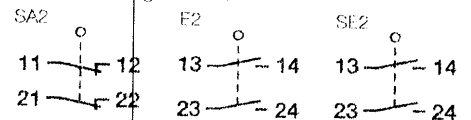
In Out

Voltage max.
Continuous current max.
Making current, acc. to IEC 947-5-1 AC 15/DC 13

Switching frequency max.
Mech. operational life – number of switching cycles
Ambient temperature min./max.

Approvals (applied for)
Weight
Type of storage/time of delivery as agreed

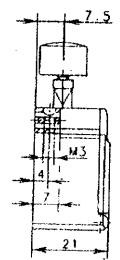
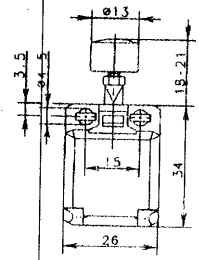
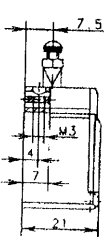
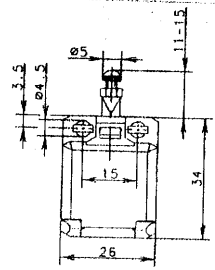
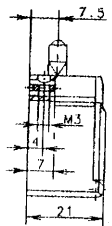
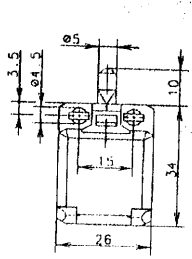
Further switching functions



Dimensions
All dimensions in mm (inch)



C2-U1Z 600.8101.001	C2-SU1Z 600.8351.002	C2-A2Z 600.8801.003	C2-U1Z St 600.8104.025	C2-SU1Z St 600.8354.026	C2-A2Z St 600.8804.027	C2-U1Z K 600.8107.019	C2-SU1Z K 600.8357.020	C2-A2Z K 600.8807.021
⊕ Zb ●/- -/-	⊕ Zb -● -/-	⊕ Zb ●/- -/-	⊕ Zb ●/- -/-	⊕ Zb -● -/-	⊕ Zb ●/- -/-	⊕ Zb ●/- -/-	⊕ Zb -● -/-	⊕ Zb ●/- -/-
250 V AC 10 A ●	250 V AC 10 A ●	250 V AC 10 A ●	250 V AC 10 A ●	250 V AC 10 A ●	250 V AC 10 A ●	250 V AC 10 A ●	250 V AC 10 A ●	250 V AC 10 A ●
100/min. 3 x 10 ⁶ -30 °C/+80 °C -22 °F/+176 °F	100/min. 3 x 10 ⁶ -30 °C/+80 °C -22 °F/+176 °F	100/min. 3 x 10 ⁶ -30 °C/+80 °C -22 °F/+176 °F	100/min. 3 x 10 ⁶ -30 °C/+80 °C -22 °F/+176 °F	100/min. 3 x 10 ⁶ -30 °C/+80 °C -22 °F/+176 °F	100/min. 3 x 10 ⁶ -30 °C/+80 °C -22 °F/+176 °F	100/min. 3 x 10 ⁶ -30 °C/+80 °C -22 °F/+176 °F	100/min. 3 x 10 ⁶ -30 °C/+80 °C -22 °F/+176 °F	100/min. 3 x 10 ⁶ -30 °C/+80 °C -22 °F/+176 °F
UL, CSA BG 0.02 kg ●/-	UL, CSA BG 0.02 kg ●/-	UL, CSA BG 0.02 kg ●/-	UL, CSA BG 0.02 kg ●/-	UL, CSA BG 0.02 kg ●/-	UL, CSA BG 0.02 kg ●/-	UL, CSA BG 0.02 kg ●/-	UL, CSA BG 0.02 kg ●/-	UL, CSA BG 0.02 kg ●/-





Designation

Switch part number

Actuator part number

Switching diagram

⊕ positive break according to IEC 947-5-1 Chap. 3

Za: changeover contact is not galvanically isolated

Zb: changeover contact is galvanically isolated

Slow-action contact/snap-action contact

Gasket inside (iw)/outside (wo)

C2-U1Z R

600.8116.013

C2-SU1Z R

600.8366.014

C2-A2Z R

600.8816.015

C2-U1Z o.M. +H

600.8101.007

391.0190.259

C2-SU1Z o.M. -H

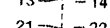
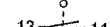
600.8351.008

