

Operation guide



RSP-Flex - basic unit*

- With through hole



RSP-Flex - basic unit with fluid feedthrough*

- With fluid feedthrough and through hole
- **-F4** 4-way fluid feedthrough (RSP32-Flex)
- **-F8** 8-way fluid feedthrough (RSP42-Flex / RSP52-Flex)



RSP-Flex - basic unit with fluid and cable feedthrough*

- With fluid feedthrough, with cable feedthrough
- **-F4** + **-KD8** 8-way cable feedthrough (RSP32-Flex)
- **-F8** + **-KD8** 8-way cable feedthrough (RSP42-Flex / RSP52-Flex)



RSP-Flex - basic unit with fluid and cable feedthrough and inductive attachment kit*

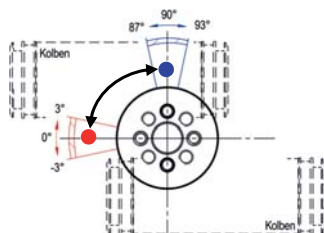
- With fluid feedthrough, with cable feedthrough, with inductive attachment kit for monitoring the swivel position with proximity switches
- **-F4** + **-KD8** + **-AS** inductive attachment kit (RSP32-Flex)
- **-F8** + **-KD8** + **-AS** inductive attachment kit (RSP42-Flex / RSP52-Flex)

* The monitoring of the swivel position by up to 6 magnetic sensors is recommended for all swivel units

SWIVEL ANGLE AND END POSITION ADJUSTMENT

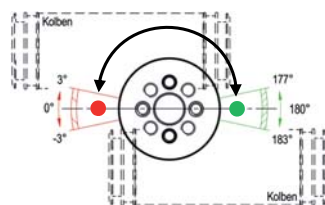
RSP-90-J3

Pivot angle 90°
End position ± 3°



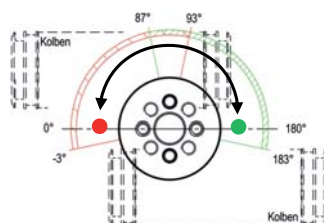
RSP-180-J3

Pivot angle 180°
End position ± 3°



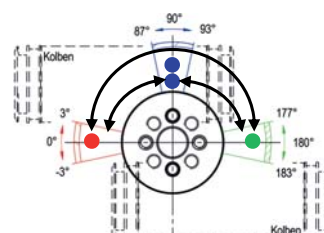
RSP-180-J90

Pivot angle 180°
End position 90 ± 3°



RSP-180-J3-MV

Pivot angle 90°-180°- 90°
End position ± 3°



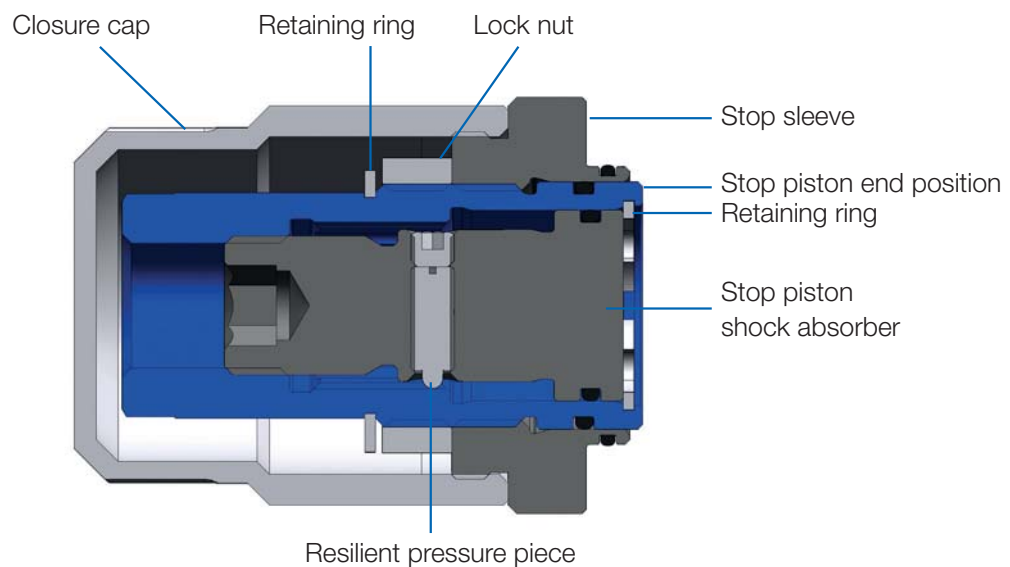
with mechanically locked middle position



