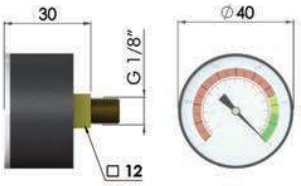
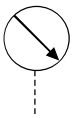
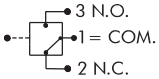
CLOGGING INDICATORS
Visual and electrical indicators

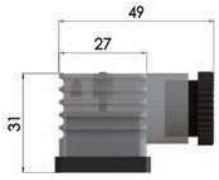
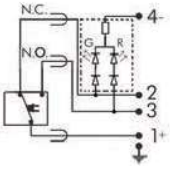
INDICATORS FOR APPLICATION ON SUCTION LINE

NORMALLY USED ON FS7 / FA1 series (suction line)

The clogging indicator registers the pressure downstream the filter element:
- in the VISUAL indicator the red area shows the need for element replacement.
- in the ELECTRIC indicator an electrical switch is activated.

CODE	DIMENSIONS	SYMBOL	SETTING
S1	 10 Nm		**VACUUM GAUGE** 0÷-1 bar
S13	 10 Nm		**VACUUM SWITCH** -0,2 bar • DC: 30 V - 4 A inductive, 3 A resistive • AC: 250 V - 3 A inductive, 2 A resistive • Protection: IP65, connector DIN43650 • SPDT contacts

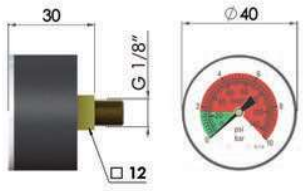
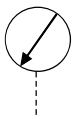
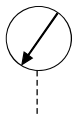
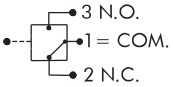
OPTIONAL CONNECTOR for S13

LC24			The LC24 connector can replace the standard black connector of the "S13" indicator (N.B. supplied separately). Feeded with 24V, it gives a visual indication of the filter element conditions: normally the GREEN LED is on, the RED LED switch on when the element is clogged.

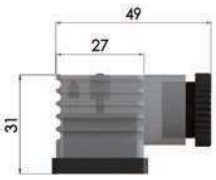
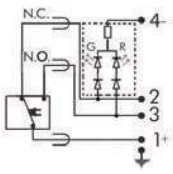
INDICATORS FOR APPLICATION ON RETURN LINE

NORMALLY USED ON FA1 (return line) / FA2 / FR1 / FR6 / FCR7

The clogging indicator registers the pressure upstream the filter element:
- in the VISUAL indicator the red area shows the need for element replacement.
- in the ELECTRIC indicator an electrical switch is activated.

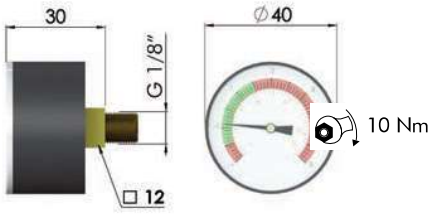
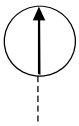
CODE	DIMENSIONS	SYMBOL	SETTING
MPB formerly R9	 10 Nm		**PRESSURE GAGUE** ● 1,7÷10 bar ● 0÷1,7 bar
MPC			**PRESSURE GAGUE** ● 3÷10 bar ● 0÷3 bar
MRB formerly R10	 10 Nm		**PRESSURE GAGUE** ● 1,7÷10 bar ● 0÷1,7 bar
MRC			**PRESSURE GAGUE** ● 3÷10 bar ● 0÷3 bar
PDB formerly R13	 10 Nm		**PRESSURE SWITCH** **PDB (R13)** =1,3 bar **PDC (R14)** = 2 bar • DC: 30 V - 4 A inductive, 3 A resistive • AC: 250 V - 3 A inductive, 2 A resistive • Protection: IP65, connector DIN43650 • SPDT contacts Available on request ATEX version Ex I M1 Ex ia I Ex II 1G Ex ia IIC TX Ex II 1D Ex ia IIIC TX°C
PDC formerly R14			

OPTIONAL CONNECTOR for PDB_PDC

LC24			The LC24 connector can replace the standard black connector of the "PDB / PDC" indicator (N.B. supplied separately). Feeded with 24V, it gives a visual indication of the filter element conditions: normally the GREEN LED is on, the RED LED switch on when the element is clogged.

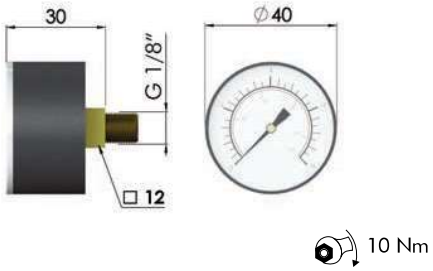
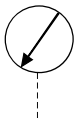
INDICATORS MULTIPURPOSE FOR APPLICATION ON SUCTION AND RETURN LINE

CAN BE USED ON FS7 / FA1(suction line) OR FA1(return line) / FA2 / FR1/ FR6 / FCR7

CODE	DIMENSIONS	SYMBOL	SETTING
R7			**PRESSURE / VACUUM GAUGE** ● -1÷-0,2 bar ● -0,2÷1,4 bar ● 1,4÷5 bar

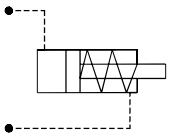
INDICATORS FOR APPLICATION ON LOW PRESSURE LINE

