Clogging Indicators

COMPLETE RANGE OF CLOGGING INDICATORS FOR HYDRAULIC FILTERS

SUMMARY

Click on the series name to view its dedicated page

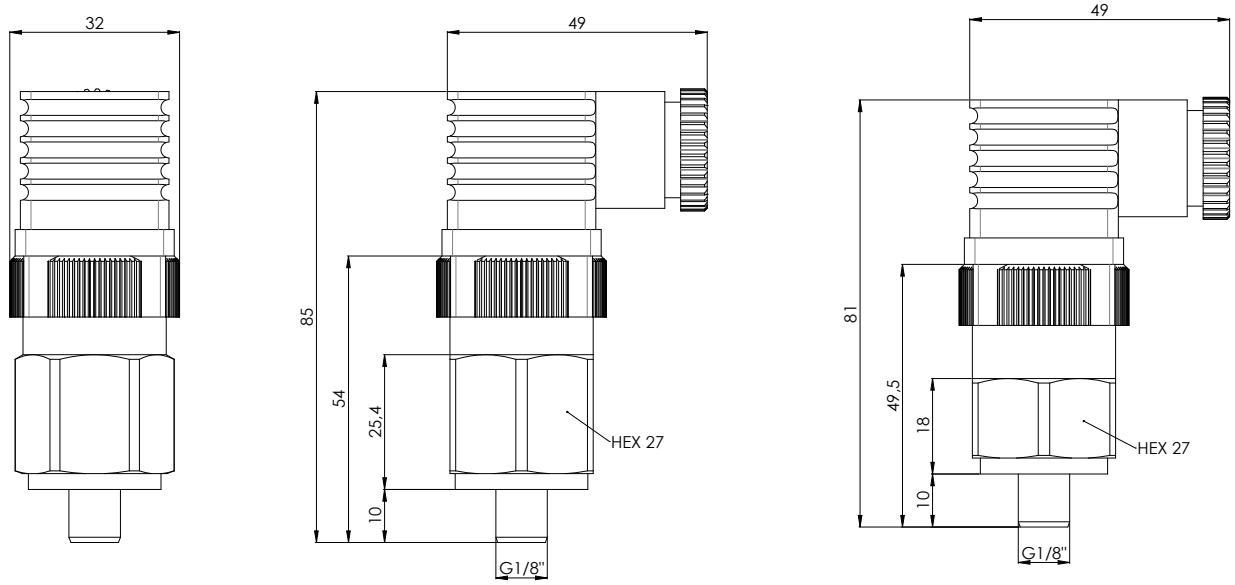
FILTREC®

P SERIES

Clogging indicators for suction line and return line

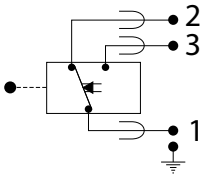
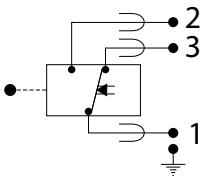
PRESSURE:	Max operating up to 25 bar
CONNECTION:	G1/8"
MATERIALS:	Body: Brass Cover and connector: PA66 + G.F. Internal seals: HNBR
SETTINGS:	**For suction application:** PDS -0,2 bar±10% **For return line application:** PDB 1,3 bar±10% PDC 2,0 bar±10%
ELECTRICAL SPECS.:	Contact configuration SPDT
CONNECTOR TYPE:	according to DIN 43650 with cable gland PG09/PG11
DEGREE OF PROTECTION:	IP65 according to EN60529
OPERATING TEMPERATURE:	-30°C - +100°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES-HFA HFB-HFC (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

OVERALL DIMENSIONS



Weight: ~124 g

MECHANICAL CONDITION

ΔP CONDITION	ELECTRIC SYMBOL
P < Pset	
P ≥ Pset	

ORDERING INFORMATION / DETAILS

INDICATOR FOR APPLICATION ON SUCTION LINE

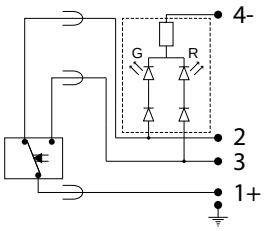
ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00141	**PDS**	**HNBR**		-0,2 bar	• Connector DIN 43650 • Max AC voltage: 250Vac • Max current: 3A resistive 2A inductive • Max DC voltage: 30Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
			10 Nm - See hydraulic filter catalogues		

INDICATOR FOR APPLICATION ON RETUR LINE

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00108	**PDB**	**HNBR**		1,3 bar	• Connector DIN 43650 • Max AC voltage: 250Vac • Max current: 3A resistive 2A inductive • Max DC voltage: 30Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
04.006.00118	**PDC**	**HNBR**		2 bar	
			10 Nm - See hydraulic filter catalogues		

OPTIONAL VERSION

The LC24 connector, supplied separately, can replace the standard black connector of the "P" indicator. Powered with 24Vdc, 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.

ORDER CODE	MODEL	VIEW	ELECTRICAL SPECS.
04.006.00146	**LC24**		

INSTRUCTIONS FOR REPLACING THE std CONNECTOR WITH THE LC24 CONNECTOR

1. UNSCREW THE SCREW	2. DISCONNECT THE STANDARD CONNECTOR
	
3. ATTACH THE LC24 CONNECTOR	**4. TIGHTEN THE SCREW**
	

VERSION WITH INTEGRATED LED CONNECTOR

Subject to MOQ our differential indicators type P... can be supplied in special versions with INTEGRATED LC24 connector.

ORDERING INFORMATION / DETAILS

INDICATOR FOR APPLICATION ON SUCTION LINE

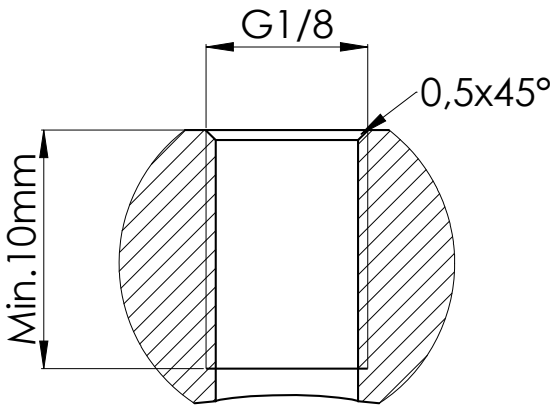
ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00540	**PDSL**	**HNBR**		-0,2 bar	• Connector DIN 43650 • Max DC voltage: 30Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
			10 Nm - See hydraulic filter catalogues		

INDICATOR FOR APPLICATION ON RETUR LINE

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00541	**PDBL**	**HNBR**		1,3 bar	• Connector DIN 43650 • Max DC voltage: 30Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
04.006.00542	**PDCL**	**HNBR**		2 bar	
			10 Nm - See hydraulic filter catalogues		

INDICATOR SEAT

P...



Dimensions and tolerances available on request

USER INFORMATION

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 VERSION

Subject to MOQ our differential indicators type P... can be supplied in special versions like ATEX or with different connectors.
Contact our Customer Service for further information.

APPLICATION

The following table shows the type of indicator available according to the filter used.

APPLICATION	FILTER CODE	INDICATOR MODEL			
		PDS	PDB/PDC	PSDL	PDBL/PDCL
RETURN	**FR6**		**X**		**X**
	FRM		**X**		**X**
	FRP		**X**		**X**
	FRT		**X**		**X**
	FA1		**X**		**X**
	FA2		**X**		**X**
	FCR7F1X		**X**		**X**
	FCR7F2X		**X**		**X**
	FCR7F3X		**X**		
	FAH		**X**		**X**
	FA5		**X**		**X**
SUCTION	**FS1**	**X**		**X**	
	FS7	**X**		**X**	
	FS5	**X**		**X**	
	FA1	**X**		**X**	

PW SERIES

Clogging indicators for suction line and return line with cable and connector

PW PWS..J

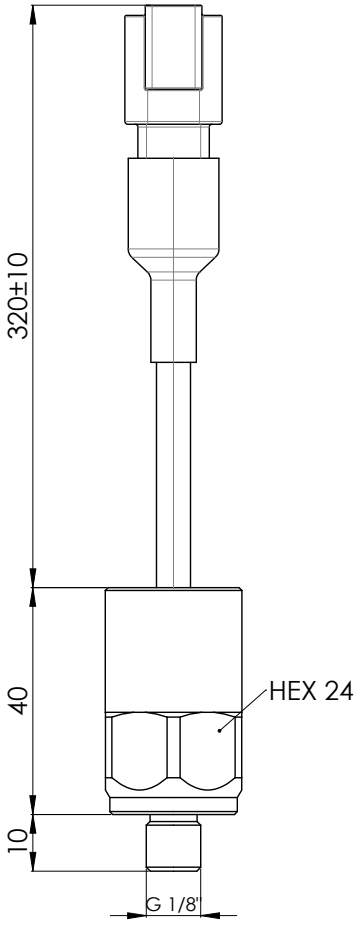
PW PWS..D

PW PWS..S

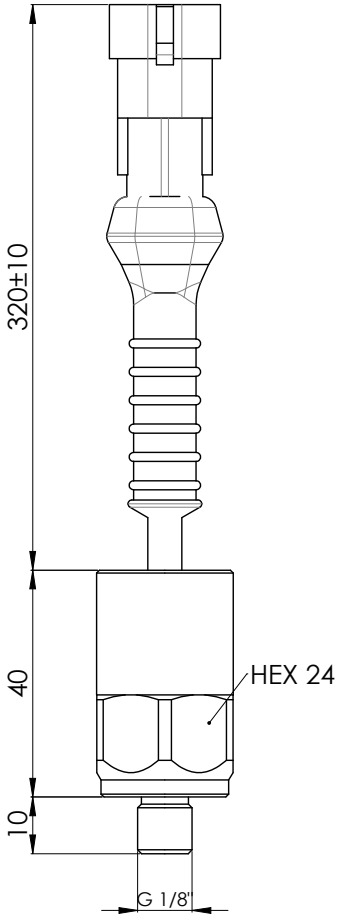
PRESSURE:	Max operating up to 25 bar
CONNECTION:	G 1/8"
MATERIALS:	Body: Brass Cover and connector: PA66 + G.F. Seal: HNBR standard
SETTINGS ΔP:	**For suction application:** PWSxx -0,2 ±10% bar **For return line application:** PWBxx 1,3 ± 10% bar PWCxx 2,0 ± 10% bar
ELECTRICAL SPECS.:	Contact configuration N.O./N.C.
CONNECTOR TYPE:	Deutsch DT04-2P SUPERSEAL 1.5 2 WAY JUNIOR POWER TIMER 2 WAY
DEGREE OF PROTECTION:	IP67 according to EN60529
OPERATING TEMPERATURE:	-30°C - +100°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES-HFA HFB-HFC (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

OVERALL DIMENSIONS

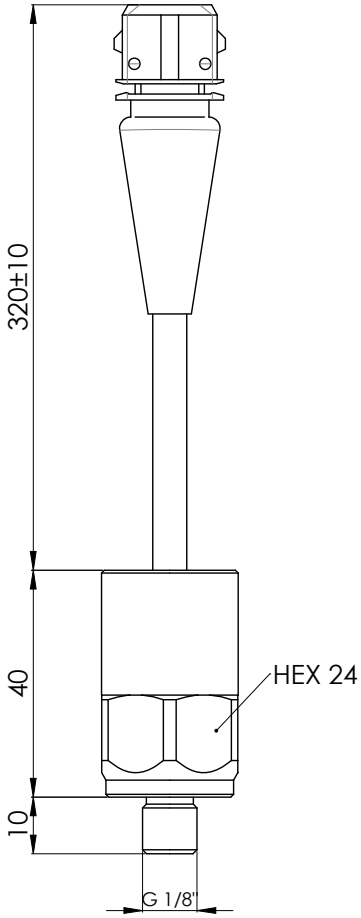
PW/PWS..D



PW/PWS..S

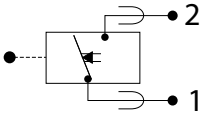
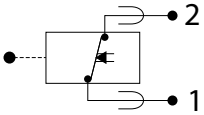
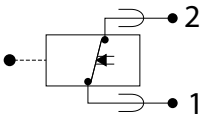
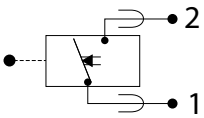


PW/PWS..J



Weight: ~210g

MECHANICAL CONDITION

ΔP CONDITION	ELECTRIC SYMBOL N.O.	ELECTRIC SYMBOL N.C.
P < Pset		
P ≥ Pset		

ORDERING INFORMATION / DETAILS

INDICATOR FOR APPLICATION ON SUCTION LINE

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00552	**PWSCD**	**HNBR**	**Deutsch DT04-2P** 	-0,2 bar	• Connector N.C. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529
04.006.00553	**PWSAD**				• Connector N.O. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529

ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00554	**PWSCS**	**HNBR**	**Superseal 1.5 2 Way** 	-0,2 bar	• Connector N.C. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529
04.006.00555	**PCSAS**				• Connector N.O. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529

ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00556	**PWSCJ**	**HNBR**	**Junior Timer 2 Way** 	-0,2 bar	• Connector N.C. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529
04.006.00557	**PWSAJ**				• Connector N.O. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529

10 Nm - See hydraulic filter catalogues

ORDERING INFORMATION / DETAILS

INDICATOR FOR APPLICATION ON RETUR LINE

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00261	**PWBCD**	**HNBR**	**Deutsch DT04-2P** 	1,3	• Connector N.C. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529
04.006.00262	**PWCCD**			2,0	
04.006.00460	**PWBAD**			1,3	• Connector N.O. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529
04.006.00492	**PWCAD**			2,0	

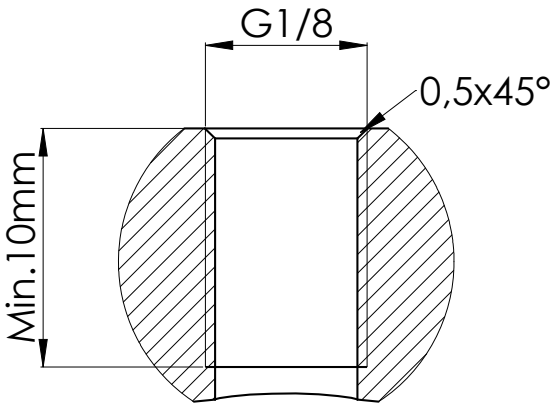
ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00495	**PWBCS**	**HNBR**	**Superseal 1.5 2 Way** 	1,3	• Connector N.C. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529
04.006.00498	**PWCCS**			2,0	
04.006.00501	**PWBAS**			1,3	• Connector N.O. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529
04.006.00504	**PWCAS**			2,0	

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00507	**PWBCJ**	**HNBR**	**Junior Timer 2 Way** 	1,3	• Connector N.C. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529
04.006.00510	**PWCCJ**			2,0	
04.006.00513	**PWBAJ**			1,3	• Connector N.O. • Max switching voltage: 48VDC • Max current: 0,5A resistive 0,2A inductive • Protection: IP67 EN60529
04.006.00516	**PWCAJ**			2,0	

10 Nm - See hydraulic filter catalogues

INDICATOR SEAT

PW...



Dimensions and tolerances available on request

USER INFORMATION

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 VERSION

Subject to MOQ our differential indicators type PW... can be supplied in special versions like ATEX or with different connectors.
Contact our Customer Service for further information.