Swivel units

Operation guide

RSP-FLEX END POSITION ADJUSTMENT



- ⊕ No unintentional readjustment of the end position thanks to the use of the lock nut with fine thread
- ⊕ Stepless adjustment of the end angle
- ⊕ End position is not maladjusted when the shock absorber is adjusted
- ⊕ Stop piston shock absorber is locked through resilient pressure piece

THE DAMPER SETTING MAKES THE DIFFERENCE

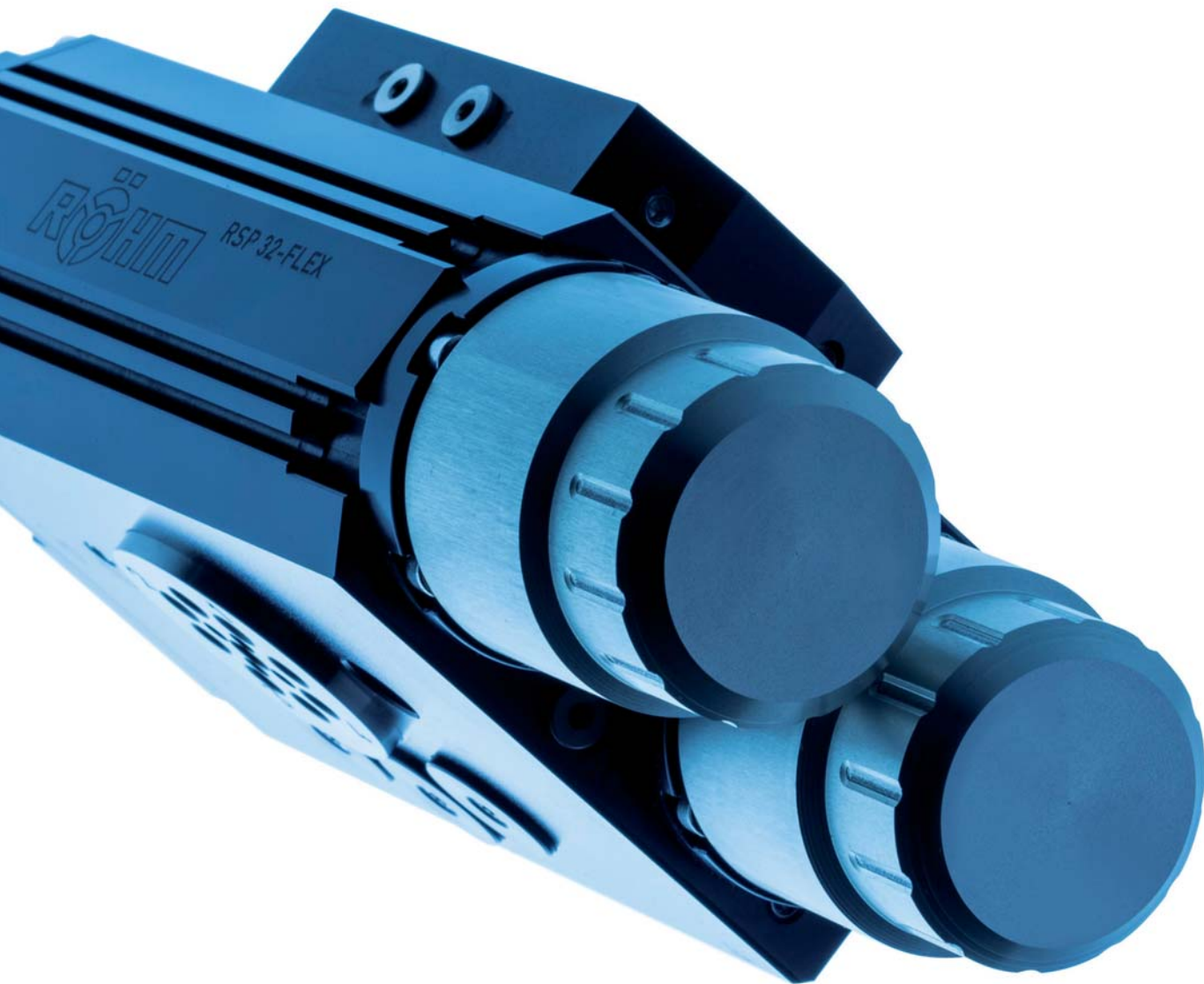


Simple load adaptation

Flexible and easy damper adjustment from outside using a wrench. It is not necessary to exchange or disassemble the swivel unit. Result: Can be quickly and easily integrated in the system.

The trick with the click

The shock absorber hardness can be uniquely documented. Thanks to the snap-in adjustability, the system-specific setting can be quickly and reliably reproduced.



NOMENCLATURE

RSP	52	-Flex	-180°	-J3	-MV	-F8	-KD8	-AS
Pneumatically actuated swivel unit	1. 32 / 42 / 52 (Size)	-Flex (flexible damper adjustment)	-180° (Swivel angle)	-J3 (End position adjustability)	-MV (Middle position locked)	2. -F4 / -F8 (4-/8-way fluid feedthrough)	3. Cable feed-through (M8), sensor plug	4. Inductive attachment kit

1. Select the size (32 / 42 / 52)
2. Is a fluid feedthrough required, yes/no?
3. Cable feedthrough, yes/no?
4. Inductive attachment kit, yes/no?

