

CLOGGING INDICATORS



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 depression downstream the filter.

All our 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

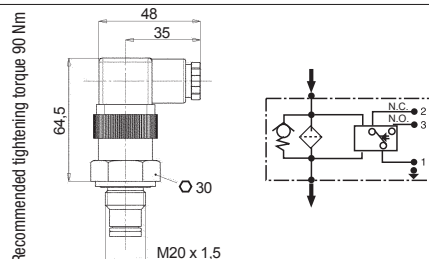
- Vacuum gauges
- Vacuum switches

INDICATORS FOR PRESSURE FILTERS



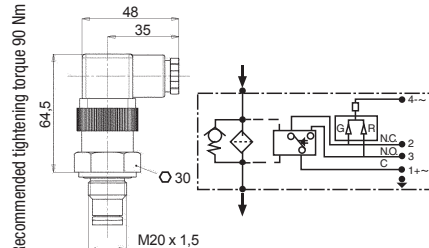
INDICATOR SERIES		DESCRIPTION	FOR PRESSURE FILTERS SERIES
NBR	FKM	Pressure gauge	
31	-	Scale 0÷12 bar (0÷1,2 MPa)	PE - PH
NBR	FKM	Pressure gauge stainless steel, glycerine filled	
039.0184.1	-	Scale 0÷12 bar (0÷1,2 MPa)	PE - PH
NBR	FKM	Pressure switch	
P1	-	Setting 1,5 bar (150 kPa)	PE - PH
		SPDT, Max voltage 250V - 50 Hz - Max current 6 A resistive, 1 A inductive - Protection IP65 connector DIN 43650	ATEX 3 GD EEx e T6
NBR	FKM	Differential VISUAL ELECTRICAL indicator	
N0	S0	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	Differential VISUAL indicator	
U0	W0	Setting 1,3 bar (130 kPa)	for FPE A+, B+
			Recommended tightening torque 90 Nm
NBR	FKM	Differential VISUAL indicators	
5B	AB	Setting 1,3 bar (130 kPa)	PH
5D	AD	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
5E	AE	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
5F	AF	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	Differential ELECTRICAL indicators	
6B	CB	Setting 1,3 bar (130 kPa)	PH
6D	CD	Setting 2,5 bar (250 kPa)	(PA - PB - PD - PL - PM)
6E	CE	Setting 5 bar (500 kPa)	PA - PB - PC - PD - PL - PM
6F	CF	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			



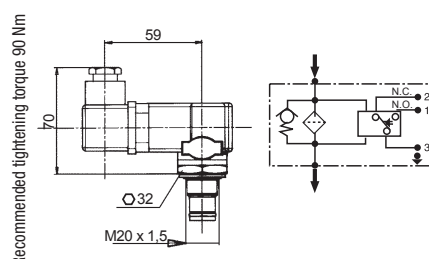
Recommended tightening torque 90 Nm

NBR	FKM	Differential ELECTRICAL indicators with 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			



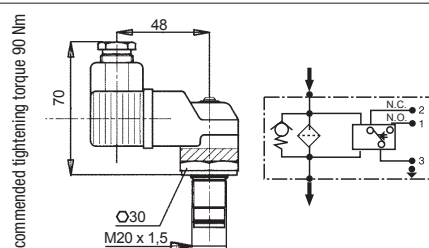
Recommended tightening torque 90 Nm

NBR	FKM	Differential ELECTRICAL indicators with THERMOSTAT 30° C	
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			



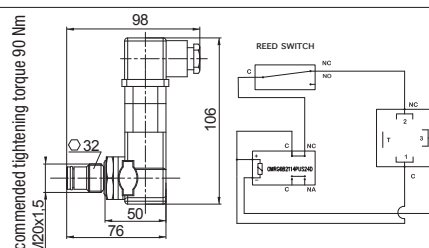
Recommended tightening torque 90 Nm

NBR	FKM	Differential VISUAL ELECTRICAL indicators	
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			