APPLICATION

The following table shows the type of indicator available according to the filter used.

APPLICATION	FILTER CODE	INDICATOR MODEL	
		PWS	PWB/PWC
RETURN	**FR6**		**X**
	FRM		**X**
	FRP		**X**
	FRT		**X**
	FA1		**X**
	FA2		**X**
	FCR7F1X		**X**
	FCR7F2X		**X**
	FCR7F3X		**X**
	FAH		**X**
	FA5		**X**
SUCTION	**FS1**	**X**	
	FS7	**X**	
	FS5	**X**	
	FA1	**X**	

PC SERIES

Clogging indicators for suction line and return line with integrated connector

PC/PCS..D

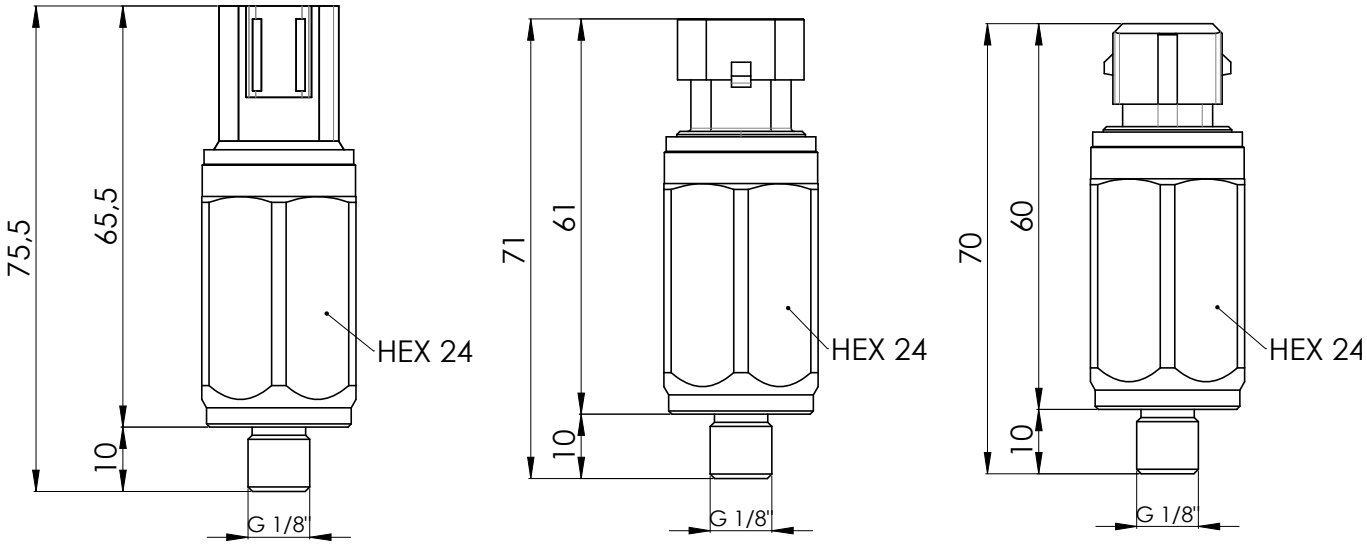
PC/PCS..S

PC/PCS..J

PRESSURE:	Max operating up to 25 bar
CONNECTION:	G1/8"
MATERIALS:	Body: Brass Cover and connector: PA66 + G.F. Seal: HNBR standard
SETTINGS ΔP:	**For suction application:** PCSxx -0,2 ±10% bar **For return line application:** PCBxx 1,3 ± 10% bar PCCxx 2,0 ± 10% bar
ELECTRICAL SPECS.:	Contact configuration N.O./N.C.
CONNECTOR TYPE:	Deutsch DT04-2P SUPERSEAL 1.5 2 WAY JUNIOR POWER TIMER 2 WAY
DEGREE OF PROTECTION:	IP67 according to EN60529
OPERATING TEMPERATURE:	-30°C - +100°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES-HFA HFB-HFC (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

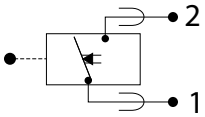
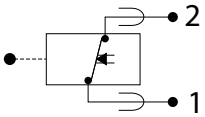
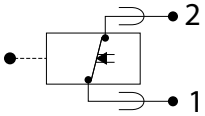
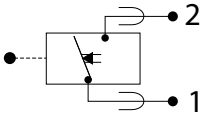
OVERALL DIMENSIONS

PC/PCS..D	PC/PCS..S	PC/PCS..J



Weight: ~150g

MECHANICAL CONDITION

ΔP CONDITION	ELECTRIC SYMBOL N.O.	ELECTRIC SYMBOL N.C.
P < Pset		
P ≥ Pset		

ORDERING INFORMATION / DETAILS

INDICATOR FOR APPLICATION ON SUCTION LINE

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00406	**PCSCD**	**HNBR**	**Deutsch DT04-2P** 	-0,2 bar	• Connector N.C. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00410	**PCSAD**				• Connector N.O. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529

ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00414	**PCSCS**	**HNBR**	**Superseal 1.5 2 Way** 	-0,2 bar	• Connector N.C. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00418	**PCSAS**				• Connector N.O. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529

ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00422	**PCSCJ**	**HNBR**	**Junior Timer 2 Way** 	-0,2 bar	• Connector N.C. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00426	**PCSAJ**				• Connector N.O. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529

10 Nm - See hydraulic filter catalogues

ORDERING INFORMATION / DETAILS

INDICATOR FOR APPLICATION ON RETUR LINE

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00179	**PCBCD**	**HNBR**	**Deutsch DT04-2P** 	1,3	• Connector N.C. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00181	**PCCCD**			2,0	
04.006.00180	**PCBAD**			1,3	• Connector N.O. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00182	**PCCAD**			2,0	

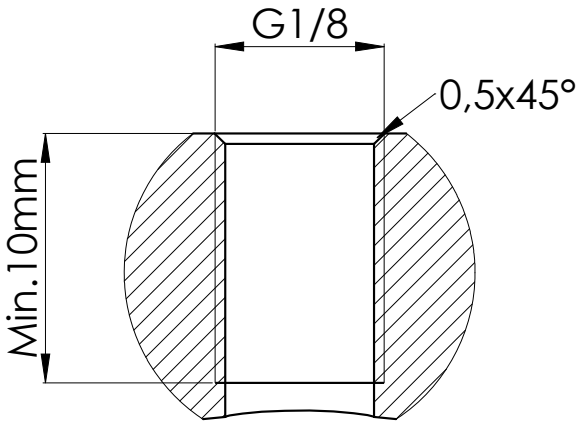
ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00436	**PCBCS**	**HNBR**	**Superseal 1.5 2 Way** 	1,3	• Connector N.C. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00439	**PCCCS**			2,0	
04.006.00442	**PCBAS**			1,3	• Connector N.O. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00445	**PCCAS**			2,0	

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00448	**PCBCJ**	**HNBR**	**Junior Timer 2 Way** 	1,3	• Connector N.C. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00451	**PCCCJ**			2,0	
04.006.00454	**PCBAJ**			1,3	• Connector N.O. • Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00457	**PCCAJ**			2,0	

10 Nm - See hydraulic filter catalogues

INDICATOR SEAT

PC...



Dimensions and tolerances available on request

USER INFORMATION

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 VERSION

Subject to MOQ our differential indicators type PC... can be supplied in special versions like ATEX or with different connectors.
Contact our Customer Service for further information.

APPLICATION

The following table shows the type of indicator available according to the filter used.

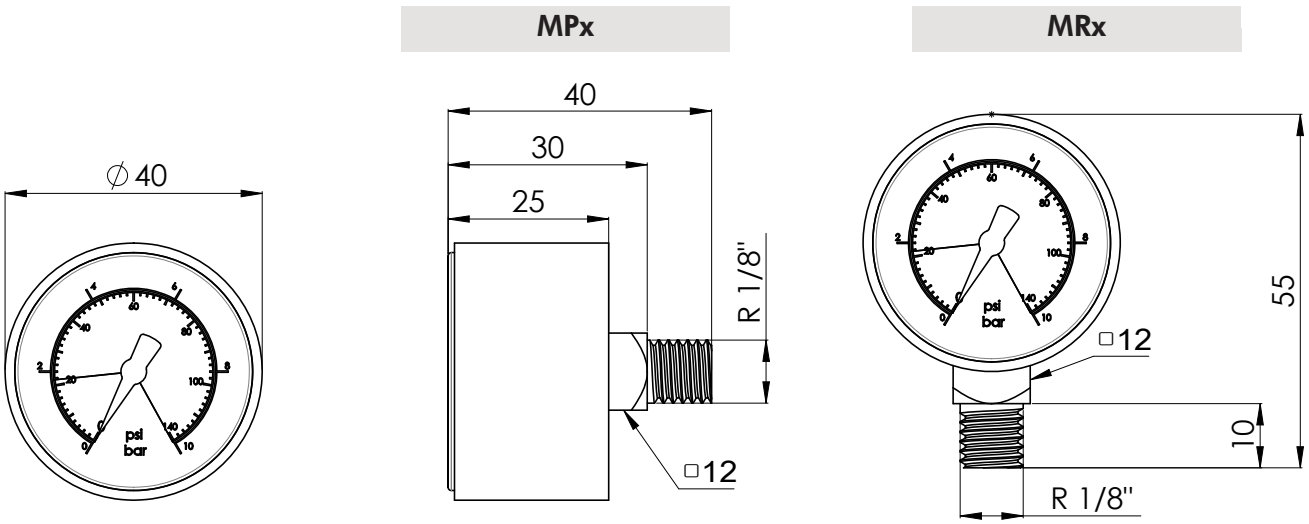
APPLICATION	FILTER CODE	INDICATOR MODEL	
		PCS..	PCB../PCC..
RETURN	**FR6**		**X**
	FRM		**X**
	FRP		**X**
	FRT		**X**
	FA1		**X**
	FA2		**X**
	FCR7F1X		**X**
	FCR7F2X		**X**
	FCR7F3X		**X**
	FAH		**X**
	FA5		**X**
SUCTION	**FS1**	**X**	
	FS7	**X**	
	FS5	**X**	
	FA1	**X**	

M SERIES

Visual clogging indicators

OPERATING PRESSURE:	**For return line application:** MPB MPC MPD 0÷10 bar MRB MRC MRD **For suction or return line application:** MPA -1÷5 bar **For suction line application:** MPS 0÷-1 bar **For low pressure line application:** MP0 0÷16 bar
CONNECTION:	R1/8" - tapered connection
MATERIALS:	Nozzle: Brass Cover: ABS
OPERATING TEMPERATURE:	-30°C - +80°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES-HFA HFB-HFC (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

OVERALL DIMENSIONS



Weight: ~ 45g

ORDERING INFORMATION / DETAILS

INDICATOR FOR APPLICATION ON RETURN LINE

ORDER CODE	MODEL	VIEW	SETTING
04.006.00151	**MPB**		0÷1,7 bar 1,7 ÷10 bar
04.006.00153	**MPC**		0÷3 bar 3÷10 bar
04.006.00632	**MPD**		0÷2,5 bar 2,5÷10 bar
04.006.00152	**MRB**		0÷1,7 bar 1,7 ÷10 bar
04.006.00154	**MRC**		0÷3 bar 3÷10 bar
04.006.00633	**MRD**		0÷2,5 bar 2,5÷10 bar

10 Nm - See hydraulic filter catalogues

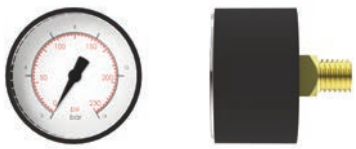
INDICATOR MULTIPURPOSE FOR APPLICATION ON SUCTION or RETUR LINE

ORDER CODE	MODEL	VIEW	SETTING
04.006.00058	**MPA**		-1÷-0,3 bar -0,3÷1,4 bar 1,4÷5 bar
		10 Nm - See hydraulic filter catalogues	

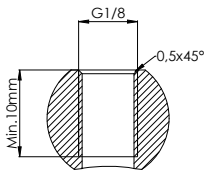
INDICATOR FOR APPLICATION ON SUCTION LINE

ORDER CODE	MODEL	VIEW	SETTING
04.006.00015	**MPS**		0÷-0,15 bar -0,15÷-0,25 bar -0,25÷-1 bar
		10 Nm - See hydraulic filter catalogues	

INDICATOR FOR APPLICATION ON LOW PRESSURE LINE

ORDER CODE	MODEL	VIEW	SETTING
04.006.00101	**MP0** (ex R12)		0÷16 bar
		10 Nm - See hydraulic filter catalogues	

INDICATOR FOR APPLICATION ON RETURN LINE

M...

Dimensions and tolerances available on request

USER INFORMATION

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.

APPLICATION

The following table shows the type of indicator available according to the filter used.

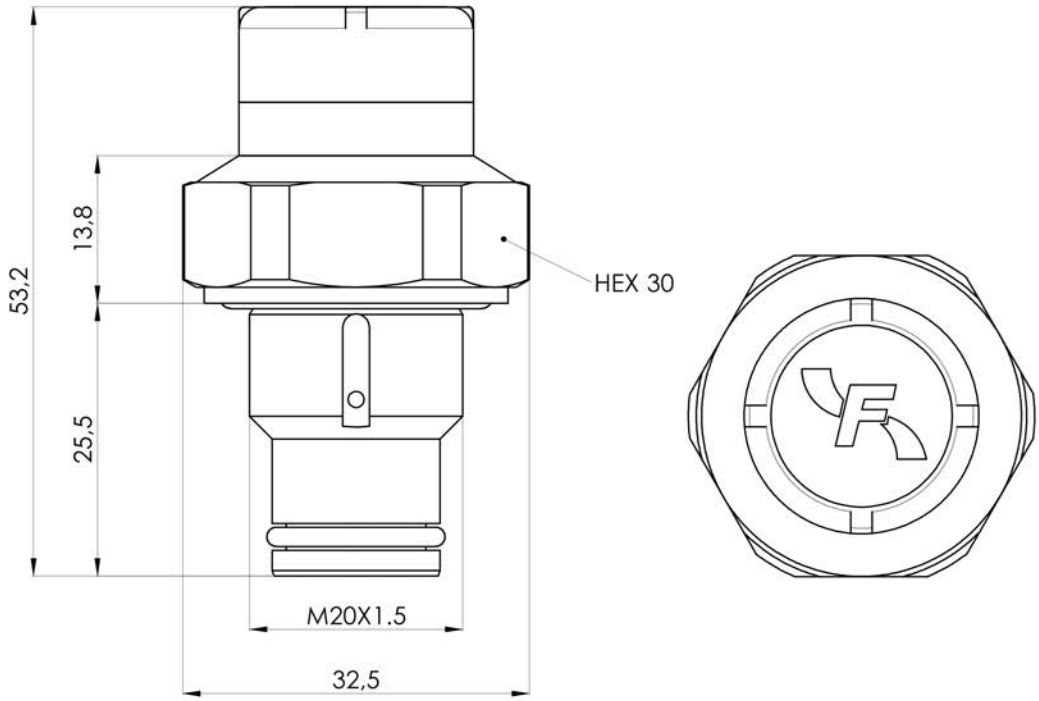
APPLICATION	FILTER CODE	INDICATOR MODEL				
		MPB/MPC/MPB	MRB/MRC/MRD	MPA	MPS	MP0
RETURN	**FR6**	**X**	**X**	**X**		
	FRM	**X**	**X**	**X**		
	FRP	**X**	**X**	**X**		
	FRT	**X**	**X**	**X**		
	FA1	**X**	**X**	**X**		
	FA2	**X**	**X**	**X**		
	FCR7F1X	**X**	**X**	**X**		
	FCR7F2X	**X**	**X**	**X**		
	FCR7F3X	**X**	**X**	**X**		
SUCTION / RETURN	**FHT**	**X**	**X**		**X**	
SUCTION	**FS1**			**X**	**X**	
	FS7			**X**	**X**	
	FS5			**X**	**X**	
	FA1			**X**	**X**	
IN LINE	**FAH**	**X**	**X**	**X**		**X**
	FA5	**X**	**X**	**X**		**X**
	FAPA5	**X**	**X**	**X**		**X**

