

Compact limit switch conforming to NFC 63 145

→ Series 83 870 with cable output

- IP 66/67
- Metal case
- cUL approval



Main specifications

Characteristics

Characteristics	Type of output
Standard	Cable length 1 m
Standard	Cable length 2 m
Standard	Cable length 3 m
Standard	Cable length 6 m
Plunger with 90° roller	Cable length 1 m
Plunger with 90° roller	Cable length 2 m
Plunger with 90° roller	Cable length 3 m
Plunger with 90° roller	Cable length 6 m

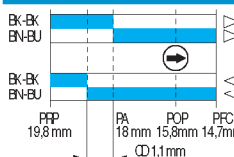
Mechanical characteristics

Sequence
Snap action

Minimum operating force (N)	10
Minimum operating force (Nm)	-
Minimum total travel force (N)	30
Minimum total travel force (Nm)	-
Min. positive opening travel (N)	28
Min. positive opening travel (Nm)	-
Mechanical life millions of operations	10
Vertical approach speed	1 mm/min → 0.5 m/s
Horizontal approach speed (30° cam)	-
Weight (g)	170

Metal plunger

83 870 101
83 870 102
83 870 103
83 870 106
-
-
-
-



General characteristics

Assigned impulse voltage (Uimp) - V	2500
Assigned insulation voltage (Ui) V	500
Thermal current (Ith) A	10
Low-load switching - Minimum voltage (V)	10
Low-load switching - Minimum current (mA)	100
Assigned working characteristics (EN 60 947.5.1, UL 508)	A300 = AC15 240 V 3 A / 120 V 6 A Alternating current Q150 = DC13 125 V 0.55 A Direct current
Electrical life according to IEC 947-5-1 appendix C	250 V 3 A AC15 500.000 operations 24 V 8 W DC13 500.000 operations
Electrical protection	Integral protective earth conductor Short-circuit protection device : IEC/EN 60947-5-1 Fuse 6 AgG
Approvals	UL 508, UL 50

Product adaptations



- Contact type
- Rear output
- Protective scraper seal
- Length of cable/connector/stripping
- Special marking

To order, see page 12



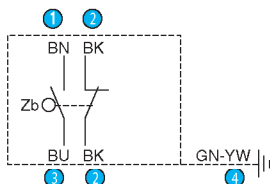
Metal roller plunger	Metal plunger with threaded barrel	Roller plunger - metal with threaded barrel	Metal roller lever (2 directions of attack)
83 871 101	83 874 101	83 872 101	83 873 101
83 871 102	83 874 102	83 872 102	83 873 102
83 871 103	83 874 103	83 872 103	83 873 103
83 871 106	83 874 106	83 872 106	83 873 106
83 875 101	-	83 876 101	-
83 875 102	-	83 876 102	-
83 875 103	-	83 876 103	-
83 875 106	-	83 876 106	-
10	10	10	-
-	-	-	0.15
30	30	30	-
-	-	-	0.35
30	28	28	-
-	-	-	0.15
10	10	28	10
1 mm/min → 0.5 m/s	1 mm/min → 0.5 m/s	1 mm/min → 0.5 m/s	-
1 mm/min → 0.3 m/s	-	1 mm/min → 0.3 m/s	1 mm/min → 1.5 m/s
180	200	200	210

Principles

Function

Four-terminal double break two-way contact element (form Zb) with positive opening NC contacts. The 2 moving contacts are electrically isolated from one another.

Snap-action contact

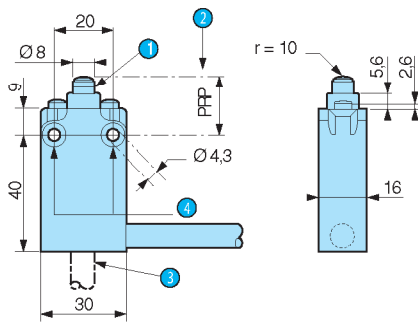


- 1 Brown
- 2 Black
- 3 Blue
- 4 Green-yellow

Dimensions

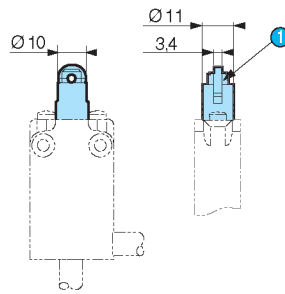
→ Product

83 870 1



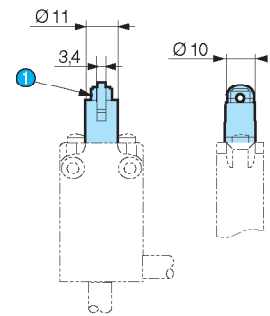
- 1 POP marking
- 2 See sequence diagram
- 3 Rear output on request
- 4 Ø 8 x 4.3 - 4 counterbores

83 871 1



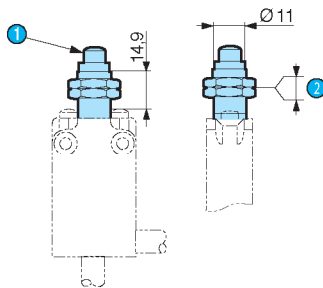
- 1 POP marking

83 875 1



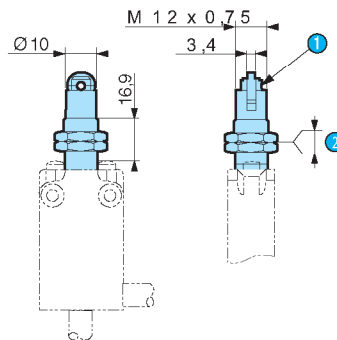
- 1 POP marking

83 874 1



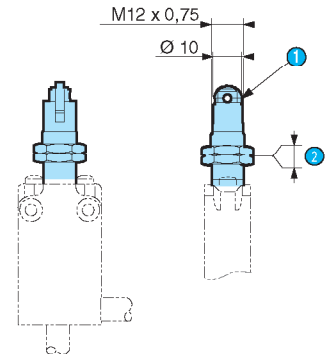
- 1 POP marking
- 2 Max. thickness 8.5 mm

83 872 1



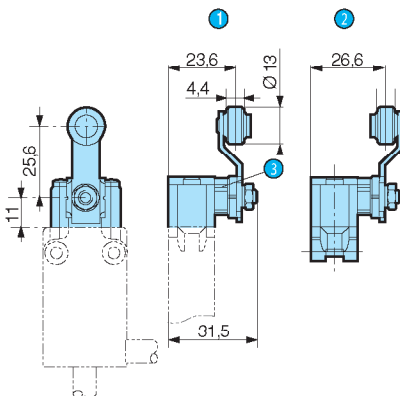
- 1 POP marking
- 2 Max. tightening thickness 10.5

83 876 1



- 1 POP marking
- 2 Max. tightening thickness 10.5

83 873 1



- 1 Offset A
- 2 Offset B (on request)
- 3 POP marking

2