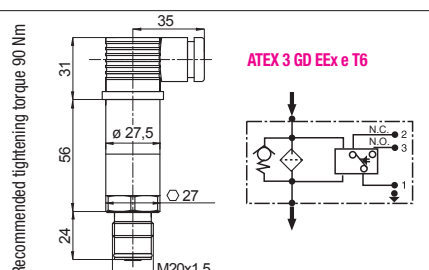
Recommended tightening torque 90 Nm

NBR	FKM	Differential ELECTRICAL indicators VANDAL PROOF	
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			



Recommended tightening torque 90 Nm

NBR	FKM	Differential ELECTRICAL indicators ATEX	
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			



Recommended tightening torque 90 Nm

Prices for INDICATORS - PRESSURE FILTERS				
Article No.	Description	For series	Price £	Price €
31	Pressure Gauge (0÷12 bar)	PE-PH	ON REQUEST	
039.0184.1	Stainless Steel Pressure Gauge ((0÷12 bar)	PE-PH	ON REQUEST	
P1	Pressure Switch (1,5 bar)	PE-PH	ON REQUEST	
N0	Electrical Differential Indicator (1,3 bar)	FPE A+, B+	ON REQUEST	
U0	Visual Differential Indicator (1,3 bar)	FPE A+, B+	ON REQUEST	
5B	Visual Differential Indicator (1,3 bar)	PH	ON REQUEST	
5D	Visual Differential Indicator (2,5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
5E	Visual Differential Indicator (5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
5F	Visual Differential Indicator (8 bar)	PA - PB - PD - PL - PM	ON REQUEST	
6B	Electrical Differential Indicator (1,3 bar)	PH	ON REQUEST	
6D	Electrical Differential Indicator (2,5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
6E	Electrical Differential Indicator (5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
6F	Electrical Differential Indicator (8 bar)	PA - PB - PD - PL - PM	ON REQUEST	
7B	Electrical Differential Indicator with LED (1,3 bar)	PH	ON REQUEST	
7D	Electrical Differential Indicator with LED (2,5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
7E	Electrical Differential Indicator with LED (5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
7F	Electrical Differential Indicator with LED (8 bar)	PA - PB - PD - PL - PM	ON REQUEST	
T0	Electrical Differential Indicator with thermostat 30° C (1,3 bar)	PH	ON REQUEST	
T2	Electrical Differential Indicator with thermostat 30° C (2,5bar)	PA - PB - PD - PL - PM	ON REQUEST	
T3	Electrical Differential Indicator with thermostat 30° C (5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
T6	Electrical Differential Indicator with thermostat 30° C (8 bar)	PA - PB - PD - PL - PM	ON REQUEST	
70	Electrical Visual Differential Indicator (1,3 bar)	PH	ON REQUEST	
76	Electrical Visual Differential Indicator (2,5bar)	PA - PB - PD - PL - PM	ON REQUEST	
72	Electrical Visual Differential Indicator (5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
73	Electrical Visual Differential Indicator (8 bar)	PA - PB - PD - PL - PM	ON REQUEST	
M2	Vandal-proof Electrical Differential Indicator (5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
M3	Vandal-proof Electrical Differential Indicator (8 bar)	PA - PB - PD - PL - PM	ON REQUEST	
M6	Vandal-proof Electrical Differential Indicator (2,5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
008.0239.2	ATEX Electrical Differential Indicator (1,3 bar)	PA - PB - PD - PL - PM	ON REQUEST	
008.0240.2	ATEX Electrical Differential Indicator (2,5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
008.0235.2	ATEX Electrical Differential Indicator (5 bar)	PA - PB - PD - PL - PM	ON REQUEST	
008.0212.2	ATEX Electrical Differential Indicator (8 bar)	PA - PB - PD - PL - PM	ON REQUEST	

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	

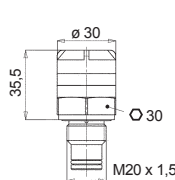
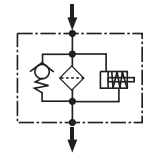
NBR	FKM	Pressure gauge stainless steel		
039.0178.1	-	Scale 0÷6 bar (0÷600 kPa)	RA - RB - RC - RF - RH	


NBR	FKM	Pressure gauge stainless steel		
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	
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				

