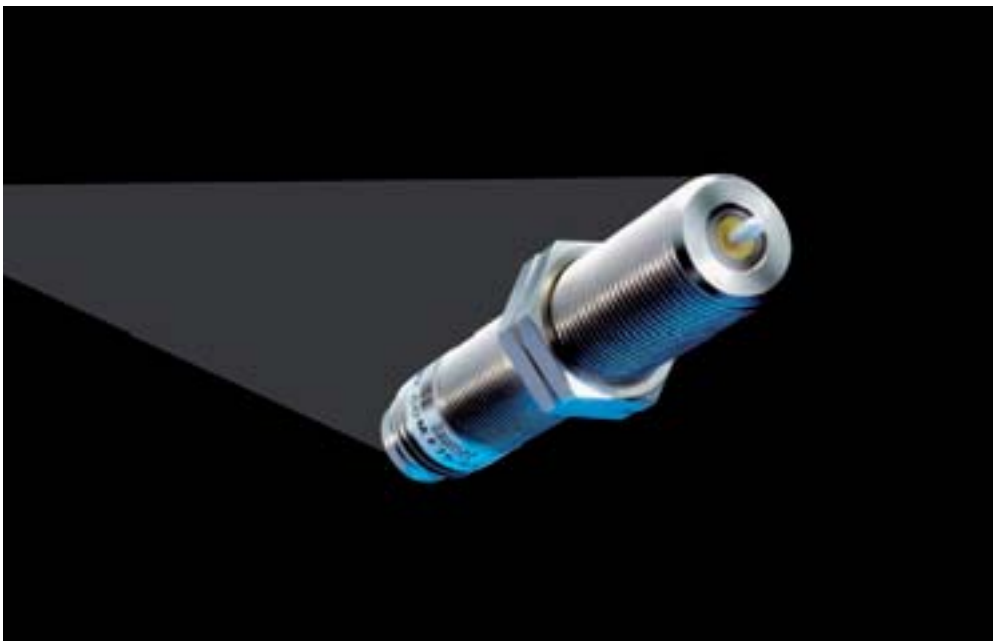




Fast, reliable, ultra-precise.
My-Com precision switches.



Sensor Solutions
Motion Control
Vision Technologies
Process Instrumentation



Unrivalled 1 μm repeat accuracy

Setting reference points, monitoring tolerances, controlling, adjusting.

Fast, reliable, ultra-precise. Uncompromising accuracy tried and tested millions of times in industrial applications. Negligible activating forces. A compact precision switch in task matching packages. IP 67 versions for applications in contaminated areas. Repeat accuracy of 1 micrometer. For critical applications where spot-on precision is not enough. Baumer helps you make exactly the right choice.

Introduction

<i>Introduction</i>	<i>Page 670</i>
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My-Com precision switches

<i>Overview</i>	<i>Page 673</i>
<i>Type A</i>	<i>Page 674</i>
<i>Type B</i>	<i>Page 675</i>
<i>Type C</i>	<i>Page 676</i>
<i>Type D</i>	<i>Page 677</i>
<i>Type E</i>	<i>Page 678</i>
<i>Type F</i>	<i>Page 679</i>
<i>Type G</i>	<i>Page 680</i>
<i>Type H</i>	<i>Page 681</i>
<i>Type L</i>	<i>Page 682</i>
<i>Type M</i>	<i>Page 683 / 684</i>

Amplifiers for precision switches

<i>Amplifier in panel mount housing</i>	<i>Page 686</i>
<i>Plug-in amplifiers</i>	<i>Page 687</i>

Mounting guidelines

<i>Mounting guidelines</i>	<i>Page 688 / 689</i>
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My-Com *precision switches* – *Unrivalled 1 μm repeat accuracy*



With a repeat accuracy of 1 micron, the My-Com remains undisputedly the most accurate and most compact mechanical switch in the world.

The standard My-Com range of the most diverse mechanical and electric types largely reflects the requirements of the market. With its extremely compact design, the My-Com can also be easily integrated in very constrained surroundings.

Typical applications for the My-Com high-precision switches are:

