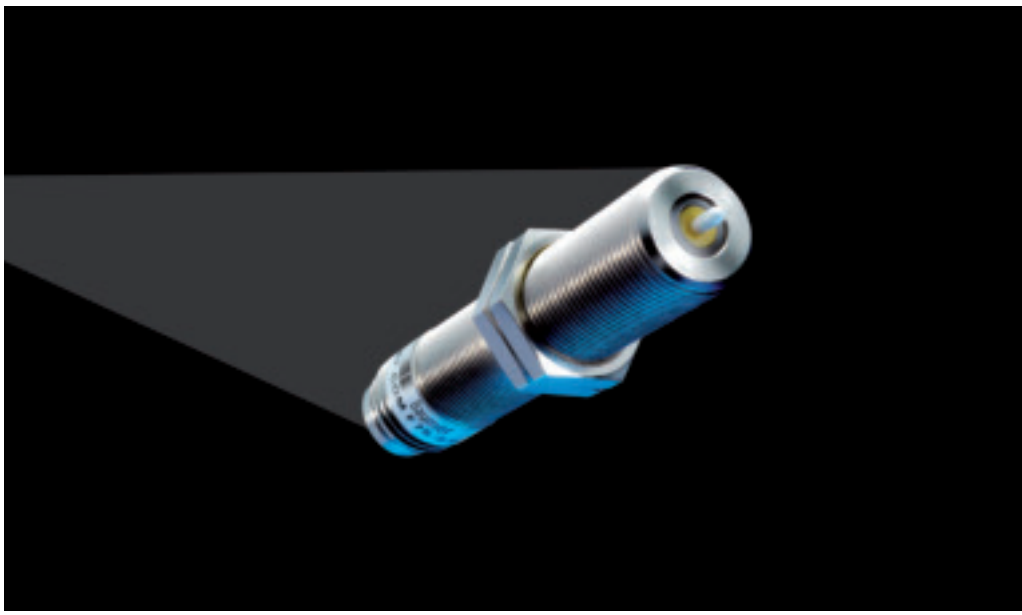
Baumer

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



Sensor Solutions
Motion Control
Vision Technologies

Unrivaled 1 µm repeatability

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. Repeatability of 1 micrometer. For critical applications where spot-on precision is not enough. Baumer helps you make exactly the right choice.

Table of Contents

My-Com *precision switches – Unrivaled 1 µm repeatability*

With a repeatability 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:

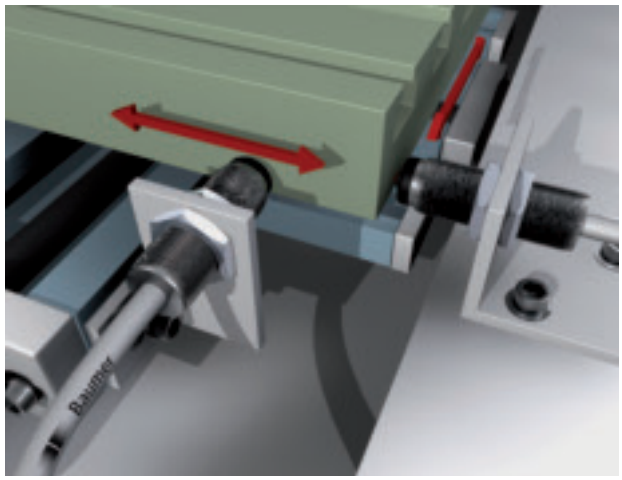
- Reference point setting in X/Y tables and machine tools
- Monitoring of the closing and locking accuracy of injection molding dies
- Detection of the smallest deflections, movements and deformations
- Integration in measuring sensors, gauges and activating pins
- Calibration of measuring instruments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

