

IN73- Series

Larger Modular Plastic Body
Position & Limit Switches



Position & Limit Switches

IN73 Series - Plastic Body



Good to know ...

Our new standard switch, the IN73, is the latest in our ENK-series. It offers a modular, robust enclosure and a wide range of actuators made of metal. In mechanical and plant engineering, it is used as a position and safety switch in rough environments as it features additional fixing holes to achieve a better installation.

The “big brother” of the IN65, it has a similar modular design, however there is an important difference: Whereas the C14 switch insert (introduced on page 37) has 2 contacts, the IN73 can be equipped with the C17 switch insert with 4 contacts.

The modular design and the easy way to change the actuator allows for a great variety of applications, for example for monitoring doors, hoods, and flaps, or for detecting the position of moving machine parts. The IN73 is as cost effective as a plastic enclosed switch, robust to install like a metal switch, and clever due to its modular design and easy to change actuators.



2 OR 4 CONTACTS

Position & Limit Switches

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Technical design

- Slow- and snap-action
- **Versions:**
 - With C14 switch insert: 2 NC, 2 NO, 1 NC/1 NO
 - With C17 switch insert: 4 NO, 4 NC, 2 NO/2 NC
 - 1 NC/3 NO and 3 NC/1 NO

Technical data

Electrical data		
Design insulation voltage	U_i max.	400 V AC
Conventional thermoelectric current	(up to) I_{the}	5 A
Rated operating voltage	U_e max.	240 V AC
Utilisation category (up to)		AC-15, U_e/I_e 240 V/3 A DC-13 U_e/I_e 24 V/1.5 A
Short-circuit protection (up to)		Safety fuse 4 A gG
Protection class		II, protective insulation
Mechanical data		
Enclosure/Cover material		Thermoplastics, glass-fibre reinforced (UL 94-V0)
Ambient temperature		-30 °C to +75 °C
Mechanical lifetime (up to)		10×10^6 switching cycles
B10d NC Contact cycles (up to)		20 million
B10d NO Contact cycles (up to)		1 million
Switching frequency		≤ 60/min.
Type of connection		4 screwed connections (M3)
Conductor cross-sections		Single-wire 0.5 – 1.5 mm ² or strand with wire-end ferrule 0.5 – 1.5 mm ²
Cable entry		1 × M20 × 1.5
Protection class		IP66/IP67 according to EN 60529; DIN VDE 0470 T1
Standards		

VDE 0660 T211, DIN EN 60947-5-4, IEC 60947-5-4
DIN EN ISO 13849-1, DIN EN ISO 13849-2

① Depending on switching system

Product characteristics

- High reliability at low currents (1 mA/24 VDC)
- Up to 4 contacts
- Actuator and installation collar with mounting holes made of metal
- Easy turning (8 x 45°) and changing of the actuators without a tool
- Standard switch and standard actuator according to DIN EN 50041



Options

- Available with an M12 connector
- On request, available with customised cables and connectors

Mounting

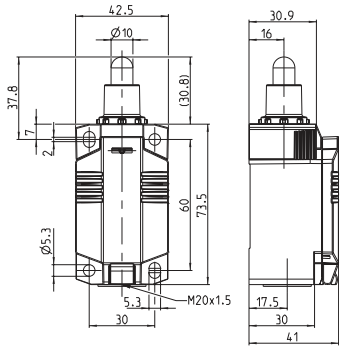
- 2 oval holes for adjustment for M5 screws
- 2 round holes for M5 screws for fixing when used for safety applications

Position & Limit Switches

IN73 Series - Plastic Body

IN73-... SM

Replacement actuator: 3918022415



	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system	608100002 IN73-11 SM 	608100004 IN73-20 SM 	608100006 IN73-02 SM 	608100008 IN73-22 SM
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Snap-action system	608100001 IN73-S11 SM 	608100003 IN73-S20 SM 	608100005 IN73-S02 SM
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	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Slow-action system	608100009 IN73-40 SM 	608100010 IN73-04 SM 	608100011 IN73-31 SM 	608100012 IN73-13 SM 	608100007 IN73-V11 SM
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Position & Limit Switches