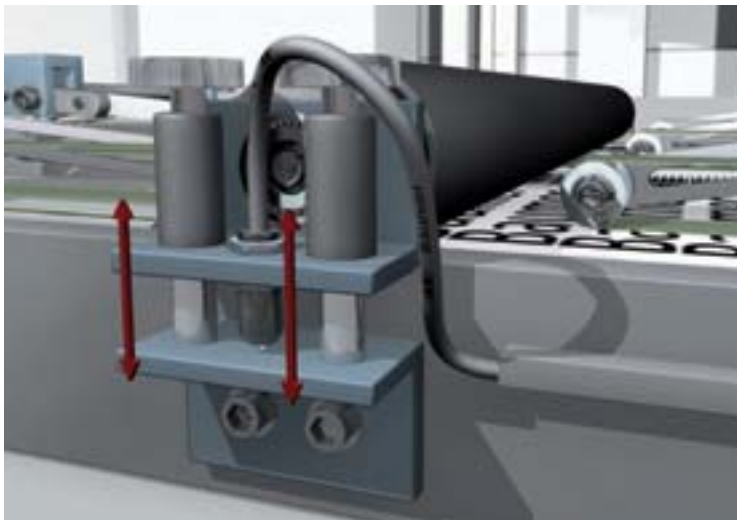
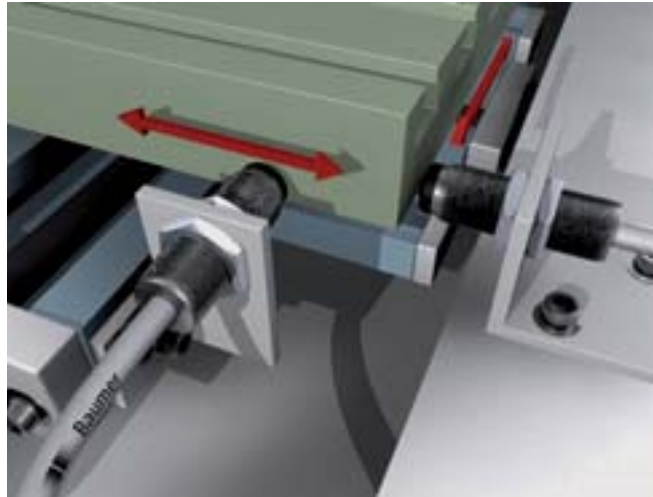
- Reference point setting in X/Y tables and machine tools
- Monitoring of the closing and locking accuracy of injection molding dies
- Detection of the smallest deflections, movements and deformations
- Integration in measuring sensors, gauges and activating pins
- Calibration of measuring instruments in quality control
- Monitoring of surface roughness
- Other applications in precision mechanical engineering

Rigorous attention was paid to the design of the My-Com precision switch to reduce the number of components to an absolute minimum. Just three moving parts and high-quality materials guarantee a large number of switching operations with constant repeat accuracy. Short, linear displacements in just two directions and low activating forces further increase the reliability and service life of the My-Com precision switch. The My-Com has proven its impressive reliability in over 1 million applications.



Precision finishing

- Referencing XY-tables on machine tools



Quality control

- Concentricity check in measuring gauge
- Checking parts for correct thickness
- Monitoring concentricity

Laboratory test setups

- Referencing mirrors and beam-splitters
- Home position sensor
- Precision referencing





Mechanical data

Repeat accuracy (T = const)	< 0,001 mm (1 micron)
Mechanical lifetime	10'000'000 switchings
Switching frequency	0 - 10 Hz
Max. activating velocity	< 30 mm/s
Temperature range	-20 °C to +75 °C (-5 °F to +165 °F)
Standard cable material	PVC
Protection class (standard)	IP 50

LED indicator

The My-Com types with transistor output are available with LED output indicators.

Transistor output

The My-Com types L, G and M are available with a transistorized output. When supplied with this configuration, the output circuit is supplied normally open (NO). A protective diode is incorporated into the circuit to protect against transients.

Activation force

For most My-Coms, the appropriate activation force can be defined at the time of ordering.

Increased environmental protection (IP 67)

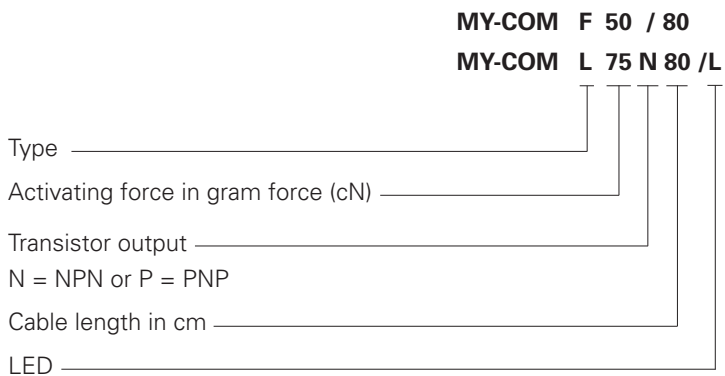
For applications in harsh environments (dust, oil, cooling fluid) we recommend the waterproof My-Com D, H or M. The My-Com type L, with transistor output, is also available with the same protection (IP 67). The sealing membrane for all of these is made of Viton.


Maximum installation torque (not lubricated)


If the published installation torque specifications prove to be insufficient for your application, we recommend using a nut locking liquid to secure the My-Com. The published specifications for maximum torque must not be exceeded!

