

Plastic-bodied limit switches

I88

Euronorm standard switch to
DIN EN 50047
Protection class IP 65
Hinged snap lid



- Standard actuators to DIN EN 50047 type A, B, C, E
- Large range of actuators
- Snap action or slow make & break contacts
- Galvanically separated contacts
- Forced disconnection of NC contacts
- Protection class IP 65
- Body and lid PA 6 which is self extinguishing
- 4 x 90° actuator positions
- Cable entry M 20 x 1.5
- Terminals numbered in accordance with DIN EN 50013
- International approvals

Mounting

- Adjustable – Two slots for M 4 screws (22 mm centres)
- Fixed – Two holes for M 5 screws for safety applications without additional fixings (fig. 1)
- Additional positive location with guide discs (fig. 2)
- Front mounting (type dependant) (fig. 3)

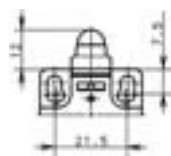


Fig. 1

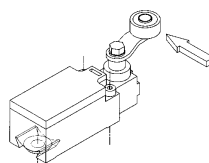


Fig. 2

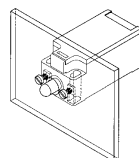


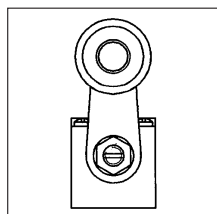
Fig. 3



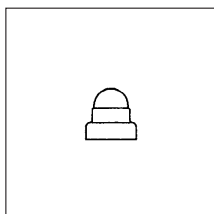
Benefits

- Hinged snap lid for quick and easy access (screwdriver release)
- Lid hinges open to 135° (can also be easily detached)
- Internal cover protects the contacts during mounting
- Screw terminals with self-lifting clamps for easy wiring
- Transparent cover for easy adjustment and inspection

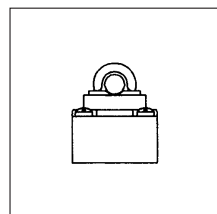
Standard actuators DIN EN 50047



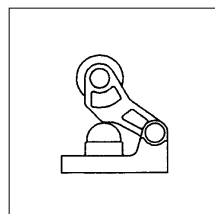
Type A



Type B



Type C



Type E

Options

- Contact lock (safety pull button reset)
- Contact LED display (LED protected within terminal chamber)
- Cable entry M 16 x 1.5
- Additional lid security with fixing screw

Accessory equipment page 53

Contact configuration

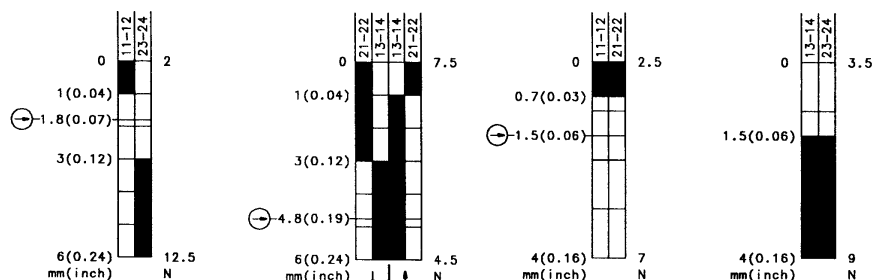
Contact type	Switch function	Switch contacts	Reference	Max. Voltage	Max constant current
Slow make & break	Changeover	1NC/1NO	U1/U1Z	500 V	10 A
Snap action	Changeover	1NC/1NO	SU1/SU1Z	500 V	10 A
Slow make & break	NC	2NC	A2Z	400 V	6 A
Slow make & break	NO	2NO	E2	400 V	6 A
Slow make & break	Changeover	1NC/1NO	UV1Z	500 V	10 A
Slow make & break	Changeover	2NC/1NO	UV15Z	400 V	6 A
Slow make & break	Changeover	1NC/2NO	UV16Z	400 V	6 A



Designation
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)

I88-U1Z w	I88-SU1Z w	I88-A2Z w	I88-E2 w
608.6103.008	608.6153.012	608.6803.013	608.6803.014
⊕ Zb	⊕ Zb	⊕ Zb	—
●/—	—/●	●/—	●/—
W	W	W	W

Contact travel mm (inch)	Actuator force N Tol. ± 10%
Tol. ± 0.25 mm	
Actuator angle ° Tol. ± 3.5°	Actuator torque Ncm Tol. ± 10%
On Off	1) Latch Point