IN73 Series - Plastic Body



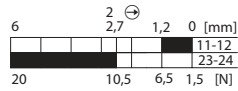
Replacement actuator: 3918172417

IN73-... RM

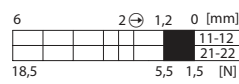
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Slow-action system

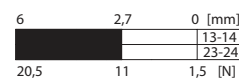
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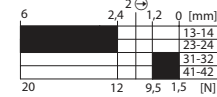
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IN73-20 RM



6081000018
IN73-02 RM



6081000020
IN73-22 RM

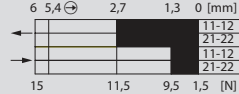


Snap-action system

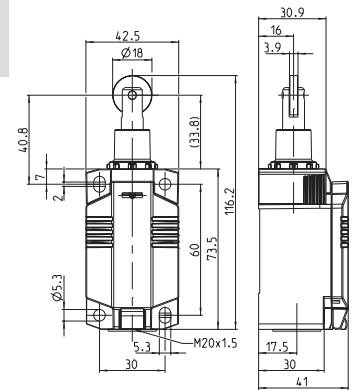
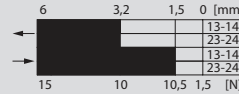
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IN73-S11 RM



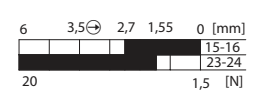
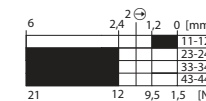
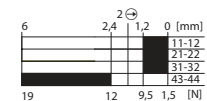
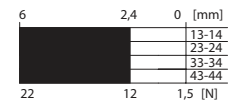
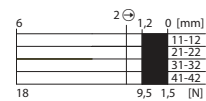
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6081000017
IN73-S02 RM



4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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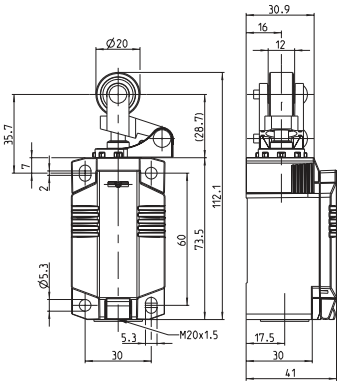


Position & Limit Switches

IN73 Series - Plastic Body

IN73-... HK

Replacement actuator: 3918202432



	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system	608100026 IN73-11 HK 	608100028 IN73-20 HK 	608100030 IN73-02 HK 	608100032 IN73-22 HK
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Snap-action system	608100025 IN73-S11 HK 	608100027 IN73-S20 HK 	608100029 IN73-S02 HK
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	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Slow-action system	608100033 IN73-40 HK 	608100034 IN73-04 HK 	608100035 IN73-31 HK 	608100036 IN73-13 HK 	608100031 IN73-V11 HK
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Position & Limit Switches

IN73 Series - Plastic Body

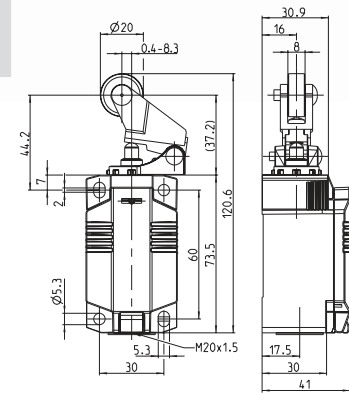


Replacement actuator: 3918202428

IN73-... DGHK



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Snap-action system	6081000037 IN73-S11 DGHK 	6081000039 IN73-S20 DGHK 	6081000041 IN73-S02 DGHK 	



