

# **FLRD-R4 SERIES**

In line medium pressure filters

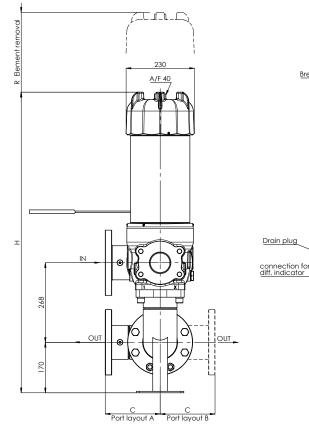
In line filters for operating pressure up to 16 bar. Flow rate up to 1600 l/min.

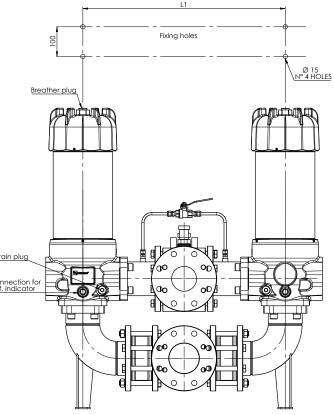


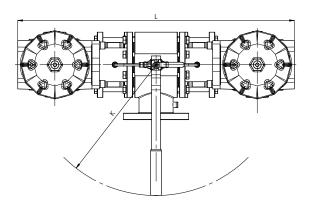
HOUSING	tested according to NFPA T3.10.5.1, ISO 10771, ISO 3968
PRESSURE:	Max operating: 16 bar
CONNECTIONS:	DN80 + 3" SAE 3000 FLANGE-M DN100 + 4" SAE 3000 FLANGE-M
MATERIALS:	Head: anodized aluminium Bowl: anodized aluminium Body: anticorodal aluminium Seal: NBR (FKM on request) Manifold Welded: Carbon steel 3-Way valve: Steel Check valve: Cast steel
BYPASS VALVE:	no bypass 3 bar
ELEMENT	tested according to ISO 11170, 2941, 2942, 2943, 3724, 3968,16889, 16908, 23181
FILTER MEDIA:	Fibreglass: G01 - G03 - G06 - G10 G15 - G25 - G40 - GW03 - GW10 AW40
COLLAPSE PRESSURE:	10 bar
TEMPERATURE RANGE:	with NBR seal from -30 °C to +100 °C
	with FKM seal (OPTION) from -25 °C to +120 °C
FLUID COMPATIBILITY:	Full with HH-HL-HM-HV HETG-HEES (acc. to ISO 6743/4). For use with other fluid please contact Filtrec Customer Service (info@filtrec.it).



# **OVERALL DIMENSIONS**







## **NOMINAL SIZE**

XX	MODEL	PORTS LAYOUT	PORT SIZE (IN - OUT)	L	L1	С	K	R	Н	BODY WEIGHT
F10M		А	DN80 + 3" SAE 3000 FLANGE-M	870	588	175	380			132 Kg
F12M	FLRD-R4-32	A	DN100 + 4" SAE 3000 FLANGE-M	932	682	185	440	430	1013	160 Kg
F10M	1 LND-N4-32	В	DN80 + 3" SAE 3000 FLANGE-M	870	588	175	380	430	1013	132 Kg
F12M		D	DN100 + 4" SAE 3000 FLANGE-M	932	682	185	440			160 Kg
F10M		А	DN80 + 3" SAE 3000 FLANGE-M	870	588	175	380			150 Kg
F12M	FLRD-R4-34	A	DN100 + 4" SAE 3000 FLANGE-M	932	682	185	440	990	1566	180 Kg
F10M	I LND-N4-34	В	DN80 + 3" SAE 3000 FLANGE-M	870	588	175	380	770	1500	150 Kg
F12M		U	DN100 + 4" SAE 3000 FLANGE-M	932	682	185	440			180 Kg