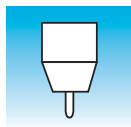
My-Com D	20 Nm
My-Com E	5,5 Nm
All others	3,5 Nm

Part number key



product family	MY-COM A	MY-COM B	MY-COM C	MY-COM D	MY-COM E	MY-COM F
						
housing material	brass nickel plated	brass nickel plated	brass nickel plated	browned brass	brass nickel plated	brass nickel plated
housing length	20 mm 30 mm	20 mm 30 mm	20 mm 30 mm	56 mm 66 mm	36 mm	28 mm 38 mm
cable, 80 cm	■	■	■	■	■	■
connector M8	■		■	■		■
connector S30		■				
NPN make function (NO)						
PNP make function (NO)						
break function (NC) mechanical	■	■	■	■	■	■
protection class	IP 50	IP 50	IP 50	IP 67	IP 50	IP 50
Page	674	675	676	677	678	679

product family	MY-COM G	MY-COM H	MY-COM L	MY-COM M	MY-COM M
					
housing material	brass nickel plated	brass nickel plated	brass nickel plated	brass nickel plated	brass nickel plated
housing length	28 mm 38 mm	21 mm 40 mm	30 mm 40 mm	27 mm 37 mm	27 mm 37 mm
cable, 80 cm	■	■	■	■	■
connector M8	■	■	■	■	■
connector S30					
NPN make function (NO)	■		■		■
PNP make function (NO)	■		■		■
break function (NC) mechanical		■		■	
protection class	IP 50	IP 67	IP 67	IP 67	IP 67
Page	680	681	682	683	684



- conical housing front
- two wire break function (NC)

general data

repeat accuracy	< 0,001 mm
mech. pre-run / overrun	- / 1,5 mm approx.

electrical data

DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA

output circuit break function (NC) mechanical

mechanical data

activating pin	zirconium oxide ZrO_2
housing material	brass nickel plated
dimension	8 mm

ambient conditions

operating temperature	-20 ... +75 °C
protection class	IP 50

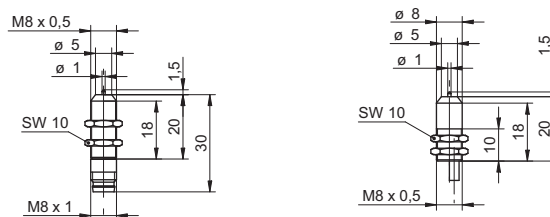
accessories

connectors ESG 32S, ESW 31S

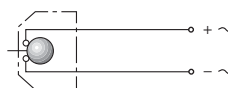
remarks

other versions on request

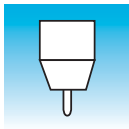
dimension drawings



connection diagram



order reference	activating force	housing length	connection types
MY-COM A30/80	30 cN	20 mm	cable, 80 cm
MY-COM A30/S35	30 cN	30 mm	connector M8
MY-COM A50/80	50 cN	20 mm	cable, 80 cm
MY-COM A50/S35	50 cN	30 mm	connector M8
MY-COM A75/80	75 cN	20 mm	cable, 80 cm
MY-COM A75/S35	75 cN	30 mm	connector M8
MY-COM A100/80	100 cN	20 mm	cable, 80 cm
MY-COM A100/S35	100 cN	30 mm	connector M8



- flat housing front
- two wire break function (NC)

general data

repeat accuracy	< 0,001 mm
mech. pre-run / overrun	- / 1,5 mm approx.

electrical data

DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical

mechanical data

activating pin	zirconium oxide ZrO_2
housing material	brass nickel plated
dimension	8 mm

ambient conditions

operating temperature	-20 ... +75 °C
protection class	IP 50

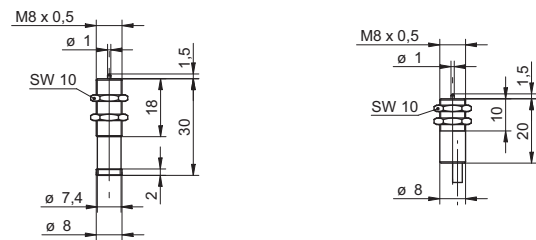
accessories

connector	ES 30
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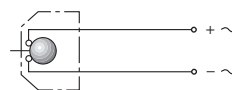
remarks

other versions on request

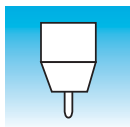
dimension drawings



connection diagram



order reference	activating force	housing length	connection types
MY-COM B30/80	30 cN	20 mm	cable, 80 cm
MY-COM BS30	30 cN	30 mm	connector S30
MY-COM B50/80	50 cN	20 mm	cable, 80 cm
MY-COM BS50	50 cN	30 mm	connector S30
MY-COM B75/80	75 cN	20 mm	cable, 80 cm
MY-COM BS75	75 cN	30 mm	connector S30
MY-COM B100/80	100 cN	20 mm	cable, 80 cm
MY-COM BS100	100 cN	30 mm	connector S30



- rectangular brass housing
- two bore mounting
- two wire break function (NC)

general data

repeat accuracy	< 0,001 mm
mech. pre-run / overrun	- / 1,5 mm approx.