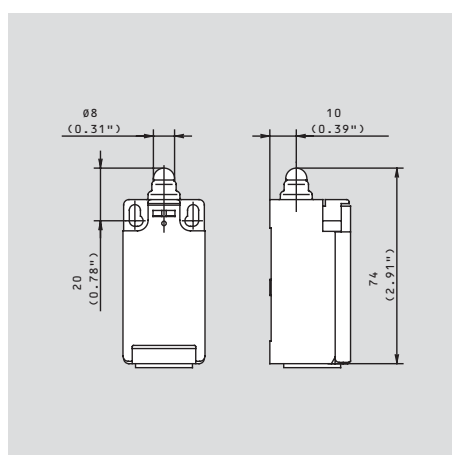
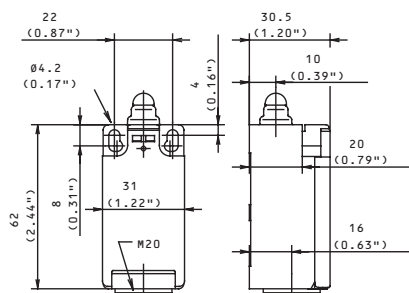
Voltage	max.
Permanent current	max.
In-rush current complies with standards	
IEC 947-5-1 AC 15/DC 13	
Switching frequency	max.
Mechanical life – number of switching actions	
Operating temperature	min./max.

500 V AC	500 V AC	400 V AC	400 V AC
10 A	10 A	5 A	5 A
●	●	●	●
100/min.	100/min.	100/min.	100/min.
10 x 10 ⁶	10 x 10 ⁶	1 x 10 ⁶	1 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

Standard actuator	form
Approvals	
Weight	
Delivery: ex-stock/built to order	

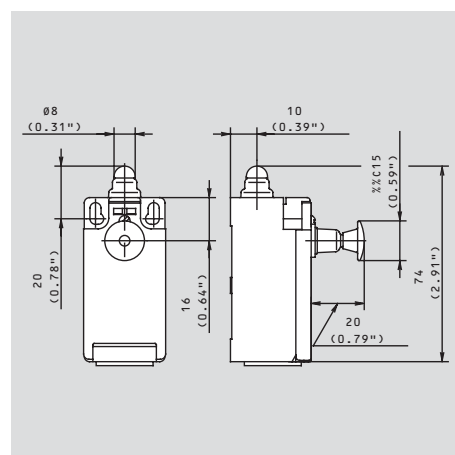
B	B	B	B
UL, CSA	UL, CSA	UL, CSA	UL, CSA
0.06 kg/0.13 lb	0.06 kg/0.13 lb	0.06 kg/0.13 lb	0.06 kg/0.13 lb
●/—	●/—	●/—	●/—

All dimensions in mm (inch)





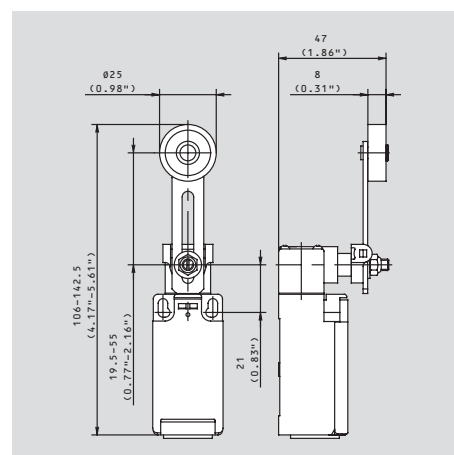
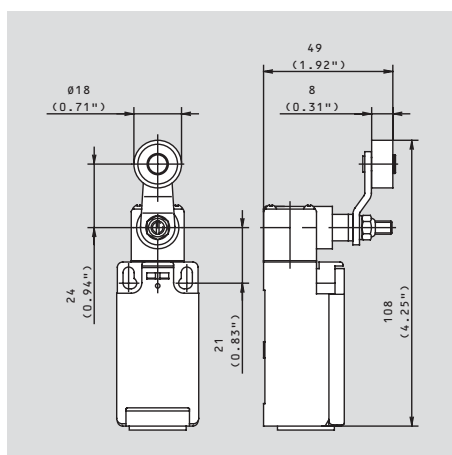
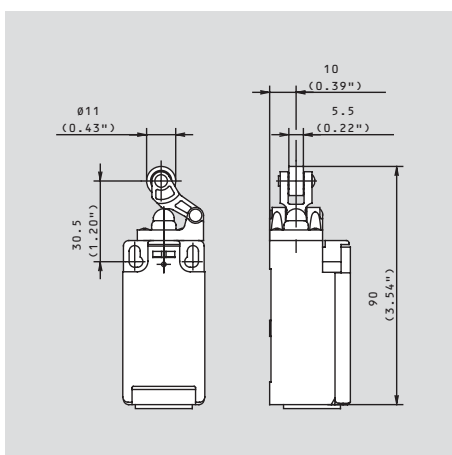
I88-UV1Z w 608.6303.011	I88-UV15Z w 608.6603.046	I88-UV16Z w 608.6603.047	I88-U1Z w Rast 618.6103.005
⊕ Zb	⊕ Zb	⊕ Zb	⊕ Zb
●/-	●/-	●/-	●/-
W	W	W	W
500 V AC	400 V AC	400 V AC	500 V AC
10 A	6 A	6 A	10 A
●	●	●	●
100/min.	100/min.	100/min.	60/min.
10 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁶	1 x 10 ⁶
-30 °C/+80 °C	-30 °C/+80 °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
B	B	B	B
UL, CSA	UL, CSA	UL, CSA	UL, CSA
0.06 kg/0.13 lb	0.06 kg/0.13 lb	0.06 kg/0.13 lb	0.06 kg/0.13 lb
●/-	●/-	●/-	●/-