# **ORDERING INFORMATION**

FLRD         R4         34         G10         B         0         F12M         A         1         000         S         0           SPARE ELEMENT         R4         34         G10         B         0         F12M         A         1         000         S         0           1. FILTER SERIES         R4         3.         FILTER SERIES         R4         3.         9<	-	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	
I. FILTER SERIES       FLRD         2. FILTER ELEMENT SERIES       R4         3. FILTER SIZE       32         3.4       34         4. FILTER MEDIA       000       no element         G01       glassfiber B <sub>stanicl</sub> ≥ 1.000         G03       glassfiber B <sub>stanicl</sub> ≥ 1.000         G04       glassfiber B <sub>stanicl</sub> ≥ 1.000         G05       glassfiber B <sub>stanicl</sub> ≥ 1.000         G10       glassfiber B <sub>stanicl</sub> ≥ 1.000         G25       glassfiber B <sub>stanicl</sub> ≥ 1.000         G25       glassfiber B <sub>stanicl</sub> ≥ 1.000         G40       glassfiber B <sub>stanicl</sub> ≥ 1.000         G40       glassfiber B <sub>stanicl</sub> ≥ 1.000         GW10       glassfiber B <sub>stanicl</sub> ≥ 1.000 + water absorbent         GW10       glassfiber B <sub>stanicl</sub> ≥ 1.000 + water absorbent         GW10       glassfiber B <sub>stanicl</sub> ≥ 1.000 + water absorbent         GW10       glassfiber B <sub>stanicl</sub> ≥ 1.000 + water absorbent         GW10       glassfiber B <sub>stanicl</sub> ≥ 1.000 + water absorbent         GW10       glassfiber B <sub>stanicl</sub> ≥ 1.000 + water absorbent         MW40       water absorbent only         5. SEALS       B* NBR         *emitted for filter elements       V FKM         6. BYPASS VALVE       0 no byposs						В	0	F12M	Α	1	000	S	0	
2. FILTER ELEMENT SERIES          2. FILTER ELEMENT SERIES       R4         3. FILTER SIZE       32         3.4       34         4. FILTER MEDIA       000       no element         G01       glassfiber 8_smetal       1.000         G03       glassfiber 8_smetal       1.000         G04       glassfiber 8_smetal       1.000         G10       glassfiber 8_smetal       1.000         G11       glassfiber 8_smetal       1.000         G25       glassfiber 8_smetal       1.000         G40       glassfiber 8_smetal       1.000         G440       glassfiber 8_smetal       1.000         GW10       glassfiber 8_smetal       1.000         GW10       glassfiber 8_smetal       1.000         GW10       glassfiber 8_smetal       1.000         S. SEALS       B*       NBR         *omitted for filter elements       V       FKM         6. BYPASS VALVE       0       no bypass         as separate port into the filter housing       3       3 bar         7. MAIN PORT       F10M       MMININET AND OUTLET DN80 + 3* SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A       front: inlet and outlet on the same side         9. IND	SPARE EL	EMENT	R4	34	G10									
2. FILTER ELEMENT SERIES          2. FILTER ELEMENT SERIES       R4         3. FILTER SIZE       32         3.4       34         4. FILTER MEDIA       000       no element         G01       glassfiber 8_smetal       1.000         G03       glassfiber 8_smetal       1.000         G04       glassfiber 8_smetal       1.000         G10       glassfiber 8_smetal       1.000         G11       glassfiber 8_smetal       1.000         G25       glassfiber 8_smetal       1.000         G40       glassfiber 8_smetal       1.000         G440       glassfiber 8_smetal       1.000         GW10       glassfiber 8_smetal       1.000         GW10       glassfiber 8_smetal       1.000         GW10       glassfiber 8_smetal       1.000         S. SEALS       B*       NBR         *omitted for filter elements       V       FKM         6. BYPASS VALVE       0       no bypass         as separate port into the filter housing       3       3 bar         7. MAIN PORT       F10M       MMININET AND OUTLET DN80 + 3* SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A       front: inlet and outlet on the same side         9. IND														
N.         32           3. FILTER SIZE         32           3.4         34           4. FILTER MEDIA         000         no element           G01         glassfiber 8 <sub>sterict</sub> ≥ 1.000         G03           G03         glassfiber 8 <sub>sterict</sub> ≥ 1.000         G04           G04         glassfiber 8 <sub>transict</sub> ≥ 1.000         G05           G15         glassfiber 8 <sub>transict</sub> ≥ 1.000         G15           G25         glassfiber 8 <sub>transict</sub> ≥ 1.000         G40           G25         glassfiber 8 <sub>transict</sub> ≥ 1.000         water absorbent           GW10         glassfiber 8 <sub>transict</sub> ≥ 1.000 + water absorbent         GW10           GW3         glassfiber 8 <sub>transict</sub> ≥ 1.000 + water absorbent         GW10           GW03         glassfiber 8 <sub>transict</sub> ≥ 1.000 + water absorbent         GW10           GW03         glassfiber 8 <sub>transict</sub> ≥ 1.000 + water absorbent         GW10           GW04         water absorbent only         Starsict         Starsict           S. SEALS         B*         NBR         NBR           *omitted for fifter elements         V         FKM           6. BYPASS VALVE         0         no bypass         as separate part into the fifter housing           3         3 bar         T	1. FILTE	R SERIES				FLRD								