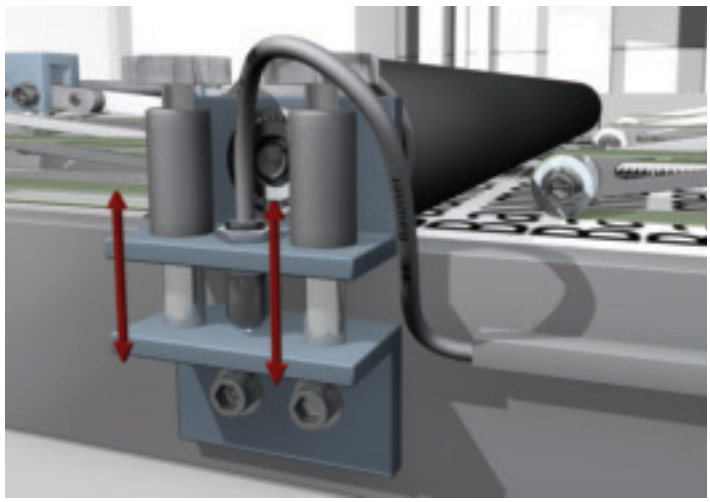
Rigorous attention was paid to the design of the My-Com precision switch to reduce the number of components to an absolute minimum. Just three moving parts and high-quality materials guarantee a large number of switching operations with constant repeatability. Short, linear displacements in just two 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.

Applications

Precision finishing

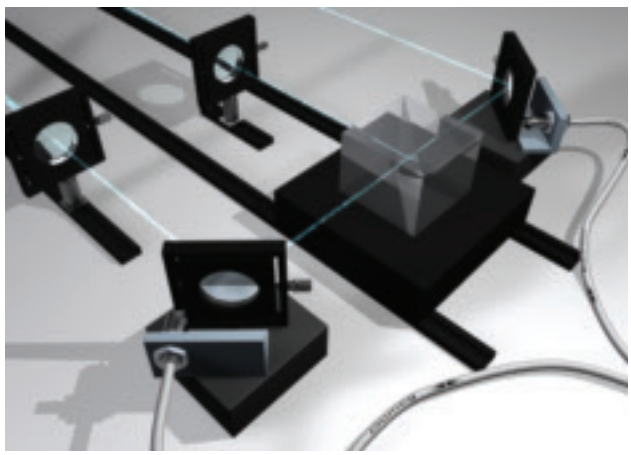
- The My-Com is used as a control and guiding instrument for processing machines, for example as a control stop on positioning tables for drilling, milling, turning and grinding on automatic equipment.





Quality control

- Built into measuring and control gauges, the My-Com can indicate whether the articles concerned are within manufacturing tolerances, such as of correct thickness (double sheet control), diameter or concentricity.



Referencing mirrors and beam-splitters

- Optical laboratory test setups
- Space exploration
- Home position sensor

Technical specifications

Mechanical data

Repeatability	± 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 length	80 cm
Standard cable material	PVC
Standard conductor cross section	< 0,14 mm^2
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.

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!

Wire color code

BN = Brown
BK = Black
BU = Blue

Max. torque figures (not lubricated)

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

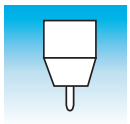
Part number key

MY-COM F 50 / 80
MY-COM L 75 N 80 /L

- Type
- Activating force in gram force (cN)
- Transistor output
  N = NPN or P = PNP
- Cable length in cm
- LED

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 74 mm	36 mm	28 mm 38 mm
cable	■	■	■	■	■	■
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	**652**	**653**	**654**	**655**	**656**	**657**

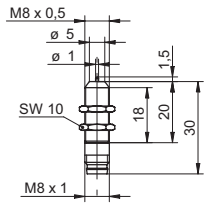
product family	MY-COM G	MY-COM H	MY-COM L	MY-COM M	MY-COM M
					
housing material	brass nickel plated	brass nickel plated	brass nickel plated	brass nickel plated	brass nickel plated
housing length	28 mm 38 mm	21 mm 40 mm	30 mm 40 mm	27 mm 37 mm	27 mm 37 mm
cable	■	■	■	■	■
connector M8	■	■	■	■	■
connector 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	**658**	**659**	**660**	**661**	**662**

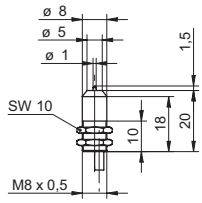


- conical housing front
- two wire break function (NC)