I88-U1Z Hw	I88-SU1Z Hw	I88-A2Z Hw	I88-U1Z AH	I88-SU1Z AH	I88-A2Z AH	I88-U1 AV
608.6121.021	608.6171.022	608.6821.099	608.6135.033	608.6185.034	608.6835.059	608.6136.037
●/-	-/●	-/●	●/-	-/●	●/-	●/-
W	W	W	iW	iW	iW	iW
500 V AC	500 V AC	400 V AC	500 V AC	500 V AC	400 V AC	500 V AC
10 A	10 A	5 A	10 A	10 A	5 A	10 A
●	●	●	●	●	●	●
100/min.	100/min.	100/min.	100/min.	100/min.	100/min.	100/min.
10 x 10 ⁶	10 x 10 ⁶	1 x 10 ⁶	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	-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	-22 °F/+176 °F	-22 °F/+176 °F	-22 °F/+176 °F
E	E	E	A	A	A	-
UL, CSA	UL, CSA	UL, CSA	UL, CSA	UL, CSA	UL, CSA	UL, CSA
0.07 kg/0.15 lb	0.07 kg/0.15 lb	0.07 kg/0.15 lb	0.10 kg/0.22 lb	0.10 kg/0.22 lb	0.10 kg/0.22 lb	0.11 kg/0.24 lb
●/-	●/-	●/-	●/-	●/-	-/●	●/-





All dimensions in mm (inch)

Technical drawings of the 1000 Series hydraulic cylinder showing front, side, and end views with dimensions in mm and inches.

Front View Dimensions:

- Overall width: 22 (0.87")
- Stroke length: 30.5 (1.20")
- Mounting bracket width: 10 (0.39")
- Mounting bracket height: 4 (0.16")
- Mounting bracket hole diameter: Ø4.2 (0.17")
- Mounting bracket hole spacing: 8 (0.31")
- Mounting bracket hole diameter: Ø20
- Mounting bracket hole spacing: 31 (1.22")
- Mounting bracket hole diameter: Ø20
- Mounting bracket hole spacing: 16 (0.63")

Side View Dimensions:

- Overall height: 62 (2.44")
- Stroke length: 30.5 (1.20")
- Mounting bracket width: 10 (0.39")
- Mounting bracket height: 4 (0.16")
- Mounting bracket hole diameter: Ø4.2 (0.17")
- Mounting bracket hole spacing: 8 (0.31")
- Mounting bracket hole diameter: Ø20
- Mounting bracket hole spacing: 31 (1.22")
- Mounting bracket hole diameter: Ø20
- Mounting bracket hole spacing: 16 (0.63")

End View Dimensions:

- Overall width: 62-12 (0.24"-0.47")
- Stroke length: 9 (0.35")
- Mounting bracket width: 10 (0.39")
- Mounting bracket height: 4 (0.16")
- Mounting bracket hole diameter: Ø4.2 (0.17")
- Mounting bracket hole spacing: 8 (0.31")
- Mounting bracket hole diameter: Ø20
- Mounting bracket hole spacing: 31 (1.22")
- Mounting bracket hole diameter: Ø20
- Mounting bracket hole spacing: 16 (0.63")

Technical Drawing Details:

- Stroke length: 30.5 (1.20")
- Mounting bracket width: 10 (0.39")
- Mounting bracket height: 4 (0.16")
- Mounting bracket hole diameter: Ø4.2 (0.17")
- Mounting bracket hole spacing: 8 (0.31")
- Mounting bracket hole diameter: Ø20
- Mounting bracket hole spacing: 31 (1.22")
- Mounting bracket hole diameter: Ø20
- Mounting bracket hole spacing: 16 (0.63")