3. FILTER SIZE         32           3. FILTER SIZE         34           4. FILTER MEDIA         000         no element           G01         glassfiber B <sub>stantal</sub> ≥ 1.000           G03         glassfiber B <sub>stantal</sub> ≥ 1.000           G04         glassfiber B <sub>stantal</sub> ≥ 1.000           G15         glassfiber B <sub>stantal</sub> ≥ 1.000           G25         glassfiber B <sub>stantal</sub> ≥ 1.000           G240         glassfiber B <sub>stantal</sub> ≥ 1.000           GW03         glassfiber B <sub>stantal</sub> ≥ 1.000           GW03         glassfiber B <sub>stantal</sub> ≥ 1.000 + water absorbent           GW10         glassfiber B <sub>stantal</sub> ≥ 1.000 + water absorbent           GW03         glassfiber B <sub>stantal</sub> ≥ 1.000 + water absorbent           GW10         glassfiber B <sub>stantal</sub> ≥ 1.000 + water absorbent           GW10         glassfiber B <sub>stantal</sub> ≥ 1.000 + water absorbent           GW10         glassfiber B <sub>stantal</sub> ≥ 1.000 + water absorbent           GW40         water absorbent only           5. SEALS         B*         NBR           *omitted for filter elements         V         FKM           6. BYPASS VALVE         0         no bypass           as separate part into the filter housing         3         3 bar           7. MAIN PORT         F10M	2. FILTEI		NT SERII	ES		R4								
34         4. FILTER MEDIA         000       no element         G01       glassfiber $\beta_{stanticl} \ge 1.000$ G03       glassfiber $\beta_{stanticl} \ge 1.000$ G06       glassfiber $\beta_{stanticl} \ge 1.000$ G10       glassfiber $\beta_{stanticl} \ge 1.000$ G12       glassfiber $\beta_{stanticl} \ge 1.000$ G13       glassfiber $\beta_{stanticl} \ge 1.000$ G25       glassfiber $\beta_{stanticl} \ge 1.000$ G25       glassfiber $\beta_{stanticl} \ge 1.000$ G40       glassfiber $\beta_{stanticl} \ge 1.000$ GW10       glassfiber $\beta_{stanticl} \ge 1.000$ W40       water absorbent         AW40       water absorbent only         5. SEALS       B*         *omitted for filter elements       V         V       FKM         6. BYPASS VALVE       0         0       no bypass         as separate part into the filter housing       3         7. MAIN PORT       F10M         F12M       MAIN INLET AND OUTLET DNISO + 3* SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A         for the related outlet on the same side       B         g       in line: inlet and outlet on the opposite side							-							
4. FILTER MEDIA000no elementG01glassfiber $\beta_{tunn(c)} \ge 1.000$ G03glassfiber $\beta_{tunn(c)} \ge 1.000$ G06glassfiber $\beta_{tunn(c)} \ge 1.000$ G10glassfiber $\beta_{tunn(c)} \ge 1.000$ G15glassfiber $\beta_{tunn(c)} \ge 1.000$ G25glassfiber $\beta_{tunn(c)} \ge 1.000$ G40glassfiber $\beta_{tunn(c)} \ge 1.000$ GW10glassfiber $\beta_{tunn(c)} \ge 1.000$ GW03glassfiber $\beta_{tunn(c)} \ge 1.000$ GW10glassfiber $\beta_{tunn(c)} \ge 1.000$ S. SEALSB** NBR*omitted for filter elementsVFKM6. BYPASS VALVE00no bypassas separate part into the filter housing33 bar7. MAIN PORTF10MF10MMMININLET AND OUTLET DN80 + 3* SAE 3000 FLANGE (METRIC SCREWS)8. PORTS LAYOUTAfront: inlet and outlet on the same side9. INDICATOR PORT OPTION11indicator sect on both sides: left metal plug, right plastic cap 210. COMPULSORY FIELD000000filtere standard11. CORROSION PROTECTIONSpainted piping and valve + anodized filters12. OPTION0no option	3. FILIEI	K JIZE					_							
Good         Good         glassfiber B 4umicl. ≥ 1.000           G03         glassfiber B 5umicl. ≥ 1.000           G04         glassfiber B 5umicl. ≥ 1.000           G15         glassfiber B 7umicl. ≥ 1.000           G15         glassfiber B 7umicl. ≥ 1.000           G25         glassfiber B 7umicl. ≥ 1.000           G40         glassfiber B 7umicl. ≥ 1.000           GW03         glassfiber B 7umicl. ≥ 1.000           GW04         glassfiber B 7umicl. ≥ 1.000           GW03         glassfiber B 7umicl. ≥ 1.000           GW03         glassfiber B 7umicl. ≥ 1.000           GW04         water absorbent           GW10         glassfiber B 7umicl. ≥ 1.000           GW10         Na							_							
G03         glassfiber B <sub>3umicl</sub> ≥ 1.000           G06         glassfiber B <sub>12umicl</sub> ≥ 1.000           G10         glassfiber B <sub>12umicl</sub> ≥ 1.000           G15         glassfiber B <sub>12umicl</sub> ≥ 1.000           G25         glassfiber B <sub>32umicl</sub> ≥ 1.000           GW10         glassfiber B <sub>32umicl</sub> ≥ 1.000           GW10         glassfiber B <sub>32umicl</sub> ≥ 1.000 + water absorbent           GW10         glassfiber B <sub>32umicl</sub> ≥ 1.000 + water absorbent           GW10         glassfiber B <sub>12umicl</sub> ≥ 1.000 + water absorbent           GW10         glassfiber B <sub>12umicl</sub> ≥ 1.000 + water absorbent           GW10         glassfiber B <sub>12umicl</sub> ≥ 1.000 + water absorbent           GW10         glassfiber B <sub>12umicl</sub> ≥ 1.000 + water absorbent           GW10         glassfiber B <sub>12umicl</sub> ≥ 1.000 + water absorbent           Steparote patient only         Steparote basorbent only           S. SEALS         B*         NBR           *omitted for filter elements         V         FKM           6. BYPASS VALVE         0         no bypass           as separote part into the filter housing         3         bar           7. MAIN PORT         F10M         MMIN INLET AND OUTLET DN80 + 4* SAE 3000 FLANGE (METRIC SCREWS)           8. PORTS LAYOUT         A         front: inlet and outlet on the same side	4. FILIE	R MEDIA												