V SERIES

Visual differential clogging indicators

PRESSURE:	Max operating up to 420 bar
CONNECTION:	M20x1,5
MATERIALS:	Body: Brass Cap: PA66 Lens: PA12 Seal: NBR standard FKM on request
SETTINGS ΔP:	1,3 bar ± 10% 2,7 bar ± 10% 5,0 bar ± 10% 8,0 bar ± 10%
DEGREE OF PROTECTION:	IP65
OPERATING TEMPERATURE:	-30°C - +80°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES-HFA HFB-HFC (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

OVERALL DIMENSIONS

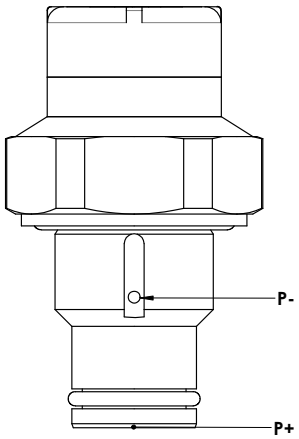


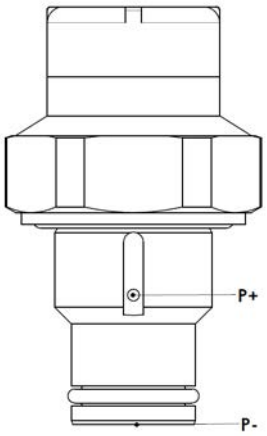
Weight: 107 gr

MECHANICAL CONDITION

ΔP CONDITION	VISUAL CONDITION
P+ - P- < ΔPset: GREEN	
P+ - P- ≥ ΔPset: RED	

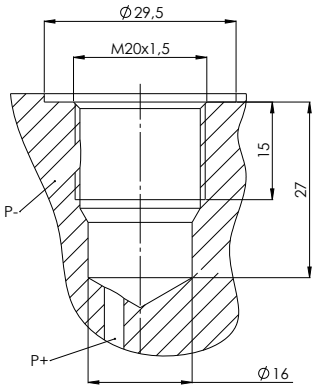
ORDERING INFORMATION / DETAILS

ORDER CODE	MODEL	SEALS	VIEW	SETTING
04.006.00119 04.006.00120	**V02** **VF2**	NBR FKM		2,7 bar
04.006.00121 04.006.00122	**V05** **VF5**	NBR FKM		5,0 bar
04.006.00125 04.006.00126	**V08** **VF8**	NBR FKM		8,0 bar
50 / 90 Nm - See hydraulic filter catalogues				

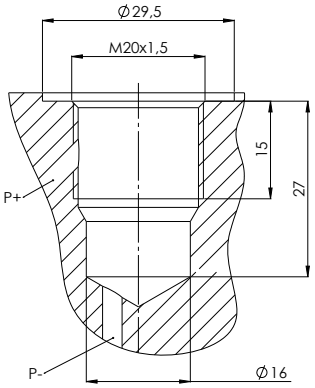
ORDER CODE	MODEL	SEALS	VIEW	SETTING
04.006.00666 04.006.00667	**VX1** **VY1**	NBR FKM		1,3 bar
04.006.00518 04.006.00519	**VX2** **VY2**	NBR FKM		2,7 bar
04.006.00123 04.006.00124	**VX5** **VY5**	NBR FKM		5,0 bar
04.006.00127 04.006.00128	**VX8** **VY8**	NBR FKM		8,0 bar
50 / 90 Nm - See hydraulic filter catalogues				

INDICATOR SEAT

V0.../VF...



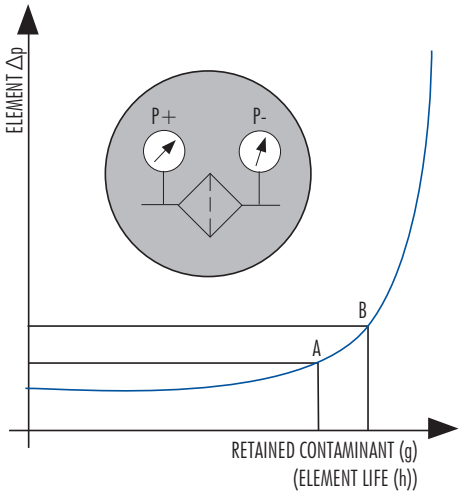
VX.../VY...



Dimensions and tolerances available on request

USER INFORMATION

The Differential indicator measures the Δp between upstream and downstream of the filter element, i.e. it is the ideal indicator for the in line applications.



The **Pressure Drop** (Δp = 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 Δp 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 value).

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 VERSION

Subject to MOQ our differential indicators type V... can be supplied in special versions with brass cap instead of plastic. **Contact our Customer Service for further information.**

ORDER CODE	MODEL	SEALS	SETTING
04.006.00172	**VB5**	NBR	5 bar
04.006.00150	**VB8**		8 bar

APPLICATION

The following table shows the type of indicator available according to the filter used.

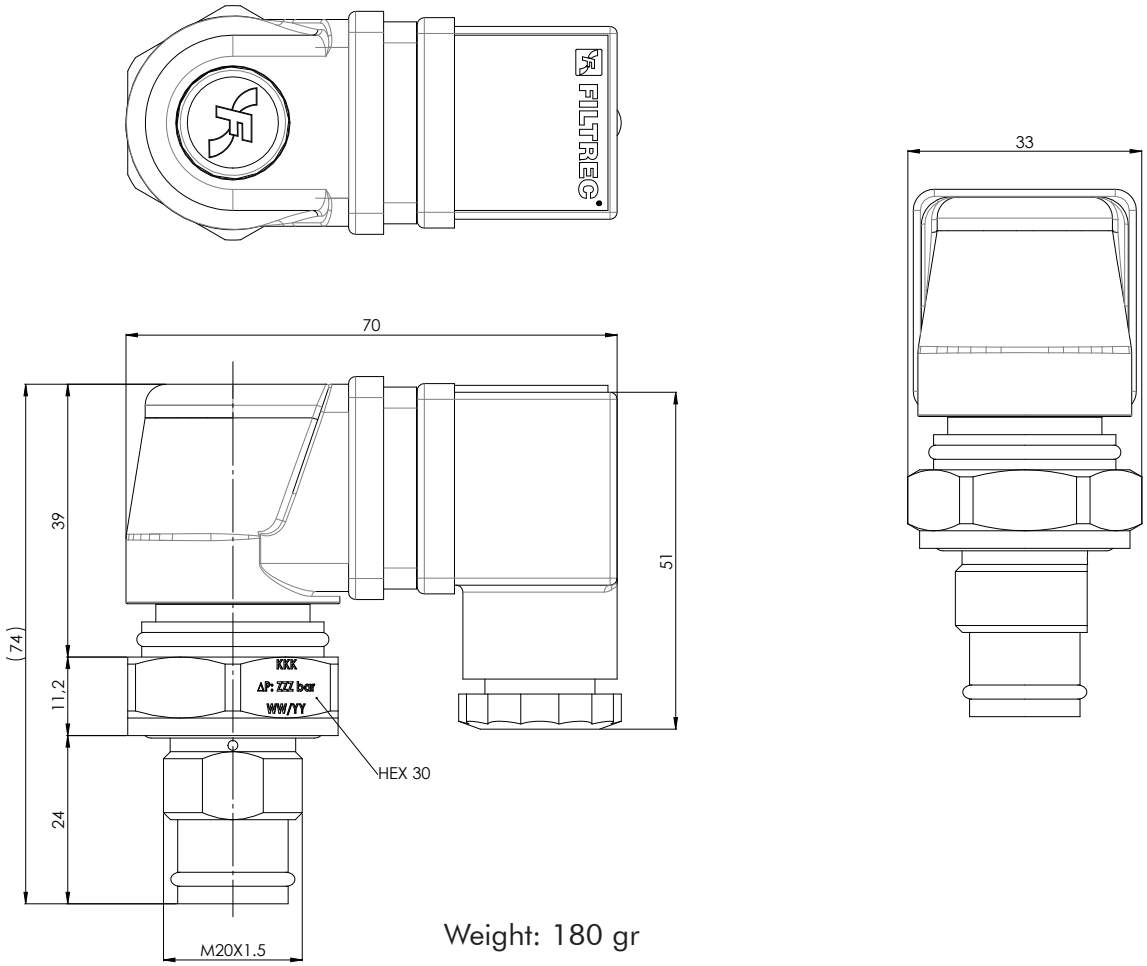
APPLICATION	FILTER CODE	INDICATOR MODEL						
		V02/VF2	V05/VF5	V08/VF8	VX1/VY1	VX2/VY2	VX5/VY5	VX8/VY8
IN LINE HIGH PRESSURE	**F100**	X	X	X				
	F280		X	X				
	F420		X	X				
	FD3						X	X
	FDM						X	X
	FH100	X	X	X				
	FH250		X	X				
	FH320		X	X				
	FH420		X	X				
	FML320		X	X				
IN LINE MEDIUM PRESSURE	**FLR**				X	X	X	X
	FLRD				X	X	X	X
	F040	X	X	X				
RETURN	**FCR7F2x**	X						
	FCR7F3x	X						
SPIN-ON	**FAH-A14x**	X						
	FA5					X		
	FA4					X		

VE SERIES

Visual and electrical differential clogging indicators

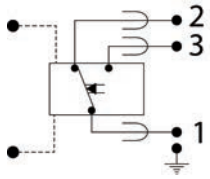
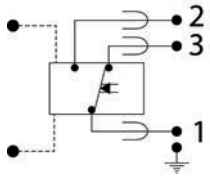
PRESSURE:	Max operating up to 420 bar
CONNECTION:	M20x1,5
MATERIALS:	Body: Brass Cover and connector: PA66 + G.F. Seal: FKM
SETTINGS ΔP:	2,7 bar ± 10% 5,0 bar ± 10% 8,0 bar ± 10%
ELECTRICAL SPECS.:	Contact configuration SPDT
CONNECTOR TYPE:	according to DIN 43650 with cable gland PG09/PG11
DEGREE OF PROTECTION:	IP67 according to EN60529
OPERATING TEMPERATURE:	-30°C - +80°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES-HFA HFB-HFC (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

OVERALL DIMENSIONS

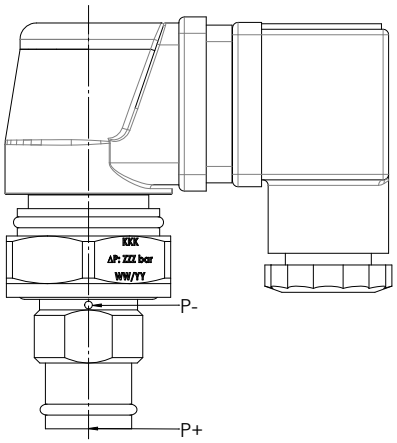


Weight: 180 gr

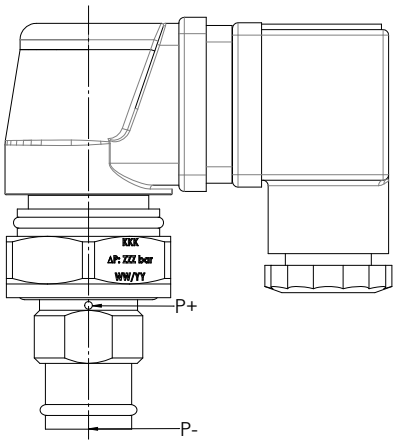
MECHANICAL CONDITION

ΔP CONDITION	VISUAL CONDITION	ELECTRIC SYMBOL
P+ - P- < ΔPset: GREEN		
P+ - P- ≥ ΔPset: RED		

ORDERING INFORMATION / DETAILS

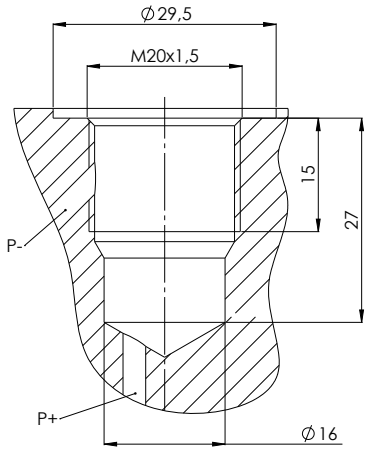
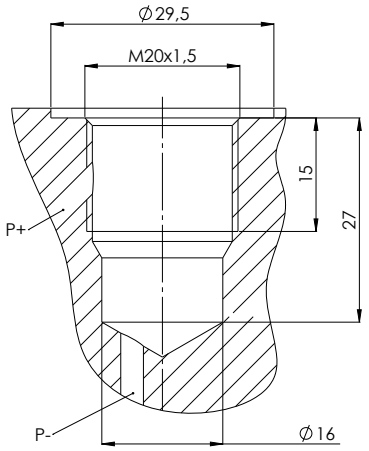
ORDER CODE	MODEL	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00388	**VEF2**		2,7 bar	• Connector DIN 43650 • Max AC voltage: 250Vac • Max current:1A resistive 0.3A inductive • Max DC voltage: 24Vdc • Max current: 3A resistive 1A inductive • Protection: IP67 EN60529
04.006.00389	**VEF5**		5,0 bar	
04.006.00390	**VEF8**		8,0 bar	

50 / 90 Nm - See hydraulic filter catalogues

ORDER CODE	MODEL	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00394	**VEXF2**		2,7 bar	• Connector DIN 43650 • Max AC voltage: 250Vac • Max current: 1A resistive 0.3A inductive • Max DC voltage: 24Vdc • Max current: 3A resistive 1A inductive • Protection: IP67 EN60529
04.006.00395	**VEXF5**		5,0 bar	
04.006.00396	**VEXF8**		8,0 bar	

50 / 90 Nm - See hydraulic filter catalogues

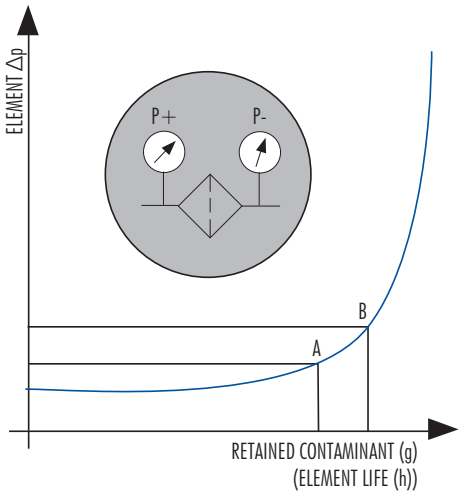
INDICATOR SEAT

VE	VEX
	

Dimensions and tolerances available on request

USER INFORMATION

The Differential indicator measures the Δp between upstream and downstream of the filter element, i.e. it is the ideal indicator for the in line applications.



