



Miniature
Insert switch/
Limit switch

Description

BARTEC miniature switches are used in areas with of limited space for a flameproof switching element.

They are especially suitable for applications in valves, thermostats, push switches, servo components, level metres and switching gears. The smallest Ex d miniature switch in the world is encapsulated in a plastic enclosure. The leads or cable tail are potted in at the base.

The standard version of the BARTEC miniature switches contains fine silver contacts. Other contact materials such as gold plated silver or solid gold are available for low currents and voltages.

Limit switch with connection cable

Switches with connector cables have been approved by PTB with EC model test certification.

The switches can therefore be mounted at any time into devices and systems which offer mechanical protection – no further testing is required.

The connector cable is cast into the back of the switch. The wires are colour-coded. The (standard) cable length is 3 m; other lengths are available on request.

Insert switch with connection cores

The insert switch with wires is available as a building block for your explosion-proofing solution.

These insert switches are tested and approved by PTB (the Federal Physical-Technical Institute) according to Ex Guideline 94/9/EC.

After installation, the complete device is tested by an authorized institution.

Thanks to its PTB approval, the microswitch itself needs not be individually tested. The leads are individually marked. The length of the cable is 50 cm (standard). Other lengths can be supplied on request.

For the connection of the cores we recommend our BARTEC Ex Mini-terminals.

Explosion protection

Ex protection type limit switch
ATEX II 2G Ex d IIC T6, T5 Gb

Certification
EPS 14 ATEX 1689 X

IECEx Ex d IIC Gb T6, T5

Certification
IECEx EPS 14.0039 X

Further approvals
INMETRO, NEPSI, FM

Other approvals and certificates,
see www.bartec-group.com

Ex protection type insert switch
ATEX II 2G Ex d IIC Gb

I M2 Ex d I Mb

Certification
EPS 14 ATEX 1688 U

IECEx Ex d IIC Gb
Ex d I Mb

Certification
IECEx EPS 14.0038 U

Further approvals
INMETRO, FM

Other approvals and certificates,
see www.bartec-group.com

Working temperature
-60 °C to +100 °C
depending on the type and the materials used

Ambient temperature limit switches

T5 to max. +90 °C
T6 to max. +75 °C
depending on the rated current

Protection class (according to IEC/EN 60529)
IP 54

Technical data

Rated voltage
AC 250 V

Rated current

Switching capacity with AC		
	ohmic load	inductive load
250 V	5 A	5 A
30 V	5 A	5 A

Switching capacity with DC		
	ohmic load	inductive load
250 V	0,25 A	0,03 A
125 V	0,5 A	0,06 A
75 V	1 A	1 A
30 V	5 A	5 A

Contact elements
see table

Tightening torque of fixing screws
max. 0.6 Nm

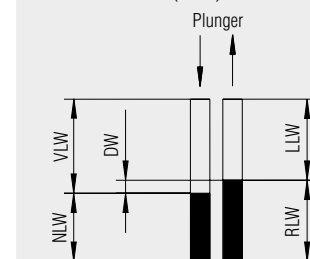
Operating force
max. 1.4 N

Release force
min. 0.25 N

Schalthäufigkeit
max. 1 000/h

Contact travels

- Pretravel (VLW) 0.5 to 1.0 mm
- Overtravel (NLW) min. 0.2 mm
- Reset travel (RLW) ~0.55 mm
- Differential value (DW) max. 0.13 mm
- No-load travel (LLW) ~0.5 mm



Mechanical life

>2 x 10⁶ switching cycles

Electrical life

dependent on load

Electrical connection

Insert switch

Cores 0.75 mm² 4 GAF/Radox/HO5V2-K

Limit switches

Lead 0.75 mm² LSYY/BETAflam®
other cores and leads on request

Enclosure

Duroplast

Plunger/additional actuator

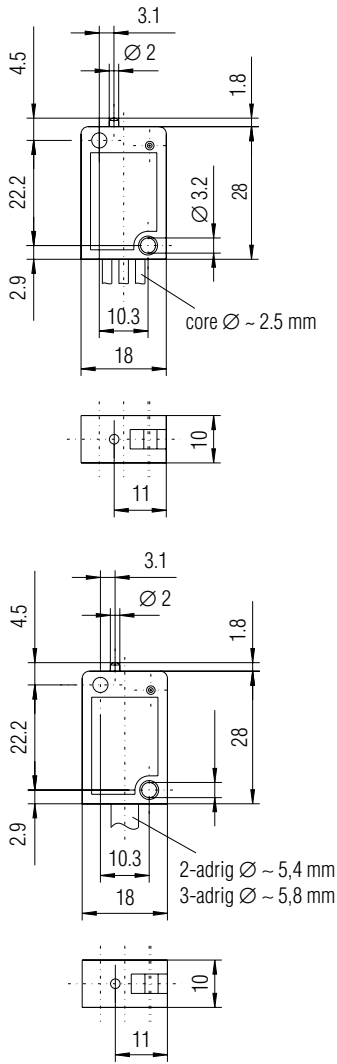
stainless steel

Weight

with 0.5 m cores approx. 25 g
with 1 m cable approx. 50 g



Dimensions in mm



Selection chart

Type of contact		Additional actuator*	
	Code no.	Options	Code no.
 1 (WH) 2 (BN)	10	without additional actuator	00
		 	01
 3 (WH) 4 (BN)	20	 	02
		 	03
 2 (GN) 4 (BN) 1 (WH)	30	 	63

() specification for connection cable

➔ **Complete order no. ****

Please enter code number.
Technical data subject to change without notice.

07-□ 501-□ □ □ □ / □ □ □ □

Insert switch with connection cores	1
Limit switch with connection cable	2

Length of connection cores 5 = 500 mm
Length of connection cable 3 = 3 m
Please specify other lengths in plain text, code no. = 0

Contact material	
6	Silver
7	Gold-coated contacts

- * Dimensions for a additional actuator are reference values
- ** Standard product printing: ATEX and IECEx marking.
Other international imprints obtainable on request.
Please specify in plain text.

Special versions, please specify in text

- precision switch with differential value 0.04 ± 0.02 (switching capacity 1 A), Type 07-501-5-.../..
- different ambient temperature