$ \begin{array}{ c c c c c } \hline G06 & glassfiber $\beta_{tunicl} \geq 1.000 \\ \hline G10 & glassfiber $\beta_{12unicl} \geq 1.000 \\ \hline G15 & glassfiber $\beta_{12unicl} \geq 1.000 \\ \hline G25 & glassfiber $\beta_{22unicl} \geq 1.000 \\ \hline G40 & glassfiber $\beta_{22unicl} \geq 1.000 + water absorbent \\ \hline GW03 & glassfiber $\beta_{12unicl} \geq 1.000 + water absorbent \\ \hline GW10 & glassfiber $\beta_{12unicl} \geq 1.000 + water absorbent \\ \hline GW10 & glassfiber $\beta_{12unicl} \geq 1.000 + water absorbent \\ \hline GW10 & glassfiber $\beta_{12unicl} \geq 1.000 + water absorbent \\ \hline GW10 & glassfiber $\beta_{12unicl} \geq 1.000 + water absorbent \\ \hline GW10 & glassfiber $\beta_{12unicl} \geq 1.000 + water absorbent \\ \hline GW10 & glassfiber $\beta_{12unicl} \geq 1.000 + water absorbent \\ \hline AW40 & water absorbent only \\ \hline \hline \\ 5. SEALS & $B^* & NBR \\ *omitted for filter elements & $V & FKM \\ \hline 6. BYPASS VALVE & $0 & no bypass \\ as separate part into the filter housing & $3 & bar \\ \hline \\ 7. MAIN PORT & $F10M & MAININET AND OUTLET DN80 + 3^* SAE 3000 FLANGE (METRIC SCREWS) \\ \hline F12M & MAININET AND OUTLET DN80 + 3^* SAE 3000 FLANGE (METRIC SCREWS) \\ \hline \\ 8. PORTS LAYOUT & $A$ front: inlet and outlet on the same side \\ \hline \\ 9. INDICATOR PORT OPTION & $1$ indicator sect on both sides: \\ left metal plug, right plastic cap \\ \hline \\ 2 & indicator sect on both sides: \\ left metal plug, right plastic cap \\ \hline \\ 1 & indicator sect on both sides: \\ left metal plug, right plastic cap \\ \hline \\ 1 & indicator sect on both sides: \\ left metal plug, right plastic cap \\ \hline \\ 1 & indicator sect on both sides with metal plug \\ \hline \\ 3 & indicator sect on both sides with plastic plug \\ \hline \\ 10. COMPULSORY FIELD & 000 & filtree standard \\ \hline \\ 11. CORROSION PROTECTION & $$painted piping and valve + anodized filters \\ \hline \\ 12. OPTION & $0$ no option \\ \hline \end{array}$														
G10       glassfiber $\beta_{12unckl.} \ge 1.000$ G15       glassfiber $\beta_{12unckl.} \ge 1.000$ G25       glassfiber $\beta_{22unckl.} \ge 1.000$ G40       glassfiber $\beta_{35unckl.} \ge 1.000$ GW03       glassfiber $\beta_{35unckl.} \ge 1.000$ + water absorbent         GW10       glassfiber $\beta_{35unckl.} \ge 1.000$ + water absorbent         GW10       glassfiber $\beta_{12unckl.} \ge 1.000$ + water absorbent         AW40       water absorbent only         5. SEALS       B*         *omitted for filter elements       V         V       FKM         6. BYPASS VALVE       0         0       no bypass         as separate part into the filter housing       3         7. MAIN PORT       F10M         F12M       MAIN INLET AND OUTLET DN80 + 3' SAE 3000 FLANGE (METRIC SCREWS)         F12M       MAIN INLET AND OUTLET DN100 + 4' SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A         A       front: inlet and outlet on the same side         B       in line: inlet and outlet on the same side         9. INDICATOR PORT OPTION       1         1       indicator seat on both sides:         left metal plug, right plastic cap       2         1       indicator seat on both sides with plastic														
G15glassfiber $B_{12um(c)} \ge 1.000$ G25glassfiber $B_{22um(c)} \ge 1.000$ G40glassfiber $B_{32um(c)} \ge 1.000$ GW03glassfiber $B_{32um(c)} \ge 1.000$ + water absorbentGW10glassfiber $B_{32um(c)} \ge 1.000$ + water absorbentAW40water absorbent only5. SEALSB**omitted for filter elementsVVFKM6. BYPASS VALVE00no bypassas separate part into the filter housing33bar7. MAIN PORTF10MF12MMAIN INLET AND OUTLET DN80 + 3''SAE 3000 FLANGE (METRIC SCREWS)F12MF12MMAIN INLET AND OUTLET DN80 + 4''SAE 3000 FLANGE (METRIC SCREWS)8. PORTS LAYOUTAfront: inlet and outlet on the same side9. INDICATOR PORT OPTION110. COMPULSORY FIELD0000000filtrec standard11. CORROSION PROTECTIONS2. OPTION00no option							-							
G25glassfiber $\beta_{22am(c)} \ge 1.000$ G40glassfiber $\beta_{3sam(c)} \ge 1.000$ GW03glassfiber $\beta_{3sam(c)} \ge 1.000$ + water absorbentGW10glassfiber $\beta_{12am(c)} \ge 1.000$ + water absorbentAW40water absorbent only5. SEALSB**omitted for filter elementsVKM6. BYPASS VALVE00no bypassas separate part into the filter housing33 bar7. MAIN PORTF10MF12MMAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)F12MMAIN INLET AND OUTLET DN80 + 4" SAE 3000 FLANGE (METRIC SCREWS)8. PORTS LAYOUTAfront: inlet and outlet on the same sideBin line: inlet and outlet on the opposite side9. INDICATOR PORT OPTION110. COMPULSORY FIELD000000filtrec standard11. CORROSION PROTECTIONSpainted piping and valve + anodized filters12. OPTION0no option														
G40       glassfiber $\beta_{35um(c)} \ge 1.000$ GW03       glassfiber $\beta_{35um(c)} \ge 1.000$ + water absorbent         GW10       glassfiber $\beta_{12um(c)} \ge 1.000$ + water absorbent         AW40       water absorbent only         5. SEALS       B*         *omitted for filter elements       V         6. BYPASS VALVE       0         0       no bypass         as separate part into the filter housing       3         7. MAIN PORT       F10M         F12M       MAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A front: inlet and outlet on the same side         8. PORTS LAYOUT       A front: inlet and outlet on the opposite side         9. INDICATOR PORT OPTION       1         10. COMPULSORY FIELD       000         000       filtrec standard         11. CORROSION PROTECTION       S         2. OPTION       0														