NORMALLY USED ON FA1 (low pressure line) series

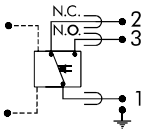
CODE	DIMENSIONS	SYMBOL	SETTING
R12			**PRESSURE GAUGE** 0÷16 bar

DIFFERENTIAL CLOGGING INDICATORS

V02 / E02 NORMALLY USED ON F040 series
V05 / E05 NORMALLY USED ON F040 / F100 / F160 / F280 / F420 series
V08 / E08 NORMALLY USED ON F100/ F160 / F280 / F420 series

CODE	DIMENSIONS	SYMBOL	SETTING
V02			**DIFFERENTIAL VISUAL** 2,7 bar
V05			**DIFFERENTIAL VISUAL** 5 bar
V08			**DIFFERENTIAL VISUAL** 8 bar

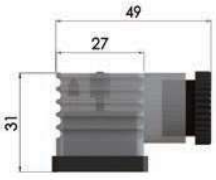
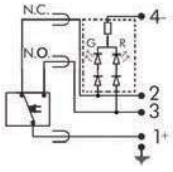
50 Nm

CODE	DIMENSIONS	SYMBOL	SETTING
E02			**DIFFERENTIAL ELECTRIC** 2,7 bar
E05			**DIFFERENTIAL ELECTRIC** 5 bar
E08			**DIFFERENTIAL ELECTRIC** 8 bar

- Electric plug connection as per DIN 43650
- Protection: IP65 acc. to DIN 40050
- Max current: 5A resistive 1A inductive
- Max voltage: 250V AC - 30V DC

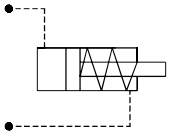
50 Nm

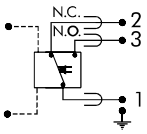
OPTIONAL CONNECTOR for E serie

LC24			The LC24 connector can replace the standard black connector of the "E" indicator (N.B.supplied separately). Feeded with 24V, it gives a visual indication of the filter element conditions: normally the GREEN LED is on, the RED LED switch on when the element is clogged.

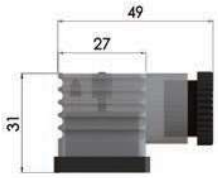
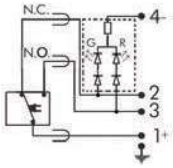
DIFFERENTIAL CLOGGING INDICATORS

EX5 / VX5 NORMALLY USED ON FD3 / FDM series
EX8 / VX8 NORMALLY USED ON FDM series

CODE	DIMENSIONS	SYMBOL	SETTING
VX5	 50 Nm		**DIFFERENTIAL VISUAL** 5 bar
VX8			**DIFFERENTIAL VISUAL** 8 bar

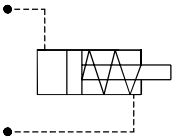
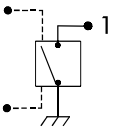
CODE	DIMENSIONS	SYMBOL	SETTING	
EX5	 50 Nm		**DIFFERENTIAL ELECTRIC** 5 bar	• Electric plug connection as per DIN 43650 • Protection: IP65 acc. to DIN 40050 • Max current: 5A resistive 1A inductive • Max voltage: 250V AC - 30V DC
EX8			**DIFFERENTIAL ELECTRIC** 8 bar	

OPTIONAL CONNECTOR for E serie

LC24			The LC24 connector can replace the standard black connector of the "E" indicator. (N.B. supplied separately) Feeded with 24V, it gives a visual indication of the filter element conditions: normally the GREEN LED is on, the RED LED switch on when the element is clogged.

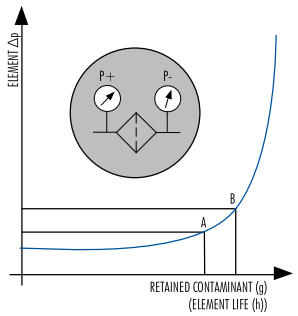
DIFFERENTIAL CLOGGING INDICATORS

Z34 / Z35 NORMALLY USED ON FA4 series

CODE	DIMENSIONS	SYMBOL	SETTING
Z34	 50 Nm		**DIFFERENTIAL VISUAL** 2,7 bar
Z35	 50 Nm		**DIFFERENTIAL ELECTRIC** 2,7 bar • Max current: 0,5A resistive 0,2A inductive • Max voltage: 36 VDC • Protection: IP54 as per DIN 40050 Ground through filter head to chassis

USER INFORMATION

The **Pressure indicator** measures the pressure in one point only:
-for suction application it must be located downstream the filter element (P-)
-for return application it must be located upstream the filter element (P+)
The **Differential indicator** measures the Dp between upstream and downstream of the filter element, i.e. it is the ideal indicator for in line application.



The **Pressure Drop** (Dp = differential pressure) through the filter increases during the system operation due to the contaminant retained by the filter element.

The filter element must be replaced when the indicator shows an alarm and before the Dp reaches the by-pass set value (i.e. the set value A of the clogging indicator must always be lower that the set value B of the by-pass valve).

WARNING: in **cold start** conditions a false alarm can be caused by higher oil viscosity due to low temperature; the indicator alarm must be considered at normal working temperature only.

OPTIONAL VERSIONS

Subject to MOQ our differential indicators can be supplied in special versions like ATEX, different connectors, two alarm levels, etc.: pls contact our Customer Service for further information.

www.filtrec.com

Technical information may change without notice

CT71-rev.00-01/20