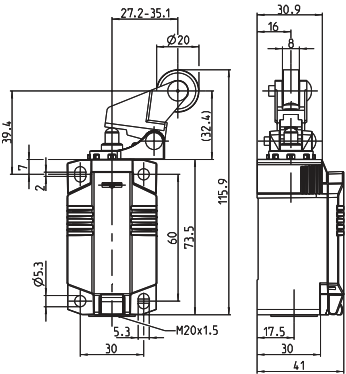
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Slow-action system	6081000045 IN73-40 DGHK 	6081000046 IN73-04 DGHK 	6081000047 IN73-31 DGHK 	6081000048 IN73-13 DGHK 	6081000043 IN73-V11 DGHK

Position & Limit Switches

IN73 Series - Plastic Body

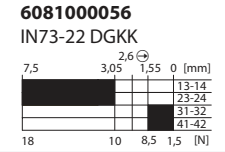
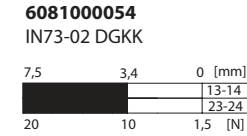
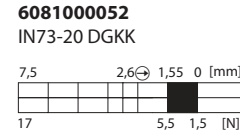
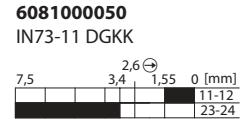
IN73-... DGKK

Replacement actuator: 3918202430



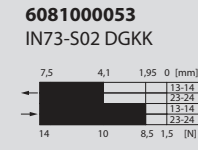
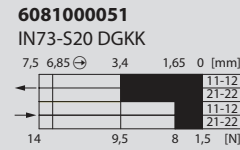
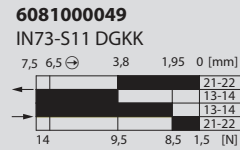
	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system

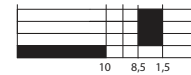
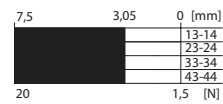
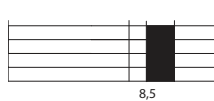


	1 NC / 1 NO	2 NC	2 NO
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Snap-action system



4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Position & Limit Switches

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Replacement actuator: 3918352393

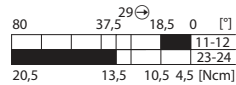
IN73-... AHK



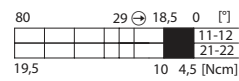
	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system

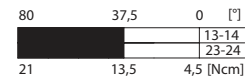
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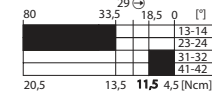
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IN73-02 AHK

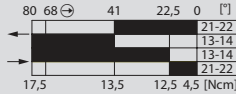


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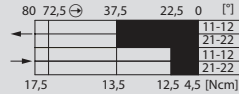


Snap-action system

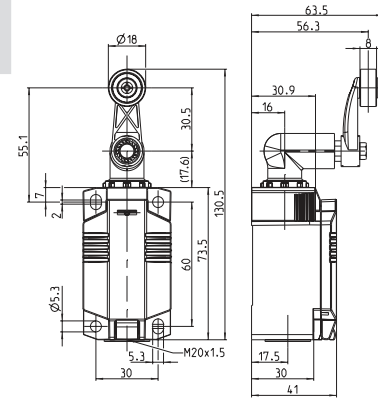
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IN73-S20 AHK



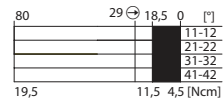
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IN73-S02 AHK



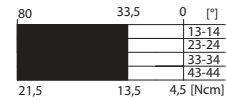
	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Slow-action system

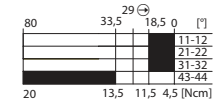
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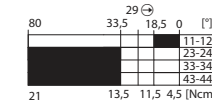
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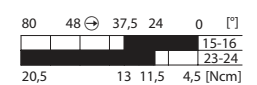
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IN73-31 AHK