The **Pressure Drop** (Δp = 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 Δp 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 value).

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 VERSION

Subject to MOQ our differential indicators type VE... can be supplied in special versions like ATEX or with different connectors.
Contact our Customer Service for further information.

APPLICATION

The following table shows the type of indicator available according to the filter used.

APPLICATION	FILTER CODE	INDICATOR MODEL					
		VEF2	VEF5	VEF8	VEXF2	VEXF5	VEXF8
IN LINE HIGH PRESSURE	**F100**	X	X	X			
	F280		X	X			
	F420		X	X			
	FD3					X	X
	FDM					X	X
	FH100	X	X	X			
	FH250		X	X			
	FH320		X	X			
	FH420-D1		X	X			
	FML320		X	X			
IN LINE MEDIUM PRESSURE	**FLR**				X	X	X
	FLRD				X	X	X
	F040	X	X	X			
RETURN	**FCR7F2x**	X					
	FCR7F3x	X					
SPIN-ON	**FAH-A14x**	X					
	FA5				X		
	FA4				X		

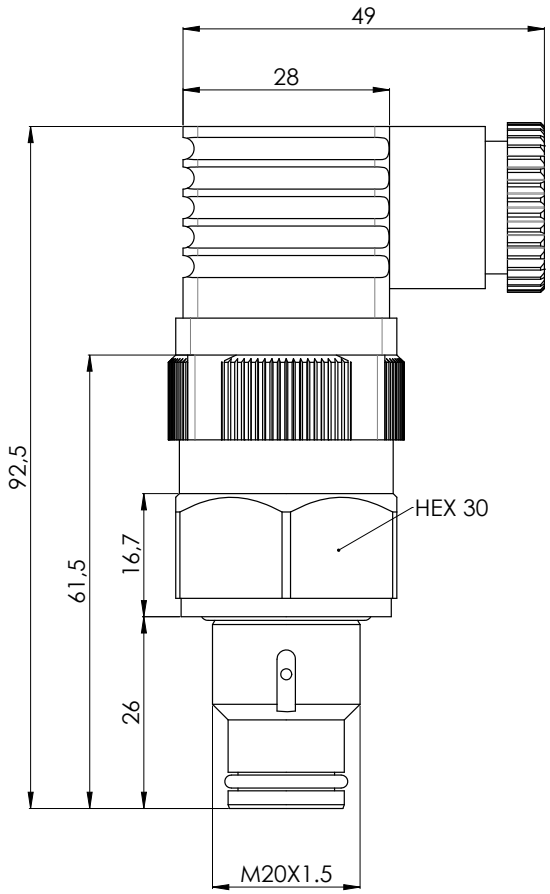
FILTREC®

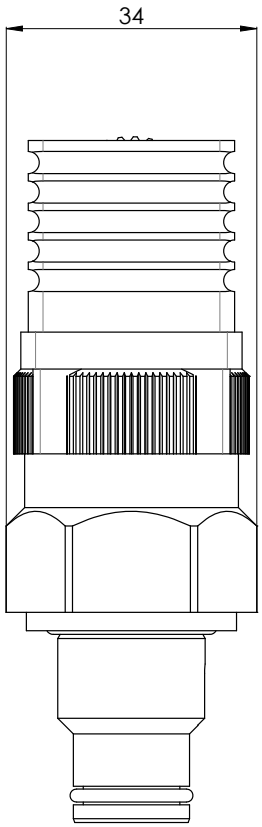
E SERIES

Electrical differential clogging indicators

PRESSURE:	Max operating up to 420 bar
CONNECTION:	M20x1,5
MATERIALS:	Body: Brass Cover and connector: PA66 + G.F. Seal: NBR standard FKM on request
SETTINGS ΔP:	1,3 bar ± 10% 2,7 bar ± 10% 5,0 bar ± 10% 8,0 bar ± 10%
ELECTRICAL SPECS.:	Contact configuration SPDT
CONNECTOR TYPE:	according to DIN 43650 with cable gland PG09/PG11
DEGREE OF PROTECTION:	IP65 according to EN60529
OPERATING TEMPERATURE:	-30°C - +80°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES-HFA HFB-HFC (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

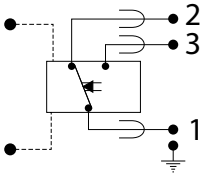
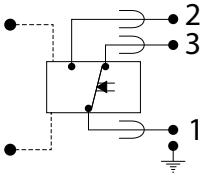
OVERALL DIMENSIONS



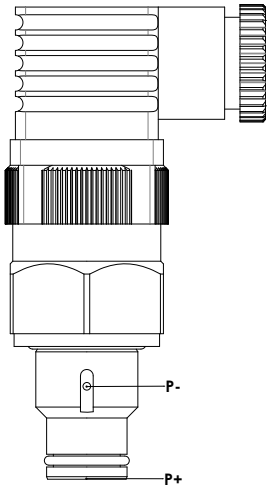


Weight: 173,6 gr

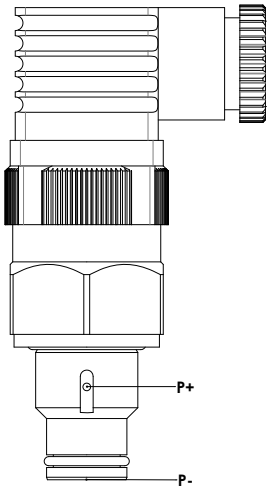
MECHANICAL CONDITION

ΔP CONDITION	ELECTRIC SYMBOL
P+ - P- < ΔPset	
P+ - P- ≥ ΔPset	

ORDERING INFORMATION / DETAILS

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00129 04.006.00130	**E02** **EF2**	**NBR** **FKM**		2,7 bar	• Connector DIN 43650 • Max AC voltage: 250Vac • Max current: 5A resistive 1A inductive • Max DC voltage: 30Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
04.006.00131 04.006.00132	**E05** **EF5**	**NBR** **FKM**		5,0 bar	
04.006.00136 04.006.00137	**E08** **EF8**	**NBR** **FKM**		8,0 bar	

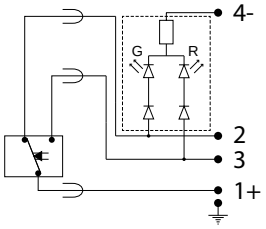
50 / 90 Nm - See hydraulic filter catalogues

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00664 04.006.00665	**EX1** **EY1**	**NBR** **FKM**		1,3 bar	• Connector DIN 43650 • Max AC voltage: 250Vac • Max current: 5A resistive 1A inductive • Max DC voltage: 30Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
04.006.00520 04.006.00521	**EX2** **EY2**	**NBR** **FKM**		2,7 bar	
04.006.00133 04.006.00134	**EX5** **EY5**	**NBR** **FKM**		5,0 bar	
04.006.00138 04.006.00139	**EX8** **EY8**	**NBR** **FKM**		8,0 bar	

50 / 90 Nm - See hydraulic filter catalogues

OPTIONAL VERSION

The LC24 connector, supplied separately, can replace the standard black connector of the "E" indicator. Powered with 24Vdc, 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.

ORDER CODE	MODEL	VIEW	ELECTRICAL SPECS.
04.006.00146	**LC24**		

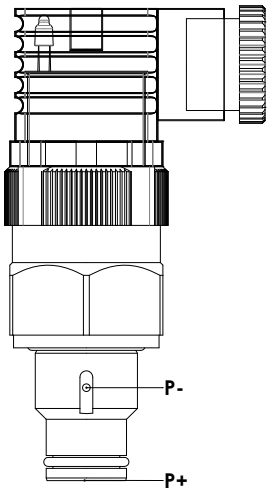
INSTRUCTIONS FOR REPLACING THE std CONNECTOR WITH THE LC24 CONNECTOR

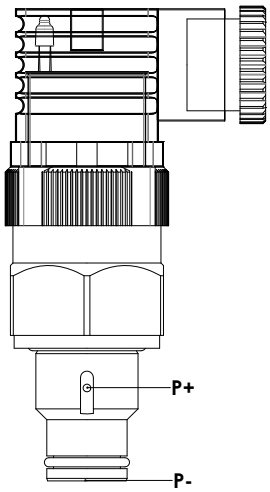
1. UNSCREW THE SCREW	2. DISCONNECT THE STANDARD CONNECTOR
	
3. ATTACH THE LC24 CONNECTOR	**4. TIGHTEN THE SCREW**
	

VERSION WITH INTEGRATED LED CONNECTOR

Subject to MOQ our differential indicators type E... can be supplied in special versions with INTEGRATED LC24 connector.

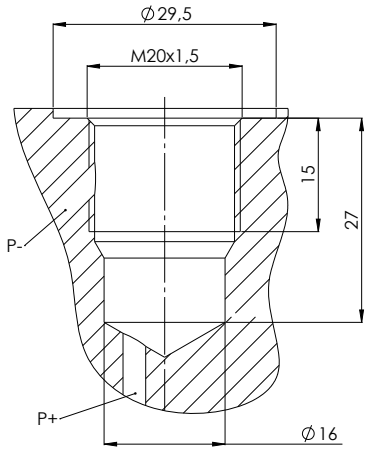
ORDERING INFORMATION / DETAILS

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00522 04.006.00523	**E02L** **EF2L**	**NBR** **FKM**		2,7 bar	• Connector DIN 43650 • Max DC voltage: 24Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
04.006.00169 04.006.00524	**E05L** **EF5L**	**NBR** **FKM**		5,0 bar	
04.006.00177 04.006.00525	**E08L** **EF8L**	**NBR** **FKM**		8,0 bar	
50 / 90 Nm - See hydraulic filter catalogues					

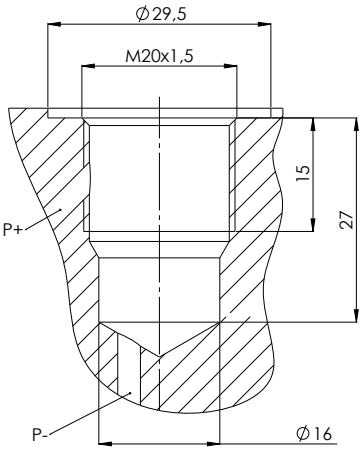
ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00526 04.006.00527	**EX2L** **EY2L**	**NBR** **FKM**		2,7 bar	• Connector DIN 43650 • Max DC voltage: 24Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
04.006.00528 04.006.00529	**EX5L** **EY5L**	**NBR** **FKM**		5,0 bar	
04.006.00530 04.006.00531	**EX8L** **EY8L**	**NBR** **FKM**		8,0 bar	
50 / 90 Nm - See hydraulic filter catalogues					

INDICATOR SEAT

E0.../EF.../E0...L/EF...L



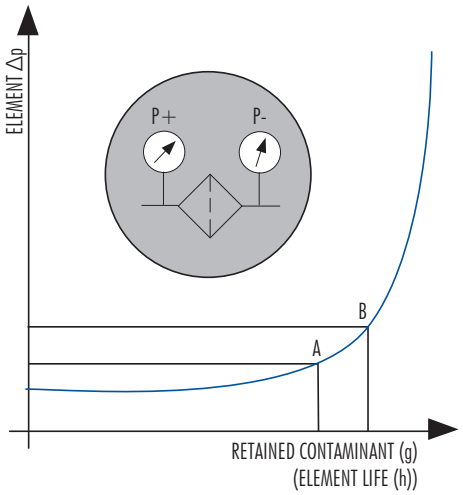
EX.../EY.../EX...L/EY...L



Dimensions and tolerances available on request

USER INFORMATION

The Differential indicator measures the Δp between upstream and downstream of the filter element, i.e. it is the ideal indicator for the in line applications.



The **Pressure Drop** (Δp = 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 Δp 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 value).

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 VERSION

Subject to MOQ our differential indicators type E... can be supplied in special versions like ATEX or with different connectors.
Contact our Customer Service for further information.

APPLICATION

The following table shows the type of indicator available according to the filter used.

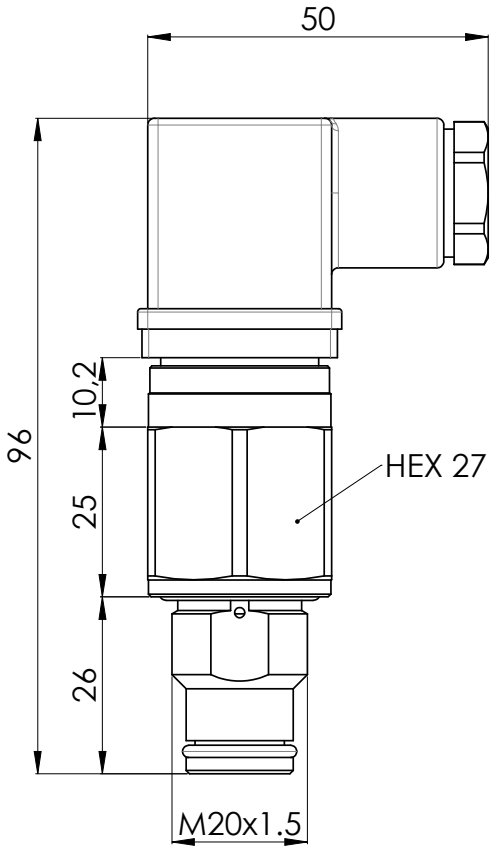
APPLICATION	FILTER CODE	INDICATOR MODEL						
		E02/EF2 E02L/EF2L	E05/EF5 E05L/EF5L	E08/EF8 E08L/EF8L	EX1/EY1	EX2/EY2 EX2L/EY2L	EX5/EY5 EX5L/EY5L	EX8/EY8 EX8L/EY8L
IN LINE HIGH PRESSURE	**F100**	X	X	X				
	F280		X	X				
	F420		X	X				
	FD3						X	X
	FDM						X	X
	FH100	X	X	X				
	FH250		X	X				
	FH320		X	X				
	FH420		X	X				
	FML320		X	X				
IN LINE MEDIUM PRESSURE	**FLR**				X	X	X	X
	FLRD				X	X	X	X
	F040	X	X	X				
RETURN	**FCR7F2x**	X						
	FCR7F3x	X						
SPIN-ON	**FAH-A14x**	X						
	FA5					X		
	FA4					X		

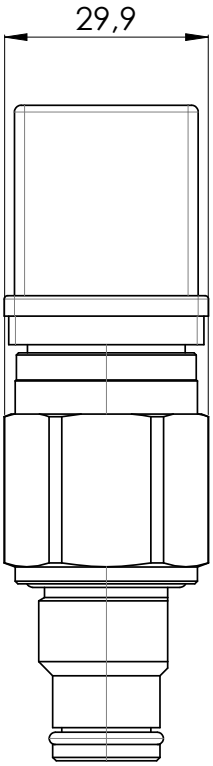
ET SERIES

Electrical differential clogging indicators with thermostatic switch set at 30°C

PRESSURE:	Max operating up to 420 bar
CONNECTION:	M20x1,5
MATERIALS:	Body: Brass Cover and connector: PA66 + G.F. Seal: NBR standard FKM on request
SETTINGS ΔP:	2,7 bar ± 10% 5,0 bar ± 10% 8,0 bar ± 10%
ELECTRICAL SPECS.:	See electrical symbol
CONNECTOR TYPE:	according to DIN 43650 with cable gland PG09/PG11
DEGREE OF PROTECTION:	IP65 according to EN60529
OPERATING TEMPERATURE:	-30°C - +80°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES-HFA HFB-HFC (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

