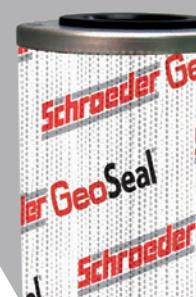
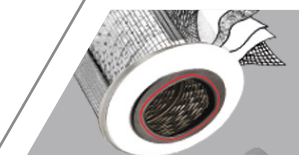


QUALITY PROTECTION



Schroeder
INDUSTRIES
Advanced Fluid Conditioning Solutions®

Schroeder Industries

Introduction

About Schroeder Industries

Schroeder Industries is a family company of 76 years which manufactures, designs, and markets a complete range of Advanced Fluid Conditioning Solutions®. Headquartered in Leetsdale, PA, we are in the heart of manufacturing country.

Schroeder Brothers Corporation was founded after Bill Schroeder returned from WW2. Bill wrote a letter to his brother Jack, a young engineer, describing an opportunity to distribute an important new product to the mining industry. In the letter, Bill explained that he believed they could build a business around this technology.

Schroeder Brothers Corporation grew rapidly, adding additional mining products and eventually becoming the largest mining equipment distributor in the Appalachia's. Over time, Schroeder began to manufacture hydraulic systems and components for the mines. The systems came first, and with the systems came issues related to contamination.

To this day, underground mining is still one of the most difficult hydraulic system operating environments. With his system experience, Bill realized that there was a critical need for high efficiency filtration. Together with his brothers Jack & Reed, Bill pioneered the development of many hydraulic and lubrication filtration concepts, products, and standards that are still the benchmarks of performance today. Time continued to march on, and Schroeder's business continued to evolve further into a manufacturing company.

Today, Schroeder Industries serves almost every market where high efficiency fluid filtration is required. Our Advanced Fluid Conditioning Solutions® are forged through the real-world experience gained in the world's toughest operating environments.

Mission Statement

Our success is a product of customer-driven innovation and technically advanced fluid conditioning products and services, in which our people deliver value to our stakeholders, communities and environment.

Quality Policy

Continuous improvement in our business to ensure a quality product, shipped on time, without compromise.

Vision

To be the global leader of engineered, fluid conditioning products & services.

Core Values (F.I.L.T.E.R.S)

- **Fueled:** By the success of our customer.
- **Ingenuity:** Engineered solutions for a complex environment.
- **Lead by example:** Better every day through continuous improvement.
- **Together:** We excel through clear communication & teamwork.
- **Empowering:** Employees to provide exceptional quality & service.
- **Responsiveness:** With determination, we make it happen.
- **Safety:** We pride ourselves on a safe, fun & family-oriented work environment.

Limitations of Liability

The information contained in the catalog (including, but not limited to, specifications, configurations, drawings, photographs, dimensions and packaging) is for descriptive purposes only. Any description of the products contained in this catalog is for the sole purpose of identifying the products and shall not be deemed a warranty that the products shall conform to such description. No representation or warranty is made concerning the information contained in this catalog as to the accuracy or completeness of such information. Schroeder Industries LLC reserves the right to make changes to the products included in this catalog without notice. A copy of our warranty terms and other conditions of sale are available upon request. A placed order constitutes acceptance of Schroeder's terms and conditions.

Failure, improper selection or improper use of the products and/or systems described herein or related items can cause death, personal injury and property damage.

This catalog and other documentation from Schroeder Industries provides product information for consideration by users possessing technical expertise.

It is important that the user analyze all aspects of the specific application and review the current product information in the current catalog. Due to the variety of operating conditions and applications for these products, the user is solely responsible for making the final product selection and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, design, availability and pricing are subject to change at any time without notice.



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	Pressure psi (bar)	Flow gpm (L/min)	Page	
Section 1	Base Ported Filters			
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	GMKF50	5000 (345)	200 (760)	13
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	G2K9	900 (100)	100/150 (380/570)	19
	G3K9	900 (100)	100/150 (380/570)	21

	Pressure psi (bar)	Flow gpm (L/min)	Page	
Section 2	Top Ported Filters			
	GH	500 - 725 (35 - 50)	35 - 112 (130-425)	25
	GKF5	500 (100)	100/150 (380/570)	27
	GKF3	300 (100)	100/150 (380/570)	29
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	GMLF1	300 (20)	200 (760)	33

	Pressure psi (bar)	Flow gpm (L/min)	Page	
Section 3	Tank Mounted Filters			
	AFT	100 (7)	40 (151)	37
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	TRT	145 (10)	100 (400)	41
	GZT	100 (7)	40 (150)	43
	GRT	100 (7)	100 (380)	45
	GRTB	100 (7)	100 (380)	47
	GLRT	100 (7)	150 (570)	49



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Quality Service Integrity at Schroeder Industries

What is Quality Protection?

Far too often, customers make purchasing decisions based solely on price, only to be extremely disappointed with the poor quality delivered by low-cost imitations. To make the matter worse, the customer often points an accusing finger at the filter housing manufacturer for poor performance, rather than the inadequate element they used as a replacement. That is where Quality Protection is the answer.

Quality Protection Means:

- End users cannot use “will-fit”, low quality elements
- OEM's will capture aftermarket revenue; exponential growth year over year
- An increase in machine productivity and reliability
- Overall reduction in warranty claims
- Peace of Mind!



Schroeder KZ5 “Will-Fit” K-series

Why Should I Use Quality Protection?

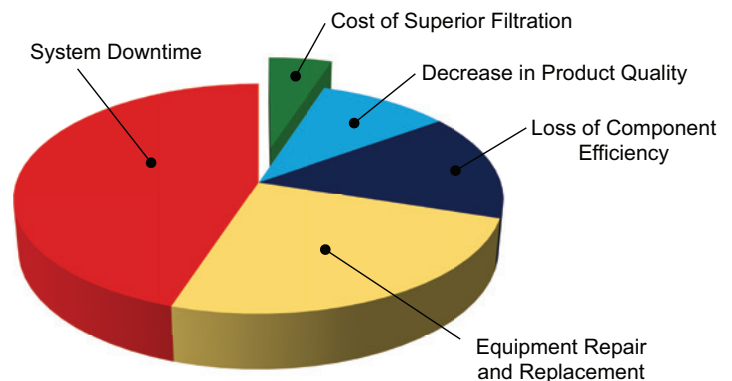
If you've ever experienced downtime with your hydraulic equipment, you know how costly and frustrating it can be. Just because you have a filter in place, it doesn't mean that you are capturing the particulate that prevents your equipment from performing at the level it should be at. Cut-rate imitations may claim that “All filtration elements are guaranteed to meet or surpass all specifications of the original equipment manufacturer” but that's not always the case. Take a look at the numbers below and see for yourself:

Elements	Schroeder KZ5	“Will-Fit” replacement
# of pleats	80	71
Pleat Height (in)	0.63	0.61
Media Layers	6	5
DHC (g)	119	84.3
Beta 200	4.8	12.2
Beta 1000	6.3	18.1

Elements	Schroeder 27KZ1	“Will-Fit” replacement
# of pleats	80	71
Pleat Height (in)	0.63	0.61
Media Layers	6	5
DHC (g)	378.1	233.1
Beta 200	<4	12.4
Beta 1000	<4	18.3

Why do my users need Quality Protection?

Hydraulic system downtime and repairs represent a significant portion of overall costs to end users. As much as 70% of all premature machine failures can be attributed to contamination (ref. NORIA Corp.). Adding in superior filtration to your end user's hydraulic system will help prevent premature machine failures and keep uncontrolled contamination effects from occurring. Here is a graph that shows the average percentage of costs per uncontrolled contamination effect versus the cost of superior filtration:



Old Model Code

Schroeder's old model code appeared cluttered and not easily accessible.

How to Build a Valid Model Number for a Schroeder K9:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9
K9								

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9
K9	1K	Z	10	B	P16 N P16 N			D5

= K91KZ10BP16NP16ND5

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5
Filter Series	Number of Size of Elements	Media Type	Micron Rating	Seal Material
K9	1 = K, KK, 27K 2 = K 3 = K	Omit = E-media (cellulose) Z = Excellement® Z-Media® AS = Anti-Stat Pleat Media (synthetic) ZW = Aqua-Excellement® ZW Media ZX = Excellement® Z-Media® (high collapse centertube) W = W media (water removal) M = M media (reusable metal mesh)	1 = 1 µ Z, ZW, ZX media 3 = 3 µ AS, E, Z, ZW, ZX media 5 = 5 µ AS, Z, ZW, ZX media 10 = 10 µ AS, E, M, Z, ZW, ZX media 25 = 25 µ E, M, Z, ZW, ZX media 60 = 60 µM media 150 = 150 µM media 260 = 260 µM media	B = Buna M V = Viton® H = EPR H.5 = Skydrol® Compatibility

New Model Code

Merging certain deciding factors together from our previous model codes, the new examples will have fewer boxes and make for a more streamlined creative process. Each row is its own category, while inside of that row, the columns are the different breakdowns within that selection. From left to right, there will be several options to choose from for each breakdown. Footnotes will be included in each model code.