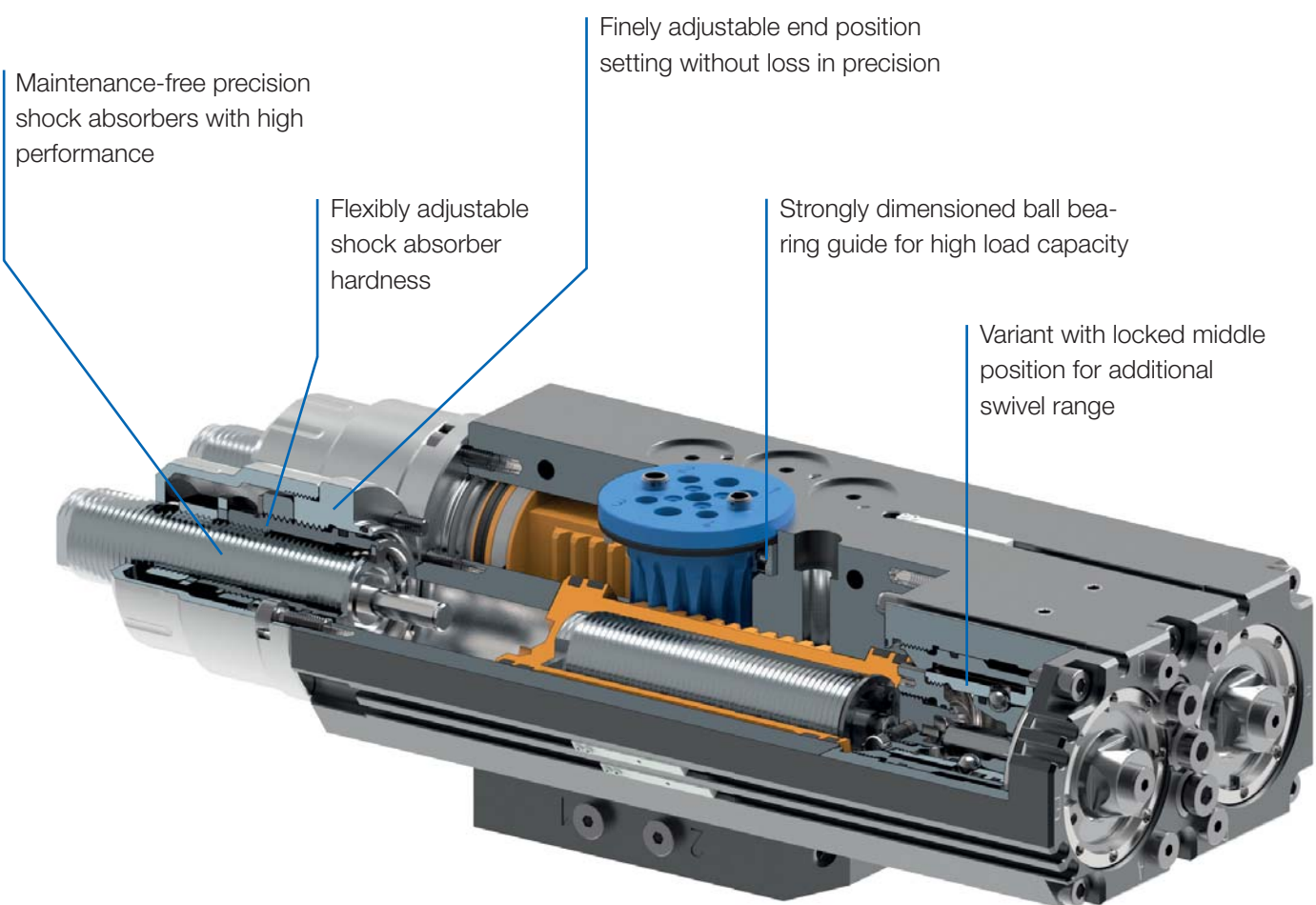


SWIVEL UNIT RSP-FLEX

Especially for the automated loading and unloading to machine tools, as well as for the fast and precise insertion of components in assembly systems, the RSP-Flex swivel units offer an alternative to complicated special designs. Thanks to the modular structure and the extensive expansion options, they are flexible and reliably integrated. The innovative shock absorber concept with flexible and infinitely variable adjustability in all end positions allows for smoothly and precise swiveling.