electrical data

DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical

mechanical data

activating pin	zirconium oxide ZrO ₂
housing material	brass nickel plated
dimension	8 mm

ambient conditions

operating temperature	-20 ... +75 °C
protection class	IP 50

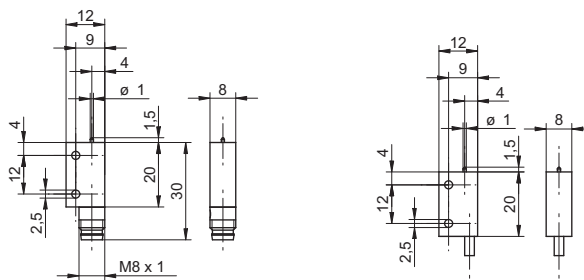
accessories

connectors	ESG 32S, ESW 31S
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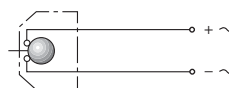
remarks

other versions on request

dimension drawings



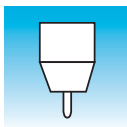
connection diagram



order reference	activating force	housing length	connection types
MY-COM C30/80	30 cN	20 mm	cable, 80 cm
MY-COM C30/S35	30 cN	30 mm	connector M8
MY-COM C50/80	50 cN	20 mm	cable, 80 cm
MY-COM C50/S35	50 cN	30 mm	connector M8
MY-COM C75/80	75 cN	20 mm	cable, 80 cm
MY-COM C75/S35	75 cN	30 mm	connector M8
MY-COM C100/80	100 cN	20 mm	cable, 80 cm
MY-COM C100/S35	100 cN	30 mm	connector M8

MY-COM C

My-Com precision switches



- browned brass
- two wire break function (NC)
- protection class IP 67

general data

repeat accuracy	< 0,001 mm
activating force	250 cN
mech. pre-run / overrun	1 mm / 1 mm approx.

electrical data

DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical

mechanical data

activating pin	hardened steel
housing material	browned brass
dimension	16 mm

ambient conditions

operating temperature	-20 ... +75 °C
protection class	IP 67

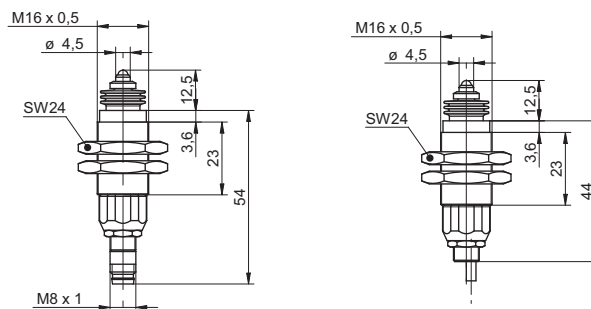
accessories

connectors	ESG 32S, ESW 31S
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remarks

other versions on request

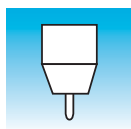
dimension drawings



connection diagram



order reference	housing length	connection types
MY-COM D250/80	56 mm	cable, 80 cm
MY-COM D250/S35	66 mm	connector M8



- spherical hard metal tip
- thread M6 x 0,5
- two wire break function (NC)

general data

repeat accuracy	< 0,001 mm
mech. pre-run / overrun	- / 0,8 ... 1,5 mm approx.

electrical data

DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical

mechanical data

activating pin	hardened steel
housing material	brass nickel plated
dimension	6 mm
housing length	36 mm
connection types	cable, 80 cm

ambient conditions

operating temperature	-20 ... +75 °C
protection class	IP 50

remarks

other versions on request

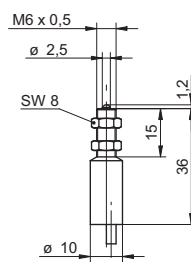
order reference

activating force

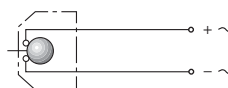
MY-COM E75/80	75 cN
MY-COM E100/80	100 cN

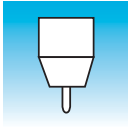


dimension drawing



connection diagram





- long body
- long thread length
- two wire break function (NC)

general data

repeat accuracy	< 0,001 mm
mech. pre-run / overrun	- / 1,5 mm approx.