Look out for footnotes for certain categories. They will be numbered consecutively and listed below each model code. Example below.

How to Build a Valid Model Number for a Schroeder GK530/GKF50:

GKF30/GKF50

2	-	KGZ5	-	S	-	MS16LC	-	
Bowl Length		Element		Porting/Test Points		Indicator		Options

GKF30/GKF50

2
Bowl Length
KGZ5
Element
S
Porting/Test Points
MS16LC
Indicator
Omit
Options

Start Here

Bowl Length					
This option will populate the first box above.	1 = 9"/18"/27" Bowl with one (1) element				
	2 = 18" Bowl with two (2) 9" elements				
	3 = 27" Bowl with three (3) 9" elements				
Element¹	Element	Media	Micron Rating	Seals	
This will be the next box, in this box you will build your element code, but this box could also be used to build a replacement element.	KG (9", 18", or 27" Bowl)	Z = Excellement Z-Media (synthetic)	1 = 1 Micron	Omit = Buna	
	KKG (18" Bowl)		3 = 3 Micron	V = Viton	
	27KG (27" Bowl)		5 = 5 Micron		
			10 = 10 Micron		
			25 = 25 Micron		
Porting/Test Points		Porting			Test Points
This will populate the third box, it will populate porting and test point options.	P = 1-1/2" NPTF	Omit = None L = Two 1/4" NPTF inlet and outlet female test ports U = Series 1215 7/6 UNF Schroeder Check Test Point UU = Series 1215 7/16 UNF Schroeder Check Test Point installed in block (upstream & downstream)			
	P32 = 2" NPTF				
	S = SAE-24				
	F = 1-1/2" SAE 4-bolt flange (KF30 Code 61)(KF50 Code 62)				
	F32 = 2" SAE 4-bolt flange Code 61(KF30) *KF30 Only				
	O = Subplate				
B24 = ISO 228 G-1-1/2					
Indicator					
Electrical Indicator		Indicator Material	Voltage	Current	Thermal Lockout
Omit = None		Omit = Steel	AC = Alternating Current	Omit = Standard	Omit = None
MS5 = 12" 4 Conductor Cable		SS = Stainless Steel	DC = Direct Current	LC = Low Current	T = (available on select models reference specifications in Appendix A)
MS10 = Male DIN Connector					
MS11 = 12 ft 4 Conductor Cable					
MS12 = Male 5 Pin Brad Harrison Connector					
MS13 = Threaded Connector and Light					
MS14 = Male 5 Pin Brad Harrison Connector & Light					
MS16 = Weather Packed Seal Connector					
MS17 = Male Micro 4 Pin Brad Harrison Connector					
MS18 = 2 Pin Amp Junior Power Timer Connector					
MS19 = 2 Pin Deutsch Connector					
MS = Cam Operated Switch with 1/2" Conduit, Female Connection					
MS15DC = 3000 PSI max #8-32 Post for Wire Connection					
Visual Indicator					
D = Pointer					
D5 = Latching Visual Pop-Up					
D8 = Visual with Thermal Lockout					
D9 = Stainless Steel Latching Pop-Up Indicator					
D10 = Non-Latching Indicator					
D10SS = Stainless Steel Non-Latching Indicator					
D13 = Stainless Steel Latching Indicator with Music Wire Spring					
Options					
Finally, options will be populated in the final box, if any are present. If not, select omit and leave blank.	Omit = None				
	C = Electrical indicator in cap vs. in base standard				
	G509 = Dirt alarm opposite std				
	G588 = Electric Switch and drain opposite standard				

Quality Service Integrity at Schroeder Industries

Quality Protection Designs



GeoSeal® | Patented Quality Protection US Patent D658740

GeoSeal® is a patented offering from Schroeder that provides a unique way for OEMs to retain replacement element business and to keep a filter's performance at the level that it was supplied. The critical sealing arrangement between a filter housing and its replacement element takes on a shape other than the standard circular arrangement, which prevents the use of imitation elements. Specifically, the element grommet & mating bushing are given a new geometric shape.

GH6, GH9, GH11, & GH14 HydraSPIN Filters US Patent US 9126129 and US 8550255

The Schroeder GH HydraSPIN filters offer a unique and proprietary bowl to element seal that minimizes potential leakage points by the use of one seal on the element. The GH HydraSPIN cartridge style elements are also patented with integrated bypass valve features. The filter housing has mounting interchangeability with competitor filter heads and the assembly is capable of delivering the best performance in hydrostatic or CVT applications.



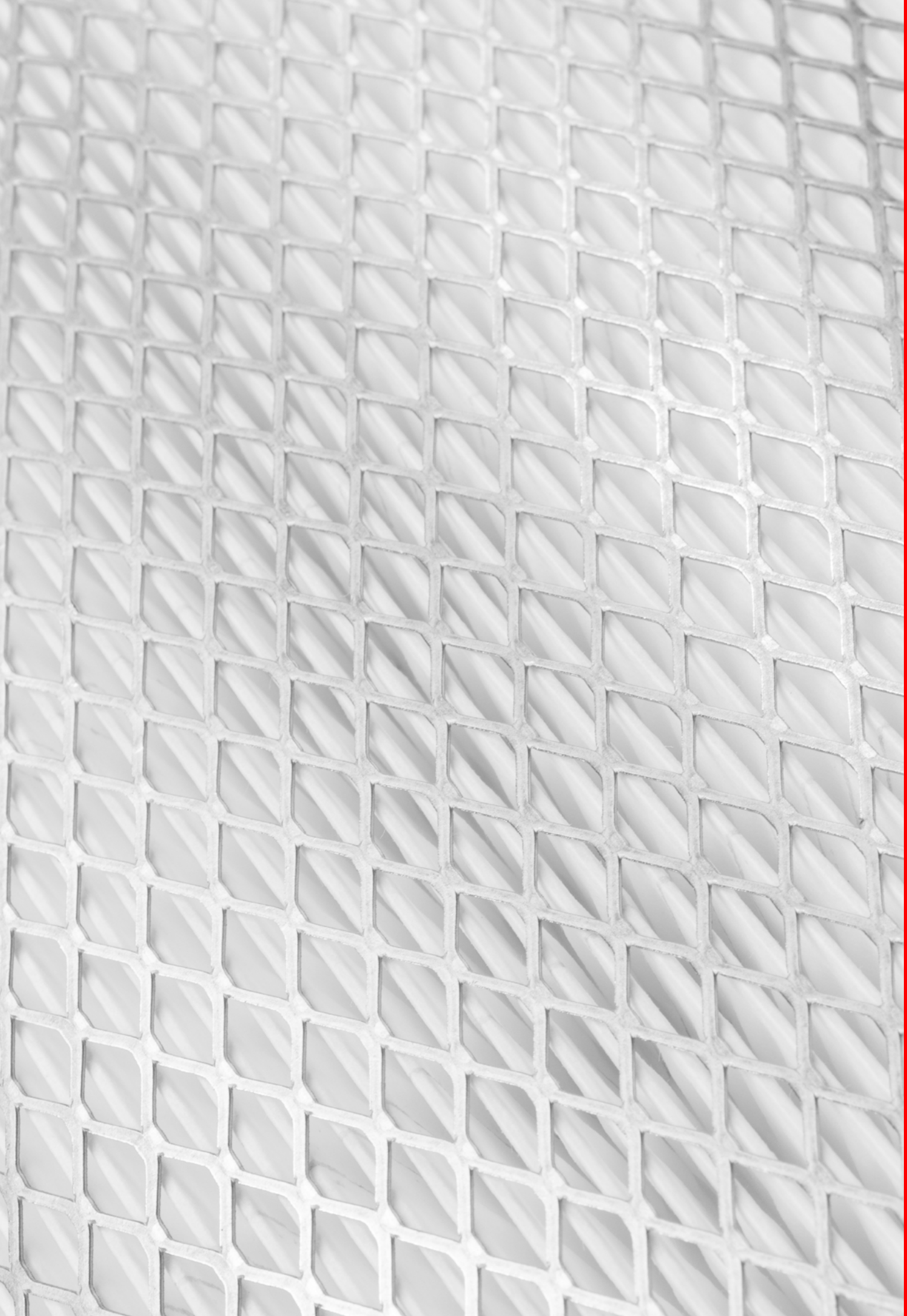
Lock & Key Patent Pending

Our Lock & Key technology is a patented offering from Schroeder that provides a unique interface between the bushing and the element in some filter housings. This interface takes on a specific shape that only a specific "Lock and Key" pattern will allow the element to seal correctly. This patent protected design that can be customizable to specific OEM requirements.