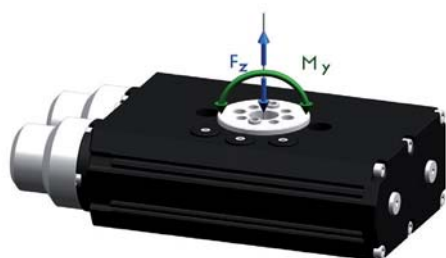
ADVANTAGES AT A GLANCE

- ⊕ Smoothly and precise swiveling thanks to innovative shock absorber concept
- ⊕ High torque thanks to enlarged piston diameter for faster cycle times
- ⊕ Maintenance-free up to 10 million swivel cycles



Swivel unit RSP-Flex

RSP-Flex 32



APPLICATION

Swivel unit with high torque and compact design.
Flexibly adjustable hardness of the shock absorbers.

TYPE

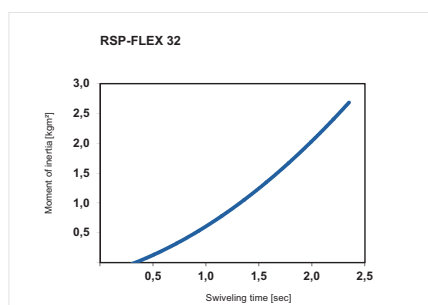
Realise two damping ranges, „hard“ and „soft“ with one swivel unit!

