

## CLOGGING INDICATORS



### DESCRIPTION

During the system operation, the pressure drop through the filter increases as the element clogs, due to the contaminant retained.

The filter element must be replaced when clogged and anyway before the pressure drop reaches the bypass valve set value.

For this reason it **is recommended a clogging indicator on the filter. It gives a visual or electrical indication and must have a set value lower than the bypass valve set value**, to get an exact indication of the right time for filter element replacement.

On **return** and **low pressure filters** the clogging indicator can be a **pressure gauge** or a **pressure switch**, measuring the pressure upstream the filter.

On some return filters and on **high pressure filters**, the clogging indicator can be of **differential** type: measuring the pressure upstream and downstream the filter and activating a signal when the differential pressure reaches the set value.

On **suction filters** the clogging indicator is a **vacuum gauge** or a **vacuum switch**, measuring the depressure downstream the filter.

All the UFI filters have the port for the indicator as a standard feature; if the filter is ordered without indicator the port is plugged with a removeable plug allowing the indicator to be added easily at any time.

### PRESSURE FILTERS INDICATORS

Pressure gauges  
Pressure switches  
Differential, visual  
Differential, electrical  
Differential, el. + LED  
Differential, el. + thermostat  
Differential, el. + visual  
Differential, el. Vandal proof  
Differential, el. ATEX

### RETURN FILTERS INDICATORS

Pressure gauges  
Pressure switches  
Differential, visual  
Differential, electrical  
Differential, el. + LED  
Differential, el. + thermostat  
Differential, el. + visual  
Differential, el. ATEX

### OFF-LINE FILTERS INDICATORS


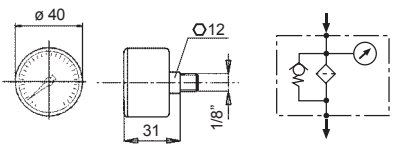

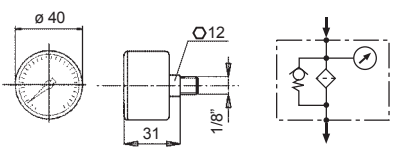

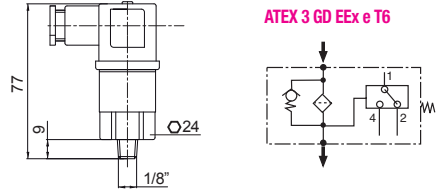

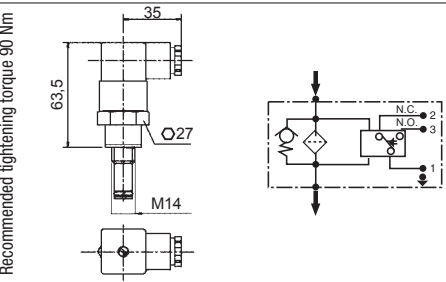

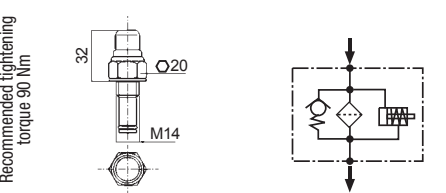

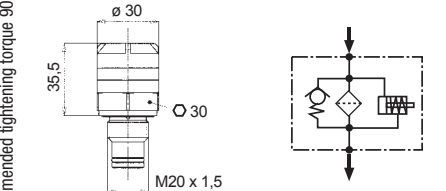
Differential, visual  
Differential, electrical  
Differential, el. + LED  
Differential, el. + thermostat  
Differential, el. + visual  
Differential, el. ATEX