608100072
IN73-13 AHK



608100067
IN73-V11 AHK



Position & Limit Switches

IN73 Series - Plastic Body



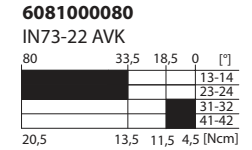
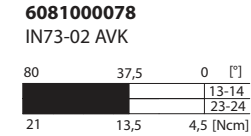
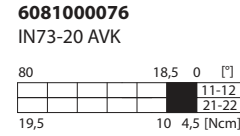
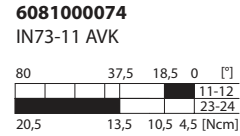
IN73-... AVK

Replacement actuator: 3918362424

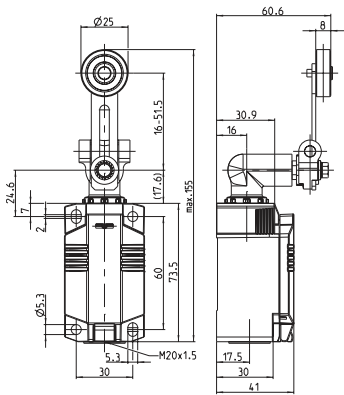
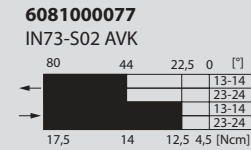
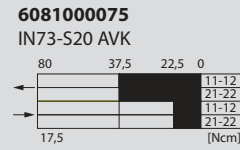
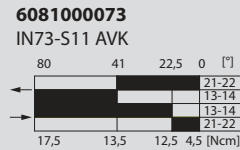


	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system

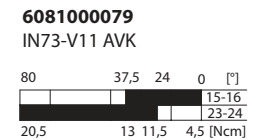
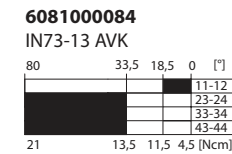
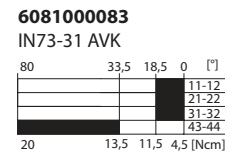
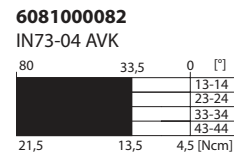
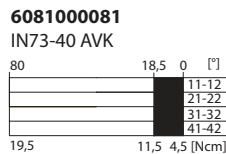


Snap-action system



	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Slow-action system



Position & Limit Switches

IN73 Series - Plastic Body



Replacement actuator: 3918372421

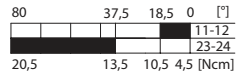
IN73-... AHDM



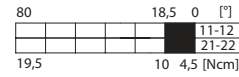
	1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
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Slow-action system

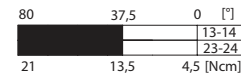
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IN73-11 AHDM



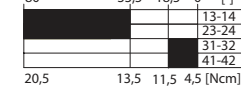
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IN73-20 AHDM



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IN73-02 AHDM

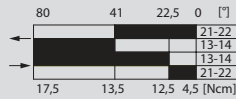


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IN73-22 AHDM

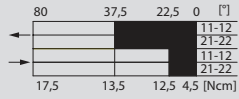


Snap-action system

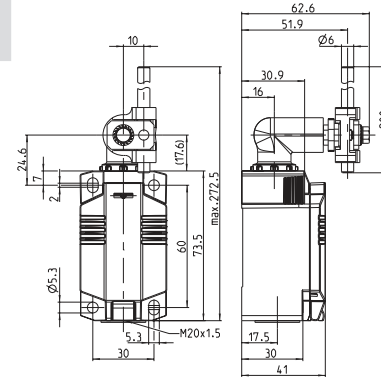
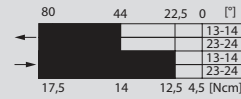
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IN73-S11 AHDM



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IN73-S20 AHDM



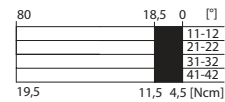
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IN73-S02 AHDM