Section 1:

BASE PORTED FILTERS



Base-Ported Pressure Filter

GKF30/GKF50

GKF30-3000 psi - 210 bar

GKF50-5000 psi - 345 bar

100/150 gpm - 380/570 L/min



Features and Benefits

- Base-ported pressure filter
- Can be installed in vertical or horizontal position
- HF4 Footprint filter with patented Quality Protection Element
- Element changeout from top minimizes oil spillage
- Offered in pipe, SAE straight thread, flanged and ISO 228 porting
- No-Element indicator option available
- Integral inlet and outlet female test points option available
- Offered in conventional subplate porting
- Double and triple stacking of KG-size elements can be replaced by single, KKG, or 27KG-size elements

Model No. of filter in photograph is GKF30/GKF501KGZ10SD.

Filter Housing Specifications

Flow Rating:	Up to 100 gpm (380 L/min) for 150 SUS (32 cSt) fluids With 2" porting only, up to 150 gpm (570 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	GKF30- 3000 psi (210 bar) GKF50- 5000 psi (345 bar)
Min. Yield Pressure:	GKF30- 12,000 psi (830 bar), per NFPA T2.6.1 GKF50- 15,000 psi (1025 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	GKF30- 2500 psi (170 bar), per NFPA T2.6.1-2005 GKF50- 3500 psi (240 bar), per NFPA T2.6.1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 40 psi (2.8 bar) Full Flow: 61 psi (4.2 bar)
Porting Base & Cap: Element Case:	Ductile Iron Steel
Weight of GKF30-1KG: Weight of GKF30-2KG: Weight of GKF30-3KG: Weight of GKF50-1KG: Weight of GKF50-2KG: Weight of GKF50-3KG:	48 lbs. (22 kg) 65 lbs. (30 kg) 81 lbs. (37 kg) 59.7 lbs. (27.1 kg) 80.7 lbs. (36.6 kg) 102.0 lbs. (46.3 kg)
Element Change Clearance:	8.50" (215 mm) for 1KG; 17.50" (445 mm) for KKG; 26.5" (673 mm) for 27KG

Base-Ported Pressure Filter

GKF30/GKF50

How to Build a Valid Model Number for a Schroeder GKF30/GKF50:

GKF30/GKF50

Bowl Length	Element	Porting/Test Points	Indicator	Options

Bowl Length	
	1 = 9"/18"/27" Bowl with one (1) element 2 = 18" Bowl with two (2) 9" elements 3 = 27" Bowl with three (3) 9" elements

Element	Element	Media	Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	KG (9", 18", or 27" Bowl) KKG (18" Bowl) 27KG (27" Bowl)	Z = Excellence Z-Media (synthetic) Note: Other media is available upon request.	1 = 1 Micron 3 = 3 Micron 5 = 5 Micron 10 = 10 Micron 25 = 25 Micron	Omit = Buna V = Viton

Porting/Test Points	Porting	Bypass	Test Points
	P = 1-1/2" NPTF P32 = 2" NPTF S = SAE-24 F = 1-1/2" SAE 4-bolt flange (KF30 Code 61)(KF50 Code 62) F32 = 2" SAE 4-bolt flange Code 61(KF30) *KF30 Only O = Subplate B24 = ISO 228 G-1-1/2	Omit = 40 PSI 50 = 50 PSI 60 = 60 PSI	Omit = None L = Two 1/4" NPTF female test ports U = Series 1215 7/6 UNF Test Point UU = Series 1215 7/16 UNF Test Point

Indicator ¹				
Electrical Indicator	Indicator Material	Voltage	Current	Thermal Lockout
Omit = None MS5 = 12" 4 Conductor Cable MS10 = Male DIN Connector MS11 = 12 ft 4 Conductor Cable MS12 = Male 5 Pin Brad Harrison Connector MS13 = Threaded Connector and Light MS14 = Male 5 Pin Brad Harrison Connector & Light MS16 = 3 Contact Weather Packed, DIN 43650 MS17 = Male Micro 4 Pin Brad Harrison Connector MS18 = 2 Pin Amp Junior Power Timer Connector MS19 = 2 Pin Deutsch Connector	Omit = Steel SS = Stainless Steel	AC = Alternating Current DC = Direct Current	Omit = Standard LC = Low Current	Omit = None T (available on select models reference specifications in Appendix A)

MS = Cam Operated Switch with 1/2" Conduit, Female Connection

MS15DC = 3000 PSI max #8-32 Post for Wire Connection

Visual Indicator

- D** = Pointer
- D5** = Latching Visual Pop-Up
- D8** = Visual with Thermal Lockout
- D9** = Stainless Steel Latching Pop-Up Indicator
- D10** = Non-Latching Indicator
- D10SS** = Stainless Steel Non-Latching Indicator
- D13** = Stainless Steel Latching Indicator with Music Wire Spring

Options	
	Omit = None C = Indicator in cap G509 = Dirt alarm opposite std G588 = Electric Switch and drain opposite standard

1. Starting from the left you will choose your Indicator Type (visual or electrical), if it's visual you will use the visual column and that will complete this box. If it's electrical you will populate the column under "MS = Electrical." If no indicator is required you will omit the whole section and move onto the next section

Base-Ported Pressure Filter

GKC50**5000 psi - 345 bar****100/150 gpm - 380/570 L/min**

Features and Benefits

- Base-ported pressure filter
- Patented dirt-tolerant cap design
- Can be installed in vertical or horizontal position
- HF4 Footprint filter with patented Quality Protection element
- Element changeout from top minimizes oil spillage
- Offered in pipe, SAE straight thread, flanged and ISO 228 porting
- No-Element indicator option available
- Integral inlet and outlet female test points option available
- Offered in conventional subplate porting
- Double and triple stacking of KG-size elements can be replaced by single, KKG, or 27KG-size elements

Model No. of filter in photograph is GKC501KGZ10PD.

Filter Housing Specifications

Flow Rating:	Up to 100 gpm (380 L/min) for 150 SUS (32 cSt) fluids With 2" porting only, up to 150 gpm (570 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	5000 psi (345 bar)
Min. Yield Pressure:	15,000 psi (1035 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	3500 psi (240 bar), per NFPA T2.6.1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 40 psi (2.8 bar) Full Flow: 61 psi (4.2 bar)
Porting Base & Cap: Element Case:	Ductile Iron Steel
Weight of GKF30-1KG: Weight of GKF30-2KG: Weight of GKF30-3KG:	66.8 lbs. (30.3 kg) 87.8 lbs. (39.8 kg) 109.6 lbs. (49.7 kg)
Element Change Clearance:	8.50" (215 mm) for 1KG; 17.50" (445 mm) for KKG; 26.5" (673 mm) for 27KG

How to Build a Valid Model Number for a Schroeder GKFC50:

GKC50

	-		-		-	
Element		Porting/Test Points		Indicator		Options

Bowl Length					
	1 = 9"/18"/27" Bowl with one (1) element 2 = 18" Bowl with two (2) 9" elements 3 = 27" Bowl with three (3) 9"elements				
Element	Element	Media		Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	KG = (9", 18", or 27" Bowl) KKG = (18" Bowl) 27KG = (27" Bowl)	Z = Excellement Z-Media (synthetic) Note: Other media is available upon request.		1 = 1 Micron 3 = 3 Micron 5 = 5 Micron 10 = 10 Micron 25 = 25 Micron	Omit = Buna V = Viton
Porting/Test Points	Magnet	Porting		Test Points	
	Omit = None M = Magnet Inserts	P = 1-1/2" NPTF P32 = 2" NPTF S = SAE-24 F = 1-1/2" SAE 4-Bolt flange O = Subplate B24 = ISO 228 G-1-1/2		Omit = None L = Two 1/4" NPTF female test ports U = Series 1215 7/16 UNF Test Point installed in cap (upstream) UU = Series 1215 7/16 UNF Test Point installed in block (upstream and downstream)	
Indicator ¹					
Electrical Indicator		Indicator Material	Voltage	Current	Thermal Lockout
Omit = None MS5 = 12" 4 Conductor Cable MS10 = Male DIN Connector MS11 = 12 ft 4 Conductor Cable MS12 = Male 5 Pin Brad Harrison Connector MS13 = Threaded Connector and Light MS14 = Male 5 Pin Brad Harrison Connector & Light MS16 = Weather Packed Seal Connector MS17 = Male Micro 4 Pin Brad Harrison Connector MS18 = 2 Pin Amp Junior Power Timer Connector MS19 = 2 Pin Deutsch Connector MS = Cam Operated Switch with 1/2" Conduit, Female Connection MS15DC = 3000 PSI max #8-32 Post for Wire Connection		Omit = Steel SS = Stainless Steel	AC = Alternating Current DC = Direct Current	Omit = Standard LC = Low Current	Omit = None T (available on select models reference specifications in Appendix A)
Visual Indicator					
D = Pointer D5 = Latching Visual Pop-Up D8 = Visual with Thermal Lockout D9 = Stainless Steel Latching Pop-Up Indicator D10 = Non-Latching Indicator D10SS = Stainless Steel Non-Latching Indicator D13 = Stainless Steel Latching Indicator with Music Wire Spring					
Options					
	Omit = None C = Indicator in cap G509 = Dirt Alarm and drain opposite standard G588 = Electric Switch and drain opposite standard				