### SUCTION FILTERS INDICATORS

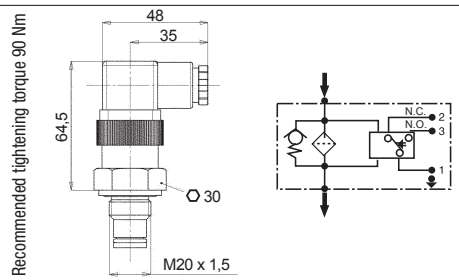
Vacuum gauges  
Vacuum switches


# INDICATORS FOR PRESSURE FILTERS

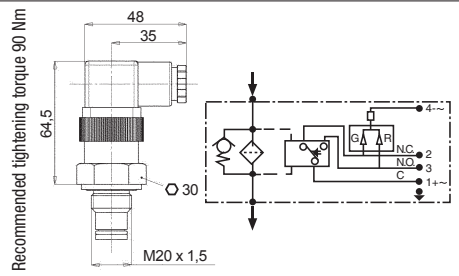



INDICATOR SERIES		DESCRIPTION	FOR PRESSURE FILTERS SERIES
NBR	FKM	 <b>Pressure gauge</b>	
<b>31</b>	-	Scale 0÷12 bar (0÷1,2 MPa)	PE - PH
			
NBR	FKM	 <b>Pressure gauge stainless steel, glycerine filled</b>	
<b>039.0184.1</b>	-	Scale 0÷12 bar (0÷1,2 MPa)	PE - PH
			
NBR	FKM	 <b>Pressure switch</b>	
<b>P1</b>	-	Setting 1,5 bar (150 kPa)	PE - PH
			
SPDT, Max voltage 250V - 50 Hz - Max current 6 A resistive, 1 A inductive - Protection IP65 connector DIN 43650			
NBR	FKM	 <b>Differential VISUAL ELECTRICAL indicator</b>	
<b>N0</b>	<b>S0</b>	Setting 1,3 bar (130 kPa)	for FPE A+, B+
			
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			
NBR	FKM	 <b>Differential VISUAL indicator</b>	
<b>U0</b>	<b>W0</b>	Setting 1,3 bar (130 kPa)	for FPE A+, B+
			
Recommended tightening torque 90 Nm			
NBR	FKM	 <b>Differential VISUAL indicators</b>	
<b>5B</b>	<b>AB</b>	Setting 1,3 bar (130 kPa)	PH
<b>5D</b>	<b>AD</b>	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
<b>5E</b>	<b>AE</b>	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
<b>5F</b>	<b>AF</b>	Setting 8 bar (800 kPa)	PA - PB - PC - PD - PL - PM
			
Recommended tightening torque 90 Nm			

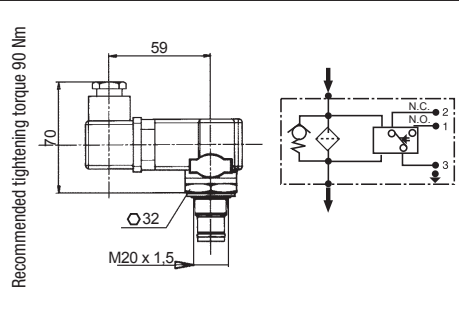
INDICATOR SERIES		DESCRIPTION	FOR PRESSURE FILTERS SERIES
NBR	FKM	 <b>Differential ELECTRICAL indicators</b>	
<b>6B</b>	<b>CB</b>	Setting 1,3 bar (130 kPa)	PH
<b>6D</b>	<b>CD</b>	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
<b>6E</b>	<b>CE</b>	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
<b>6F</b>	<b>CF</b>	Setting 8 bar (800 kPa)	PA - PB - PC - PD - PL - PM
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			




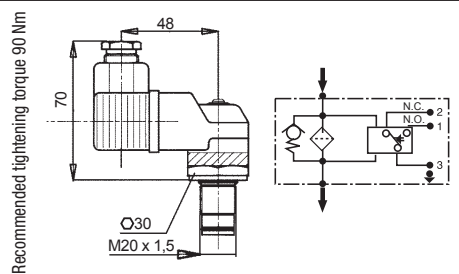
NBR	FKM	 <b>Differential ELECTRICAL indicators with LED (24 V) for visual indication</b>	
<b>7B</b>	<b>EB</b>	Setting 1,3 bar (130 kPa)	PH
<b>7D</b>	<b>ED</b>	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
<b>7E</b>	<b>EE</b>	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
<b>7F</b>	<b>EF</b>	Setting 8 bar (800 kPa)	PA - PB - PC - PD - PL - PM
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			