391.0190.259

C2-A2Z o.M. +H

600.8801.009

391.0190.259



⊕ Zb

⊕ Zb

⊕ Zb

Zb

Zb

Zb

●/-

-/●

●/-

●/-

-/●

●/-

-/-

-/-

-/-

-/-

-/-

-/-

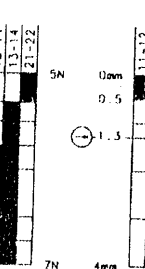
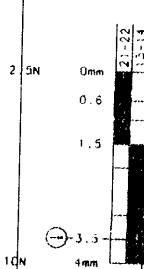
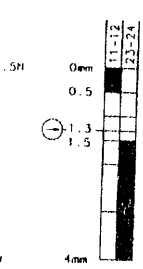
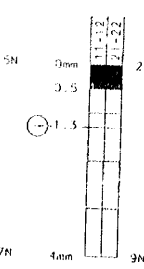
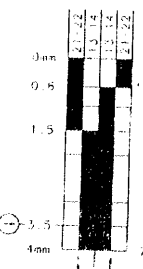
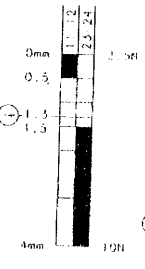
Contact travel mm (inch)
Tol. ± 0.25 mm

Actuating force N
Tol. ± 10%

Switch angle degree
Tol. ± 3.5°

Actuating torque Nm
Tol. ± 10%

On Off



Voltage max. 250 V AC
Continuous current max. 10 A
Making current, acc. to IEC 947-5-1 AC 15/DC 13 ●

250 V AC 10 A ●

250 V AC 10 A ●

250 V AC 10 A ●

250 V AC 10 A ●

250 V AC 10 A ●

250 V AC 10 A ●

Switching frequency max. 100/min.
Mech. operational life - number of switching cycles 3 x 10⁶

100/min. 3 x 10⁶

100/min. 3 x 10⁶

100/min. 3 x 10⁶

100/min. 3 x 10⁶

100/min. 3 x 10⁶

100/min. 3 x 10⁶

Ambient temperature min./max. -30 °C/+80 °C
-22 °F/+176 °F

-30 °C/+80 °C -22 °F/+176 °F

-30 °C/+80 °C -22 °F/+176 °F

-30 °C/+80 °C -22 °F/+176 °F

-30 °C/+80 °C -22 °F/+176 °F

-30 °C/+80 °C -22 °F/+176 °F

-30 °C/+80 °C -22 °F/+176 °F

Approvals (applied for) UL, CSA
Weight BG 0.02 kg

UL, CSA BG 0.02 kg ●/-

UL, CSA BG 0.02 kg ●/-

UL, CSA BG 0.03 kg ●/-

UL, CSA BG 0.03 kg ●/-

UL, CSA BG 0.03 kg ●/-

UL, CSA BG 0.03 kg ●/-

Type of storage/time of delivery as agreed

●/-

●/-

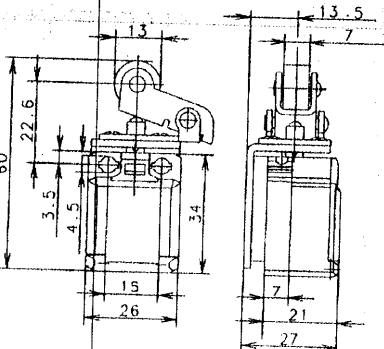
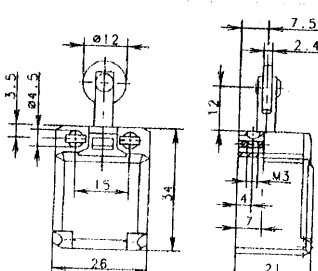
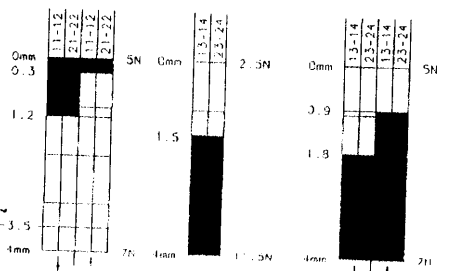
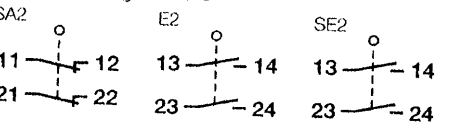
●/-

