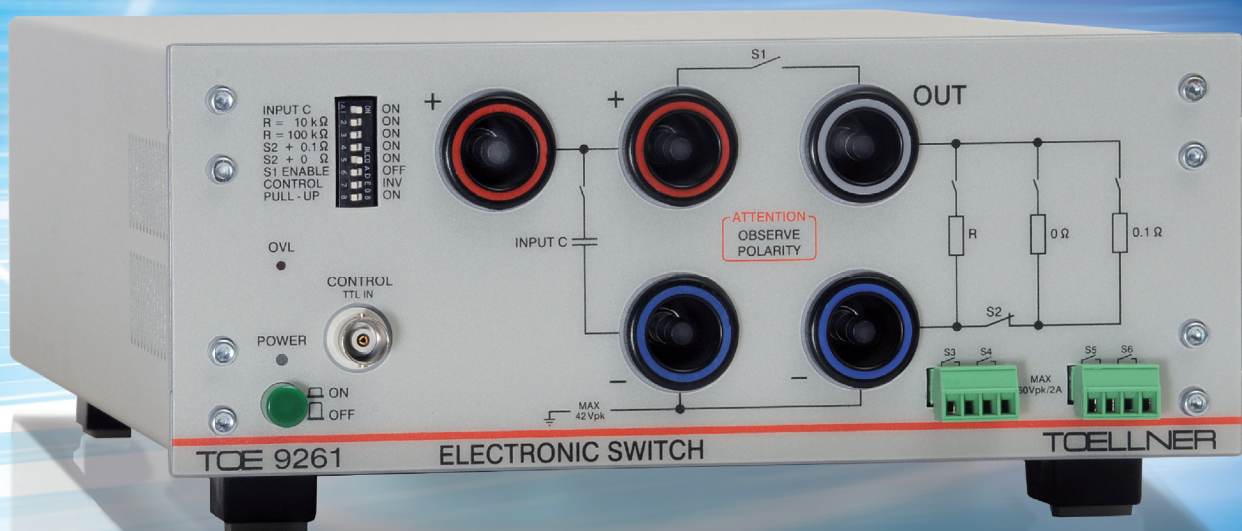




## Automotive - High Speed - Power

Electronic Switch for micro interruptions



# MICRO INTERRUPTIONS

Micro-Switch **TOE 9261**

# Micro-Switch TOE 9261

## Electronic switch for micro interruptions in supply and ground lines up to 100 A

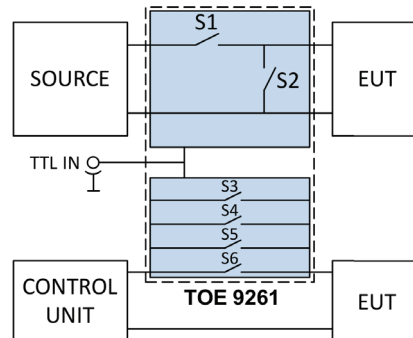
The Micro-Switch TOE 9261 is the first choice for generating short interruptions in supply voltages and therefore ideally suitable for testing vehicle electrics according to standards.

Depending on the model, currents up to 100 A can be switched at a rated voltage of up to 60 V.

### Special features

- **Input voltage** max. 60 V
- **Output current TOE 9261-50** max. 50 A
- **Output current TOE 9261-100** max. 100 A
- **Rise / fall time** < 500 ns
- **Short-circuit-proof**
- **Switchable discharge of load circuit**
- **Interruption in supply and ground lines up to 50 A or 100 A**
- **Switchable buffering of input circuit**
- **4 signal line switches**
- **Control with any signal generators (TTL level)**

While testing vehicle electric power systems according to standards, it is necessary to momentarily interrupt supply voltages. Using the Micro-Switch TOE 9261, switching operations between < 10 µs and nearly unlimited duration are possible without problem.



Any voltage source of up to 60 V with appropriate current rating provides the supply voltage.

Using an external signal generator, the current flow can be interrupted using switch S 1. Discharging the load circuit is possible during the interruption of the load current by using another internal switch (S 2).

In addition, a configuration can be selected for interrupting the negative return line of the load (ground interruptions).

Four signal line switches (S 3–S 6) additionally enable precise switching and interruption of signal and control lines in any current flow direction. Control of these switches is synchronous with S 1.