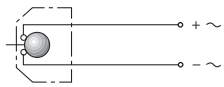
general data	
repeatability	< 0,001 mm
mech. pre-run / overrun	- / 1,5 mm approx.
electrical data	
DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical
mechanical data	
activating pin	zirconium oxide ZrO_2
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 activating force on request	

dimension drawings

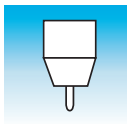




connection diagram



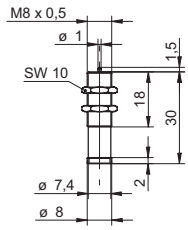
order reference	activating force	housing length	connection types
MY-COM A100/80	100 cN	20 mm	cable
MY-COM A100/S35	100 cN	30 mm	connector M8
MY-COM A75/80	75 cN	20 mm	cable
MY-COM A75/S35	75 cN	30 mm	connector M8
MY-COM A50/80	50 cN	20 mm	cable
MY-COM A50/S35	50 cN	30 mm	connector M8
MY-COM A30/80	30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

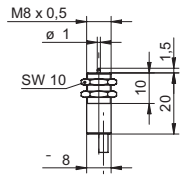


- flat housing front
- two wire break function (NC)

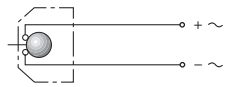
general data	
repeatability	< 0,001 mm
mech. pre-run / overrun	- / 1,5 mm approx.
electrical data	
DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical
mechanical data	
activating pin	zirconium oxide ZrO_2
housing material	brass nickel plated
dimension	8 mm
ambient conditions	
operating temperature	-20 ... +75 °C
protection class	IP 50
accessories	
connector	ES 30
remarks	
other activating force on request	

dimension drawings

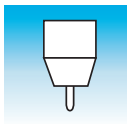




connection diagram



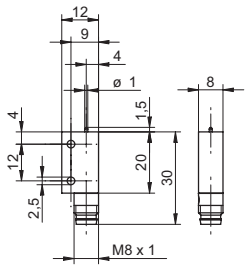
order reference	activating force	housing length	connection types
MY-COM B100/80	100 cN	20 mm	cable
MY-COM BS100	100 cN	30 mm	connector S30
MY-COM B75/80	75 cN	20 mm	cable
MY-COM BS75	75 cN	30 mm	connector S30
MY-COM B50/80	50 cN	20 mm	cable
MY-COM BS50	50 cN	30 mm	connector S30
MY-COM B30/80	30 cN	20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

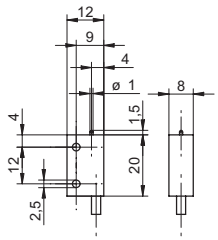


- rectangular brass housing
- two bore mounting
- two wire break function (NC)

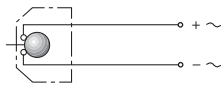
general data	
repeatability	< 0,001 mm
mech. pre-run / overrun	- / 1,5 mm approx.
electrical data	
DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical
mechanical data	
activating pin	zirconium oxide ZrO_2
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 activating force on request	

dimension drawings

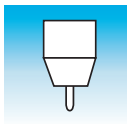




connection diagram



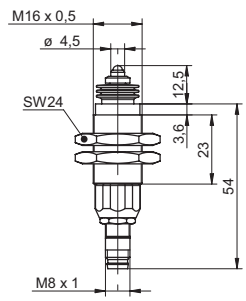
order reference	activating force	housing length	connection types
MY-COM C100/80	100 cN	20 mm	cable
MY-COM C100/S35	100 cN	30 mm	connector M8
MY-COM C75/80	75 cN	20 mm	cable
MY-COM C75/S35	75 cN	30 mm	connector M8
MY-COM C50/80	50 cN	20 mm	cable
MY-COM C50/S35	50 cN	30 mm	connector M8
MY-COM C30/80	30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

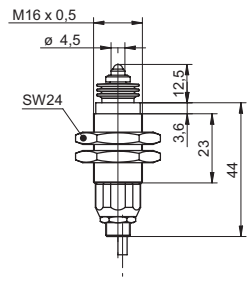


- steel housing
- two wire break function (NC)
- protection class IP 67

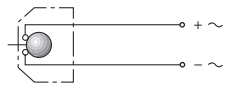
general data	
repeatability	< 0,001 mm
activating force	250 cN
mech. pre-run / overrun	1 mm / 1 mm approx.
electrical data	
DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical
mechanical data	
activating 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

dimension drawings

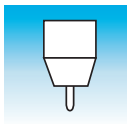




connection diagram



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

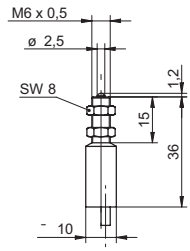


- spherical hard metal tip
- thread M6 x 0,5
- two wire break function (NC)