●/-

●/-

●/-

Further switching functions



Dimensions All dimensions in mm (inch)

Metal bodied limit switches

ENM

Euronorm standard switch according to
DIN EN 50041,
Protection IP 65



- Standard actuator according to DIN EN 50041, form A, B, C, D, F, G
- Large range of actuators
- Snap action or slow make & break contacts
- Galvanically separate contacts
- Forced disconnect of NC-contacts (type dependant)
- IP 65 protection to VDE 0470 T1
- Body: Al-pressure cast
- Lid: Al
- 4 x 90° actuator positions
- PG 13.5 cable entries
- Terminals numbered in accordance with DIN EN 50013
- International approvals

Mounting

- c) Adjustable – two slots for M 4 screws
- d) Fixed – two holes for M 5 screws for safety applications

Benefits

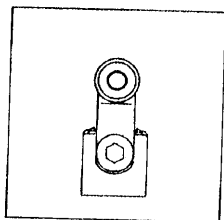
- AH-lever arm adjustable in 7,5°/15° "positive drive" increments
- Single direction operation of contacts with AH actuator (user selectable)
- Screw terminals with self lifting clamps for easy wiring
- Easily exchanged contact block
- Contact switch point finely adjustable with adjusting screw
- Captive lid screws

Options

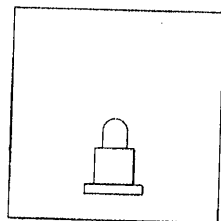
- Contact latch (safety pull button reset)
- Contact status display with LED (LED protected within terminal chamber)
- WK actuator (form F) (supplied to order)
- WR actuator (form G) (supplied to order)



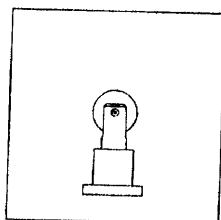
DIN EN 50041 Standard Actuator



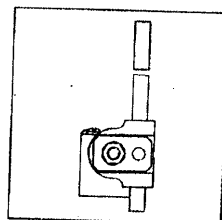
Type A



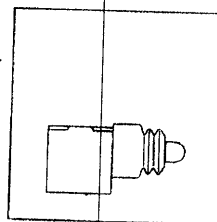
Type B



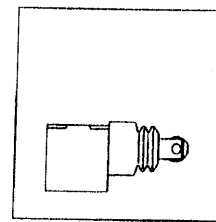
Type C



Type D



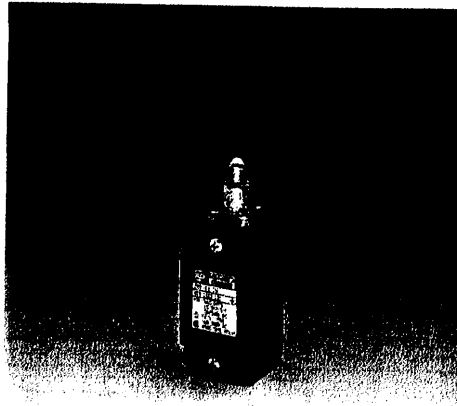
Type F
(Built to order)



Type G
(Built to order)

Contact arrangement

Contact type	Switch function	Switch contacts	Reference	Max. voltage	Max. constant current
Slow make & break	Changeover	1NC/1NO	U1/U1Z	500 V	10 A
Slow make & break	Changeover	1NC/1NO	SU1/SU1Z	500 V	10 A



Reference type

Part number

Circuit diagram

⊖ Forced disconnect to IEC 947-5-1 chapter 3

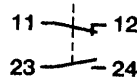
Za: not galvanically separated contacts

Zb: galvanically separated contacts

Slow make & break/snap-action

Internal seal (iw)/external seal (w)