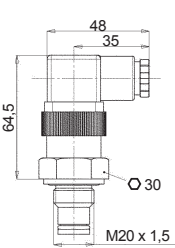
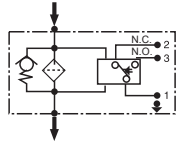
INDICATOR SERIES		DESCRIPTION	FOR RETURN FILTERS SERIES
NBR	FKM	 Differential VISUAL indicators	
5B	AB	Setting 1,3 bar (130 kPa)	RF
5C	AC	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive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


Recommended tightening torque 90 Nm

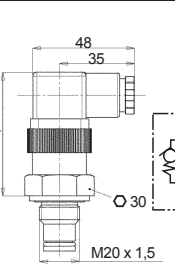
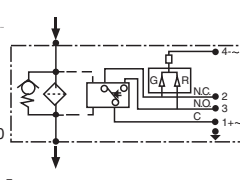
NBR	FKM	 Differential ELECTRICAL indicators	
6B	CB	Setting 1,3 bar (130 kPa)	RF
6C	CC	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			


Recommended tightening torque 90 Nm

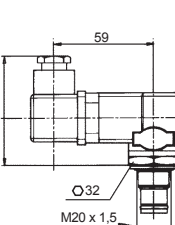
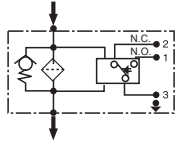
NBR	FKM	 Differential ELECTRICAL indicators with LED (24 V) for visual indication	
7B	EB	Setting 1,3 bar (130 kPa)	RF
7C	EC	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A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


Recommended tightening torque 90 Nm

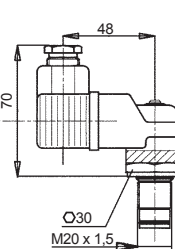
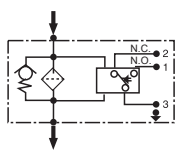
NBR	FKM	 Differential ELECTRICAL indicators with THERMOSTAT 30° C	
T0	DB	Setting 1,3 bar (130 kPa)	RF
T1	DC	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65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


Recommended tightening torque 90 Nm

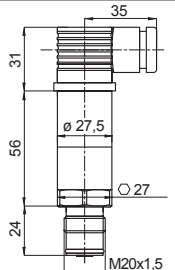
NBR	FKM	 Differential VISUAL ELECTRICAL indicators	
70	E0	Setting 1,3 bar (130 kPa)	RF
71	E1	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector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

Recommended tightening torque 90 Nm

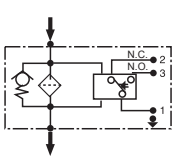



NBR	FKM	 Differential ELECTRICAL indicators ATEX	
008.0239.2	-	Setting 1,3 bar (130 kPa)	RF
008.0234.2	-	Setting 2 bar (200 kPa)	RD
SPDT differential switch. C.C. 14 - 30 V: > max resistive or inductive load 4 - 3 A respectively C.A. 125-250 V: > max resistive or inductive load 1 A - Protection IP65 - Connector DIN 43650			