1. Starting from the left you will choose your Indicator Type (visual or electrical), if it's visual you will use the visual column and that will complete this box. If it's electrical you will populate the column under "MS = Electrical." If no indicator is required you will omit the whole section and move onto the next section

Base-Ported Pressure Filter

GMKF50**5000 psi - 345 bar****200 gpm - 760 L/min**

Features and Benefits

- Base-ported high pressure dual filter manifold mounted
- HF4 Footprint filter with patented Quality Protection element
- Element changeout from top minimizes oil spillage
- Offered in pipe porting (contact factory for other porting options)
- No-Element indicator option available
- Integral inlet and outlet female test points option available

Model No. of filter in photograph is GMKF50KG21PD5

Filter Housing Specifications

Flow Rating:	Up to 200 gpm (760 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	5000 psi (345 bar)
Min. Yield Pressure:	15,000 psi (1035 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	3500 psi (240 bar), per NFPA T2.6.1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 40 psi (2.8 bar) Full Flow: 61 psi (4.2 bar)
Porting Base & Cap: Element Case:	Ductile Iron Steel
Weight of GMKF50-2KG:	214.0 lbs. (97.3 kg)
Weight of GMKF50-4KG:	243.0 lbs. (110.2 kg)
Weight of GMKF50-6KG:	284.4 lbs. (129.0 kg)
Weight of GMKC50-2KG:	216.0 lbs. (98.0 kg)
Weight of GMKC50-4KG:	245.0 lbs. (111.1 kg)
Weight of GMKC50-6KG:	286.4 lbs. (129.9 kg)
Element Change Clearance:	8.50" (215 mm) for 1KG; 17.50" (445 mm) for KKG; 26.5" (673 mm) for 27KG

Base-Ported Pressure Filter

GKC65**6500 psi - 450 bar****100 gpm - 380 L/min**

Features and Benefits

- Base-ported high pressure filter
- Patented dirt-tolerant cap design
- Can be installed in vertical or horizontal position
- HF4 Footprint filter with patented Quality Protection element
- Element changeout from top minimizes oil spillage
- Offered in flanged porting
- No-Element indicator option available
- Integral inlet and outlet female test points option available
- Double and triple stacking of K-size element can be replaced by single, KKG, or 27KG-size element

Model No. of filter in photograph is GKC651KG10FD9.

Filter Housing Specifications

Flow Rating:	Up to 100 gpm (380 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	6500 psi (450 bar)
Min. Yield Pressure:	19,500 psi (1345 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	5000 psi (345 bar), per NFPA T2.6.1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 40 psi (2.8 bar) Full Flow: 75 psi (5.2 bar)
Porting Base & Cap: Element Case:	Ductile Iron Steel
Weight of GKC65-1KG: Weight of GKC65-2KG: Weight of GKC65-3KG:	80 lbs. (36.3 kg) 102 lbs. (46.3 kg) 124 lbs. (56.3 kg)
Element Change Clearance:	8.50" (215 mm) for 1KG; 17.50" (445 mm) for KKG; 26.5" (673 mm) for 27KG

Medium Pressure Filter

GK9

900 psi - 60 bar

100 gpm - 380 L/min



Features and Benefits (GK9)

- Extremely versatile multiple inlet and outlet ports; can be used alone or in series with another GK9
- Top loading for easy access for element change-out
- Allows consolidation of inventoried replacement elements by using KG-size elements
- Multiple inlet and outlet porting options reduce the need for additional adapters on installation
- Can be fitted with test ports for oil sampling
- Small profile allows filter to be mounted in tight areas
- Various Dirt Alarm[®] options
- HF4 Footprint filter with patented Quality Protection element

Model No. of filter in photograph is GK91KGZ5BP20NP20ND5C.

Filter Housing Specifications

Flow Rating:	Up to 100 gpm (380 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	900 psi (60 bar)
Min. Yield Pressure:	3200 psi (220 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	750 psi (52 bar) per NFPA T2.6.1-R1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 40 psi (2.8 bar) Full Flow: 80 psi (5.5 bar)
Porting Base & Cap: Element Case:	Cast Aluminum Steel
Weight of GK9-1KG: Weight of GK9-2KG: Weight of GK9-3KG:	19 lbs. (8.6 kg) 30 lbs. (13.6 kg) 41 lbs. (18.6 kg)
Element Change Clearance:	8.50" (215 mm) for 1KG; 17.50" (445 mm) for KKG; 26.5" (673 mm) for 27KG

How to Build a Valid Model Number for a Schroeder GK9

GK9

	-		-		-		-	
Bowl Length		Element		Porting/Test Points		Indicator		Options

Bowl Length	
	1 = 9"/18"/27" bowl with one (1) element 2 = 18" Bowl with two (2) 9" elements 3 = 27" Bowl with three (3) 9" elements

Element	Element	Media	Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	KG (9", 18", or 27" Bowl) KKG (18" Bowl) 27KG (27" Bowl)	Z = Excellement Z-Media (synthetic) Note: Other media is available upon request.	1 = 1 Micron 3 = 3 Micron 5 = 5 Micron 10 = 10 Micron 25 = 25 Micron	Omit = Buna V = Viton

Porting/Test Points	Port 1	Port 2	Port 3	Port 4	Bypass	Test Points
	N = None P16 = 1" NPTF P20 = 1-1/4" NPTF P24 = 1-1/2" NPTF S16 = SAE-16 S20 = SAE-20 S24 = SAE-24 B16 = ISO 228 G-1" B20 = ISO 228 G-1-1/4" B24 = ISO 228 G-1-1/2"	N = None P16 = 1" NPTF P20 = 1-1/4" NPTF P24 = 1-1/2" NPTF S16 = SAE-16 S20 = SAE-20 S24 = SAE-24 F16 = 1" SAE 4-bolt flange Code 61 F20 = 1-1/4" SAE 4-bolt flange Code 61 F24 = 1-1/2" SAE 4-bolt flange Code 61 B16 = ISO 228 G-1" B20 = ISO 228 G-1-1/4" B24 = ISO 228 G-1-1/2"	N = None P16 = 1" NPTF P20 = 1-1/4" NPTF P24 = 1-1/2" NPTF S16 = SAE-16 S20 = SAE-20 S24 = SAE-24 B16 = ISO 228 G-1" B20 = ISO 228 G-1-1/4" B24 = ISO 228 G-1-1/2"	N = None P16 = 1" NPTF P20 = 1-1/4" NPTF P24 = 1-1/2" NPTF S16 = SAE-16 S20 = SAE-20 S24 = SAE-24 F16 = 1" SAE 4-bolt flange Code 61 F20 = 1-1/4" SAE 4-bolt flange Code 61 F24 = 1-1/2" SAE 4-bolt flange Code 61 B16 = ISO 228 6-1" B20 = ISO 228 G-1-1/4" B24 = ISO 228 G-1-1/2"	Omit = 40 PSI Bypass 10 = 10 PSI Bypass 20 = 20 PSI Bypass 25 = 25 PSI Bypass 30 = 30 PSI Bypass 60 = 60 PSI Bypass	Omit = None U = Test point in cap (Upstream) UU = Test points in block (upstream and downstream)

Indicator ¹				
Electrical Indicator	Indicator Material	Voltage	Current	Thermal Lockout
MS5 = 12" 4 Conductor Cable MS10 = Male DIN Connector MS11 = 12 ft 4 Conductor Cable MS12 = Male 5 Pin Brad Harrison Connector MS13 = Threaded Connector and Light MS14 = Male 5 Pin Brad Harrison Connector & Light MS16 = Weather Packed Seal Connector MS17 = Male Micro 4 Pin Brad Harrison Connector MS18 = 2 Pin Amp Junior Power Timer Connector MS19 = 2 Pin Deutsch Connector	Omit = Steel SS = Stainless Steel	AC = Alternating Current DC = Direct Current	Omit = Standard LC = Low Current	Omit = None T (available on select models reference specifications in Appendix A)