electrical data

DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical

mechanical data

activating pin	zirconium oxide ZrO ₂
housing material	brass nickel plated
dimension	8 mm

ambient conditions

operating temperature	-20 ... +75 °C
protection class	IP 50

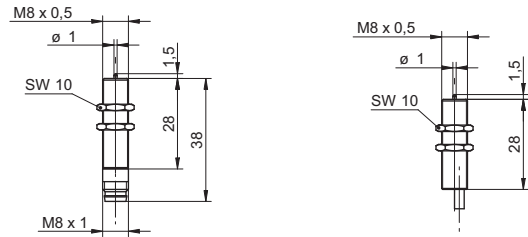
accessories

connectors	ESG 32S, ESW 31S
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remarks

other versions on request

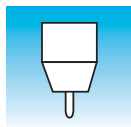
dimension drawings



connection diagram



order reference	activating force	housing length	connection types
MY-COM F30/80	30 cN	28 mm	cable, 80 cm
MY-COM F30/S35	30 cN	38 mm	connector M8
MY-COM F50/80	50 cN	28 mm	cable, 80 cm
MY-COM F50/S35	50 cN	38 mm	connector M8
MY-COM F75/80	75 cN	28 mm	cable, 80 cm
MY-COM F75/S35	75 cN	38 mm	connector M8
MY-COM F100/80	100 cN	28 mm	cable, 80 cm
MY-COM F100/S35	100 cN	38 mm	connector M8



- transistor output NPN / PNP
- long thread length
- three wire make function (NO)

general data

repeat accuracy	< 0,001 mm
activating force	75 cN
mech. pre-run / overrun	- / 1,5 mm approx.

electrical data

voltage supply range +Vs	5 ... 36 VDC
load current max. at 24 VDC	50 mA
load resistance min.	480 Ohm

mechanical data

activating pin	zirconium oxide ZrO ₂
housing material	brass nickel plated
dimension	8 mm

ambient conditions

operating temperature	-20 ... +75 °C
protection class	IP 50

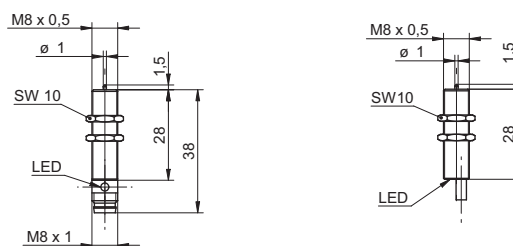
accessories

connectors	ESG 32S, ESW 31S
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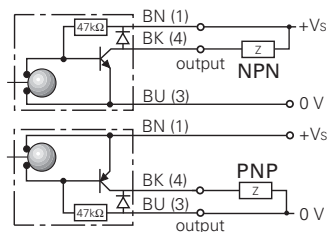
remarks

other versions on request

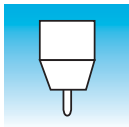
dimension drawings



connection diagram



order reference	output circuit	housing length	connection types
MY-COM G75N/S35L	NPN make function (NO)	38 mm	connector M8
MY-COM G75N80/L	NPN make function (NO)	28 mm	cable, 80 cm
MY-COM G75P/S35L	PNP make function (NO)	38 mm	connector M8
MY-COM G75P80/L	PNP make function (NO)	28 mm	cable, 80 cm



- spherical ruby tip
- two wire break function (NC)
- protection class IP 67

general data

repeat accuracy	< 0,001 mm
activating force	75 cN
mech. pre-run / overrun	- / 0,6 mm approx.

electrical data

DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical

mechanical data

activating pin	ruby
housing material	brass nickel plated
dimension	8 mm

ambient conditions

operating temperature	-20 ... +75 °C
protection class	IP 67

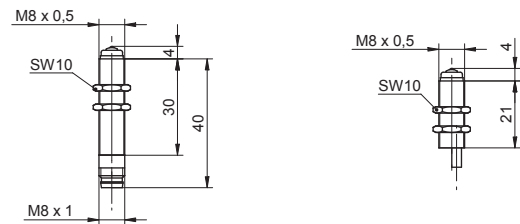
accessories

connectors	ESG 32S, ESW 31S
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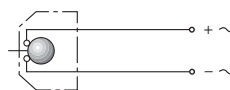
remarks

gasket made of Viton 60° Shore A
 other versions on request

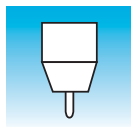
dimension drawings



connection diagram



order reference	housing length	connection types
MY-COM H75/80	21 mm	cable, 80 cm
MY-COM H75/S35	40 mm	connector M8



- transistor output NPN / PNP
- three wire make function (NO)
- protection class IP 67

general data

repeat accuracy	< 0,001 mm
activating force	75 cN
mech. pre-run / overrun	- / 0,6 mm approx.

electrical data

voltage supply range +Vs	5 ... 36 VDC
load current max. at 24 VDC	50 mA
load resistance min.	480 Ohm

mechanical data

activating pin	ruby
housing material	brass nickel plated
dimension	8 mm

ambient conditions

operating temperature	-20 ... +75 °C
protection class	IP 67

accessories

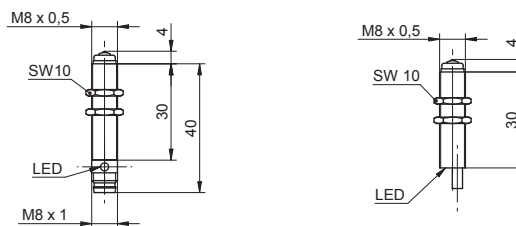
connectors	ESG 32S, ESW 31S
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remarks

