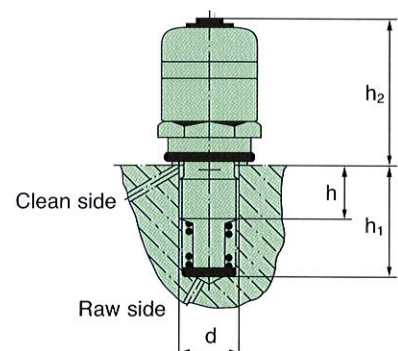


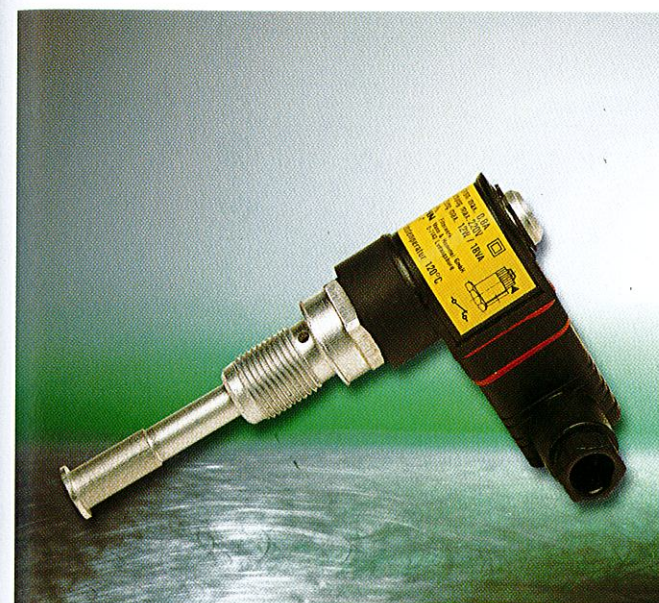
## MANN+HUMMEL Service indicators for in-line filters and high pressure filters

MANN+HUMMEL service indicators signal the time for maintenance for filter inserts full of dirt particles by the display of a red signal ring in a display. The permissible operating temperature is 120 °C.



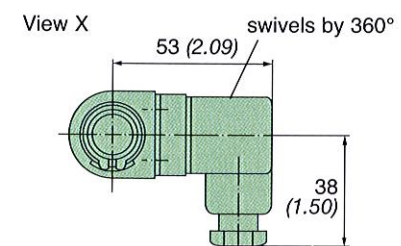
Part no.	Dimensions in mm ( <i>Dimensions in inches</i> )				Permissible operating pressure [bar]	Switching pressure [bar]
	d	h	h <sub>1</sub>	h <sub>2</sub>		
59 020 79 201	M 18x1.5	22 (0.87)	36 (1.42)	46 (1.81)	25	1.0
59 020 79 202	M 18x1.5	22 (0.87)	36 (1.42)	46 (1.81)	25	1.8
59 020 79 208	M 18x1.5	22 (0.87)	36 (1.42)	46 (1.81)	25	1.4
59 020 79 242	M 18x1.5	22 (0.87)	36 (1.42)	46 (1.81)	25	2.2
59 020 79 212	M 10x1.5	16 (0.63)	-	44 (1.73)	25	1.8
59 020 79 315	M 24x2.0	19 (0.75)	44.5 (1.75)	44 (1.73)	400	5.0

## MANN+HUMMEL Service switches for in-line filters and high pressure filters

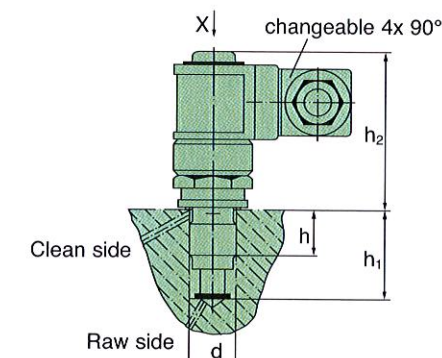


When the time for maintenance has come an electro-magnetic switch actuates a signal (e.g. lamp, buzzer) or a disconnection device.

- Operating temperature: max. 120 °C
- Switching type: the default switching type is listed in the table below (make/break contact). The customer can change the setting by rearranging the contacts.
- Switching capacity: max. 12 W / 18 VA
- Starting current: max. 0.8 A
- Protection class: IP 65 all-insulated



Connection for cable diameter 4.5 up to 7 mm (0.18 up to 0.28 inches)



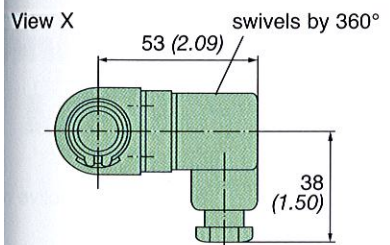
Part no.	Dimensions in mm ( <i>Dimensions in inches</i> )				Permissible operating pressure [bar]	Switching pressure [bar]	Contact type	Main application
	d	h	h <sub>1</sub>	h <sub>2</sub>				
59 010 79 201	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.0	Make contact	Oil
59 010 79 202	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.8	Make contact	Oil
59 010 79 205	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.8	Break contact	Fuel
59 010 79 206	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	0.8	Break contact	Oil
59 010 79 208	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.4	Make contact	Oil
59 010 79 232	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.8	Make contact	Fuel
59 010 79 241	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.0	Break contact	Fuel
59 010 79 252	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	2.2	Break contact	Oil
59 010 79 305	M 24x2.0	19 (0.75)	59.5 (2.34)	61 (2.40)	400	5.0	Make contact	Oil
59 010 79 315	M 24x2.0	19 (0.75)	57.5 (2.26)	61 (2.40)	400	5.0	Make contact	Oil
59 010 79 405	M 18x2.0	7.5 (0.30)	30 (1.18)	62.5 (2.46)	175	5.0	Make contact	Oil

# ANN+HUMMEL Service switches for in-line filters and high pressure filters

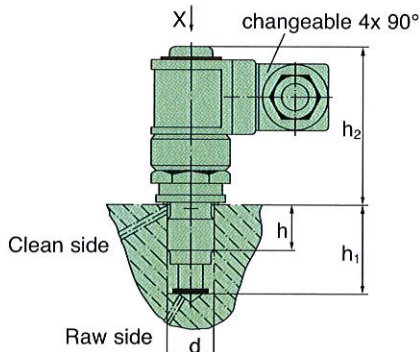


When the time for maintenance has come an electromagnetic switch actuates a signal (e.g. lamp, buzzer) or a disconnection device.

- Operating temperature: max. 120 °C
- Switching type: the default switching type is listed in the table below (make/break contact). The customer can change the setting by rearranging the contacts.
- Switching capacity: max. 12 W / 18 VA
- Starting current: max. 0.8 A
- Protection class: IP 65 all-insulated



Connection for cable diameter  
4.5 up to 7 mm (0.18 up to 0.28 inches)



Part no.	Dimensions in mm ( <i>Dimensions in inches</i> )				Permissible operating pressure [bar]	Switching pressure [bar]	Contact type	Main application
	d	h	h <sub>1</sub>	h <sub>2</sub>				
10 79 201	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.0	Make contact	Oil
10 79 202	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.8	Make contact	Oil
10 79 205	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.8	Break contact	Fuel
10 79 206	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	0.8	Break contact	Oil
10 79 208	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.4	Make contact	Oil
10 79 232	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.8	Make contact	Fuel
10 79 241	M 18x1.5	22 (0.87)	36 (1.42)	62.5 (2.46)	25	1.0	Break contact	Fuel
10 79 255	M 18x1.5	22	36	62.5	25	1.8	Make contact	Fuel