MS15DC = 3000 PSI max #8-32 Post for Wire Connection

Visual Indicator
D5 = Latching Visual Pop-Up D8 = Visual with Thermal Lockout D9 = Stainless Steel Latching Pop-Up Indicator D10 = Non-Latching Indicator D10SS = Stainless Steel Non-Latching Indicator D13 = Stainless Steel Latching Indicator with Music Wire Spring

Options
C = Indicator in cap

1. Starting from the left you will choose your Indicator Type (visual or electrical), if it's visual you will use the visual column and that will complete this box. If it's electrical you will populate the column under "MS = Electrical." If no indicator is required you will omit the whole section and move onto the next section

Single Pass Filter Kit

G2K9

900 psi - 60 bar

100 gpm - 380 L/min



Features and Benefits

- Two or three patented-pending GK9 filters supplied in series as a single filter assembly providing in-line single pass particulate and water filtration
- HF4 Footprint filter with patented Quality Protection element
- 900 psi rating covers almost all transfer line pressure specs including air driven transfer systems
- Top loading for easy access for element change out
- Allows consolidation of inventoried elements by using K-size elements
- Can be fitted with test points for oil sampling

Model No. of filters in photograph are G2K91KGZ55P20UUD5C and Custom 2K9.

Filter Housing Specifications

Flow Rating:	Up to 100 gpm (380 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	900 psi (60 bar)
Min. Yield Pressure:	3200 psi (220 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	750 psi (52 bar) per NFPA T2.6.1-R1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 40 psi (2.8 bar) each filter housing
Porting Base & Cap: Element Case:	Cast Aluminum Steel
Weight of GK9-1KG:	19 lbs. (8.6 kg)
Weight of GK9-2KG:	30 lbs. (13.6 kg)
Weight of GK9-3KG:	41 lbs. (18.6 kg)
Element Change Clearance:	8.50" (215 mm) for 1KG; 17.5" (445 mm) for KKG; 26.5" (673 mm) for 27KG

How to Build a Valid Model Number for a Schroeder G2K9:

G2K9

Bowl Length	Element	Porting/Test Points	Indicator	Options

Bowl Length					
	1 = 9"/18"/27" bowl with one (1) element 2 = 18" Bowl with two (2) 9" elements 3 = 27" Bowl with three (3) 9" elements				
Element	Element	Media	Micron Rating for Housing 1	Micron Rating for Housing 2	Seals
Note: Element code can also be used to build a replacement element.	KG (9", 18", or 27" Bowl)	Z = Excellement Z-Media (synthetic) Note: Other media is available upon request.	1 = 1 Micron	1 = 1 Micron	B = Buna V = Viton
	KKG (18" Bowl)		3 = 3 Micron	3 = 3 Micron	
	27KG (27" Bowl)		5 = 5 Micron	5 = 5 Micron	
			10 = 10 Micron	10 = 10 Micron	
			25 = 25 Micron	25 = 25 Micron	
Porting/Test Points	Porting		Outlet Porting		Bypass
	P16 = 1" NPTF P20 = 1-1/4" NPTF P24 = 1-1/2" NPTF S16 = SAE-16 S20 = SAE-20 S24 = SAE-24 F16 = 1" SAE 4-bolt flange Code 61 F20 = 1-1/4" SAE 4-bolt flange Code 61 F24 = 1-1/2" SAE 4-bolt flange Code 61 B16 = ISO 228 G-1" B20 = ISO 228 G-1-1/4" B24 = ISO 228 G-1-1/2"		P16 = 1" NPTF P20 = 1-1/4" NPTF P24 = 1-1/2" NPTF S16 = SAE-16 S20 = SAE-20 S24 = SAE-24 F16 = 1" SAE 4-bolt flange Code 61 F20 = 1-1/4" SAE 4-bolt flange Code 61 F24 = 1-1/2" SAE 4-bolt flange Code 61 B16 = ISO 228 G-1" B20 = ISO 228 G-1-1/4" B24 = ISO 228 G-1-1/2"		Omit = 40 PSI Bypass 30 = 30 PSI Bypass 50 = 50 PSI Bypass
Indicator ¹					
Electrical Indicator		Indicator Material	Voltage	Current	Thermal Lockout
MS5 = 12" 4 Conductor Cable MS10 = Male DIN Connector MS11 = 12 ft 4 Conductor Cable MS12 = Male 5 Pin Brad Harrison Connector MS13 = Threaded Connector and Light		Omit = Steel	AC = Alternating Current	Omit = Standard	Omit = None
MS14 = Male 5 Pin Brad Harrison Connector & Light MS16 = Weather Packed Seal Connector MS17 = Male Micro 4 Pin Brad Harrison Connector MS18 = 2 Pin Amp Junior Power Timer Connector MS19 = 2 Pin Deutsch Connector					
		SS = Stainless Steel	DC = Direct Current	LC = Low Current	(available on select models reference specifications in Appendix A)
MS15DC = 3000 PSI max #8-32 Post for Wire Connection					
Visual Indicator					
D5 = Latching Visual Pop-Up D8 = Visual with Thermal Lockout D9 = Stainless Steel Latching Pop-Up Indicator D10 = Non-Latching Indicator D10SS = Stainless Steel Non-Latching Indicator D13 = Stainless Steel Latching Indicator with Music Wire Spring					
Options					
	Omit = None U = Test point in cap (Upstream) UU = Test points in block (upstream and downstream)				

1. Starting from the left you will choose your Indicator Type (visual or electrical), if it's visual you will use the visual column and that will complete this box. If it's electrical you will populate the column under "MS = Electrical." If no indicator is required you will omit the whole section and move onto the next section

Single Pass Filter Kit

G3K9

900 psi - 60 bar

100 gpm - 380 L/min



Features and Benefits

- Two or three patented-pending K9 filters supplied in series as a single filter assembly providing in-line single pass particulate and water filtration
- HF4 Footprint filter with patented Quality Protection element
- 900 psi rating covers almost all transfer line pressure specs including air driven transfer systems
- Top loading for easy access for element change out
- Allows consolidation of inventoried elements by using K-size elements
- Can be fitted with test points for oil sampling

Model No. of filters in photograph are G3K9127KG2555BP2020UUD5C

Filter Housing Specifications

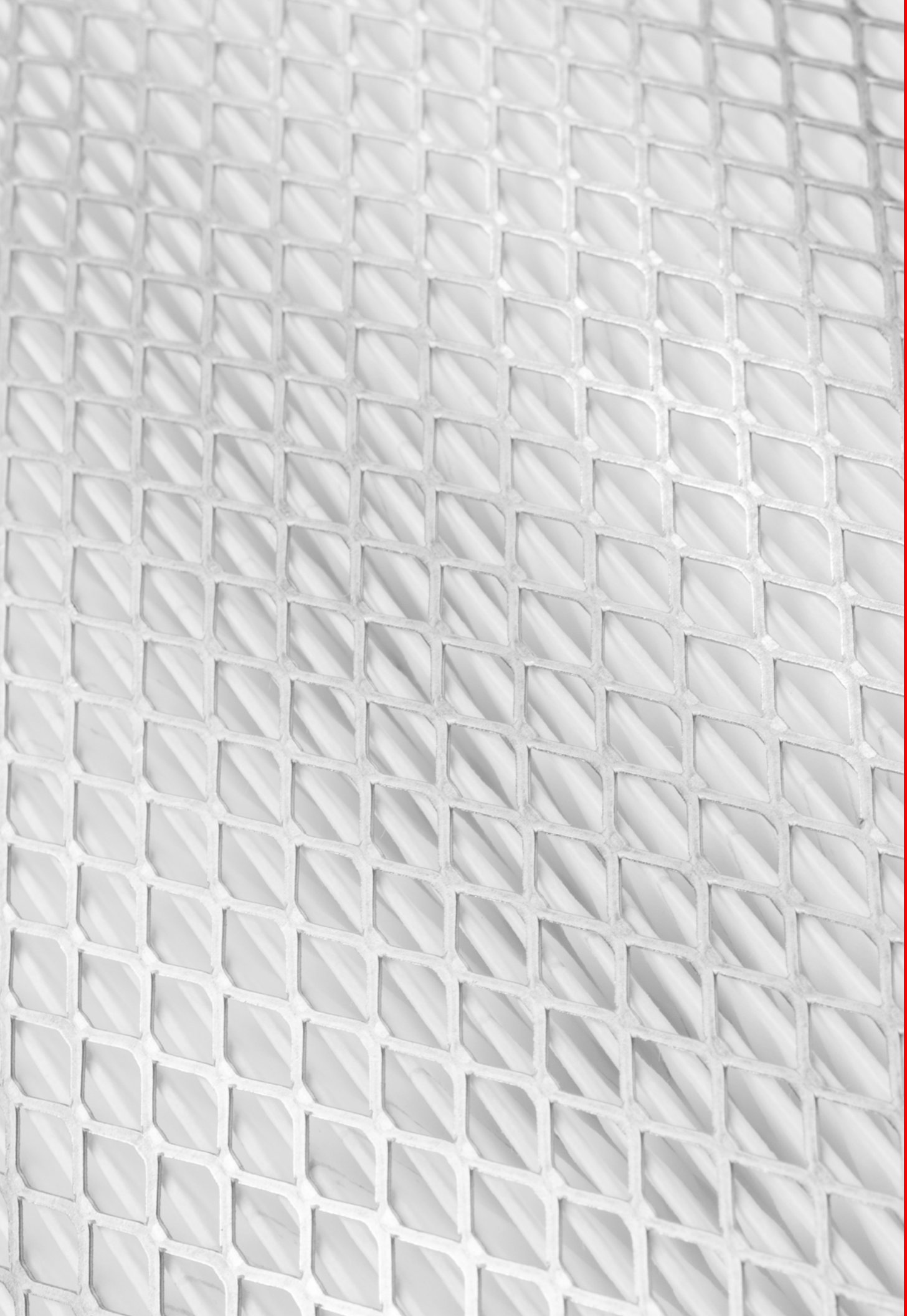
Flow Rating:	Up to 100 gpm (380 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	900 psi (60 bar)
Min. Yield Pressure:	3200 psi (220 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	750 psi (52 bar) per NFPA T2.6.1-R1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 40 psi (2.8 bar) each filter housing
Porting Base & Cap:	Cast Aluminum
Element Case:	Steel
Element Change Clearance:	8.50" (215 mm) for 1KG; 17.5" (445 mm) for KKG; 26.5" (673 mm) for 27KG