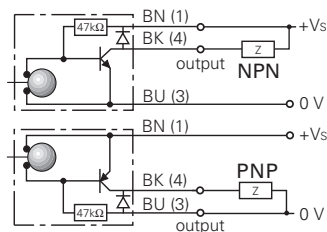
gasket made of Viton 60° Shore A
other versions on request



dimension drawings



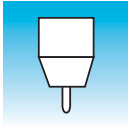
connection diagram



order reference	output circuit	housing length	connection types
MY-COM L75N/S35L	NPN make function (NO)	40 mm	connector M8
MY-COM L75N80/L	NPN make function (NO)	30 mm	cable, 80 cm
MY-COM L75P/S35L	PNP make function (NO)	40 mm	connector M8
MY-COM L75P80/L	PNP make function (NO)	30 mm	cable, 80 cm

MY-COM L

My-Com precision switches



- silicone gasket
- protection class IP 67
- two wire break function (NC)

general data

repeat accuracy	< 0,001 mm
activating force	75 cN
mech. pre-run / overrun	- / 1,5 mm approx.

electrical data

DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical

mechanical data

activating pin	zirconium oxide ZrO ₂
housing material	brass nickel plated
dimension	8 mm

ambient conditions

operating temperature	-20 ... +75 °C
protection class	IP 67

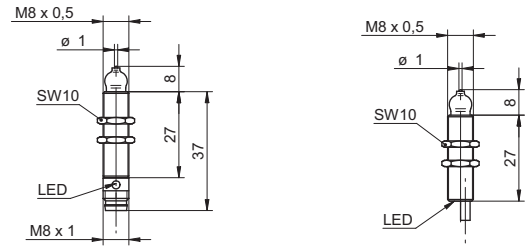
accessories

connectors	ESG 32S, ESW 31S
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remarks

gasket made of Silicone
 other versions on request

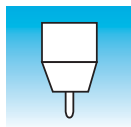
dimension drawings



connection diagram



order reference	housing length	connection types
MY-COM M75/80	27 mm	cable, 80 cm
MY-COM M75/S35	37 mm	connector M8



- silicone gasket
- protection class IP 67
- three wire make function (NO)

general data

repeat accuracy	< 0,001 mm
activating force	75 cN
mech. pre-run / overrun	- / 1,5 mm approx.

electrical data

voltage supply range +Vs	5 ... 36 VDC
load current max. at 24 VDC	50 mA
load resistance min.	480 Ohm

mechanical data

activating pin	zirconium oxide ZrO_2
housing material	brass nickel plated
dimension	8 mm

ambient conditions

operating temperature	-20 ... +75 °C
protection class	IP 67

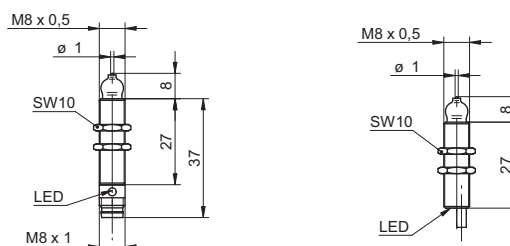
accessories

connectors	ESG 32S, ESW 31S
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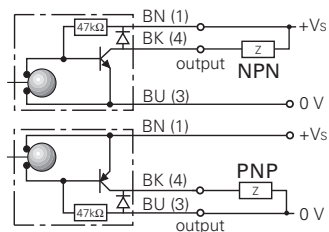
remarks

gasket made of Silicone
other versions on request

dimension drawings



connection diagram



order reference	output circuit	housing length	connection types
MY-COM M75N/S35	NPN make function (NO)	37 mm	connector M8
MY-COM M75N80	NPN make function (NO)	27 mm	cable, 80 cm
MY-COM M75P/S35	PNP make function (NO)	37 mm	connector M8
MY-COM M75P80	PNP make function (NO)	27 mm	cable, 80 cm

Amplifiers





- compatible with two-wire devices complying with EN 50227
- short circuit detection

technical data	
power consumption	max. 2 VA
NAMUR input	acc. to EN 50227
no-load voltage	8,2 VDC ±5%
internal resistance	1 kΩ
switching threshold	1,8 mA
hysteresis	±0,2 mA
line break detection	<0,2 mA
short-circuit detection	>6 mA
switching capacity	250 VAC 8A, AC1, 2 kVA
response time	typ. 10 ms
release time	typ. 4 ms
bounce time NO/NC contact	typ. 1ms / typ. 2,5 ms
switching frequency	max. 20 Hz
nominal isolation voltage	250 VAC
output mode	adjustable
load state	green LED
switch state	red LED

ambient conditions	
operating temperature	-25 ... +60 °C
protection class	IP 67

remarks
When used in conjunction with a My-Com the «line monitoring» jumper must be in the «OFF» position.