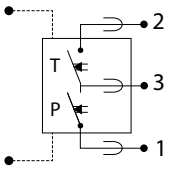
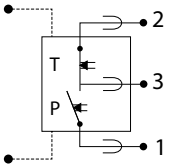
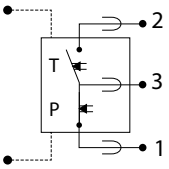
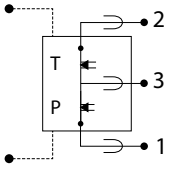
OVERALL DIMENSIONS



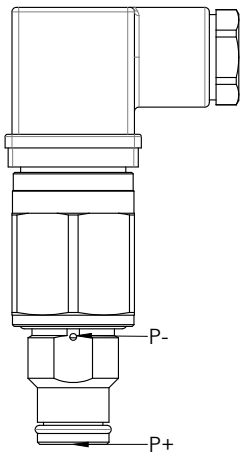


Weight: 180 gr

MECHANICAL CONDITION

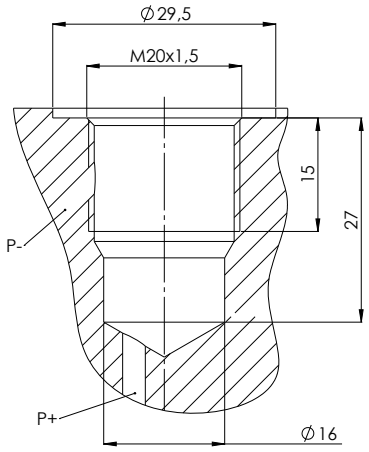
ΔP CONDITION	ELECTRIC SYMBOL	
P+ - P- < ΔPset	 T<Tset	 T≥Tset
P+ - P- ≥ ΔPset	 T<Tset	 T≥Tset

ORDERING INFORMATION / DETAILS

ORDER CODE	MODEL	SEALS	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00547 04.006.00548	**ET02** **ETF2**	**NBR** **FKM**		2,7 bar	• Connector DIN 43650 • Max AC and DC voltage: 24V Max current: 5A resistive 1A inductive • Protection: IP65 EN60529
04.006.00117 04.006.00135	**ET05** **ETF5**	**NBR** **FKM**		5,0 bar	
04.006.00549 04.006.00550	**ET08** **ETF8**	**NBR** **FKM**		8,0 bar	
50 / 90 Nm - See hydraulic filter catalogues					

INDICATOR SEAT

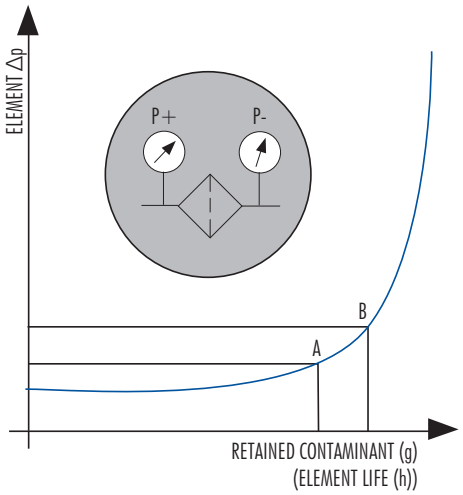
ET.../ETF...



Dimensions and tolerances available on request

USER INFORMATION

The Differential indicator measures the Δp between upstream and downstream of the filter element, i.e. it is the ideal indicator for the in line applications.



The **Pressure Drop** (Δp = 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 Δp 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 value).

OPTIONAL VERSION

Subject to MOQ our differential indicators type ET... can be supplied in special versions like ATEX or with different connectors.
Contact our Customer Service for further information.

APPLICATION

The following table shows the type of indicator available according to the filter used.

APPLICATION	FILTER CODE	INDICATOR MODEL		
		ET02/ETF2	ET05/ETF5	ET08/ETF8
IN LINE HIGH PRESSURE	**F100**	**X**	**X**	**X**
	F280		**X**	**X**
	F420		**X**	**X**
	FH100	**X**	**X**	**X**
	FH250		**X**	**X**
	FH320		**X**	**X**
	FH420-D1		**X**	**X**
	FML320		**X**	**X**
IN LINE MEDIUM PRESSURE	**F040**	**X**	**X**	**X**
RETURN	**FCR7F2x**	**X**		
	FCR7F3x	**X**		
SPIN-ON	**FAH-A14x**	**X**		

EC SERIES

Electrical differential indicators with integrated connector

EC/ECX..D

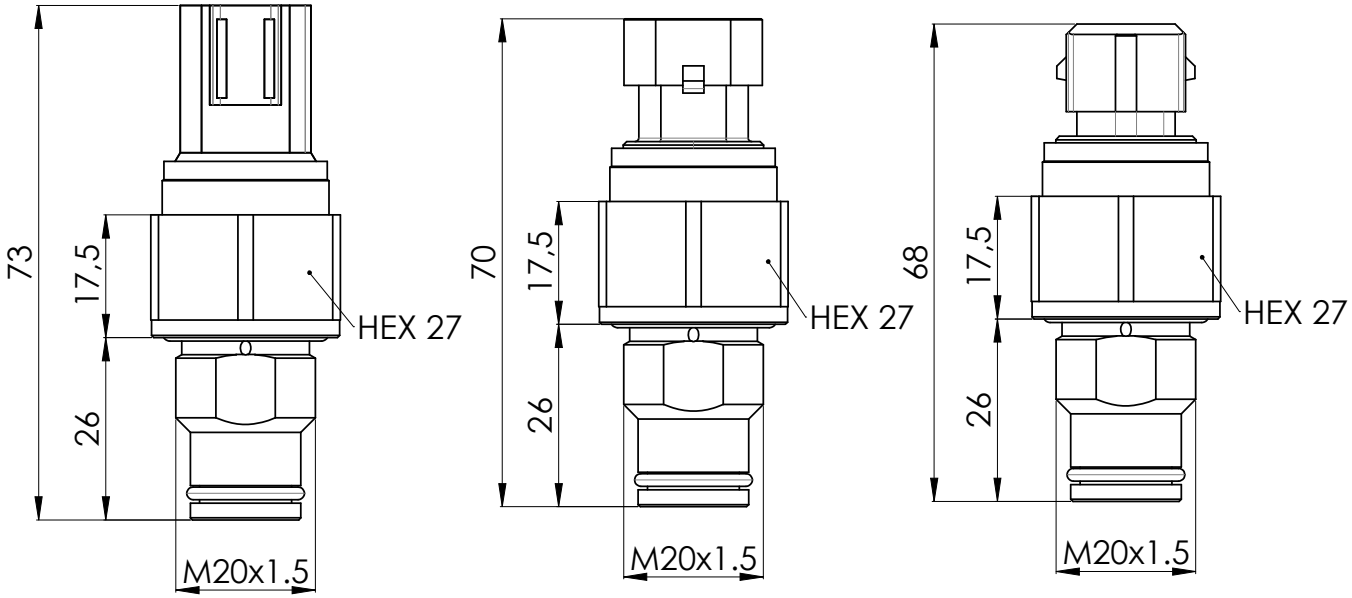
EC/ECX..S

EC/ECX..J

PRESSURE:	Max operating up to 420 bar
CONNECTION:	M20x1,5
MATERIALS:	Body: Brass Cover and connector: PA66 + G.F. Seal: HNBR standard
SETTINGS ΔP:	2,7 bar ± 10% 5,0 bar ± 10% 8,0 bar ± 10%
ELECTRICAL SPECS.:	Contact configuration N.O./N.C.
CONNECTOR TYPE:	Deutsch DT04-2P SUPERSEAL 1.5 2 WAY JUNIOR POWER TIMER 2 WAY
DEGREE OF PROTECTION:	IP67 according to EN60529
OPERATING TEMPERATURE:	-30°C - + 80°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES-HFA HFB-HFC (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

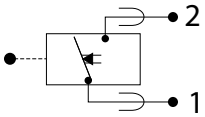
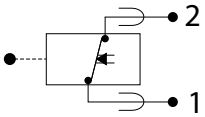
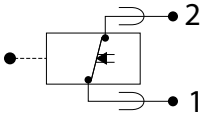
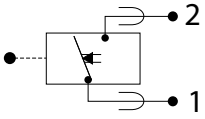
OVERALL DIMENSIONS

EC/ECX..D	EC/ECX..S	EC/ECX..J

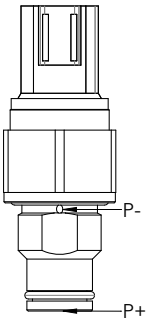


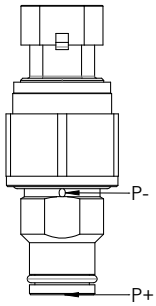
Weight: ~150g

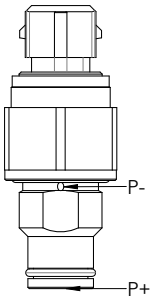
MECHANICAL CONDITION

ΔP CONDITION	ELECTRIC SYMBOL N.O.	ELECTRIC SYMBOL N.C.
P+ - P- < ΔPset		
P+ - P- ≥ ΔPset		

ORDERING INFORMATION / DETAILS

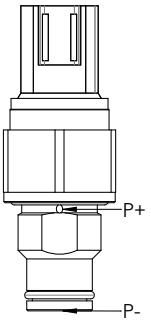
ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00444	**EC02DA0**	**N.O.**	**Deutsch DT04-2P**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00446	**EC02DC0**	**N.C.**			
04.006.00447	**EC05DA0**	**N.O.**		5,0 bar	
04.006.00449	**EC05DC0**	**N.C.**			
04.006.00450	**EC08DA0**	**N.O.**		8,0 bar	
04.006.00452	**EC08DC0**	**N.C.**			

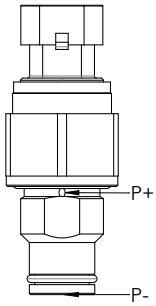
ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00435	**EC02SA0**	**N.O.**	**Superseal 1.5 2 Way**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00437	**EC02SC0**	**N.C.**			
04.006.00438	**EC05SA0**	**N.O.**		5,0 bar	
04.006.00440	**EC05SC0**	**N.C.**			
04.006.00441	**EC08SA0**	**N.O.**		8,0 bar	
04.006.00443	**EC08SC0**	**N.C.**			

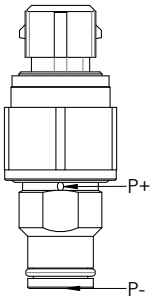
ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00453	**EC02JA0**	**N.O.**	**Junior Timer 2 Way**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00455	**EC02JC0**	**N.C.**			
04.006.00456	**EC05JA0**	**N.O.**		5,0 bar	
04.006.00458	**EC05JC0**	**N.C.**			
04.006.00459	**EC08JA0**	**N.O.**		8,0 bar	
04.006.00461	**EC08JC0**	**N.C.**			

50 / 90 Nm - See hydraulic filter catalogues

ORDERING INFORMATION / DETAILS

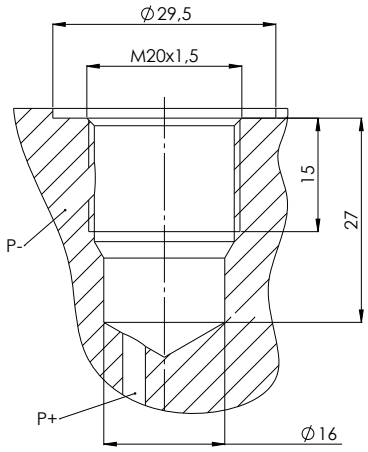
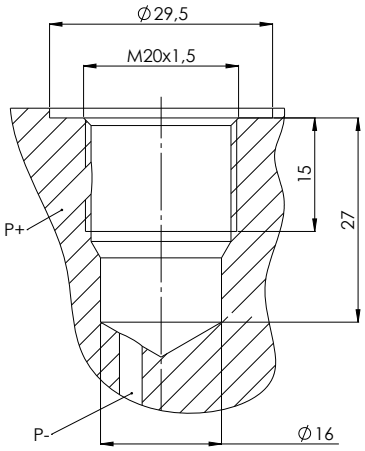
ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00500	**ECX2DA0**	**N.O.**	**Deutsch DT04-2P**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00502	**ECX2DC0**	**N.C.**			
04.006.00503	**ECX5DA0**	**N.O.**		5,0 bar	
04.006.00505	**ECX5DC0**	**N.C.**			
04.006.00506	**ECX8DA0**	**N.O.**		8,0 bar	
04.006.00508	**ECX8DC0**	**N.C.**			

ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00491	**ECX2SA0**	**N.O.**	**Superseal 1.5 2 Way**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00493	**ECX2SC0**	**N.C.**			
04.006.00494	**ECX5SA0**	**N.O.**		5,0 bar	
04.006.00496	**ECX5SC0**	**N.C.**			
04.006.00497	**ECX8SA0**	**N.O.**		8,0 bar	
04.006.00499	**ECX8SC0**	**N.C.**			

ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00509	**ECX2JA0**	**N.O.**	**Junior Timer 2 Way**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00511	**ECX2JC0**	**N.C.**			
04.006.00512	**ECX5JA0**	**N.O.**		5,0 bar	
04.006.00514	**ECX5JC0**	**N.C.**			
04.006.00515	**ECX8JA0**	**N.O.**		8,0 bar	
04.006.00517	**ECX8JC0**	**N.C.**			

50 / 90 Nm - See hydraulic filter catalogues

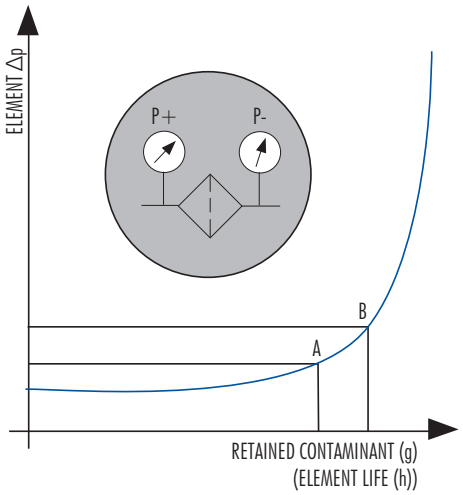
INDICATOR SEAT

EC...	ECX...
	

Dimensions and tolerances available on request

USER INFORMATION

The Differential indicator measures the Δp between upstream and downstream of the filter element, i.e. it is the ideal indicator for the in line applications.



The **Pressure Drop** (Δp = 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 Δp 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 value).

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 VERSION

Subject to MOQ our differential indicators type EC... can be supplied in special versions like ATEX or with different connectors.
Contact our Customer Service for further information.

APPLICATION

The following table shows the type of indicator available according to the filter used.