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Section 2:

TOP-PORTED FILTERS



HydraSPIN Filter Series

GH

500-725 psi - 35-50 bar

35-112 gpm - 130-425 L/min



GH6



GH9



GH14



GH11

Features and Benefits

- Variety of differential indicator port options (visual and electrical indicators)
- Leak proof bar indicator, rugged visual indicator with protective aluminum shield is standard
- Proprietary bowl to element seal - minimizes potential leakage point by use of one seal on element
- Cartridge style element (non spin-on) that is proprietary and patented with integrated bypass valve features
- Wide variety of media grades that can be application specific
- Light weight bowl design with replaceable element minimizes landfill waste
- Mounting interchangeability with competitor's filter head

Part of Schroeder Industries' 2030 Initiative

Model No. of filters in photographs are GH6, GH9, GH11, and GH14

Filter Housing Specifications

	GH6	GH9	GH11	GH14
Flow Rating: (150 SUS (32 cSt) fluids)	Up to 35 gpm (130 L/min)	Up to 35 gpm (130 L/min)	Up to 87 (325 L/min)	Up to 112 gpm (425 L/min)
Max. Operating Pressure:	725 psi (50 bar)	725 psi (50 bar)	500 psi (35 bar)	500 psi (35 bar)
Min. Yield Pressure:	2600 psi (179 bar)	2600 psi (179 bar)	2700 psi (186 bar)	2700 psi (186 bar)
Rated Fatigue Pressure:	725 psi (50 bar)	725 psi (50 bar)	500 psi (35 bar)	500 psi (35 bar)
Temp. Range:	-20°F to 225°F (-29°C to 107°C)	-20°F to 225°F (-29°C to 107°C)	-22°F° to 212°F (-30°C to 100°C)	-22°F° to 212°F (-30°C to 100°C)
Bypass Setting:	25 psi (1.7 bar) standard 50 psi (3.5 bar) optional Non-Bypassing	25 psi (1.7 bar) standard 50 psi (3.5 bar) optional Non-Bypassing	25 psi (1.7 bar) standard 50 psi (3.5 bar) optional Non-Bypassing	25 psi (1.7 bar) standard 50 psi (3.5 bar) optional Non-Bypassing
Porting Head:	Cast Aluminum	Cast Aluminum	Cast Aluminum	Cast Aluminum
Element Case:	Aluminum	Aluminum	Aluminum	Aluminum
Weight:	3.2 lbs (1.4 kg)	3.8 lbs (1.7 kg)	8.0 lbs (3.6 kg)	10.0 lbs (4.5 kg)
Element Change Clearance:	2" (50 mm)	2" (50 mm)	7.4" (187 mm)	7.4" (187 mm)

Medium Pressure Filter

GKF5

500 psi - 35 bar

100 gpm - 380 L/min



Features and Benefits

- HF4 Footprint filter with patented Quality Protection element
- Offered in pipe, SAE straight thread, flange and ISO 228 porting
- Available with NPTF inlet and outlet female test ports
- Various Dirt Alarm® options
- Allows consolidation of inventoried replacement elements by using KG-size elements

Model No. of filter in photograph is GKF51KGZ10SD5.

Filter Housing Specifications

Flow Rating:	Up to 100 gpm (380 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	500 psi (35 bar)
Min. Yield Pressure:	1500 psi (100 bar) , per NFPA T2.6.1
Rated Fatigue Pressure:	300 psi (35 bar), per NFPA T2.6.1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 40 psi (2.8 bar) Full Flow: 61 psi (4.2 bar)
Porting Base & Cap: Element Case:	Gray Cast Iron Steel
Weight of GKF5-1KG:	23.2 lbs. (10.5 kg)
Element Change Clearance:	2.0" (51 mm)

Return Line Filter

GKF3**300 psi - 20 bar****100 gpm - 380 L/min**

Features and Benefits

- HF4 Footprint filter with patented Quality Protection element
- Offered in pipe, SAE straight thread, flange, and ISO 228 porting
- Various Dirt Alarm® options
- Available with No-Element indicator
- Available with NPTF inlet and outlet female test ports
- Available with magnet inserts
- Available with housing drain plug
- Takes the standard “KG” element in KG, KKG or 27KG lengths
- Allows consolidation of inventoried replacement elements by using KG-size elements

Model No. of filter in photograph is GKF31K10SD5.

Filter Housing Specifications

Flow Rating:	Up to 100 gpm (380 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	300 psi (20 bar)
Min. Yield Pressure:	1000 psi (70 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	290 psi (20 bar), per NFPA T2.6.1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 30 psi (2 bar) Full Flow: 51 psi (4 bar)
Porting Base & Cap: Element Case:	Die Cast Aluminum Steel
Weight of KF3-1KG: Weight of KF3-2KG: Weight of KF3-3KG:	10.5 lbs. (4.8 kg) 14.2 lbs. (6.4 kg) 18.5 lbs. (8.4 kg)
Element Change Clearance:	1.50" (40 mm) for all lengths

How to Build a Valid Model Number for a Schroeder GKF3:

GKF3

	-		-		-		-	
Bowl Length		Element		Porting/Test Points		Indicator		Options

Bowl Length	
	1 = 9"/18"/27" bowl with one (1) element 2 = 18" Bowl with two (2) 9" elements 3 = 27" Bowl with three (3) 9" elements

Element	Element	Media	Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	KG (9", 18", or 27" Bowl) KKG (18" Bowl) 27KG (27" Bowl)	Z = Excellement Z-Media (synthetic) Note: Other media is available upon request.	1 = 1 Micron 3 = 3 Micron 5 = 5 Micron 10 = 10 Micron 25 = 25 Micron	Omit = Buna V = Viton

Magnet/Porting/Bypass	Magnet Option	Porting	Bypass
	Omit = None M = Magnet	P = 1-1/2" NPTF S = SAE-24 F = 1-1/2" SAE split 4-bolt flange code 61 B = ISO 228 G-1-1/2	Omit = 30 PSI bypass 50 = 50 PSI bypass

Indicator ¹				
Electrical Indicator	Indicator Material	Voltage	Current	Thermal Lockout
Omit = None MS5 = 12" 4 Conductor Cable MS10 = Male DIN Connector MS11 = 12 ft 4 Conductor Cable MS12 = Male 5 Pin Brad Harrison Connector MS13 = Threaded Connector and Light MS14 = Male 5 Pin Brad Harrison Connector & Light MS16 = Weather Packed Seal Connector MS17 = Male Micro 4 Pin Brad Harrison Connector MS18 = 2 Pin Amp Junior Power Timer Connector MS19 = 2 Pin Deutsch Connector MS = Cam Operated Switch with 1/2" Conduit, Female Connection MS15DC = 3000 PSI max #8-32 Post for Wire Connection	Omit = Steel SS = Stainless Steel	AC = Alternating Current DC = Direct Current	Omit = Standard LC = Low Current	Omit = None (available on select models reference specifications in Appendix A)