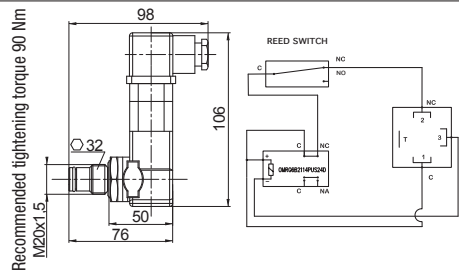
NBR	FKM	 <b>Differential ELECTRICAL indicators with THERMOSTAT 30° C</b>	
<b>T0</b>	<b>DB</b>	Setting 1,3 bar (130 kPa)	PH
<b>T2</b>	<b>DE</b>	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
<b>T3</b>	<b>DF</b>	Setting 8 bar (800 kPa)	PA - PB - PC - PD - PL - PM
<b>T6</b>	<b>DD</b>	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			




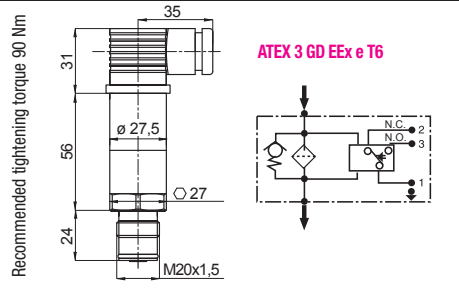
NBR	FKM	 <b>Differential VISUAL ELECTRICAL indicators</b>	
<b>70</b>	<b>E0</b>	Setting 1,3 bar (130 kPa)	PH
<b>76</b>	<b>E6</b>	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
<b>72</b>	<b>E2</b>	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
<b>73</b>	<b>E3</b>	Setting 8 bar (800 kPa)	PA - PB - PC - PD - PL - PM
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			



NBR	FKM	 <b>Differential ELECTRICAL indicators VANDAL PROOF</b>	
<b>M2</b>	-	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
<b>M3</b>	-	Setting 8 bar (800 kPa)	PA - PB - PC - PD - PL - PM
<b>M6</b>	-	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			




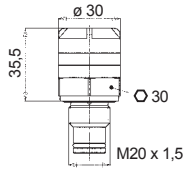
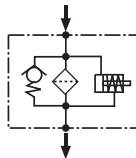
NBR	FKM	 <b>Differential ELECTRICAL indicators ATEX</b>	
<b>008.0239.2</b>	-	Setting 1,3 bar (130 kPa)	PA - PB - PD - PL - PM
<b>008.0240.2</b>	-	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
<b>008.0235.2</b>	-	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
<b>008.0212.2</b>	-	Setting 8 bar (800 kPa)	PA - PB - PC - PD - PL - PM
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			


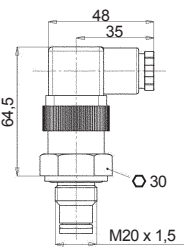
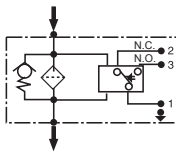



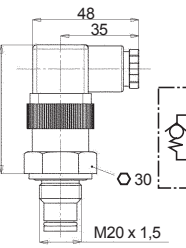
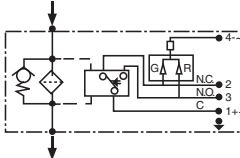
# INDICATORS FOR RETURN FILTERS


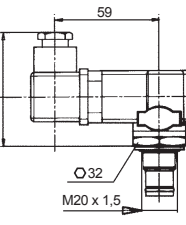
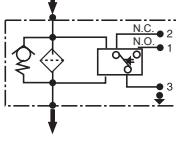