APPLICATION	FILTER CODE	INDICATOR MODEL					
		EC02..	EC05..	EC08..	ECX2..	ECX5..	ECX8..
IN LINE HIGH PRESSURE	**F100**	X	X	X			
	F280		X	X			
	F420		X	X			
	FD3					X	X
	FDM					X	X
	FH100	X	X	X			
	FH250		X	X			
	FH320		X	X			
	FH420-D1		X	X			
	FML320		X	X			
IN LINE MEDIUM PRESSURE	**FLR**				X	X	X
	FLRD				X	X	X
	F040	X	X	X			
RETURN	**FCR7F2x**	X					
	FCR7F3x	X					
SPIN-ON	**FAH-A14x**	X					
	FA5				X		
	FA4				X		

EW SERIES

Electrical differential indicators with cable and connector with and without thermostatic switch set at 30°C

EW EWX..D

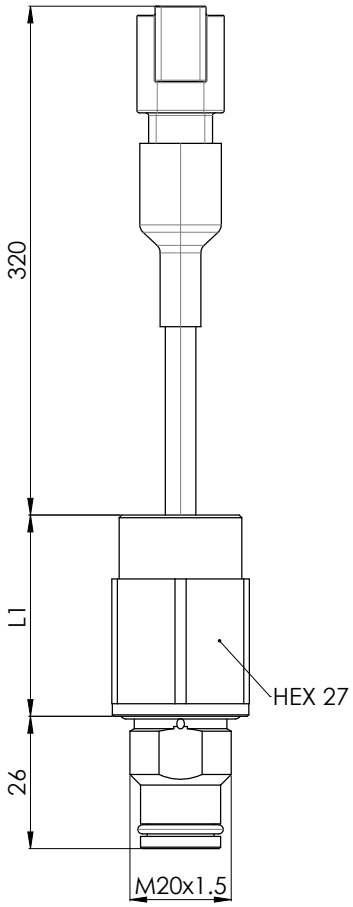
EW EWX..S

EW EWX..J

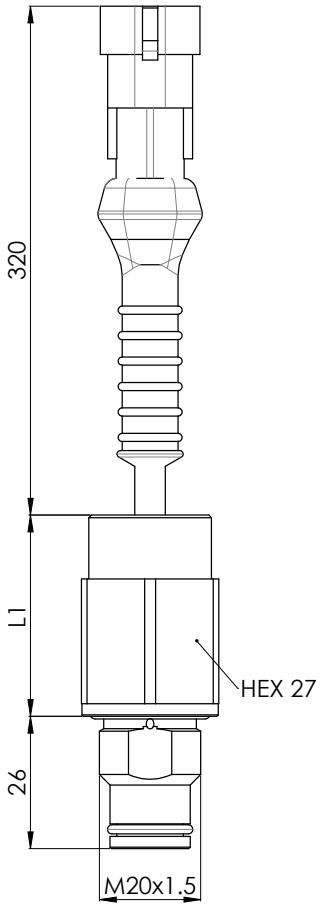
PRESSURE:	Max operating up to 420 bar
CONNECTION:	M20x1,5
MATERIALS:	Body: Brass Cover and connector: PA66 + G.F. Seal: HNBR standard
SETTINGS ΔP:	2,7 bar ± 10% 5,0 bar ± 10% 8,0 bar ± 10%
ELECTRICAL SPECS.:	Contact configuration N.O./N.C.
CONNECTOR TYPE:	Deutsch DT04-2P SUPERSEAL 1.5 2 WAY JUNIOR POWER TIMER 2 WAY
DEGREE OF PROTECTION:	IP67 according to EN60529
OPERATING TEMPERATURE:	-30°C - + 80°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES-HFA HFB-HFC (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

OVERALL DIMENSIONS

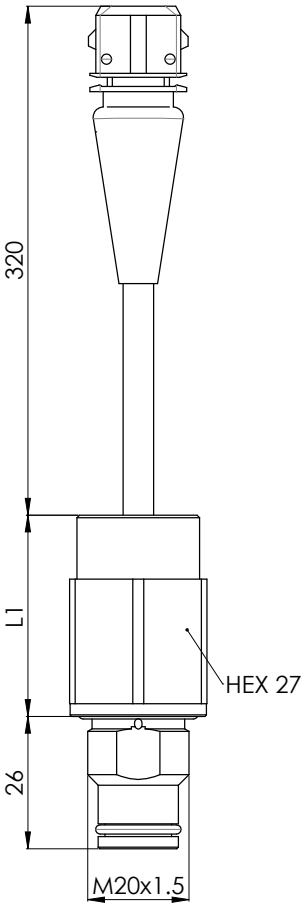
EW/EWX..D



EW/EWX..S



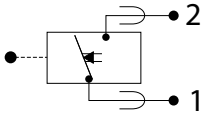
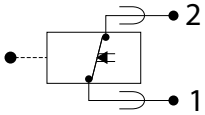
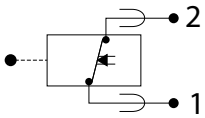
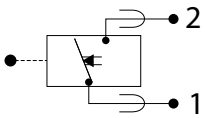
EW/EWX..J



L1: 49 WITH THERMOSTAT
40 WITHOUT THERMOSTAT

Weight: ~240g

MECHANICAL CONDITION

ΔP CONDITION	ELECTRIC SYMBOL N.O.	ELECTRIC SYMBOL N.C.
P+ - P- < ΔPset		
P+ - P- ≥ ΔPset		

ORDERING INFORMATION / DETAILS

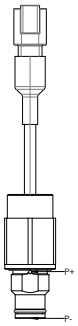
ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00411	**EW02DA0**	**N.O.**	**Deutsch DT04-2P**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00412	**EW02DAT**				
04.006.00413	**EW02DC0**	**N.C.**			
04.006.00564	**EW05DA0**	**N.O**		5,0 bar	
04.006.00416	**EW05DAT**				
04.006.00417	**EW05DC0**	**N.C.**			
04.006.00419	**EW08DA0**	**N.O.**		8,0 bar	
04.006.00420	**EW08DAT**				
04.006.00421	**EW08DC0**	**N.C.**			

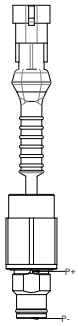
ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00399	**EW02SA0**	**N.O.**	**Superseal 1.5 2 Way**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00400	**EW02SAT**				
04.006.00401	**EW02SC0**	**N.C.**			
04.006.00403	**EW05SA0**	**N.O**		5,0 bar	
04.006.00404	**EW05SAT**				
04.006.00405	**EW05SC0**	**N.C.**			
04.006.00407	**EW08SA0**	**N.O.**		8,0 bar	
04.006.00408	**EW08SAT**				
04.006.00409	**EW08SC0**	**N.C.**			

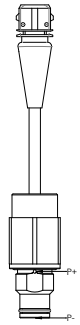
ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00423	**EW02JA0**	**N.O.**	**Junior Timer 2 Way**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00424	**EW02JAT**				
04.006.00425	**EW02JC0**	**N.C.**			
04.006.00427	**EW05JA0**	**N.O**		5,0 bar	
04.006.00428	**EW05JAT**				
04.006.00429	**EW05JC0**	**N.C.**			
04.006.00431	**EW08JA0**	**N.O.**		8,0 bar	
04.006.00432	**EW08JAT**				
04.006.00433	**EW08JC0**	**N.C.**			

50 / 90 Nm - See hydraulic filter catalogues

ORDERING INFORMATION / DETAILS

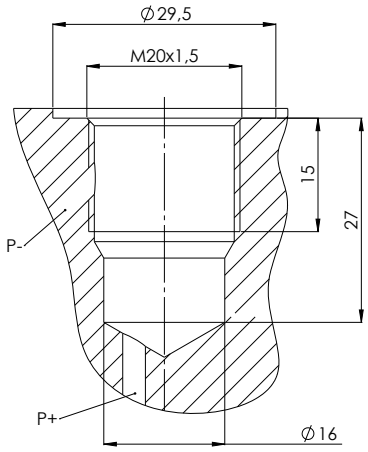
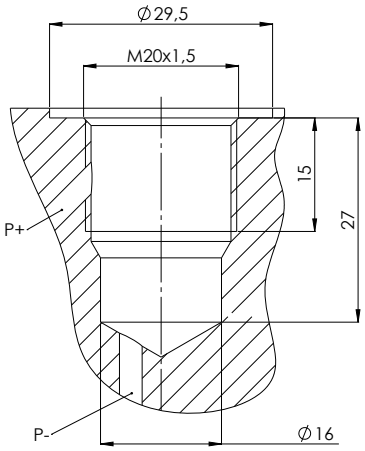
ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00472	**EWX2DA0**	**N.O.**	**Deutsch DT04-2P**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00473	**EWX2DAT**				
04.006.00474	**EWX2DC0**	**N.C.**			
04.006.00475	**EWX5DA0**	**N.O**		5,0 bar	
04.006.00476	**EWX5DAT**				
04.006.00477	**EWX5DC0**	**N.C.**			
04.006.00478	**EWX8DA0**	**N.O.**		8,0 bar	
04.006.00479	**EWX8DAT**				
04.006.00480	**EWX8DC0**	**N.C.**			

ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00463	**EWX2SA0**	**N.O.**	**Superseal 1.5 2 Way**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00464	**EWX2SAT**				
04.006.00465	**EWX2SC0**	**N.C.**			
04.006.00466	**EWX5SA0**	**N.O**		5,0 bar	
04.006.00467	**EWX5SAT**				
04.006.00468	**EWX5SC0**	**N.C.**			
04.006.00469	**EWX8SA0**	**N.O.**		8,0 bar	
04.006.00470	**EWX8SAT**				
04.006.00471	**EWX8SC0**	**N.C.**			

ORDER CODE	MODEL	CONN	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00481	**EWX2JA0**	**N.O.**	**Junior Timer 2 Way**	2,7 bar	• Max switching voltage: 48VDC • Max current: 5A resistive 2A inductive • Protection: IP67 EN60529
04.006.00482	**EWX2JAT**				
04.006.00483	**EWX2JC0**	**N.C.**			
04.006.00484	**EWX5JA0**	**N.O**		5,0 bar	
04.006.00485	**EWX5JAT**				
04.006.00486	**EWX5JC0**	**N.C.**			
04.006.00487	**EWX8JA0**	**N.O.**		8,0 bar	
04.006.00488	**EWX8JAT**				
04.006.00489	**EWX8JC0**	**N.C.**			

50 / 90 Nm - See hydraulic filter catalogues

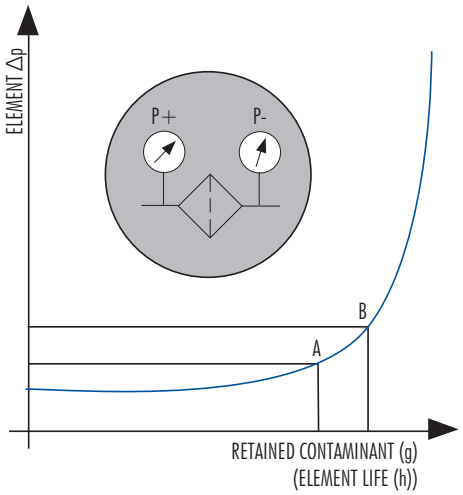
INDICATOR SEAT

EW...	EWX...
	

Dimensions and tolerances available on request

USER INFORMATION

The Differential indicator measures the Δp between upstream and downstream of the filter element, i.e. it is the ideal indicator for the in line applications.



The **Pressure Drop** (Δp = 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 Δp 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 value).

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 VERSION

Subject to MOQ our differential indicators type EW... can be supplied in special versions like ATEX or with different connectors.
Contact our Customer Service for further information.

APPLICATION

The following table shows the type of indicator available according to the filter used.

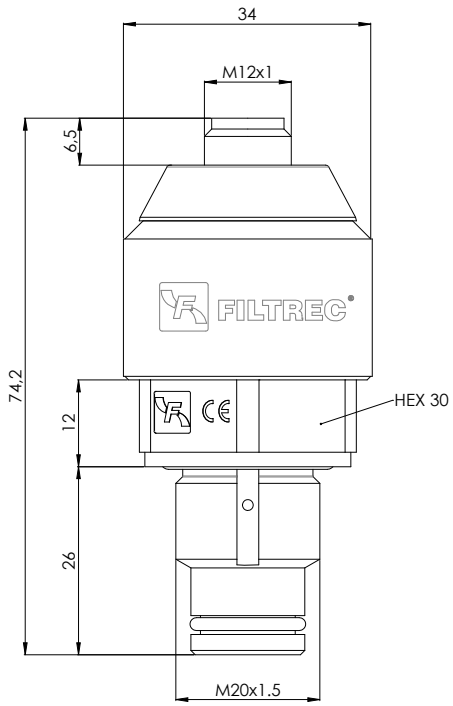
APPLICATION	FILTER CODE	INDICATOR MODEL					
		EW02..	EW05..	EW08..	EWX2..	EWX5..	EWX8..
IN LINE HIGH PRESSURE	**F100**	X	X	X			
	F280		X	X			
	F420		X	X			
	FD3					X	X
	FDM					X	X
	FH100	X	X	X			
	FH250		X	X			
	FH320		X	X			
	FH420-D1		X	X			
	FML320		X	X			
IN LINE MEDIUM PRESSURE	**FLR**				X	X	X
	FLRD				X	X	X
	F040	X	X	X			
RETURN	**FCR7F2x**	X					
	FCR7F3x	X					
SPIN-ON	**FAH-A14x**	X					
	FA5				X		
	FA4				X		

ED SERIES

Visual electrical differential pressure indicators with differential pressure thresholds, with detection of cold starts
and with the indication of the possible opening of the by-pass.