Visual Indicator
D = Pointer D5 = Latching Visual Pop-Up D8 = Visual with Thermal Lockout D9 = Stainless Steel Latching Pop-Up Indicator D10 = Non-Latching Indicator D10SS = Stainless Steel Non-Latching Indicator D13 = Stainless Steel Latching Indicator with Music Wire Spring

Options
Omit = None L = Two 1/4" NPTF inlet and outlet test ports N = No-Element indicator G426 = 3/4" drain on bottom of housing G440 = 1/2" drain on bottom of housing

1. Starting from the left you will choose your Indicator Type (visual or electrical), if it's visual you will use the visual column and that will complete this box. If it's electrical you will populate the column under "MS = Electrical." If no indicator is required you will omit the whole section and move onto the next section

Return Line Filter with Threaded Bowl

GKL3**300 psi - 20 bar****120 gpm - 455 L/min**

Features and Benefits

- Threaded bowl allows for easier removal and facilitates element changes
- Available with KG-size elements
- Available with 1½" and 2" porting
- Offered in pipe, SAE straight thread, ISO 228, and flange porting
- Various Dirt Alarm® options
- Available with NPTF inlet and outlet female test ports
- Available with housing drain plug

Model No. of filter in photograph is GKL31KGZ10F24.

Filter Housing Specifications

Flow Rating:	Up to 100 gpm (380 L/min) for 150 SUS (32 cSt) fluids for P24, S24, F24 and B24 porting Up to 120 gpm (455 L/min) for 150 SUS (32 cSt) fluids for P32, S32 and B32 porting
Max. Operating Pressure:	300 psi (20 bar)
Min. Yield Pressure:	1000 psi (70 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	300 psi (20 bar), per NFPA T2.6.1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 30 psi (2 bar) Full Flow: 68 psi (4.7 bar)
Porting Base & Cap: Element Case:	Cast Aluminum Steel
Weight of KL3-18LCG: Weight of KL3-1KG: Weight of KL3-2KG: Weight of KL3-3KG:	20.00 lbs. (9.1 kg) 14.75 lbs. (6.7 kg) 18.50 lbs. (8.4 kg) 22.75 lbs. (10.3 kg)
Element Change Clearance:	2.50" (64 mm)

Return Line Filter with Threaded Bowl

GKL3

How to Build a Valid Model Number for a Schroeder GKL3:

GKL3

	-		-		-		-	
Bowl Length		Element		Porting/Test Points		Indicator		Options

Bowl Length	
	1 = 9"/18"/27" bowl with one (1) element 2 = 18" Bowl with two (2) 9" elements 3 = 27" Bowl with three (3) 9" elements

Element	Element	Media	Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	KG (9", 18", or 27" Bowl) KKG (18" Bowl) 27KG (27" Bowl)	Z = Excellement Z-Media (synthetic) Note: Other media is available upon request.	1 = 1 Micron 3 = 3 Micron 5 = 5 Micron 10 = 10 Micron 25 = 25 Micron	Omit = Buna V = Viton

Porting/Test Points	Porting	Bypass
	P24 = 1-1/2" NPTF P32 = 2" NPTF S24 = SAE-24 S32 = SAE-32 F24 = 1-1/2" SAE 4-bolt flange code 61 B20 = ISO 228 G-1-1/4" B24 = ISO 228 G-1-1/2"	Omit = 30 PSI Bypass 50 = 50 PSI Bypass

Indicator ¹				
Electrical Indicator	Indicator Material	Voltage	Current	Thermal Lockout
MS5 = 12" 4 Conductor Cable MS10 = Male DIN Connector MS11 = 12 ft 4 Conductor Cable MS12 = Male 5 Pin Brad Harrison Connector MS13 = Threaded Connector and Light MS14 = Male 5 Pin Brad Harrison Connector & Light MS16 = Weather Packed Seal Connector MS17 = Male Micro 4 Pin Brad Harrison Connector MS18 = 2 Pin Amp Junior Power Timer Connector MS19 = 2 Pin Deutsch Connector	Omit = Steel SS = Stainless Steel	AC = Alternating Current DC = Direct Current	Omit = Standard LC = Low Current	Omit = None (available on select models reference specifications in Appendix A) T

MS15DC = 3000 PSI max #8-32 Post for Wire Connection

Visual Indicator
D5 = Latching Visual Pop-Up D8 = Visual with Thermal Lockout D9 = Stainless Steel Latching Pop-Up Indicator D10 = Non-Latching Indicator D10SS = Stainless Steel Non-Latching Indicator D13 = Stainless Steel Latching Indicator with Music Wire Spring

Test Points/Bowl Drain	Test Point	Bowl Drain
	Omit = None C = Indicator in cap	Omit = None DR = 3/8" drain on bottom of housing

1. Starting from the left you will choose your Indicator Type (visual or electrical), if it's visual you will use the visual column and that will complete this box. If it's electrical you will populate the column under "MS = Electrical." If no indicator is required you will omit the whole section and move onto the next section

Top-Ported Return Line Filter

GMLF1

300 psi - 20 bar

200 gpm - 760 L/min



Features and Benefits

- Equipped with inlet and outlet manifolds
- HF4 Footprint filter with patented Quality Protection element
- Offered in pipe and flange porting
- Available in 2, 4, or 6 element configurations
- Various Dirt Alarm® options
- Available with NPTF inlet and outlet female test ports
- Available with housing drain plugs

Model No. of filter in photograph is GMLF14KG10PD.

Filter Housing Specifications

Flow Rating:	Up to 200 gpm (760 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	300 psi (20 bar)
Min. Yield Pressure:	1000 psi (70 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	250 psi (17 bar), per NFPA T2.6.1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 25 psi (2 bar) Full Flow: 60 psi (4 bar)
Porting Base & Cap: Element Case:	Anodized Cast Aluminum Steel
Weight of MLF1-2KG: Weight of MLF1-4KG: Weight of MLF1-6KG:	44.0 lbs. (20.0 kg) 50.0 lbs. (23.0 kg) 58.0 lbs. (26.0 kg)
Element Change Clearance:	2.0" (55 mm)

How to Build a Valid Model Number for a Schroeder GMLF1:

GMLF1

Bowl Length	Element	Porting/Test Points	Indicator	Options

Bowl Length	
	2 = 9"/18"/27" bowl with one (1) element in each bowl 4 = 18" Bowl with two (2) 9" elements in each bowl 6 = 27" Bowl with three (3) 9" elements in each bowl

Element	Element	Media	Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	KG (9", 18", or 27" Bowl) KKG (18" Bowl) 27KG (27" Bowl)	Z = Excellement Z-Media (synthetic) Note: Other media is available upon request.	1 = 1 Micron 3 = 3 Micron 5 = 5 Micron 10 = 10 Micron 25 = 25 Micron	Omit = Buna V = Viton

Porting/Bypass	Magnet	Porting
	Omit = None M = Magnet Inserts	P = 2-1/2" NPTF F = 2-1/2" SAE 4-Bolt Flange Code 61

Indicator ¹				
Electrical Indicator	Indicator Material	Voltage	Current	Thermal Lockout
Omit = None MS5 = 12" 4 Conductor Cable MS10 = Male DIN Connector MS11 = 12 ft 4 Conductor Cable MS12 = Male 5 Pin Brad Harrison Connector MS13 = Threaded Connector and Light MS14 = Male 5 Pin Brad Harrison Connector & Light MS16 = Weather Packed Seal Connector MS17 = Male Micro 4 Pin Brad Harrison Connector MS18 = 2 Pin Amp Junior Power Timer Connector MS19 = 2 Pin Deutsch Connector	Omit = Steel SS = Stainless Steel	AC = Alternating Current DC = Direct Current	Omit = Standard LC = Low Current	Omit = None T (available on select models reference specifications in Appendix A)

MS = Cam Operated Switch with 1/2" Conduit, Female Connection

MS15DC = 3000 PSI max #8-32 Post for Wire Connection

Visual Indicator

D = Pointer

D5 = Latching Visual Pop-Up

D8 = Visual with Thermal Lockout

D9 = Stainless Steel Latching Pop-Up Indicator

D10 = Non-Latching Indicator

D10SS = Stainless Steel Non-Latching Indicator

D13 = Stainless Steel Latching Indicator with Music Wire Spring

Test Points/Bowl Drain	Test Point	Bowl Drain
	Omit = None L = Two 1/4" NPTF inlet and outlet test ports	Omit = None G426 = 3/8" drain on bottom of housing G440 = 1/2" drain on bottom of housing