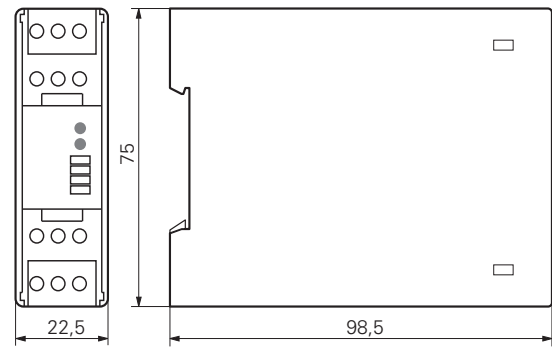
DIN / EN 50022
Amplifiers in panel mount housings are designed for assembly on mounting rails complying with DIN EN 50022. The plug-in jumpers for setting the operating modes are located underneath the detachable front panel.

The terminals on the front panel are shockproof and have conductor cross sections of max. 2,5 mm².

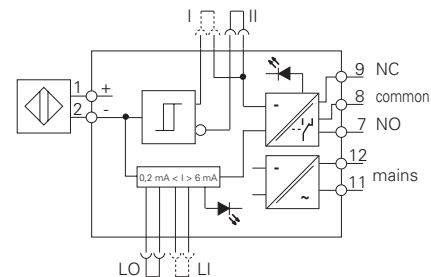
order reference	nominal operating range
SAEB 28R72	230 VAC
SAEB 18R72	115 VAC ±10%



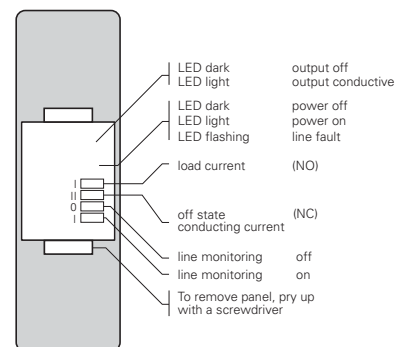
dimension drawing



connection diagram



For devices with two-wire input



Amplifier in panel mount housing SAEB



- compatible with two-wire devices NAMUR DIN 19234
- switching amplifier for AC connection
- high-capacity carbide silver relay contacts

technical data

power consumption	approx. 4 VA
test voltage	2,5 kV
NAMUR input	acc. to EN 50227
sensor supply voltage	8,2 VDC \pm 10%
sensor supply current	-
internal resistance	1 k Ω
switching point	\leq 1,8 mA
switching element	relay changeover
switching capacity	250 VAC 4A, AC-1
switch state	yellow LED

ambient conditions

operating temperature	-25 ... +50 °C
storage temperature	-40 ... +85 °C
protection class	IP 20

accessoires

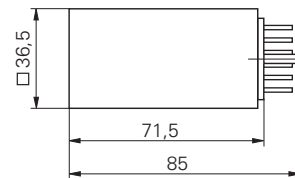
socket base	ZKR 118
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order reference	nominal operating range
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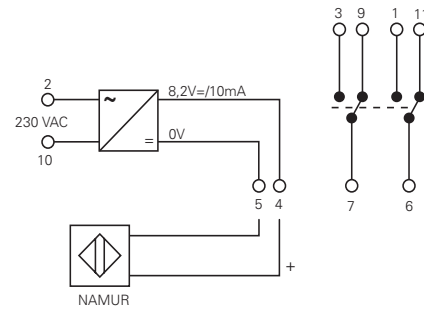
SVN 220.82.2	230 VAC \pm 10%
SVN 110.82.2	115 VAC \pm 10%