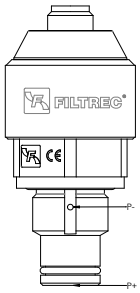
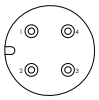
PRESSURE:	Max operating up to 420 bar
CONNECTION:	M20x1,5
MATERIALS:	Body: Brass Cover and connector: PA66 + G.F. Seal: FKM
SETTINGS ΔP:	2,7 bar ± 10% 5,0 bar ± 10% 8,0 bar ± 10%
ELECTRICAL SPECS.:	Contact configuration PNP - N.O.
CONNECTOR TYPE:	M12x1 - 4 PIN
DEGREE OF PROTECTION:	IP67 according to EN60529
OPERATING TEMPERATURE:	-30°C - +80°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES-HFA HFB-HFC (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

OVERALL DIMENSIONS

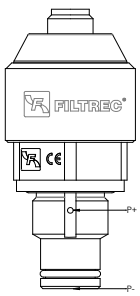
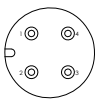


Weight: ~140g

ORDERING INFORMATION / DETAILS

ORDER CODE	MODEL	VIEW	SETTING	VISUAL OUTPUT SPECS.
04.006.00543	**EDF2**		2,7 bar	
04.006.00544	**EDF5**		5,0 bar	1. 24Vdc ± 10% 2. Output 75% PNP - Max load 0,2 N.O. 3. 0V 4. Output 100% PNP - Max load 0,2 N.O.
04.006.00545	**EDF8**		8,0 bar	

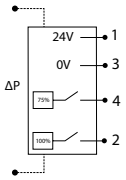
50 / 90 Nm - See hydraulic filter catalogues

ORDER CODE	MODEL	VIEW	SETTING	VISUAL OUTPUT SPECS.
04.006.00577	**EDXF2**		2,7 bar	
04.006.00578	**EDXF5**		5,0 bar	1. 24Vdc ± 10% 2. Output 75% PNP - Max load 0,2 N.O. 3. 0V 4. Output 100% PNP - Max load 0,2 N.O.
04.006.00579	**EDXF8**		8,0 bar	

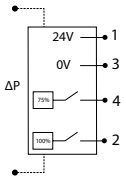
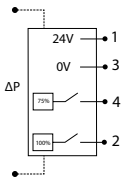
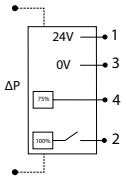
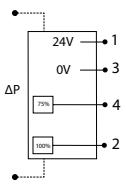
50 / 90 Nm - See hydraulic filter catalogues

ELECTRICAL AND VISUAL CONDITION

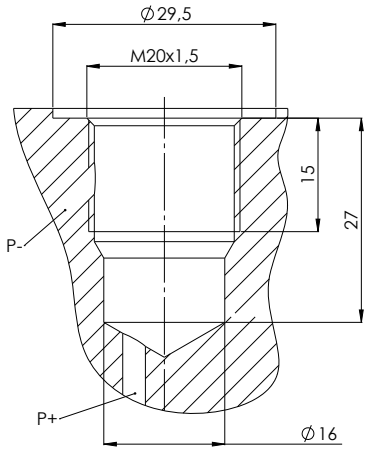
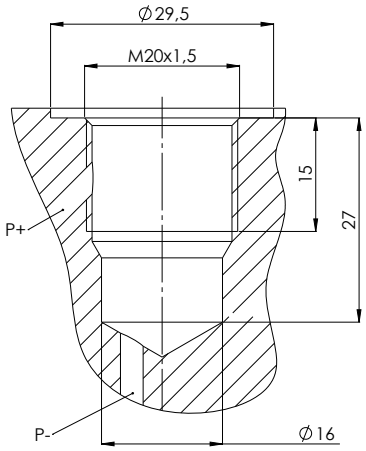
If T<Thermal lock-out (20°C)

ΔP CONDITION	MODEL	RANGE	VISUAL	ELECTRICAL SYMBOL
Any ΔP within measuring range	**EDF2 EDXF2**	0÷2,7 bar		
	EDF5 EDXF5	0÷5,0 bar		
	EDF8 EDXF8	0÷8,0 bar		

If T>Thermal lock-out (20°C)

ΔP CONDITION	MODEL	RANGE	VISUAL	ELECTRICAL SYMBOL
0<ΔP<50	**EDF2 EDXF2**	0÷1,3 bar		
	EDF5 EDXF5	0÷2,5 bar		
	EDF8 EDXF8	0÷4,0 bar		
50≤ΔP<75	**EDF2 EDXF2**	1,3÷2,0 bar		
	EDF5 EDXF5	2,5÷3,7 bar		
	EDF8 EDXF8	4,0÷6,0 bar		
75≤ΔP<100	**EDF2 EDXF2**	2,0÷2,7 bar		
	EDF5 EDXF5	3,7÷5,0 bar		
	EDF8 EDXF8	6,0÷8,0 bar		
ΔP≥100	**EDF2 EDXF2**	≥2,7 bar	 **BLINKING**	
	EDF5 EDXF5	≥5,0 bar		
	EDF8 EDXF8	≥8,0 bar		

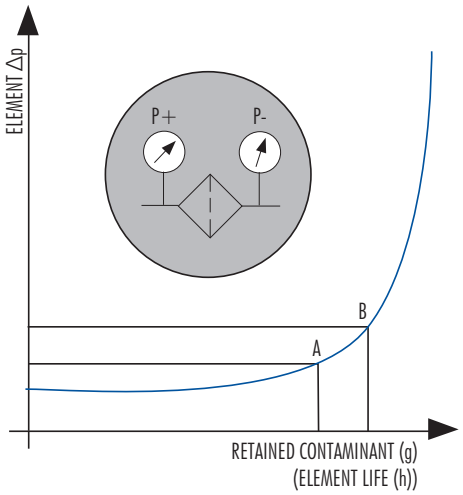
INDICATOR SEAT

ED...	EDX...
	

Dimensions and tolerances available on request

USER INFORMATION

The Differential indicator measures the Δp between upstream and downstream of the filter element, i.e. it is the ideal indicator for the in line applications.



The **Pressure Drop** (Δp = 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 Δp 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 value).

OPTIONAL VERSION

Subject to MOQ our differential indicators type ED... can be supplied in special versions with UL and CSA certification.
Contact our Customer Service for further information.

APPLICATION

The following table shows the type of indicator available according to the filter used.

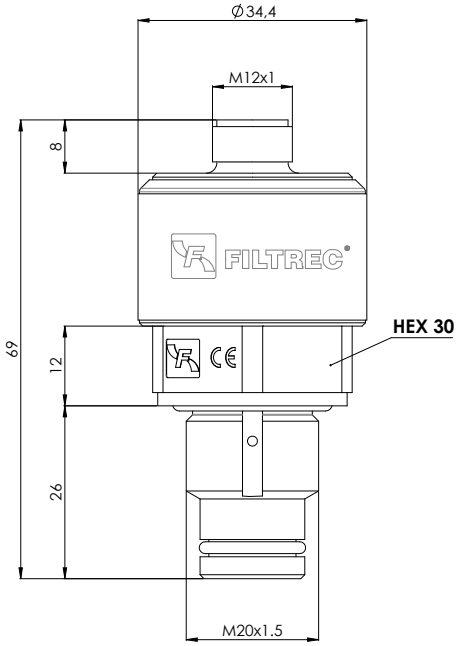
APPLICATION	FILTER CODE	INDICATOR MODEL					
		EDF2..	EDF5..	EDF8..	EDXF2..	EDXF5..	EDXF8..
IN LINE HIGH PRESSURE	**F100**	X	X	X			
	F280		X	X			
	F420		X	X			
	FD3					X	X
	FDM					X	X
	FH100	X	X	X			
	FH250		X	X			
	FH320		X	X			
	FH420-D1		X	X			
	FML320		X	X			
IN LINE MEDIUM PRESSURE	**FLR**				X	X	X
	FLRD				X	X	X
	F040	X	X	X			
RETURN	**FCR7F2x**	X					
	FCR7F3x	X					
SPIN-ON	**FAH-A14x**	X					
	FA5				X		
	FA4				X		

EA SERIES

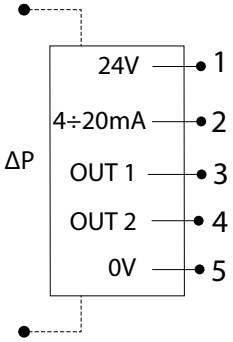
4-20 mA Electronical differential pressure transmitter

PRESSURE:	Max operating up to 420 bar
CONNECTION:	M20x1,5
MATERIALS:	Body: Brass Cover and connector: PA66 + G.F. Seal: FKM
RANGE ΔP:	2,0 ÷ 8,0 bar
ELECTRICAL SPECS.:	Analog output 4÷20 mA N°2 digital output PNP - N.O.
CONNECTOR TYPE:	M12x1 - 5 PIN
DEGREE OF PROTECTION:	IP67 according to EN60529
OPERATING TEMPERATURE:	-30°C - +80°C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV-HETG-HEES, HFA-HFB-HFC (acc. to ISO 6743/4) For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

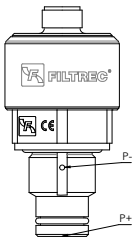
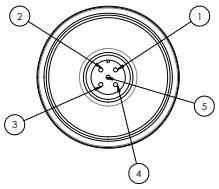
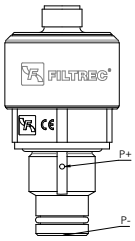
OVERALL DIMENSIONS AND ELECTRICAL SCHEME



Weight: : ~140g



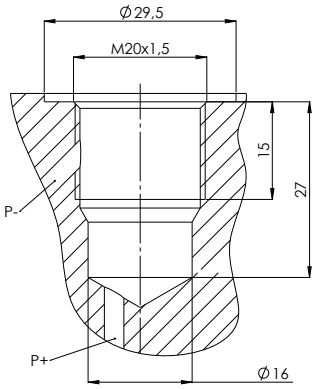
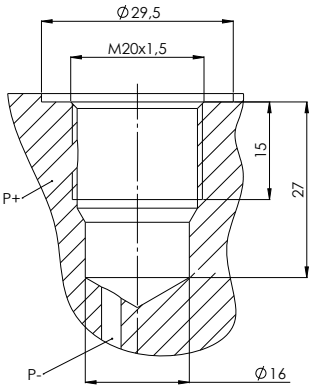
ORDERING INFORMATION / DETAILS

ORDER CODE	MODEL	VIEW	RANGE	ELECTRICAL CONNECTION
04.006.00629	**EAF8**		2,0 ÷ 8,0 bar	 1. 24Vdc ± 10% 2. Analog output 4÷20mA 4mA = 2 bar 8mA = 8 bar 3. Digital output 1 calibrated at 6 bar – PNP - Max Load 0,2A – N.O. 4. Digital output 2 calibrated at 8 bar – PNP - Max Load 0,2A – N.O. 5. 0V - GND
04.006.00630	**EAXF8**			

Note: Accuracy at 25°C max±5% FS; Thermal drift (range T*÷70°C) max ±6% FS
Time: Activation time =3s
Response time = Analog out ~ 0.2s
Digital out ~ 0.1s
Thermal Lock Out: T*=20°C±2°
If T<T*: digital Out 1 N.O., digital Out 2 N.O., Analogue Out 3mA

50 / 90 Nm - See hydraulic filter catalogues

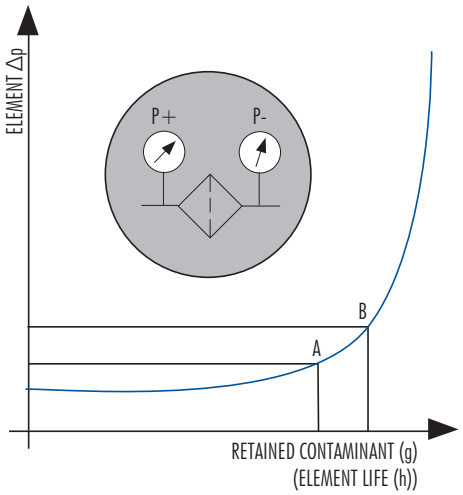
INDICATOR SEAT

EA...	EAX...
	

Dimensions and tolerances available on request

USER INFORMATION

The **Differential indicator** measures the Δp between upstream and downstream of the filter element, i.e. it is the ideal indicator for the in line applications.



The **Pressure Drop** (Δp = 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 Δp 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 value).

OPTIONAL VERSION

Subject to MOQ our differential indicators type EA... different ranges and special certifications can be supplied.
Contact our Customer Service for further information.

APPLICATION

The following table shows the type of indicator available according to the filter used.

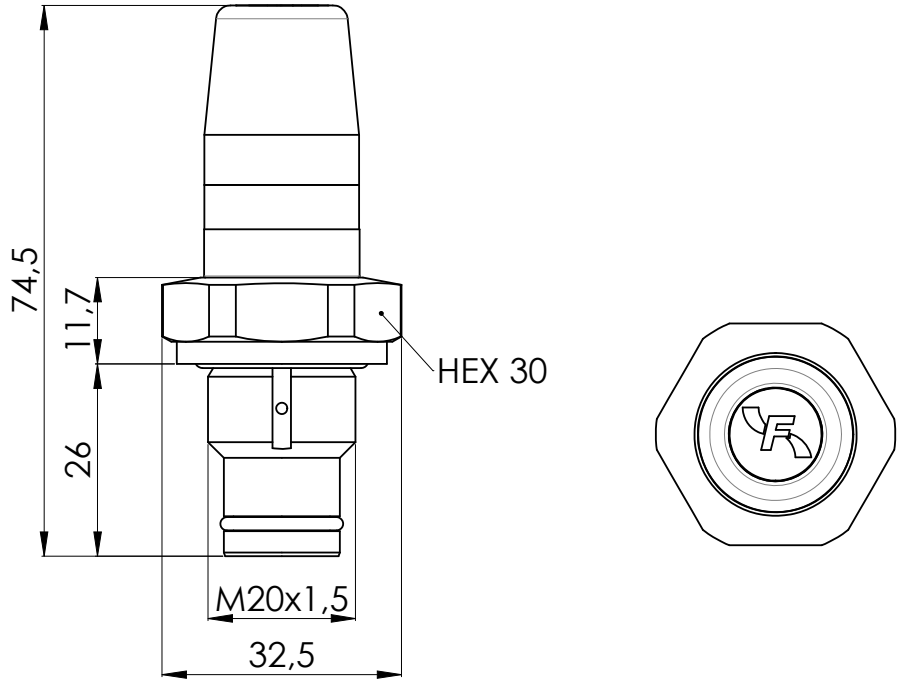
APPLICATION	FILTER CODE	INDICATOR MODEL	
		EAF8	EAXF8
IN LINE HIGH PRESSURE	**F100**	**X**	
	F280	**X**	
	F420	**X**	
	FD3		**X**
	FDM		**X**
	FH100	**X**	
	FH250	**X**	
	FH320	**X**	
	FH323-324	**X**	
	FH420	**X**	
	FML320	**X**	
IN LINE MEDIUM PRESSURE	**FLR**		**X**
	FLRD		**X**
	F040	**X**	

VS SERIES

Visual differential clogging indicators in stainless steel

PRESSURE:	Max operating up to 700 bar
CONNECTION:	M20x1,5
MATERIALS:	Body: AISI 304 - 316L Cap: PA66 + 30% GF Lens: PA12 Seal: FKM standard
SETTINGS ΔP:	2,7 bar ± 10% 5,0 bar ± 10% 8,0 bar ± 10%
DEGREE OF PROTECTION:	IP65
OPERATING TEMPERATURE:	-30°C - +80°C
FLUID COMPATIBILITY:	Full with HH-HG-HL-HM-HR-HV-HS-HE...-(HFB and HFC water <50%)-HFDU (acc. to ISO 6743/4) For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

OVERALL DIMENSIONS

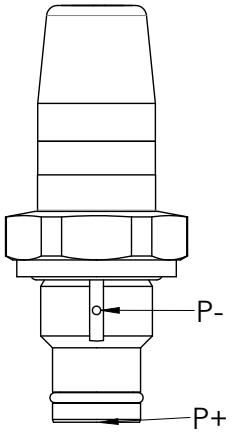


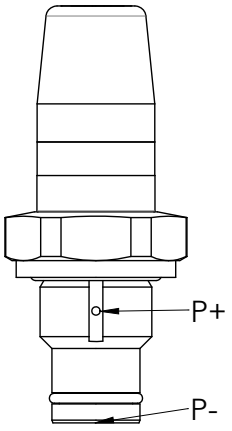
Weight: 124 gr

MECHANICAL CONDITION

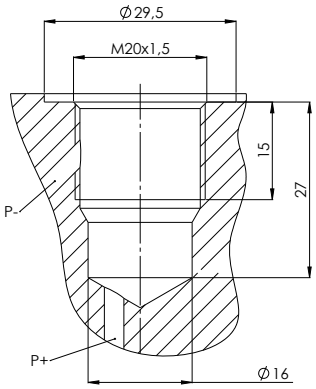
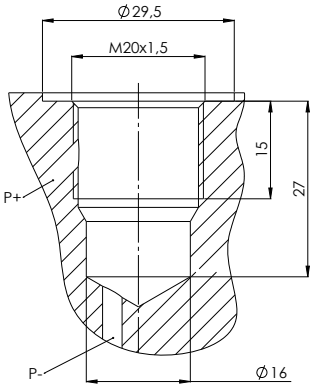
ΔP CONDITION	VISUAL CONDITION
P+ - P- < ΔPset: GREEN	
P+ - P- ≥ ΔPset: RED	

ORDERING INFORMATION / DETAILS

ORDER CODE	MODEL	BODY MATERIAL	VIEW	SETTING
04.006.00601 04.006.00643	**VSF2** **VSLF2**	AISI 304 AISI 316L		2,7 bar
04.006.00602 04.006.00644	**VSF5** **VSLF5**	AISI 304 AISI 316L		5,0 bar
04.006.00603 04.006.00645	**VSF8** **VSLF8**	AISI 304 AISI 316L		8,0 bar
50 / 90 / 100 Nm - See hydraulic filter catalogues				

ORDER CODE	MODEL	BODY MATERIAL	VIEW	SETTING
04.006.00605 04.006.00647	**VSXF2** **VSLXF2**	AISI 304 AISI 316L		2,7 bar
04.006.00606 04.006.00648	**VSXF5** **VSLXF5**	AISI 304 AISI 316L		5,0 bar
04.006.00607 04.006.00649	**VSXF8** **VSLXF8**	AISI 304 AISI 316L		8,0 bar
50 / 90 / 100 Nm - See hydraulic filter catalogues				

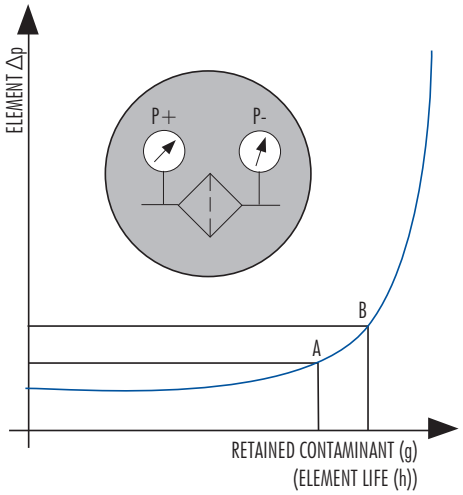
INDICATOR SEAT

VS...	VSX...
	

