

## CLOGGING INDICATORS



### 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

### 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.

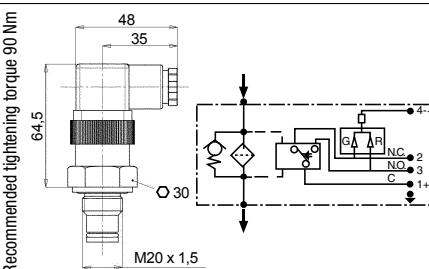
On suction filters the clogging indicator is a vacuum gauge or a vacuum switch, measuring the depressurization downstream the filter.

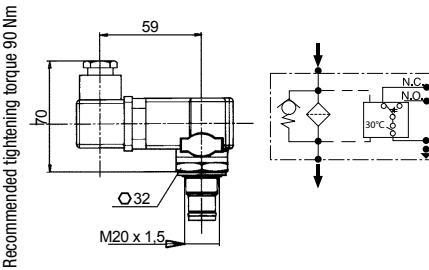
All the UFI filters have the port for the indicator as a standard feature; if the filter is ordered without indicator the port is plugged with a removable plug allowing the indicator to be added easily at any time.

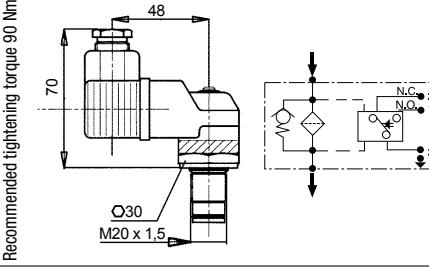
## INDICATORS FOR PRESSURE FILTERS

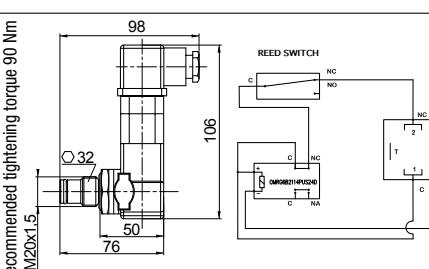


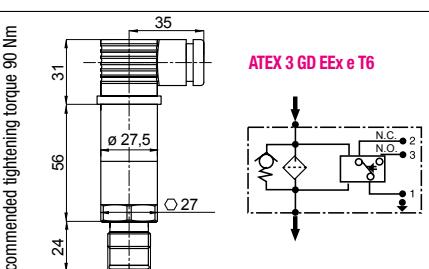
INDICATOR SERIES		DESCRIPTION	FOR PRESSURE FILTERS SERIES	
NBR	FKM	<b>Pressure gauge</b>		
<b>31</b>	-	Scale 0÷12 bar (0÷1,2 MPa)	PE - PH	
NBR	FKM	<b>Pressure switch</b>		
<b>P1</b>	-	Setting 1,5 bar (150 kPa)	PE - PH	
		SPDT, Max voltage 250V - 50 Hz - Max current 6 A resistive, 1 A inductive - Protection 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	Recommended tightening torque 90 Nm	
NBR	FKM	<b>Differential VISUAL indicator</b>		
<b>U0</b>	<b>W0</b>	Setting 1,3 bar (130 kPa)	for FPE A+, B+	
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	
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	Recommended tightening torque 90 Nm	

INDICATOR SERIES		DESCRIPTION	FOR PRESSURE FILTERS SERIES
NBR	FKM	Differential ELECTRICAL indicators with LED (24 V) for visual indication	
7B	EB	Setting 1,3 bar (130 kPa)	PH
7D	ED	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
7E	EE	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
7F	EF	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	Recommended tightening torque 90 Nm 

NBR	FKM	Differential ELECTRICAL indicators with THERMOSTAT 30°C	
NBR	FKM	DESCRIPTION	Recommended tightening torque 90 Nm
T0	DB	Setting 1,3 bar (130 kPa)	PH
T2	DE	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
T3	DF	Setting 8 bar (800 kPa)	PA - PB - PC - PD - PL - PM
T6	DD	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	Differential VISUAL ELECTRICAL indicators	
NBR	FKM	DESCRIPTION	Recommended tightening torque 90 Nm
70	E0	Setting 1,3 bar (130 kPa)	PH
76	E6	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
72	E2	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
73	E3	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	

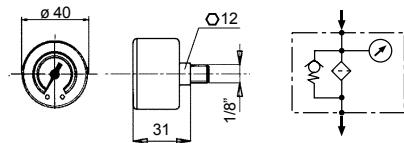
NBR	FKM	Differential ELECTRICAL indicators VANDAL PROOF	
NBR	FKM	DESCRIPTION	Recommended tightening torque 90 Nm
M2	-	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
M3	-	Setting 8 bar (800 kPa)	PA - PB - PC - PD - PL - PM
M6	-	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
		SPDT differential 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	Differential ELECTRICAL indicators ATEX	
NBR	FKM	DESCRIPTION	Recommended tightening torque 90 Nm
008.0239.2	-	Setting 1,3 bar (130 kPa)	PA - PB - PD - PL - PM
008.0240.2	-	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
008.0235.2	-	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
008.0212.2	-	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	