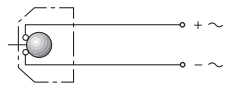
general data	
repeatability	< 0,001 mm
mech. pre-run / overrun	- / 0,8 ... 1,5 mm approx.
electrical data	
DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical
mechanical data	
activating pin	hardened steel
housing material	brass nickel plated
dimension	6 mm
housing length	36 mm
connection types	cable
ambient conditions	
operating temperature	-20 ... +75 °C
protection class	IP 50
remarks	
other activating force on request	

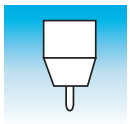
order reference	activating force
MY-COM E100/80	100 cN
MY-COM E75/80	75 cN

dimension drawing



connection diagram

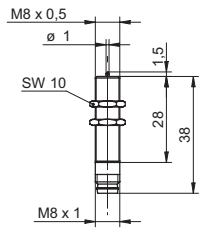


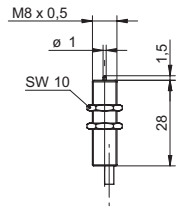


- long housing design
- long thread length
- two wire break function (NC)

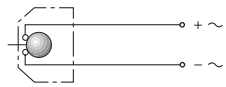
general data	
repeatability	< 0,001 mm
mech. pre-run / overrun	- / 1,5 mm approx.
electrical data	
DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical
mechanical data	
activating pin	zirconium oxide ZrO_2
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 activating force on request	

dimension drawings

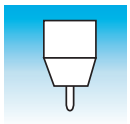




connection diagram



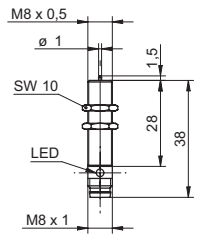
order reference	activating force	housing length	connection types
MY-COM F100/80	100 cN	28 mm	cable
MY-COM F100/S35	100 cN	38 mm	connector M8
MY-COM F75/80	75 cN	28 mm	cable
MY-COM F75/S35	75 cN	38 mm	connector M8
MY-COM F50/80	50 cN	28 mm	cable
MY-COM F50/S35	50 cN	38 mm	connector M8
MY-COM F30/80	30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

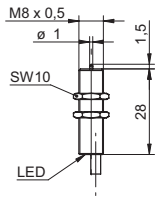


- transistor output NPN / PNP
- long thread length
- three wire make function (NO)

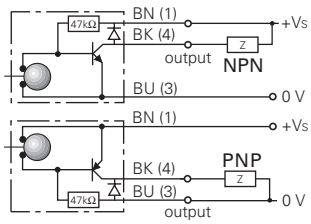
general data	
repeatability	< 0,001 mm
activating force	75 cN
mech. pre-run / overrun	- / 1,5 mm approx.
electrical data	
voltage supply range +Vs	5 ... 36 VDC
load current max. at 24 VDC	50 mA
load resistance min.	480 Ohm
mechanical data	
activating pin	zirconium oxide ZrO_2
housing material	brass nickel plated
dimension	8 mm
ambient conditions	
operating temperature	-20 ... +75 °C
protection class	IP 50
accessories	
connectors	ESG 32S, ESW 31S
remarks	
other activating force on request	

dimension drawings

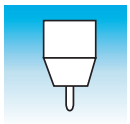




connection diagram



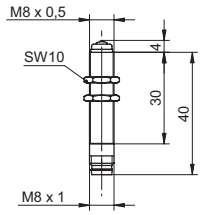
order reference	output circuit	housing length	connection types
MY-COM G75N/S35L	NPN make function (NO)	28 mm	connector M8
MY-COM G75N80/L	NPN make function (NO)	38 mm	cable
MY-COM G75P/S35L	PNP make function (NO)	28 mm	connector M8
MY-COM G75P80/L	PNP make function (NO)	38 mm	cable

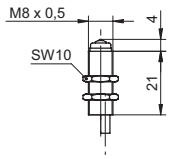


- spherical ruby tip
- two wire break function (NC)
- protection class IP 67

general data	
repeatability	< 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
remarks	
Gasket made of Viton 60° Shore A other activating force on request	