Dimensions and tolerances available on request

USER INFORMATION

The Differential indicator measures the Δp between upstream and downstream of the filter element, i.e. it is the ideal indicator for the in line applications.



The **Pressure Drop** (Δp = 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 Δp 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 value).

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.

INDICATOR SEAT

The following table shows the type of indicator available according to the filter used.

APPLICATION	FILTER CODE	INDICATOR MODEL					
		VSF2/VSLF2	VSF5/VSLF5	VSF8/VSLF8	VSXF2/VSLXF2	VSXF5/VSLXF5	VSXF8/VSLXF8
IN LINE HIGH PRESSURE	**F100**	X	X	X			
	F280		X	X			
	F420		X	X			
	FD3					X	X
	FDM					X	X
	FH100	X	X	X			
	FH250		X	X			
	FH320		X	X			
	FH323		X	X			
	FH324		X	X			
	FH420		X	X			
	FH700					X	X
	FML320		X	X			
IN LINE MEDIUM PRESSURE	**FLR**				X	X	X
	FLRD				X	X	X
	F040	X	X	X			
RETURN	**FCR7F2x**	X					
	FCR7F3x	X					
SPIN-ON	**FAH**	X					
	FA4				X		
	FAP A4				X		
	FA5				X		
	FAP A5				X		

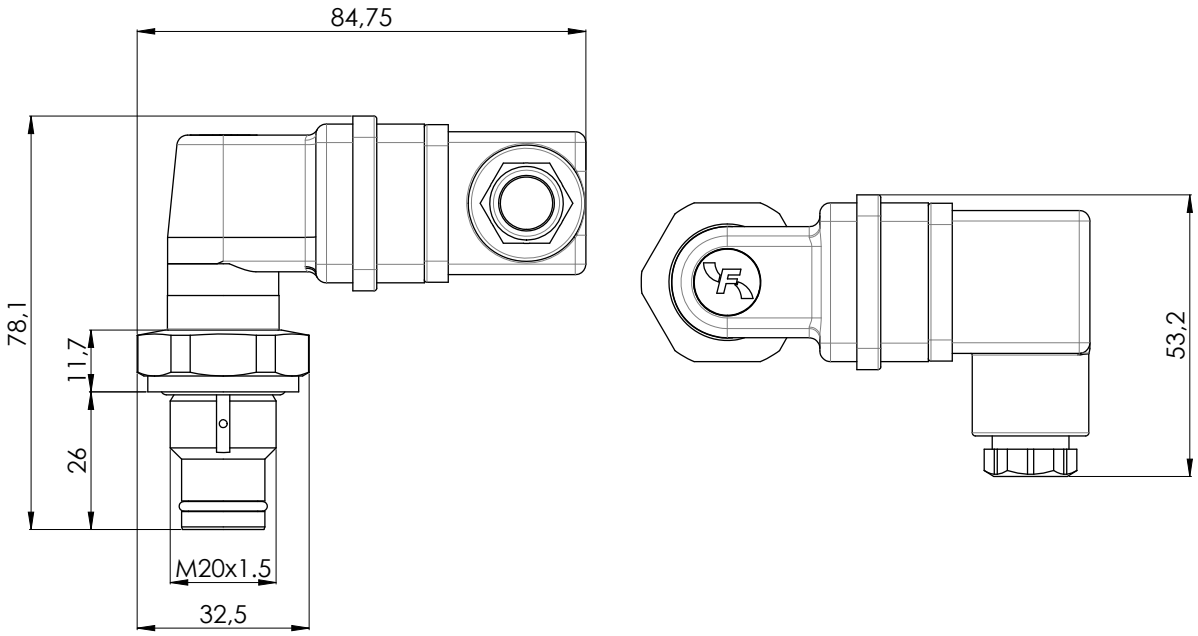
FILTREC®

ES SERIES

Electrical differential clogging indicators in stainless steel

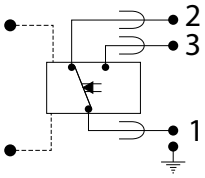
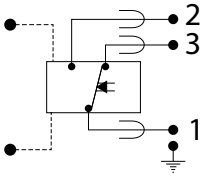
PRESSURE:	Max operating up to 700 bar
CONNECTION:	M20x1,5
MATERIALS:	Body: AISI 304 - 316L Cover and connector: PA66 + G.F. Seal: FKM standard
SETTINGS ΔP:	2,7 bar ± 10% 5,0 bar ± 10% 8,0 bar ± 10%
ELECTRICAL SPECS.:	Contact configuration SPDT
CONNECTOR TYPE:	according to DIN 43650 with cable gland PG09
DEGREE OF PROTECTION:	IP65 according to EN60529
OPERATING TEMPERATURE:	-30°C - +80°C
FLUID COMPATIBILITY:	Full with HH-HG-HL-HM-HR-HV-HS-HE...-(HFB and HFC water <50%)-HFDU (acc. to ISO 6743/4) For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).

OVERALL DIMENSIONS

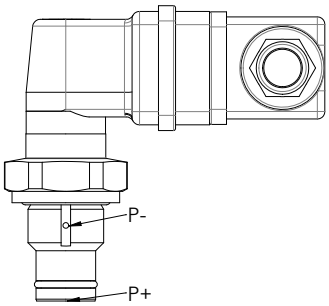


Weight: 181 gr

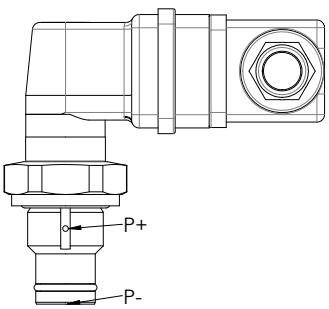
MECHANICAL CONDITION

ΔP CONDITION	ELECTRIC SYMBOL
P+ - P- < ΔPset	
P+ - P- ≥ ΔPset	

ORDERING INFORMATION / DETAILS

ORDER CODE	MODEL	BODY MATERIAL	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00609 04.006.00651	**ESF2** **ESLF2**	**AISI 304** **AISI 316L**		2,7 bar	• Connector DIN 43650 • Max AC voltage: 250Vac • Max current: 5A resistive 1A inductive • Max DC voltage: 30Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
04.006.00611 04.006.00653	**ESF5** **ESLF5**	**AISI 304** **AISI 316L**		5,0 bar	
04.006.00613 04.006.00655	**ESF8** **ESLF8**	**AISI 304** **AISI 316L**		8,0 bar	

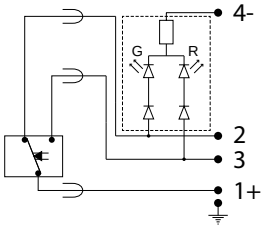
50 / 90 / 100 Nm - See hydraulic filter catalogues

ORDER CODE	MODEL	BODY MATERIAL	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00616 04.006.00658	**ESXF2** **ESLXF2**	**AISI 304** **AISI 316L**		2,7 bar	• Connector DIN 43650 • Max AC voltage: 250Vac • Max current: 5A resistive 1A inductive • Max DC voltage: 30Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
04.006.00618 04.006.00660	**ESXF5** **ESLXF5**	**AISI 304** **AISI 316L**		5,0 bar	
04.006.00620 04.006.00662	**ESXF8** **ESLXF8**	**AISI 304** **AISI 316L**		8,0 bar	

50 / 90 / 100 Nm - See hydraulic filter catalogues

OPTIONAL VERSION

The LC24 connector, supplied separately, can replace the standard black connector of the "ES" indicator. Powered with 24Vdc, 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.

ORDER CODE	MODEL	VIEW	ELECTRICAL SPECS.
04.006.00146	**LC24**		

INSTRUCTIONS FOR REPLACING THE std CONNECTOR WITH THE LC24 CONNECTOR

1. UNSCREW THE SCREW

2. DISCONNECT THE STANDARD CONNECTOR

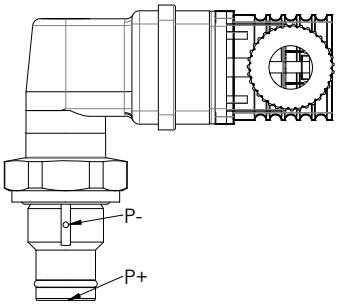
3. ATTACH THE LC04 CONNECTOR

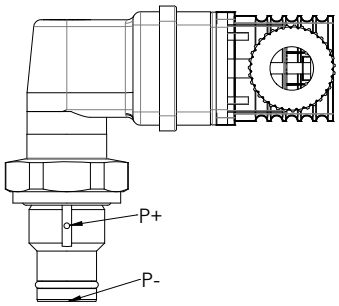
4. TIGHTEN THE SCREW

VERSION WITH INTEGRATED LED CONNECTOR

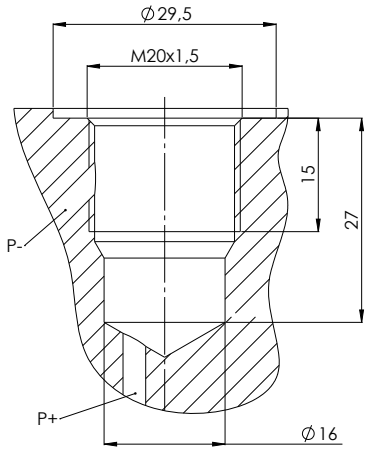
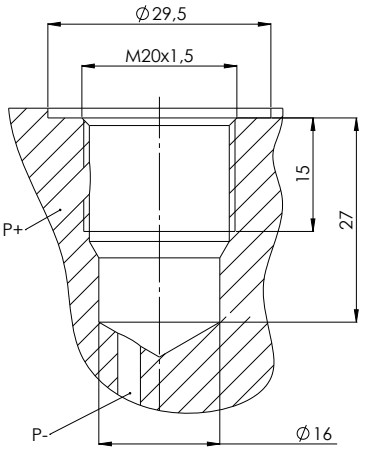
Subject to MOQ our differential indicators type ES... can be supplied in special versions with INTEGRATED LC24 connector.

ORDERING INFORMATION / DETAILS

ORDER CODE	MODEL	BODY MATERIAL	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00610 04.006.00652	**ESF2L** **ESLF2L**	**AISI 304** **AISI 316L**		2,7 bar	• Connector DIN 43650 • Max DC voltage: 24Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
04.006.00612 04.006.00654	**ESF5L** **ESLF5L**	**AISI 304** **AISI 316L**		5,0 bar	
04.006.00614 04.006.00656	**ESF8L** **ESLF8L**	**AISI 304** **AISI 316L**		8,0 bar	
50 / 90 / 100 Nm - See hydraulic filter catalogues					

ORDER CODE	MODEL	BODY MATERIAL	VIEW	SETTING	ELECTRICAL SPECS.
04.006.00617 04.006.00659	**ESXF2L** **ESXLF2L**	**AISI 304** **AISI 316L**		2,7 bar	• Connector DIN 43650 • Max DC voltage: 24Vdc • Max current: 4A resistive 3A inductive • Protection: IP65 EN60529
04.006.00619 04.006.00661	**ESXF5L** **ESXLF5L**	**AISI 304** **AISI 316L**		5,0 bar	
04.006.00621 04.006.00663	**ESXF8L** **ESXLF8L**	**AISI 304** **AISI 316L**		8,0 bar	
50 / 90 / 100 Nm - See hydraulic filter catalogues					

INDICATOR SEAT

ES.../ES...L	ESX.../ESX...L
	

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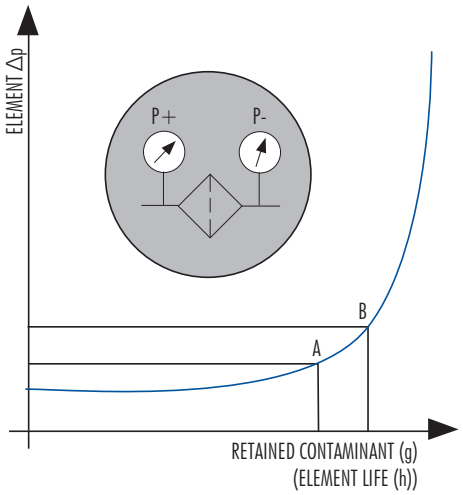

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The filter element must be replaced when the indicator shows an alarm and before the Δp reaches the by-pass set value (i.e. the set value A of the clogging indicator must always be lower that the set value B of the by-pass value).

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.

INDICATOR SEAT

The following table shows the type of indicator available according to the filter used.

APPLICATION	FILTER CODE	INDICATOR MODEL					
		ES(L)F2 ES(L)F2L	ES(L)F5 ES(L)F5L	ES(L)F8 ES(L)F8L	ES(L)XF2 ES(L)XF2L	ES(L)XF5 ES(L)XF5L	ES(L)XF8 ES(L)XF8L
IN LINE HIGH PRESSURE	**F100**	X	X	X			
	F280		X	X			
	F420		X	X			
	FD3					X	X
	FDM					X	X
	FH100	X	X	X			
	FH250		X	X			
	FH320		X	X			
	FH323		X	X			
	FH324		X	X			
	FH420		X	X			
	FH700					X	X
	FML320		X	X			
IN LINE MEDIUM PRESSURE	**FLR**				X	X	X
	FLRD				X	X	X
	F040	X	X	X			
RETURN	**FCR7F2x**	X					
	FCR7F3x	X					
SPIN-ON	**FAH**	X					
	FA4				X		
	FAP A4				X		
	FA5				X		
	FAP A5				X		