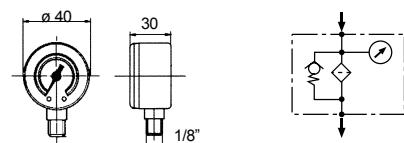
## INDICATORS FOR RETURN FILTERS



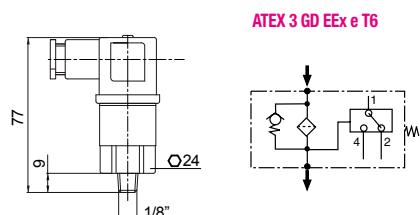
INDICATOR SERIES		DESCRIPTION	FOR RETURN FILTERS SERIES
NBR	FKM	Pressure gauge	
30	-	Scale 0÷6 bar (0÷600 kPa)	RA - RB - RC - RF - RH



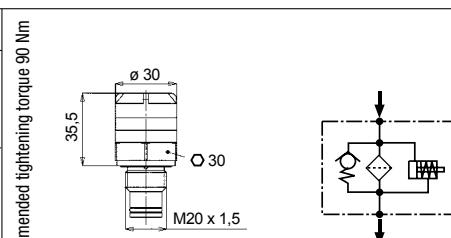
NBR	FKM	Pressure gauge	
32	-	Scale 0÷6 bar (0÷600 kPa)	RA - RB - RC - RF - RH



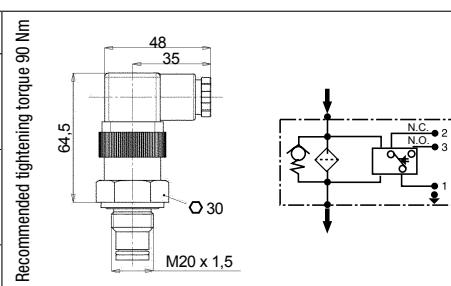
NBR	FKM	Pressure switch	
P1	-	Setting 1,5 bar (150 kPa) - SPDT	RA - RB - RC - RH
P2	-	Setting 3 bar (300 kPa) - SPDT	RF - W execution
P4	-	Setting 1,3 bar (130 kPa) - SPDT	RF
P6	-	Setting 2 bar (200 kPa) - SPDT	RB
		SPDT, Max voltage 250V - 50 Hz - Max current 6 A resistive, 1 A inductive - Protection IP65 connector DIN 43650	



NBR	FKM	Differential VISUAL indicators		
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		



NBR	FKM	Differential ELECTRICAL indicators		
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		



INDICATOR SERIES		DESCRIPTION	FOR RETURN FILTERS SERIES
NBR	FKM	Differential ELECTRICAL indicators with LED (24 V) for visual indication	
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	<p>Recommended tightening torque 90 Nm</p>
NBR	FKM	Differential ELECTRICAL indicators with THERMOSTAT 30° C	
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	<p>Recommended tightening torque 90 Nm</p>
NBR	FKM	Differential VISUAL ELECTRICAL indicators	
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	<p>Recommended tightening torque 90 Nm</p>
NBR	FKM	Differential ELECTRICAL indicators ATEX	
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	<p>Recommended tightening torque 90 Nm</p> <p>ATEX 3 GD EEx e T6</p>

## INDICATORS FOR OFF-LINE FILTERS



INDICATOR SERIES		DESCRIPTION	FOR RETURN OFF-LINE SERIES
NBR	FKM	Differential VISUAL indicators	
5B	AB	Setting 1,3 bar (130 kPa)	OF - UOW  Recommended tightening torque 90 Nm  
6B	CB	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	Differential ELECTRICAL indicators with LED (24 V) for visual indication	
7B	EB	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	Differential ELECTRICAL indicators with THERMOSTAT 30° C	
T0	DB	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	Differential VISUAL ELECTRICAL indicators	
70	E0	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	Differential ELECTRICAL indicators ATEX	
008.0239.2	-	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	

## 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	
91	-	 <b>Vacuum switch</b> Setting 0,2 bar (20 kPa) SPDT	SC - SD - SE	<p style="text-align: right;"><b>ATEX 3 GD EEx e T6</b></p>
		SPDT, Max voltage 250V - 50 Hz - Max current 6 A resistive, 1 A inductive - Protection IP65 connector DIN 43650		



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