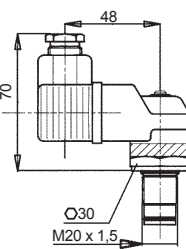
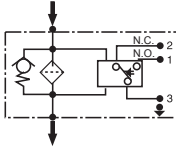
INDICATOR SERIES		DESCRIPTION	FOR RETURN FILTERS SERIES	
NBR	FKM	Pressure gauge		
30	-	Scale 0÷6 bar (0÷600 kPa)	RA - RB - RC - RF - RH	
NBR	FKM	Pressure gauge		
32	-	Scale 0÷6 bar (0÷600 kPa)	RA - RB - RC - RF - RH	
NBR	FKM	Pressure gauge stainless steel, glycerine filled		
039.0178.1	-	Scale 0÷6 bar (0÷600 kPa)	RA - RB - RC - RF - RH	
NBR	FKM	Pressure gauge stainless steel, glycerine filled		
039.0183.1	-	Scale 0÷6 bar (0÷600 kPa)	RA - RB - RC - RF - RH	
NBR	FKM	Pressure switch		
P1	-	Setting 1,5 bar (150 kPa) - SPDT	RA - RB - RC - RH	<p style="color: red; text-align: center;">ATEX 3 GD EEx e T6</p>
P2	-	Setting 3 bar (300 kPa) - SPDT	RF - W execution	
P4	-	Setting 1,3 bar (130 kPa) - SPDT	RF	
P6	-	Setting 2 bar (200 kPa) - SPDT	RB	
SPDT, Max voltage 250V - 50 Hz - Max current 6 A resistive, 1 A inductive - Protection IP65 connector DIN 43650				


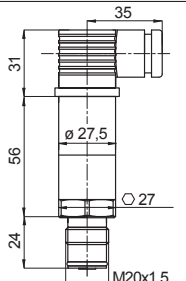
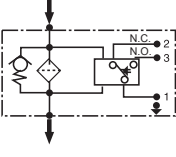
INDICATOR SERIES		DESCRIPTION	FOR RETURN FILTERS SERIES
NBR	FKM	 <b>Differential VISUAL indicators</b>	
5B	AB	Setting 1,3 bar (130 kPa)	RF
5C	AC	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			Recommended tightening torque 90 Nm  

NBR	FKM	 <b>Differential ELECTRICAL indicators</b>	
6B	CB	Setting 1,3 bar (130 kPa)	RF
6C	CC	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			Recommended tightening torque 90 Nm  

NBR	FKM	 <b>Differential ELECTRICAL indicators with LED (24 V) for visual indication</b>	
7B	EB	Setting 1,3 bar (130 kPa)	RF
7C	EC	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			Recommended tightening torque 90 Nm  


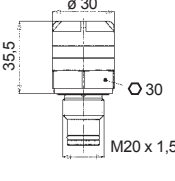
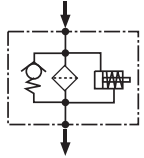

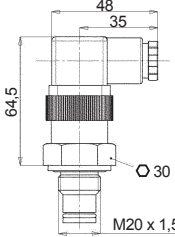
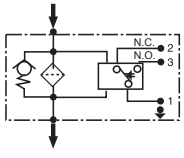

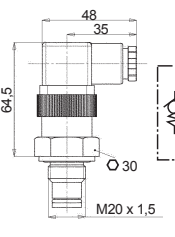
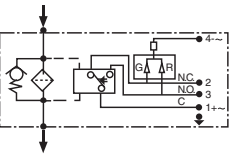

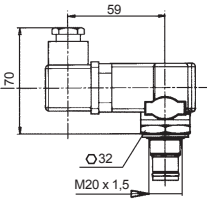
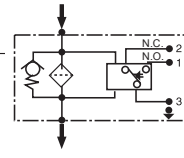

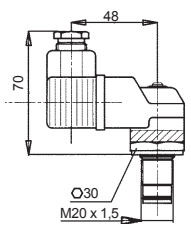
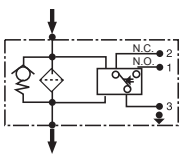

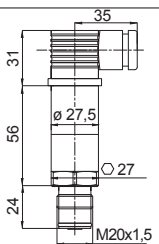
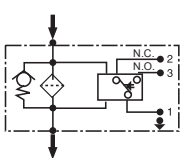
NBR	FKM	 <b>Differential ELECTRICAL indicators with THERMOSTAT 30° C</b>	
T0	DB	Setting 1,3 bar (130 kPa)	RF
T1	DC	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			Recommended tightening torque 90 Nm  