GW03       glassfiber $\beta_{sum(c)} \ge 1.000 + water absorbent         GW10       glassfiber \beta_{12um(c)} \ge 1.000 + water absorbent         AW40       water absorbent only         5. SEALS       B*         *omitted for filter elements       V         FKM       0         6. BYPASS VALVE       0         0       no bypass         as separate part into the filter housing       3         7. MAIN PORT       F10M         F12M       MAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)         F12M       MAIN INLET AND OUTLET DN100 + 4" SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A         F0       front: inlet and outlet on the same side         9. INDICATOR PORT OPTION       1         1       indicator seat on both sides:         2       indicator seat on both sides with metal plug         3       indicator seat on both sides with plastic cap         10. COMPULSORY FIELD       000         000       filtrec standard         11. CORROSION PROTECTION       S         12. OPTION       0       no option   $						G25								
GW10       glassfiber B <sub>12untel</sub> ≥ 1.000 + water absorbent         AW40       water absorbent only         5. SEALS       B*         *omitted for filter elements       V         6. BYPASS VALVE       0         0. Bypass       3 a bar         7. MAIN PORT       F10M         F12M       MAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A         A       front: inlet and outlet on the same side         B       in line: inlet and outlet on the same side         9. INDICATOR PORT OPTION       1         1       indicator seat on both sides:         2       indicator seat on both sides with metal plug         3       indicator seat on both sides with plastic plug         10. COMPULSORY FIELD       000         11. CORROSION PROTECTION       S         12. OPTION						G40								
AW40       water absorbent only         5. SEALS       B*       NBR         *omitted for filter elements       V       FKM         6. BYPASS VALVE       0       no bypass         as separate part into the filter housing       3       3 bar         7. MAIN PORT       F10M       MAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)         F12M       MAIN INLET AND OUTLET DN100 + 4" SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A front: inlet and outlet on the same side         9. INDICATOR PORT OPTION       1       indicator seat on both sides: left metal plug, right plastic cap         10. COMPULSORY FIELD       000       filtrec standard         11. CORROSION PROTECTION       S       painted piping and valve + anodized filters         12. OPTION       0       no option					(	GW03	glassfiber $\beta_{5\mu m(c)} \ge 1.000 + water absorbent$							
5. SEALS       B*       NBR         *omitted for filter elements       V       FKM         6. BYPASS VALVE       0       no bypass         as separate part into the filter housing       3       3 bar         7. MAIN PORT       F10M       MAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)         F12M       MAIN INLET AND OUTLET DN80 + 4" SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A       front: inlet and outlet on the same side         B       in line: inlet and outlet on the opposite side         1       indicator seat on both sides: left metal plug, right plastic cap         2       indicator seat on both sides with metal plug         3       indicator seat on both sides with plastic plug         10. COMPULSORY FIELD       000       filtrec standard         11. CORROSION PROTECTION       S       painted piping and valve + anodized filters         12. OPTION       0       no option					(	GW10	glassfiber $\beta_{12\mu m(c)} \ge 1.000 + water absorbent$							
Indicator       Indicator         *omitted for filter elements       V         6. BYPASS VALVE       0       no bypass         as separate part into the filter housing       3       3 bar         7. MAIN PORT       F10M       MAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)         F12M       MAIN INLET AND OUTLET DN100 + 4" SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A       front: inlet and outlet on the same side         B       in line: inlet and outlet on the opposite side         9. INDICATOR PORT OPTION       1       indicator seat on both sides: left metal plug, right plastic cap         2       indicator seat on both sides with metal plug         3       indicator seat on both sides with plastic plug         10. COMPULSORY FIELD       000         11. CORROSION PROTECTION       S         12. OPTION       0       no option					ŀ	AW40	water	water absorbent only						
*omitted for filter elements       V       FKM         6. BYPASS VALVE       0       no bypass         as separate part into the filter housing       3       3 bar         7. MAIN PORT       F10M       MAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)         F12M       MAIN INLET AND OUTLET DN100 + 4" SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A       front: inlet and outlet on the same side         B       in line: inlet and outlet on the opposite side         9. INDICATOR PORT OPTION       1       indicator seat on both sides: left metal plug, right plastic cap         10. COMPULSORY FIELD       000       filtrec standard         11. CORROSION PROTECTION       S       painted piping and valve + anodized filters         12. OPTION       0       no option	5. SEALS	S				R*	NBR							