CUSTOMER BENEFITS

- ③ Uniform damping in the end positions
- ③ Fine adjustment of the dampers at the end position settings
- ③ Optimal bearing support of the rotary plate for several million cycles
- ③ Energy supply possible by means of screw connection or via hoseless direct connection
- ③ Can be used in all positions - e.g. vertical, suspended, horizontal

TECHNICAL FEATURES

- Body made of high-strength, hard-coated aluminium
- Pinion shaft and rack made of hardened steel
- End position can be infinitely variably adjusted $\pm 3^\circ$ or $\pm 90^\circ$
- Optional inductive and magnetic position sensors
- Up to 8-fold fluid feeder
- Up to 9-fold cable feed-through



Swivel Units RSP-Flex

C40
RSP-Flex, air operated

	RSP32-Flex-90-J3	RSP32-Flex-180-J3	RSP32-Flex-180-J90	RSP32-Flex-180-J3-MV
RSP-Flex Basic unit	174000	174001	174002	174003
RSP-Flex + fluid feed-through*	174006	174007	174008	174009
RSP-Flex + fluid feed-through* + cable feedthrough**	174012	174013	174014	174015
RSP-Flex + fluid feed-through* + cable feedthrough** + proximity switch adapter***	174018	174019	174020	174021
Pivot angle °	90	180	180	180 + 2x90
End position adjustability °	± 3	± 3	90 ± 3	± 3
Mid-position adjustability °	-	-	-	± 3
Torque at 6 bar Nm	10	10	10	10
Nominal operating pressure (min./max.) bar	6	6	6	6
Connecting hose \varnothing mm	6	6	6	6
Operating temperature min./max. °C	5-80	5-80	5-80	5-80
Repeat accuracy °	$\pm 0,01$	$\pm 0,01$	$\pm 0,01$	$\pm 0,01$
Weight kg	2,5	2,5	2,5	3,6
Axial bearing load F_z N	800	800	800	800
Radial bearing load M_y Nmm	19	19	19	19

* Number of fluid feed-through RSP32=4; RSP42/RSP52=8 (max. 8 bar)

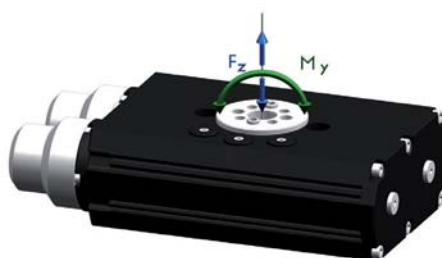
** Number of signals=RSP32=8; RSP42/52=10 (24V, max. 1A), plug machine side M16, plug tool side M8

*** Number of holders for proximity switches: 3



Swivel Units

RSP-Flex 42



APPLICATION

Swivel unit with high torque and compact design.
Flexibly adjustable hardness of the shock absorbers.

TYPE

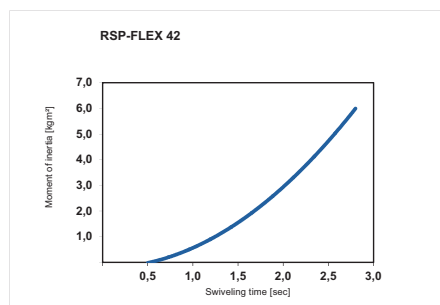
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- ⊕ Can be used in all positions - e.g. vertical, suspended, horizontal

TECHNICAL FEATURES

- Body made of high-strength, hard-coated aluminium
- Pinion shaft and rack made of hardened steel
- End position can be infinitely variably adjusted $\pm 3^\circ$ or $\pm 90^\circ$
- Optional inductive and magnetic position sensors
- Up to 8-fold fluid feeder
- Up to 9-fold cable feed-through



C40
RSP-Flex 42, air operated

	RSP42-Flex-90-J3	RSP42-Flex-180-J3	RSP42-Flex-180-J90	RSP42-Flex-180-J3-MV
RSP-Flex Basic unit	174024	174025	174026	174027
RSP-Flex + fluid feed-through*	174030	174031	174032	174033
RSP-Flex + fluid feed-through* + cable feedthrough**	174036	174037	174038	174039
RSP-Flex + fluid feed-through* + cable feedthrough** + proximity switch adapter***	174042	174043	174044	174045
Pivot angle °	90	180	180	180 + 2x90
End position adjustability °	± 3	± 3	90 ± 3	± 3
Mid-position adjustability °	-	-	-	± 3
Torque at 6 bar Nm	23	23	23	23
Nominal operating pressure (min./max.) bar	6	6	6	6
Connecting hose \varnothing mm				
Operating temperature min./max. °C	5-80	5-80	5-80	5-80
Repeat accuracy °	$\pm 0,01$	$\pm 0,01$	$\pm 0,01$	$\pm 0,01$
Weight kg	5	5	5	5
Axial bearing load F_z N	2900	2900	2900	2900
Radial bearing load M_y Nmm	68	68	68	68