ENM-U1Z iw
608.2102.001

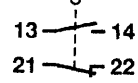


⊖ Zb

●/-

iw

ENM-SU1Z iw
608.2352.004

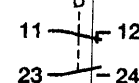


⊖ Zb

●/-

iw

ENM-U1Z Riw
608.2117.005

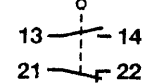


⊖ Zb

●/-

iw

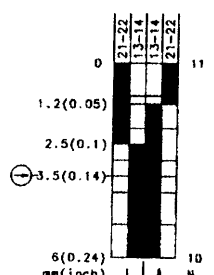
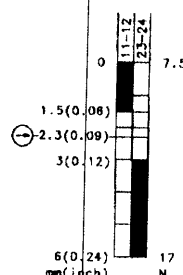
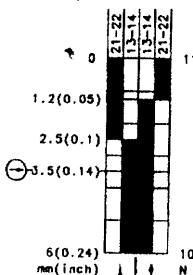
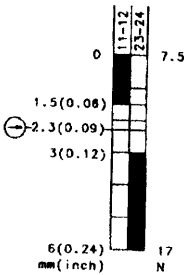
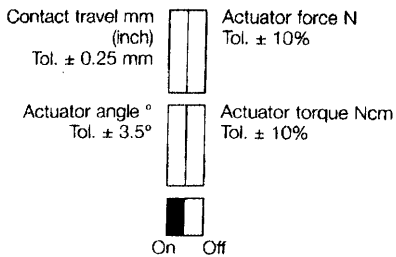
ENM-SU1Z Riw
608.2367.008



⊖ Zb

●/-

iw



Voltage	max.
Permanent current	max.
In-rush current complies with standards IEC 947-5-1 AC 15/DC 13	
Switching frequency	max.
Mechanical life - number of switching actions	
Operating temperature	min./max.

500 V AC	500 V AC	500 V AC	500 V AC
10 A	10 A	10 A	10 A
●	●	●	●
100/min.	100/min.	100/min.	100/min.
10 x 10 ⁶	10 x 10 ⁶	10 x 10 ⁶	10 x 10 ⁶
-30 °C/+80 °C	-30 °C/+80 °C	-30 °C/+80 °C	-30 °C/+80 °C
-22 °F/+176 °F	-22 °F/+176 °F	-22 °F/+176 °F	-22 °F/+176 °F

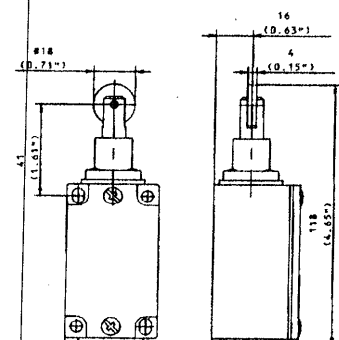
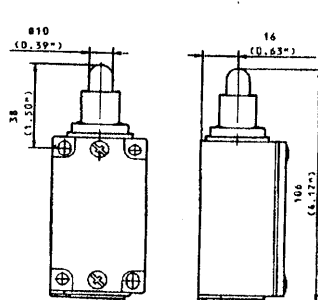
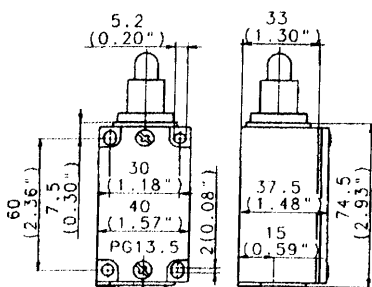
Approvals

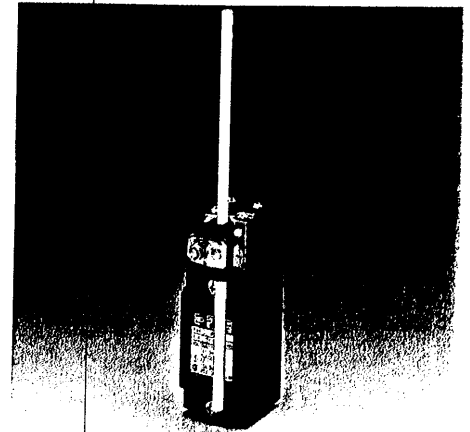
B	B	C	C
UL, CSA	UL, CSA	UL, CSA	UL, CSA

Weight
Stock status: Ex stock/Built to order

0.20 kg/0.44 lb	0.20 kg/0.44 lb	0.21 kg/0.46 lb	0.21 kg/0.46 lb
●/-	●/-	●/-	●/-

All dimensions in mm (inch)