NBR	FKM	 <b>Differential VISUAL ELECTRICAL indicators</b>	
70	E0	Setting 1,3 bar (130 kPa)	RF
71	E1	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			Recommended tightening torque 90 Nm  

NBR	FKM	 <b>Differential ELECTRICAL indicators ATEX</b>	
008.0239.2	-	Setting 1,3 bar (130 kPa)	RF
008.0234.2	-	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			Recommended tightening torque 90 Nm  <b>ATEX 3 GD EEx e T6</b> 


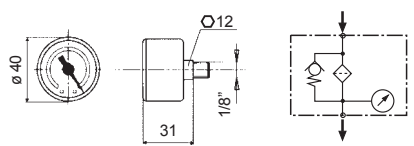

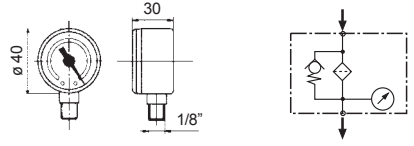

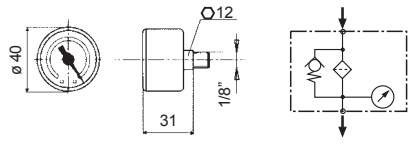

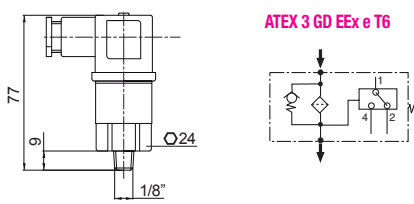
# INDICATORS FOR OFF-LINE FILTERS



INDICATOR SERIES		DESCRIPTION	FOR RETURN OFF-LINE SERIES
NBR	FKM	 <b>Differential VISUAL indicators</b>	
<b>5B</b>	<b>AB</b>	Setting 1,3 bar (130 kPa)	OF - UOW Recommended tightening torque 90 Nm  
NBR	FKM	 <b>Differential ELECTRICAL indicators</b>	
<b>6B</b>	<b>CB</b>	Setting 1,3 bar (130 kPa)	OF - UOW Recommended tightening torque 90 Nm  
		SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650	
NBR	FKM	 <b>Differential ELECTRICAL indicators with LED (24 V) for visual indication</b>	
<b>7B</b>	<b>EB</b>	Setting 1,3 bar (130 kPa)	OF - UOW Recommended tightening torque 90 Nm  
		SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650	
NBR	FKM	 <b>Differential ELECTRICAL indicators with THERMOSTAT 30° C</b>	
<b>T0</b>	<b>DB</b>	Setting 1,3 bar (130 kPa)	OF - UOW Recommended tightening torque 90 Nm  
		SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650	
NBR	FKM	 <b>Differential VISUAL ELECTRICAL indicators</b>	
<b>70</b>	<b>E0</b>	Setting 1,3 bar (130 kPa)	OF - UOW Recommended tightening torque 90 Nm  
		SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650	
NBR	FKM	 <b>Differential ELECTRICAL indicators ATEX</b>	
<b>008.0239.2</b>	-	Setting 1,3 bar (130 kPa)	OF - UOW Recommended tightening torque 90 Nm  
		SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650	<b>ATEX 3 GD EEx e T6</b>

# INDICATORS FOR SUCTION FILTERS



INDICATOR SERIES		DESCRIPTION	FOR SUCTION FILTERS SERIES
NBR	FKM		
10	-	 <b>Vacuum gauge</b>	SC - SD - SE 
11	-	 <b>Vacuum gauge</b>	SC - SD 
008.0111.2	-	 <b>Vacuum gauge</b> Glycerine filled - 2 Scales	SC - SD - SE 
91	-	 <b>Vacuum switch</b> Setting 0,2 bar (20 kPa) SPDT	SC - SD - SE 
		SPDT, Max voltage 250V - 50 Hz - Max current 6 A resistive, 1 A inductive - Protection IP65 connector DIN 43650	