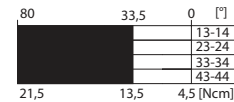
	4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
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Slow-action system

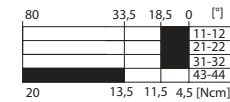
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IN73-40 AHDM



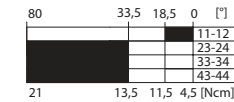
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IN73-04 AHDM



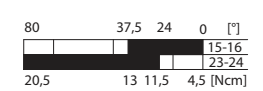
6081000095
IN73-31 AHDM



6081000096
IN73-13 AHDM



6081000091
IN73-V11 AHDM



Position & Limit Switches

IN73 Series - Plastic Body

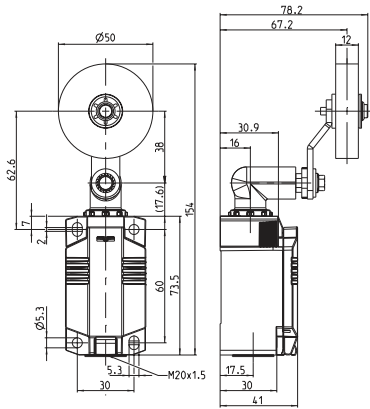


IN73-... AHGU RO50

Replacement actuator: 3918352422



	1 NC / 1 NO	2 NC	1 NC / 1 NO overlapping
Slow-action system	<p>6081000109 IN73-11 AHGU Ro50</p> <p>80 29 ⊖ 37,5 18,5 0 [°]</p> <p>11-12 23-24</p> <p>26,5 19 16 7,5 [Ncm]</p>	<p>6081000110 IN73-20 AHGU Ro50</p> <p>80 29 ⊖ 18,5 0 [°]</p> <p>11-12 21-22</p> <p>26 15,5 7,5 [Ncm]</p>	<p>6081000111 IN73-V11 AHGU Ro50</p> <p>80 48 ⊖ 37,5 24 0 [°]</p> <p>15-16 23-24</p> <p>26,5 19 17 7,5 [Ncm]</p>
Snap-action system	<p>6081000108 IN73-S11 AHGU Ro50</p> <p>80 68 ⊖ 41 22,5 0 [°]</p> <p>21-22 13-14 13-14 21-22</p> <p>24 19 18 7,5 [Ncm]</p>		



