

Single position switches per DIN 43693 for standard applications

- Dual-chamber system with IP 67 protection: wear-free membrane with hermetic sealing from plunger mechanism and switch chamber
- Maintenance-free, self-lubricating plunger guide with slide bearing
- Plunger can be rotated in two approach directions

Single position switch with wiper plate

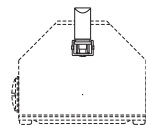
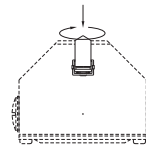
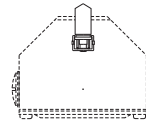
- Increased function security under extreme conditions of use
- Wiper plate prevents plunger from sticking in the guide
- For use in wet areas with strongly adhering media

Connection options

- Thread for cable gland M16×1.5 (Scope of delivery: Seals and cover screws)
- Connector (note permissible operating voltage for the connectors, see page 132).

Approach from two directions possible (parallel and diagonally)

Press plunger down and turn to desired direction; release plunger.



Single position switch with function indicator

- Function indication for dual voltage range option

Ordering example:

BNS 819-FD-60-101-FE-S80R

BNS 819-F -60-101- - -

Plunger style

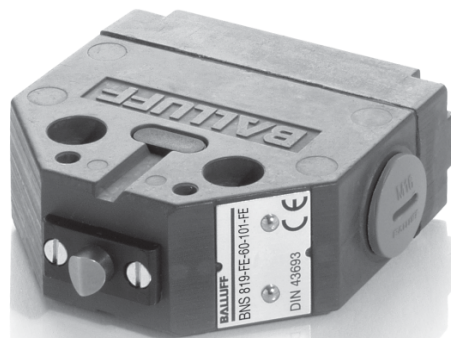
- D** Chisel
- K** Ball
- R** Roller
- L** Roller bearing
- E** Chisel with wiper plate

optional Function indication

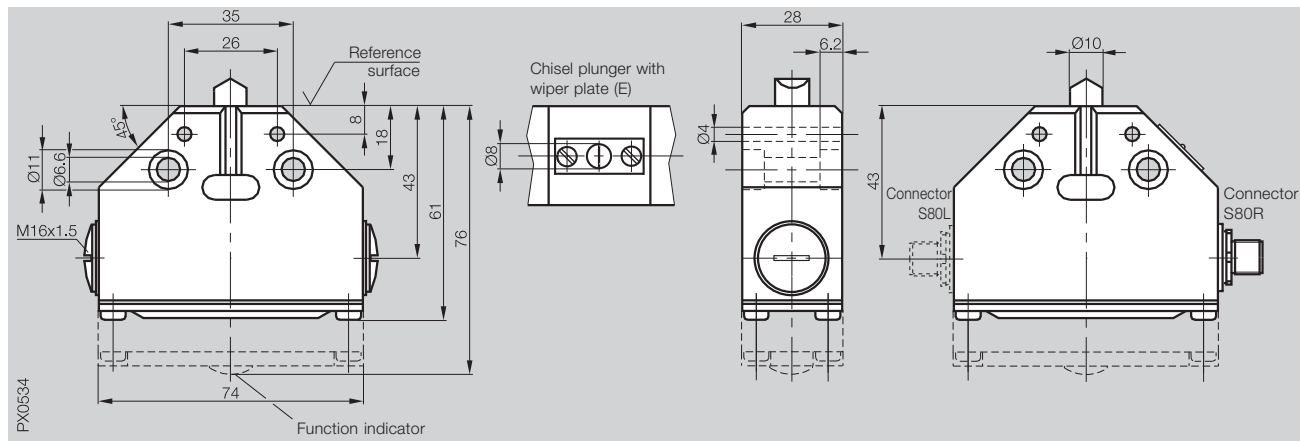
- FD** 6...60
V AC/DC
- FE** 90...250
V AC/DC

optional Connector

- S80R** 5-pin, right
- S80L** 5-pin, left

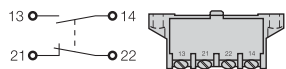


Type	Single position switch
Mounting and function dimensions	per DIN 43693



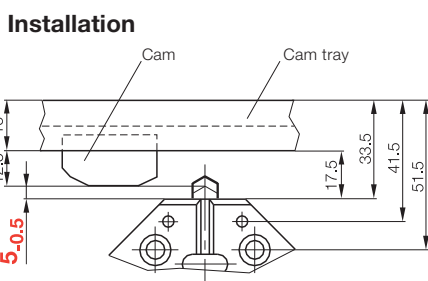
Plunger style	Chisel (D), Ball (K), Roller (R), Roller bearing (L) or Chisel with wiper plate (E)
Plunger material	Stainless steel, contact surfaces induction hardened
Housing material	Cast aluminum, corrosion-resistant, anodized finish
Connection type	M16x1.5 for cable gland or connector
Ambient temperature range	-5...+85 °C
Degree of protection per IEC 60529	IP 67
Function indicator	LED 6...60 V AC/DC (FD) or 90...250 V AC/DC (FE)

With switch element	BSE 30.0
Ordering code	BNS 819-F -60-101- - - - -
Wiring diagram, style	



Switch element	
Contact material	Silver, gold plated
Switching principle	Snap switch
Contact system	Dual changeover, one normally-open and one normally-closed, galvanically isolated
Electrical data	see page 116
Approval	UL, CSA, CCC

Mechanical data	
Plunger point to reference surface	8 mm
Switchpoint to reference surface	6 mm
Maximum plunger travel D, K, R, L	7.5 mm
Maximum plunger travel E	4 mm
Switching actuating force on plunger	min. 20 N
Switching frequency	max. 300/min
Approach speed	Plunger D 40 m/min Plunger E 30 m/min Plunger K 10 m/min Plunger R 60 m/min Plunger L 120 m/min
Repeatability	Plunger D, E, K ± 0.002 mm Plunger R, L ± 0.01 mm



Note!
To ensure switching function, the dimension 5_{-0.5} is especially critical.

1.1
Multiple position switches series
100
62
61
72
46
40

Single position switches series
F 60
99
100

5.1
5.2
5.3