6. BYPASS VALVE       0       no bypass         as separate part into the filter housing       3       3 bar         7. MAIN PORT       F10M       MAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)         F12M       MAIN INLET AND OUTLET DN100 + 4" SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A       front: inlet and outlet on the same side         B       in line: inlet and outlet on the opposite side         9. INDICATOR PORT OPTION       1       indicator seat on both sides: left metal plug, right plastic cap         10. COMPULSORY FIELD       000       filtrec standard         11. CORROSION PROTECTION       S       painted piping and valve + anodized filters         12. OPTION       0       no option			nents											
as separate part into the filter housing       3       3 bar         7. MAIN PORT       F10M       MAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)         F12M       MAIN INLET AND OUTLET DN100 + 4" SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A       front: inlet and outlet on the same side         B       in line: inlet and outlet on the opposite side         9. INDICATOR PORT OPTION       1       indicator seat on both sides: left metal plug, right plastic cap         10. COMPULSORY FIELD       000       filtrec standard         11. CORROSION PROTECTION       S       painted piping and valve + anodized filters         12. OPTION       0       no option						•								
T. MAIN PORT       F10M       MAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)         F12M       MAIN INLET AND OUTLET DN100 + 4" SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A       front: inlet and outlet on the same side         B       in line: inlet and outlet on the opposite side         9. INDICATOR PORT OPTION       1       indicator seat on both sides: left metal plug, right plastic cap         2       indicator seat on both sides with metal plug         3       indicator seat on both sides with plastic plug         10. COMPULSORY FIELD       000         0       no option						0	no by	pass						
8. PORTS LAYOUT       A       front: inlet and outlet on the same side         B       in line: inlet and outlet on the same side         9. INDICATOR PORT OPTION       1       indicator seat on both sides: left metal plug, right plastic cap         2       indicator seat on both sides with metal plug         3       indicator seat on both sides with plastic plug         10. COMPULSORY FIELD       000         11. CORROSION PROTECTION       S         12. OPTION       0	as separat	e part into	the filter ł	nousing		3	3 bar							
F12M       MAIN INLET AND OUTLET DN100 + 4" SAE 3000 FLANGE (METRIC SCREWS)         8. PORTS LAYOUT       A       front: inlet and outlet on the same side         B       in line: inlet and outlet on the opposite side         9. INDICATOR PORT OPTION       1       indicator seat on both sides: left metal plug, right plastic cap         2       indicator seat on both sides with metal plug         3       indicator seat on both sides with plastic plug         10. COMPULSORY FIELD       000         11. CORROSION PROTECTION       S         12. OPTION       0	7. MAIN	I PORT				=10M	MAIN IN	MAIN INLET AND OUTLET DN80 + 3" SAE 3000 FLANGE (METRIC SCREWS)						
P. INDICATOR PORT OPTION       B       in line: inlet and outlet on the opposite side         1       indicator seat on both sides: left metal plug, right plastic cap         2       indicator seat on both sides with metal plug         3       indicator seat on both sides with plastic plug         10. COMPULSORY FIELD       000         11. CORROSION PROTECTION       S         12. OPTION       0         12. OPTION       0							MAIN INLET AND OUTLET DN100 + 4" SAE 3000 FLANGE (METRIC SCREWS						CREWS)	
P. INDICATOR PORT OPTION       B       in line: inlet and outlet on the opposite side         1       indicator seat on both sides: left metal plug, right plastic cap         2       indicator seat on both sides with metal plug         3       indicator seat on both sides with plastic plug         10. COMPULSORY FIELD       000         11. CORROSION PROTECTION       S         12. OPTION       0         12. OPTION       0			іт			٨	fuent	:			:			
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9. INDICATOR PORT OPTION       Image: I						В		: iniet and		on the op	posite sic	ae		
9. INDICATOR PORT OPTION       left metal plug, right plastic cap         2       indicator seat on both sides with metal plug         3       indicator seat on both sides with plastic plug         10. COMPULSORY FIELD       000         000       filtrec standard         11. CORROSION PROTECTION       S         painted piping and valve + anodized filters         12. OPTION       0						1	indica	tor seat on	both sic	es:				
3       indicator seat on both sides with plastic plug         10. COMPULSORY FIELD       000         11. CORROSION PROTECTION       S         painted piping and valve + anodized filters         12. OPTION       0	9. INDICATOR PORT OPTION					1	left me	etal plug, ri	ight plas	tic cap				
10. COMPULSORY FIELD       000       filtrec standard         11. CORROSION PROTECTION       S       painted piping and valve + anodized filters         12. OPTION       0       no option						2	indica	tor seat on	both sic	les with m	netal plug			
11. CORROSION PROTECTION     S     painted piping and valve + anodized filters       12. OPTION     0     no option						3	indica	tor seat on	both sic	les with p	lastic plug	]		
12. OPTION 0 no option	10. CO	MPULSO	ry fieli	C		000	filtrec	standard						
	11. CO	RROSION	N PROTE	CTION		S	painte	ed piping o	and valv	re + ano	dized filte	ers		
	12. OPT	ION				0	no or	tion						
	, 011				_	1			r low flo	w rate 1.4	50-200 L	PM		