Reference type

Part number

Circuit diagram

⊖ Forced disconnect to IEC 947-5-1 chapter 3

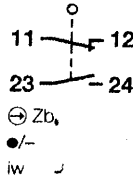
Za: not galvanically separated contacts

Zb: galvanically separated contacts

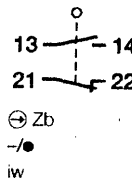
Slow make & break/snap-action

Internal seal (iw)/external seal (w)

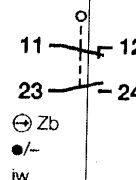
ENM-U1Z AHS-V
608.2135.009



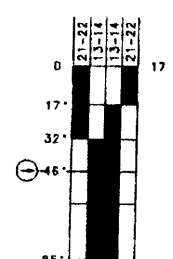
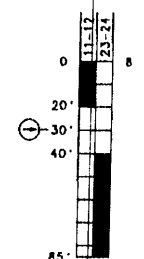
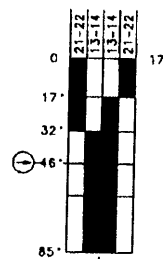
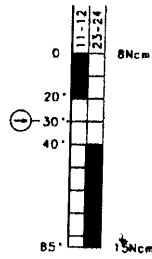
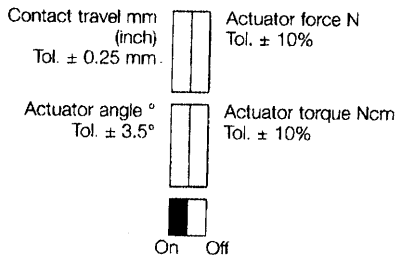
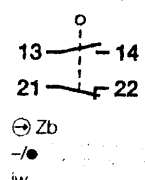
ENM-SU1Z AHS-V
608.2385.012



ENM-U1Z AD
608.2137.021



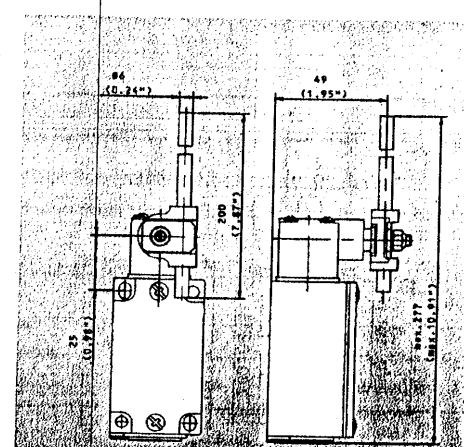
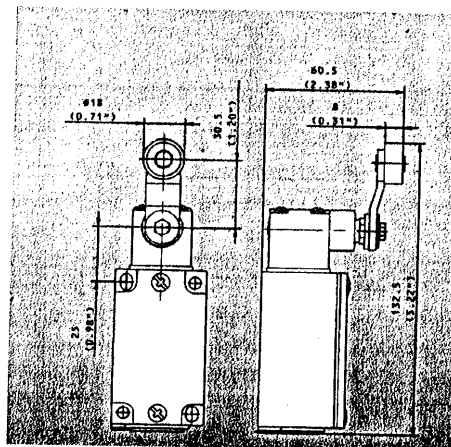
ENM-SU1Z AD
608.2187.023

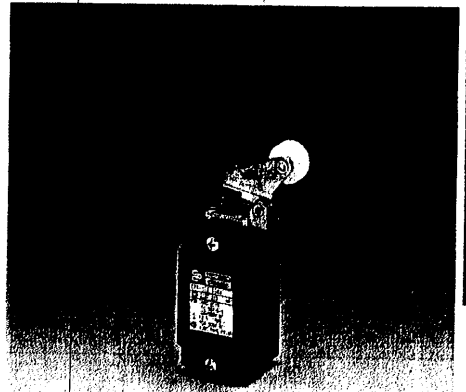
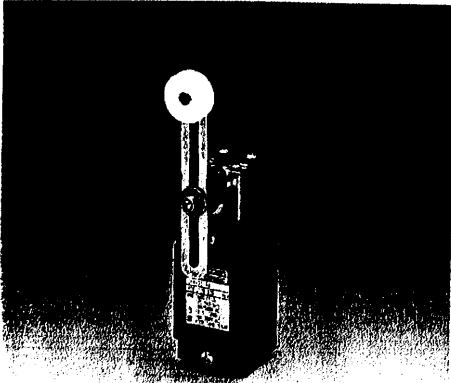