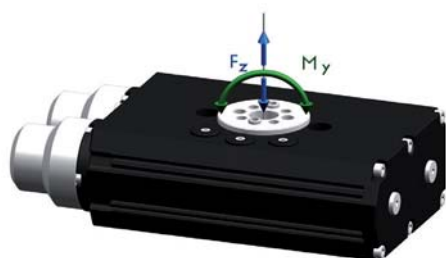
* Number of fluid feed-through RSP32=4; RSP42/RSP52=8 (max. 8 bar)

** Number of signals=RSP32=8; RSP42/52=10 (24V, max. 1A), plug machine side M16, plug tool side M8

*** Number of holders for proximity switches: 3

Swivel Units RSP-Flex

RSP-Flex 52



APPLICATION

Swivel unit with high torque and compact design.
Flexibly adjustable hardness of the shock absorbers.

TYPE

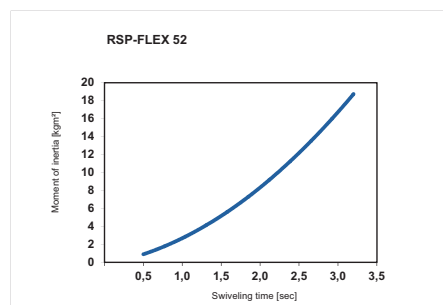
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CUSTOMER BENEFITS

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TECHNICAL FEATURES

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- Pinion shaft and rack made of hardened steel
- End position can be infinitely variably adjusted $\pm 3^\circ$ or $\pm 90^\circ$
- Optional inductive and magnetic position sensors
- Up to 8-fold fluid feeder
- Up to 9-fold cable feed-through



Swivel Units RSP-Flex

C40

RSP-Flex 52, air operated

	RSP52-Flex-90-J3	RSP52-Flex-180-J3	RSP52-Flex-180-J90	RSP52-Flex-180-J3-MV
RSP-Flex Basic unit	174048	174049	174050	174051
RSP-Flex + fluid feed-through*	174054	174055	174056	174057
RSP-Flex + fluid feed-through* + cable feedthrough**	174060	174061	174062	174063
RSP-Flex + fluid feed-through* + cable feedthrough** + proximity switch adapter***	174066	174067	174068	174069
Pivot angle °	90	180	180	180 + 2x90
End position adjustability °	± 3	± 3	90 90 ± 3	± 3
Mid-position adjustability °	-	-	-	± 3
Torque at 6 bar Nm	58	58	58	58
Nominal operating pressure (min./max.) bar	6	6	6	6
Connecting hose \varnothing mm				
Operating temperature min./max. °C	5-80	5-80	5-80	5-80
Repeat accuracy °	$\pm 0,01$	$\pm 0,01$	$\pm 0,01$	$\pm 0,01$
Weight kg	10,2	10,2	10,2	13,9
Axial bearing load F_z N	9000	9000	9000	9000
Radial bearing load M_y Nmm	340	340	340	340

* Number of fluid feed-through RSP32=4; RSP42/RSP52=8 (max. 8 bar)

** Number of signals=RSP32=8; RSP42/52=10 (24V, max. 1A), plug machine side M16, plug tool side M8

*** Number of holders for proximity switches: 3



Swivel Units RSP-Flex

Accessories RSP-Flex

Magnetic field sensors



Item no.	Design	For
1276722 ▲	3 m cable, 3 open leads	all sizes, all types
1276723 ▲	0,2 m cable, M8x1 connector	all sizes, all types

Proximity switch



Item no.	Design	For
389661	3 m cable, open leads	all sizes, all types
1078808 ▲	0,2 m cable, M8x1 connector	all sizes, all types
680969	without cable, M8x1 connector	all sizes, all types