# **ORDERING INFORMATION**

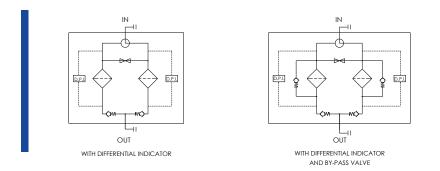
#### ACCESSORIES

The accessories must be ordered separately

INDICATOR	V02 (VF2)	differential visual 2,7 bar	
(F) digit for FKM seal option *LC24=Led connector For other options see clogging indicators catalogue	E02 (EF2)	differential electrical 2,7 bar	
	EO2L (EF2L)	differential electric 2,7 bar + *LC24	
	VEF2	differential visual and electric 2,7 bar	
	V05 (VF5)	differential visual 5 bar	
	E05 (EF5)	differential electrical 5 bar	
	E05L (EF5L)	differential electric 5 bar + *LC24	
	VEF5	differential visual and electric 5 bar	
	V08 (VF8)	differential visual 8 bar	
	E08 (EF8)	differential electrical 8 bar	recommended for
	EO8L (EF8L)	differential electric 8 bar + *LC24	no by-pass option
	VEF8	differential visual and electric 8 bar	
PLUG	P01	metal plug for indicator port - NBR	-
	PF1	metal plug for indicator port - FKM	-



### HYDRAULIC SYMBOLS



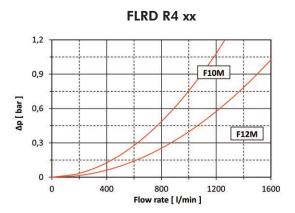
### PRESSURE DROP (Ap) INFORMATION FOR FILTER SIZING

The total Delta P through a filter assembly is given from Housing  $\Delta p$  + Element  $\Delta p$ .

This ideally should not exceed 1.0 bar and should never exceed 1/3 of the set value of the by-pass valve. N.B. All the reported data have been obtained at our laboratory, according to specification ISO3968 with mineral oil having 32 cSt viscosity and density 0.875 Kg/dm<sup>3</sup>.

### HOUSING PRESSURE DROP

The housing  $\Delta p$  is given by the curve of the considered model and port, in correspondence of the flow rate value.



#### **ELEMENT PRESSURE DROP**

The element  $\Delta p$  (bar) is given by the flow rate (l/min) multiplied by the factor in the table here below corresponding to the selected media and divided by 1000.

If the oil has a viscosity Vx different than 32 cSt a corrective factor Vx/32 must be applied.

1000 l/min with R434G10 and oil viscosity 46 cSt: (1000 x 0.16 / 1000) x (46 / 32) = 0.23 bar

	G01	G03	G06	G10	G15	G25	G40	GW03	GW10	AW40
R432	1.41	0.60	0.48	0.33	0.26	0.22	0.11	2.31	1.09	0.43
R434	0.64	0.30	0.23	0.16	0.13	0.10	0.06	1.00	0.47	0.19

### **EXAMPLE OF TOTAL** $\Delta \mathbf{p}$ CALCULATION

FLRDR434G10B0F12MA1000S0 with 1000 l/min and oil 46 cSt: Housing  $\Delta p$  + element  $\Delta p$  = 0.40 bar + (1000 x 0.16 / 1000) x (46 / 32) bar = 0.63 bar



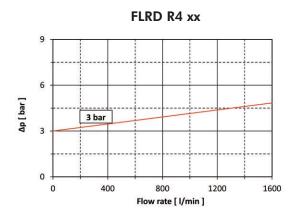
### GW03, GW10 AND AW40 QUICK SIZE TABLE

	suggested flow rate [l/min]	GW03 and GW10 water capacity* [l]	AW40 water capacity* [l]
R432	48	0.85	0.97
R434	108	1.89	2.16