### Covered test standards

12 V vehicle electrics
BMW GS 95024-2-1
LV 124
Mercedes-Benz MBN 10615
Mercedes-Benz MBN LV 124-1
VW 80000-1
48 V vehicle electrics
BMW GS 95026
LV 148
VDA 320
VW 82148

### Technical specifications

	TOE 9261-50	TOE 9261-100
Power switch		
<b>Input voltage</b>	max. 60 V	max. 60 V
<b>Output current</b>	max. 50 A	max. 100 A
<b>Peak switch-on current</b>	max. 300 A	max. 300 A
<b>Rise time / fall time</b>		
tr / tf @ 1 Ω / 100 Ω / 1 kΩ	< 0.5 µs / < 0.5 µs	< 0.5 µs / < 0.5 µs
Signal line switches		
<b>Input voltage</b>	max. ± 60 V	max. ± 60 V
<b>Output current</b>	max. ± 2 A	max. ± 2 A
<b>Rise time / fall time</b>		
tr / tf @ 1 Ω (V = 2 V)	< 2.5 µs / < 1.5 µs	< 2.5 µs / < 1.5 µs
tr / tf @ 1 kΩ	< 0.1 µs / < 6.5 µs	< 0.1 µs / < 6.5 µs
<b>Control voltage (trigger)</b>	TTL-level, max. ± 20 V	TTL-level, max. ± 20 V

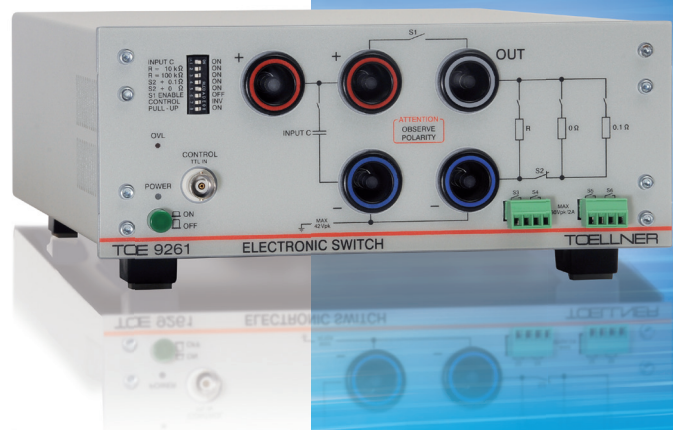
# Micro-Switch TOE 9261

## General data

Supply voltage	90 – 264 V, 47 – 63 Hz
Power consumption	max. 35 VA
Operating temperature	0 °C to 40 °C
Storage temperature	-20 °C to 70 °C
Reference temperature	23 °C ± 1 °C
Cooling	Thermostatically-controlled fan
Overall dimensions (WxHxD)	224 x 103 x 348 mm
Rack mounting dimensions (WxHxD)	224 x 88 x 325 mm
19" system	½ 19", 2 HU
Weight	Approx. 4 kg
Enclosure	Metal

## Ordering data

Micro-Switch	
TOE 9261-50	60 V / 50 A
TOE 9261-100	60 V / 100 A



## Options / accessories

Micro-Switch	
TOE 9260/22	0.50 m cable with 1 safety socket, red
TOE 9260/23	0.50 m cable with 1 safety socket, blue
TOE 9260/24	1.20 m cable with 1 safety socket, red
TOE 9260/25	1.20 m cable with 1 safety socket, blue
TOE 9521	19" adapter 2 HU, for single installation
TOE 9522	19" adapter 2 HU, parallel installation set for 2 units
TOE 9260/100	Reference resistor unit 1 Ω, 100 Ω, 1k Ω

## Supplied accessories

- 1 Instruction manual
- 2 Connector sockets for S3–S6



## Our customers

AEG  
A.M.S. Software GmbH  
Alps Electric GmbH  
artesy  
ASKON  
Atlas Elektronik  
Audi

BASF AG  
Bayer AG  
Behr Hella Thermocontrol  
Beiersdorf AG  
BENDER  
Beru AG  
BIOMET  
Blaupunkt  
Boehringer Ingelheim KG  
Boombardier  
Robert Bosch GmbH  
B. Braun Melsungen AG  
Brose Fahrzeugteile  
Bugatti Engineering GmbH  
Busch-Jaeger GmbH  
Bühler Motor

CERN  
Continental AG

Daimler AG  
John Deere  
Degussa Hanau  
DELPHI  
DeltaTech Controls  
DESY  
Deutsche Lufthansa AG  
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Diehl GmbH & Co.  
DLR  
DMT  
Dornier Luftfahrt GmbH  
Dräger  
dSpace GmbH  
Du pont

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ebm-papst Gruppe  
ELMOS  
elster  
Endress+Hauser  
e-on  
Eurocopter GmbH

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Fachhochschule Dortmund  
Ferrari  
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GÖPEL electronic  
Gossen-Metrawatt  
Gould  
GSI

Haas Laser GmbH  
Hahn-Meitner-Institut  
HARMAN/BECKER  
Hauni Werke, Körber  
Hella KG Hueck & Co.  
Heraeus Sepatech GmbH  
HIMA  
HIRSCHMANN  
Hochschule Furtwangen  
Hoechst AG  
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Hüls AG

IAV GmbH  
IBM Deutschland GmbH  
iC Haus  
Infineon AG  
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Jena-Optronik GmbH

Kabelmetal electro GmbH  
Kathrein-Werke KG  
KES  
KMW  
Knorr Bremse AG  
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Krupp GmbH  
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Labom  
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Ernst Leitz Wetzlar GmbH  
Lenze  
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Lucas Automotive GmbH  
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