Position & Limit Switches

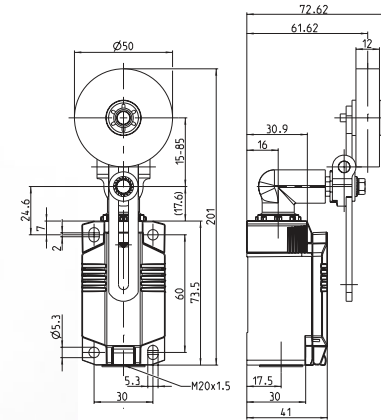
IN73 Series - Plastic Body



Replacement actuator: 3918362423

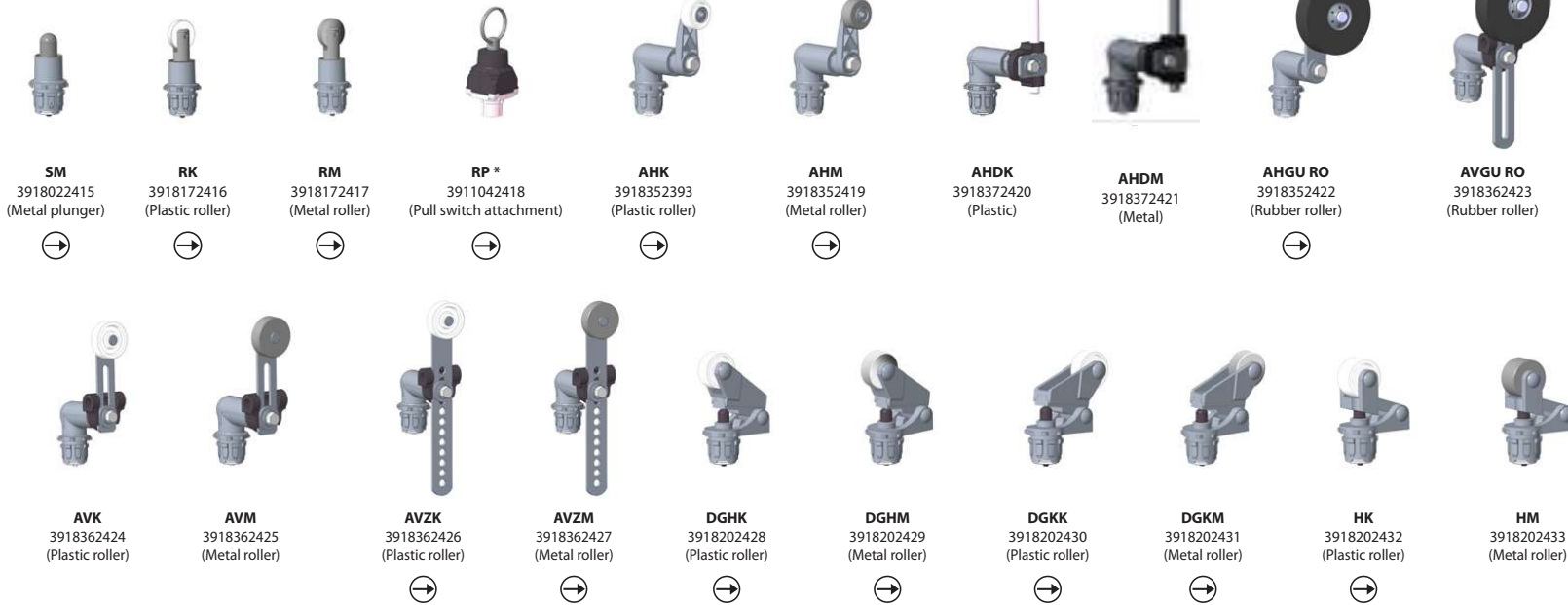
IN73-... AVGU RO50

	1 NC / 1 NO	2 NC	1 NC / 1 NO overlapping
Slow-action system	<p>6081000105 IN73-11 AVGU Ro50</p>	<p>6081000106 IN73-20 AVGU Ro50</p>	<p>6081000107 IN73-V11 AVGU Ro50</p>
Snap-action system	<p>6081000104 IN73-S11 AVGU Ro50</p>		



Position & Limit Switches

IN73 Separate Switch Body and Actuators



IN73 partially assembled with a switching unit

		1 NC / 1 NO	2 NC	2 NO	2 NC / 2 NO
Slow-action system	M20	6081000113 IN73-11 M20	6081000115 IN73-20 M20	6081000117 IN73-02 M20	6081000119 IN73-22 M20
	M12	6081000126 IN73-11 03	6081000128 IN73-20 03	6081000130 IN73-02 03	6081000132 IN73-22 05
Snap-action system	M20	6081000112 IN73-S11 M20	6081000114 IN73-S20 M20	6081000116 IN73-S02 M20	
	M12	6081000125 IN73-S11 03	6081000127 IN73-S20 03	6081000129 IN73-S02 03	



		4 NC	4 NO	3 NC / 1 NO	1 NC / 3 NO	1 NC / 1 NO overlapping
Slow-action system	M20	6081000120 IN73-40 M20	6081000121 IN73-04 M20	6081000122 IN73-31 M20	6081000123 IN73-13 M20	6081000118 IN73-V11 M20
	M12	6081000133 IN73-40 05	6081000134 IN73-04 05	6081000135 IN73-31 05	6081000136 IN73-13 05	6081000131 IN73-V11 03

* Can only be used with slow-action systems.