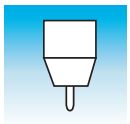
dimension drawings





connection diagram

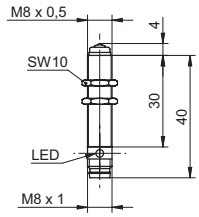
order reference	housing length	connection types
MY-COM H75/80	21 mm	cable
MY-COM H75/S35	40 mm	connector M8

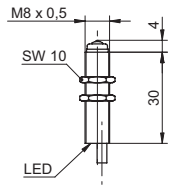


- transistor output NPN / PNP
- three wire make function (NO)
- protection class IP 67

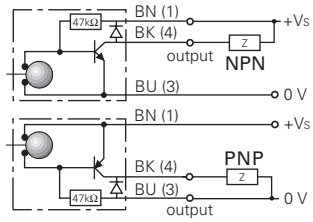
general data	
repeatability	< 0,001 mm
activating force	75 cN
mech. pre-run / overrun	- / 0,6 mm approx.
electrical data	
voltage supply range +Vs	5 ... 36 VDC
load current max. at 24 VDC	50 mA
load resistance min.	480 Ohm
mechanical data	
activating pin	ruby
housing material	brass nickel plated
dimension	8 mm
ambient conditions	
operating temperature	-20 ... +75 °C
protection class	IP 67
accessories	
connectors	ESG 32S, ESW 31S
remarks	
Gasket made of Viton 60° Shore A other activating force on request	

dimension drawings

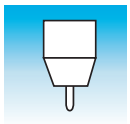




connection diagram



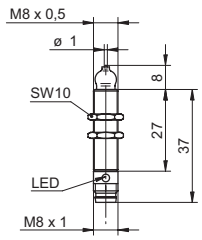
order reference	output circuit	housing length	connection types
MY-COM L75N/S35L	NPN make function (NO)	30 mm	connector M8
MY-COM L75N80/L	NPN make function (NO)	40 mm	cable
MY-COM L75P/S35L	PNP make function (NO)	30 mm	connector M8
MY-COM L75P80/L	PNP make function (NO)	40 mm	cable

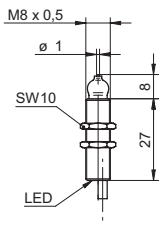


- silicone gasket
- protection class IP 67
- two wire break function (NC)

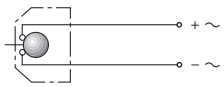
general data	
repeatability	< 0,001 mm
activating force	75 cN
mech. pre-run / overrun	- / 1,5 mm approx.
electrical data	
DC voltage max.	15 VDC
switch. current DC max.	2 mA
AC voltage max.	24 VAC
switch. current AC max.	50 mA
output circuit	break function (NC) mechanical
mechanical data	
activating 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
remarks	
Gasket made of Viton 60° Shore A other activating force on request	

dimension drawings

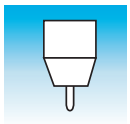




connection diagram



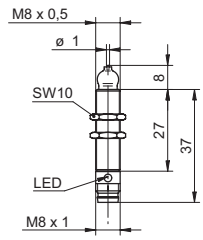
order reference	housing length	connection types
MY-COM M75/80	27 mm	cable
MY-COM M75/S35	37 mm	connector M8

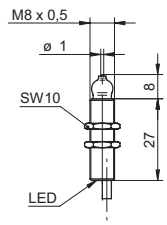


- silicone gasket
- protection class IP 67
- three wire make function (NO)

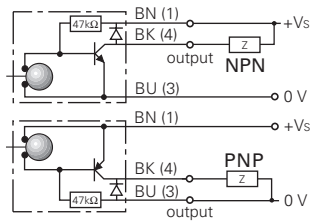
general data	
repeatability	< 0,001 mm
activating force	75 cN
mech. pre-run / overrun	- / 1,5 mm approx.
electrical data	
voltage supply range +Vs	5 ... 36 VDC
load current max. at 24 VDC	50 mA
load resistance min.	480 Ohm
mechanical data	
activating pin	zirconium oxide ZrO_2
housing material	brass nickel plated
dimension	8 mm
ambient conditions	
operating temperature	-20 ... +75 °C
protection class	IP 67
accessories	
connectors	ESG 32S, ESW 31S
remarks	
Gasket made of Viton 60° Shore A other activating force on request	

dimension drawings





connection diagram



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