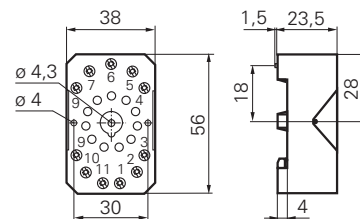
dimension drawing



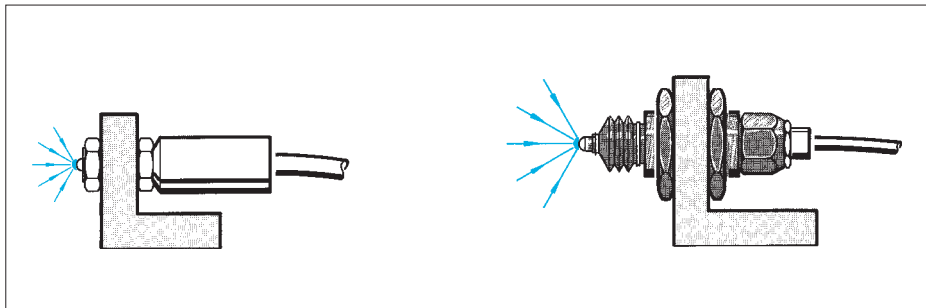
connection diagram



Socket base ZKR 118 with pin configuration

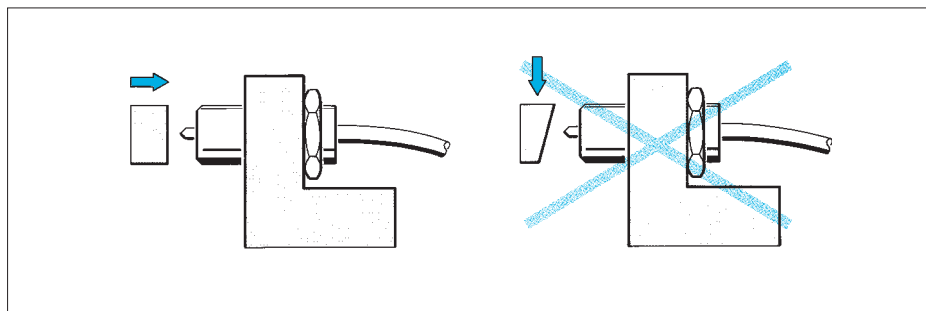


with hardened steel stylus



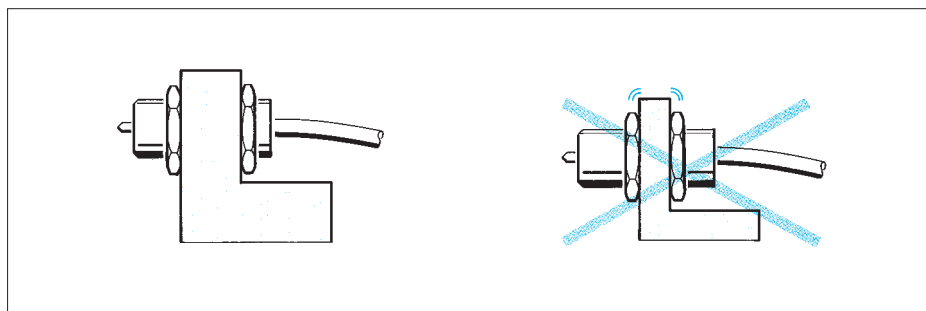
My-Com E and D have spherical hardened steel tips which allow lateral approach of an object, such as a tapered plate.

with ZrO₂ actuator tip



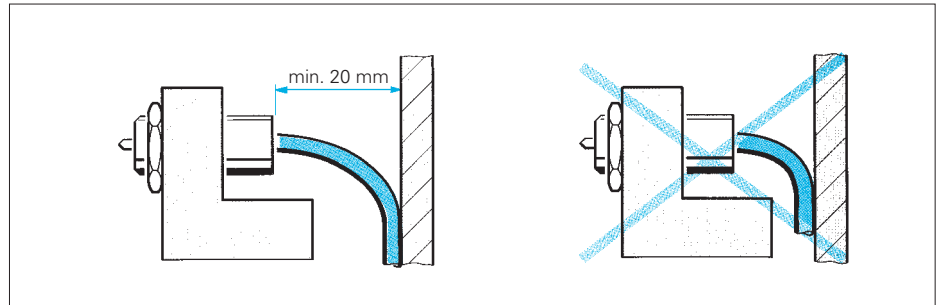
My-Com A, B, BS, C, F, G and M must be approached axially. Lateral approach will break the stylus.

mounting



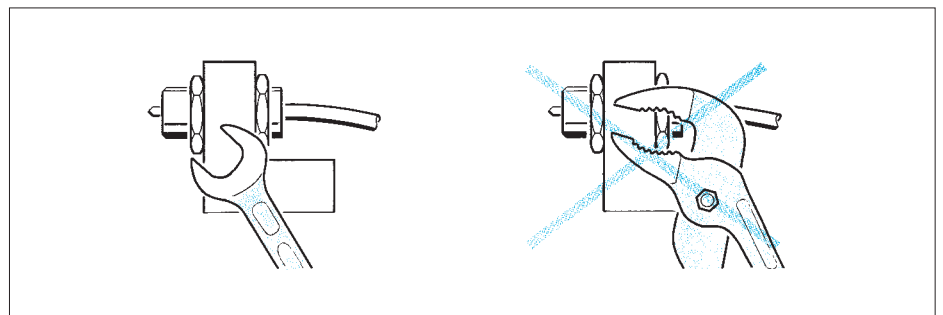
To guarantee accuracy, the My-Com precision switch must be mounted on a substantial surface. My-Com's must always be installed in a static (stationary) part of the machine. The inertia of the contact ball might cause false triggering if the vibration or acceleration of a moving part is great enough.

cable considerations



To avoid cable breakage, the My-Com should be mounted with adequate clearance.

installation



My-Com precision switches should be installed with care. For suggested maximum torque figures see page 672.