\* at final  $\Delta p = 3$  bar

### **BYPASS VALVE PRESSURE DROP**

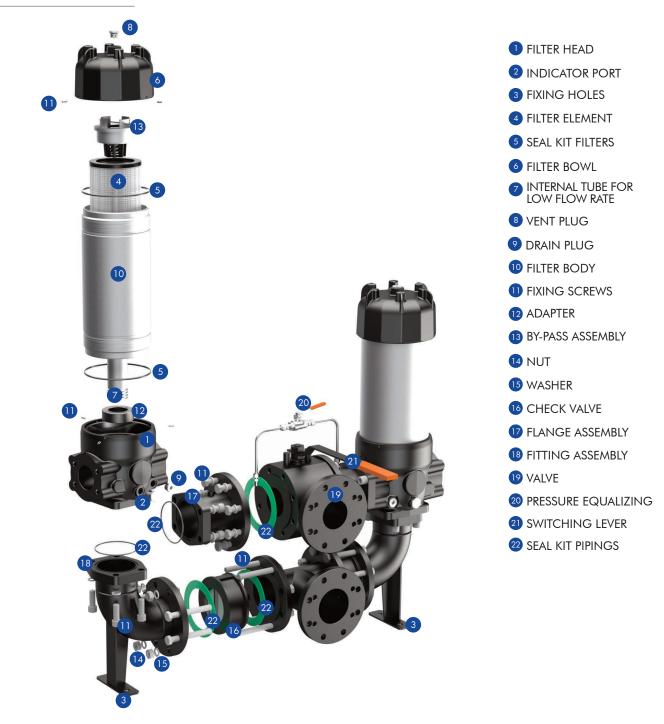
The bypass valve  $\Delta p$  is given by the curve of the considered model and setting, in correspondence of the flow rate value.



N.B. All the reported data have been obtained at our laboratory, according to specification ISO3968 with mineral oil having 32 cSt viscosity and density 0.875 Kg/dm<sup>3</sup>.



### **USER TIPS**



SPARE SEAL KIT PART NUMBER							
	NBR	FKM					
FLRDF10 <b>(22)</b> (3" SAE / DN 80)	06.021.00407	06.021.00408					
FLRDF12 <b>(22)</b> (4" SAE / DN 100)	06.021.00409	06.021.00410					
FLR <b>(5)</b>	06.021.00389	06.021.00390					

#### **BOWL/BODY TIGHTENING TORQUE**

screw up filter bowl/body till end

#### INDICATOR/DRAIN/VENT TIGHTENING TORQUE

50 Nm



#### WARNING

Make sure that Personal Protective Equipment (PPE) is worn during installation and maintenance operation.

### **DISPOSAL OF FILTER ELEMENT**

🚹 The used filter elements and the filter parts dirty of oil are classified as "Dangerous waste material": they must be disposed laws according to the local bv authorized Companies.

#### **INSTALLATION**

- Secure the frame of the filter using the fixing holes (3). 1. The IN and OUT ports must be connected to the 2. hoses in the correct flow direction.
  - Verify that no tension is present on the filter after 3. mountina.
  - Enough space must be available for filter element 4 replacement.
  - 5. The visual clogging indicator must be in a easily viewable position.
  - When a electrical indicator is used, make sure 6. that it is properly wired.
  - 7. Never run the system with no filter element fitted. 8. Keep in stock a spare FILTREC filter element for timely replacement when required.
    - 9 Filter housing should be earthed.

#### **OPERATION**

- 1. The filter must work within the operating conditions of pressure, temperature and compatibility given in the first page of this data sheet.
  - The filter element must be replaced as soon as the 2. clogging indicator signals at working temperature (in cold start conditions, oil temperature lower than 30°C, a false alarm can be given due to oil viscosity).
  - 3. If no clogging indicator is mounted, replace the element according to the system manufacturer's recommendations.

#### MAINTENANCE

- 1. Operate and hold pressure equalizing (20) lever located behind switching lever. Pull catch knob and swivel switching lever (21).
  - 2. Loosen vent screw (8).
  - Remove drain plug (9) in housing bottom and drain oil. 3.
  - 4. Unscrew the 3 grub screws (11) of the filter bowl (6).
  - 5. Unscrew filter bowl counter-clockwise.
  - Pull out the bypass assembly (13) with the handle and 6. separate it from the filter element.
  - 7. Lift out filter element (4).
  - 8. Check seal on filter bowl (5). We recommend replacement in any case.
  - 9. Make sure that the order number on the spare element corresponds to the order number of the filter name-plate. To ensure no contamination occurs during the exchange of the element, first open the plastic bag, then push the element over the spigot in the filter head. Now remove plastic bag.
- **1**0. Push the element carefully over the spigot, insert the bypass assembly (13) into the filter element mount the filter bowl (6) and tighten the 3 grub screws (11).
  - 11. Tighten drain plug (9) in housing bottom.
  - 12. To refill the filter chamber, operate only the pressure equalizing lever, until fluid emerges bubble-free from the vent cavity.
  - 13. Tight vent screw. Check for leckage by actuating the equalizing lever again.
  - 14. The used filter elements can not be cleaned and re-use.





CT116-12/23