Recommended tightening torque 90 Nm



ATEX 3 GD EEx e T6



Prices for INDICATORS - RETURN FILTERS

Article No.	Description	For series	Price £	Price €
30	Pressure Gauge (0÷6 bar)	RA - RB - RC - RF - RH	ON REQUEST	
32	Pressure Gauge (0÷6 bar)	RA - RB - RC - RF - RH	ON REQUEST	
039.0178.1	Stainless Steel Pressure Gauge (0÷6 bar)	RA - RB - RC - RF - RH	ON REQUEST	
039.0183.1	Stainless Steel Pressure Gauge (0÷6 bar)	RA - RB - RC - RF - RH	ON REQUEST	
P1	Pressure Switch (1,5 bar)	RA - RB - RC - RH	ON REQUEST	
P2	Pressure Switch (3 bar)	RF - W	ON REQUEST	
P4	Pressure Switch (1,3 bar)	RF	ON REQUEST	
P6	Pressure Switch (2 bar)	RB	ON REQUEST	
5B	Visual Differential Indicator (1,3 bar)	RF	ON REQUEST	
5C	Visual Differential Indicator (2 bar)	RD	ON REQUEST	
6B	Electrical Differential Indicator (1,3 bar)	RF	ON REQUEST	
6C	Electrical Differential Indicator (2 bar)	RD	ON REQUEST	
7B	Electrical Differential Indicator with LED (1,3 bar)	RF	ON REQUEST	
7C	Electrical Differential Indicator with LED (2 bar)	RD	ON REQUEST	
T0	Electrical Differential Indicator with thermostat 30°C (1,3 bar)	RF	ON REQUEST	
T1	Electrical Differential Indicator with thermostat 30°C (2 bar)	RD	ON REQUEST	
70	Electrical Visual Differential Indicator (1,3 bar)	RF	ON REQUEST	
71	Electrical Visual Differential Indicator (2 bar)	RD	ON REQUEST	
008.0239.2	ATEX Electrical Differential Indicator (1,3 bar)	RF	ON REQUEST	
008.0234.2	ATEX Electrical Differential Indicator (2 bar)	RD	ON REQUEST	

Prices for INDICATORS - OFF-LINE FILTERS

Article No.	Description	For series	Price £	Price €
5B	Visual Differential Indicator (1,3 bar)	OF - UOW	ON REQUEST	
6B	Electrical Differential Indicator (1,3 bar)	OF - UOW	ON REQUEST	
7B	Electrical Differential Indicator with LED (1,3 bar)	OF - UOW	ON REQUEST	
T0	Electrical Differential Indicator with thermostat 30° C (1,3 bar)	OF - UOW	ON REQUEST	
70	Electrical Visual Differential Indicator (1,3 bar)	OF - UOW	ON REQUEST	
008.0239.2	ATEX Electrical Differential Indicator (1,3 bar)	OF - UOW	ON REQUEST	

INDICATORS FOR OFF-LINE FILTERS


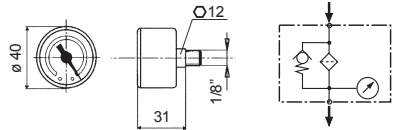

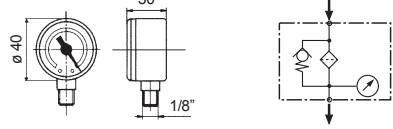

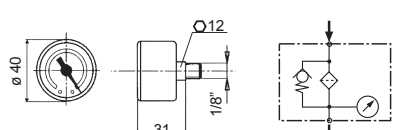

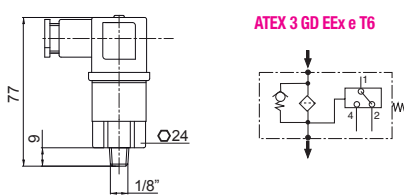


INDICATOR SERIES		DESCRIPTION	FOR RETURN OFF-LINE SERIES
NBR	FKM	Differential VISUAL indicators	
5B	AB	Setting 1,3 bar (130 kPa)	OF - UOW Recommended tightening torque 90 Nm
NBR	FKM	Differential ELECTRICAL indicators	
6B	CB	Setting 1,3 bar (130 kPa)	OF - UOW Recommended tightening torque 90 Nm
SPDT differential 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



CLOGGING INDICATORS

INDICATOR SERIES		DESCRIPTION	FOR SUCTION FILTERS SERIES	
NBR	FKM			
10	-	 Vacuum gauge	SC - SD - SE	
11	-	 Vacuum gauge	SC - SD	
008.0111.2	-	 Vacuum gauge Glycerine filled - 2 Scales	SC - SD - SE	
91	-	 Vacuum switch 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		

Article No.	Description	For series	Price £	Price €
10	Vacuum Gauge	SC - SD - SE	ON REQUEST	
11	Vacuum Gauge	SC - SD	ON REQUEST	
008.0111.2	Vacuum Gauge glycerine filled	SC - SD - SE	ON REQUEST	
91	Vacuum Switch (0,2 bar)	SC - SD - SE	ON REQUEST	
L1	Vacuum Switch (0,2 bar)	SC	ON REQUEST	