Voltage	max.	500 V AC
Permanent current	max.	10 A
In-rush current complies with standards		
IEC 947-5-1 AC 15/DC 13		
Switching frequency	max.	100/min.
Mechanical life - number of switching actions		10 x 10 ⁶
Operating temperature	min./max.	-30 °C/+80 °C -22 °F/+176 °F
Approvals		UL, CSA
Weight		0.28 kg/0.62 lb
Stock status: Ex stock/Built to order		

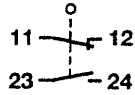
500 V AC	500 V AC	500 V AC	500 V AC
10 A	10 A	10 A	10 A
100/min.	100/min.	100/min.	100/min.
10 x 10 ⁶	10 x 10 ⁶	10 x 10 ⁶	10 x 10 ⁶
-30 °C/+80 °C -22 °F/+176 °F	-30 °C/+80 °C -22 °F/+176 °F	-30 °C/+80 °C -22 °F/+176 °F	-30 °C/+80 °C -22 °F/+176 °F
A	A	D	D
UL, CSA	UL, CSA	UL, CSA	UL, CSA
0.28 kg/0.62 lb	0.28 kg/0.62 lb	0.29 kg/0.64 lb	0.29 kg/0.64 lb

All dimensions in mm (inch)



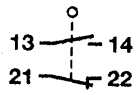


ENM-U1 AV
608.2136.025



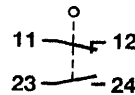
Zb
●/-
iv

ENM-SU1 AV
608.2186.027



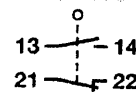
Zb
●/-
iv

ENM-U1Z DGHw
608.2121.211



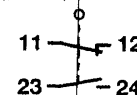
⊕ Zb
●/-
w

ENM-SU1Z DGHw
608.2151.212



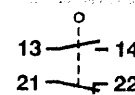
⊕ Zb
●/-
w

ENM-U1Z DGkw
608.2127.213



⊕ Zb
●/-
w

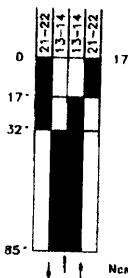
ENM-SU1Z DGkw
608.2177.214



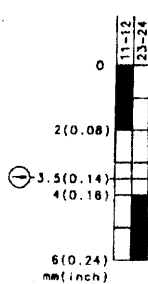
⊕ Zb
●/-
w



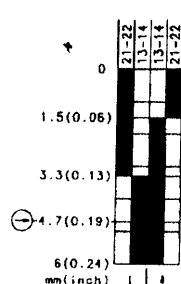
Ncm



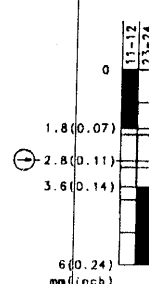
Ncm



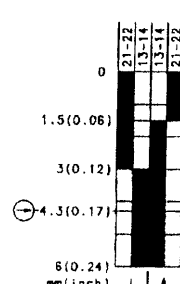
mm (inch)



mm (inch)



mm (inch)



mm (inch)

500 V AC
10 A

500 V AC
10 A

500 V AC
10 A

500 V AC
10 A

500 V AC
10 A

500 V AC
10 A

100/min.
10 x 10⁶
-30 °C/+80 °C
-22 °F/+176 °F

100/min.
10 x 10⁶
-30 °C/+80 °C
-22 °F/+176 °F

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-30 °C/+80 °C
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10 x 10⁶
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100/min.
10 x 10⁶
-30 °C/+80 °C
-22 °F/+176 °F

100/min.
10 x 10⁶
-30 °C/+80 °C
-22 °F/+176 °F

UL, CSA

UL, CSA

UL, CSA

UL, CSA

UL, CSA

UL, CSA

0.30 kg/0.66 lb
●/-

0.30 kg/0.66 lb
●/-

0.23 kg/0.51 lb
●/-

0.23 kg/0.51 lb
●/-

0.23 kg/0.51 lb
●/-

0.23 kg/0.51 lb
●/-