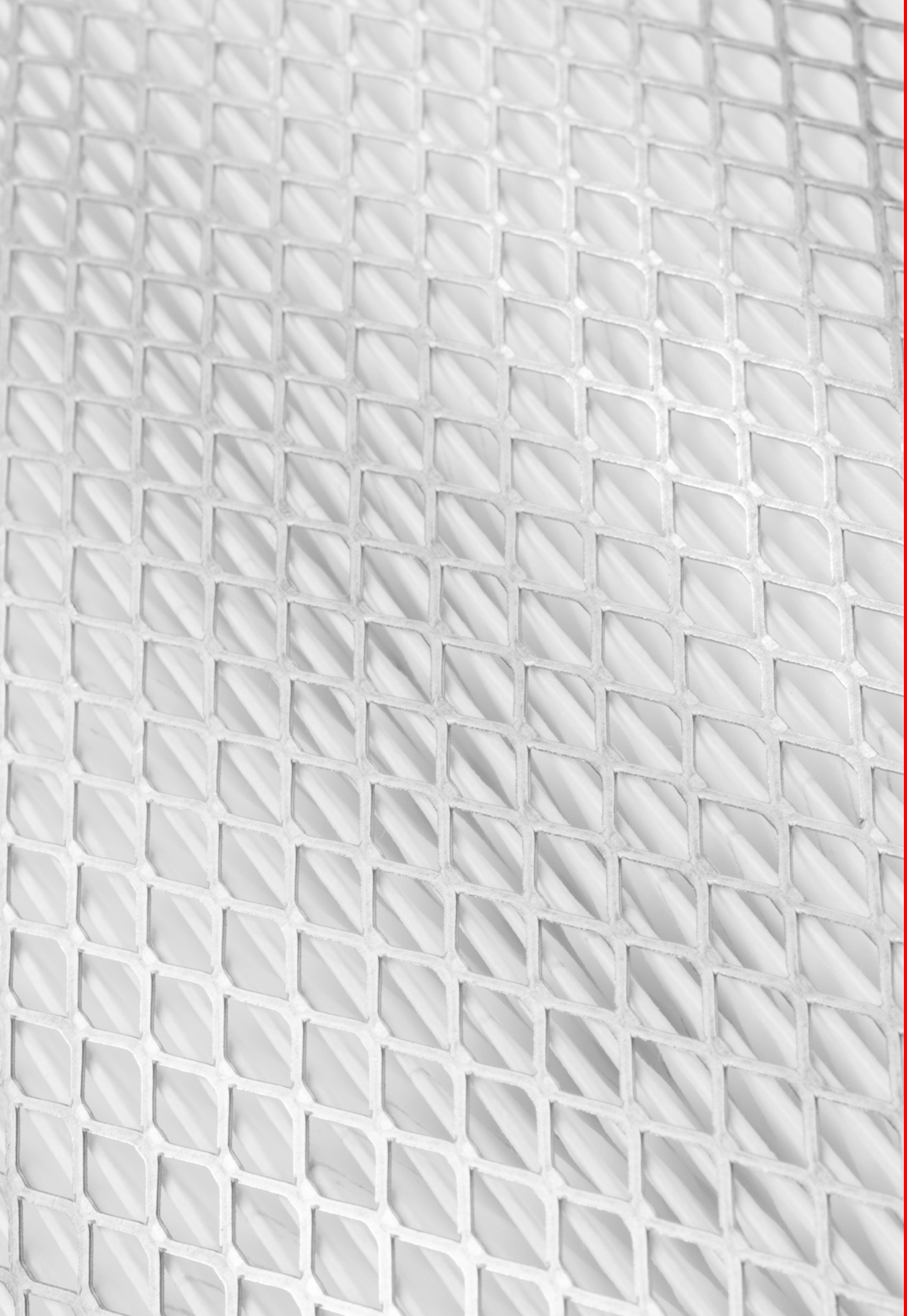
1. Starting from the left you will choose your Indicator Type (visual or electrical), if it's visual you will use the visual column and that will complete this box. If it's electrical you will populate the column under "MS = Electrical." If no indicator is required you will omit the whole section and move onto the next section



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Section 3:

TANK-MOUNTED FILTERS





Features and Benefits

- Patent Pending in-tank filter design
- Lightweight and as part of a tank optimization package can reduce reservoir size
- Lock & Key Quality Protected, OEM specific interfaces available
- Superior de-aeration performance
- 360 degree swivel connection, lines stay connected during element changeouts
- Anti-Drain check valve option to keep lines from emptying during element changeouts
- 135 ft-lb max loading torque on inlet port

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Model No. of filter in photograph is AFT8LKZ10L16N

Filter Housing Specifications

Flow Rating:	40 gpm (151 L/min)
Max. Operating Pressure:	100 psi (7 bar)
Min. Yield Pressure:	350 psi (24 bar)
Rated Fatigue Pressure:	100 psi (7 bar)
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 30 psi (2 bar) Full Flow: 45 psi (3 bar)
Element Change Clearance:	4L = 5.28" [134mm] 8L = 8.62" [219mm] 12L = 11.96" [304mm] 16L = 15.30" [389mm]
Element Case:	12 elements
Type Fluid:	Appropriate Schroeder Media
Petroleum Based Fluids:	All E media (cellulose), Z-Media® and ASP® media (synthetic)
High Water Content:	All Z-Media® and ASP® media (synthetic)
Invert Emulsions:	10 and 25 µ Z-Media® and 10 µ ASP® media (synthetic)
Water Glycols:	3, 5, 10 and 25 µ Z-Media® and all ASP® media (synthetic)
Phosphate Esters:	All Z-Media® (synthetic) with H (EPR) seal designation and all ASP® media (synthetic)

How to Build a Valid Model Number for a Schroeder AFT:

AFT

	-		-		-	
Element		Porting/Test Points		Indicator		Options

Element	Element	Media	Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	4LK = 4" Element	Z = Excellement Z Media (synthetic) Note: Other media is available upon request.	3 = 3 Micron	Omit = Buna V = Viton
	8LK = 8" Element		5 = 5 Micron	
	12LK = 12" Element		10 = 10 Micron	
	16LK = 16" Element		25 = 25 Micron	
Porting	Porting	Bypass	Check Valve	
	S12 = SAE 12 S16 = SAE 16 L12 = 90 Deg SAE 12 L16 = 90 Deg SAE 12 HB16 = 1" Hose Barb	Omit = 30 PSI 25 = 25 PSI 40 = 40 PSI	Omit = Check valve N = No check valve	
Indicator				
	Omit = None Y2 = Back-Mounted Tri-Color gauge ES = Electric Switch with Screw Terminals ES1 = Electric Switch with 24" wire leads ES2 = Electric Switch with 2-Pin Deutche Connector ES3 = Electric Switch with DIN 43650			

Tank-Mounted Filter

v. 090523

GPT

150 psi - 10.3 bar

175 gpm - 662 L/min



Features and Benefits

- Filter bypass in cap vs base, cleaner cold start
- Patent Pending In-Tank Design
- Lock & Key Quality Protected

Model No. of filter in photograph is
GPT15DCLKZ25S24S24

Filter Housing Specifications	
Flow Rating:	Up to 175 GPM (662 L/min) FOR 150 SUS (32 cSt) Fluids
Max. Operating Pressure:	150 PSI (10.3 bar)
Min. Yield Pressure:	Consult Factory
Rated Fatigue Pressure:	89 psi (6 bar)
Temp. Range:	-20 F to 225 F (-29 C to 107 C)
Bypass Setting:	Cracking: 35 PSI (2.4 bar)
Ported Head and Cap:	Die Cast Aluminum
Weight:	7 LBS. (3.18 kg)
Element Change Clearance:	20.0" (508 mm)
Type Fluid:	Appropriate Schroeder Media
High Water Content:	All Z-Media (synthetic)
Invert Emulsions:	10 and 25 micron Z-Media (synthetic)
Water Glycols:	3, 5, 10, and 25 micron Z-Media (synthetic)
Phosphate Esters:	All Z-Media (synthetic) with H (EPR) seal designation

How to Build a Valid Model Number for a Schroeder GPT:



Element	Element	Media	Micron Rating	Seals
	15DCLK = 15" Element	Z = Excellement Z-Media (synthetic) Note: Other media is available upon request.	3 = 3 Micron 5 = 5 Micron 10 = 10 Micron 25 = 25 Micron	Omit = Buna V = Viton H = EPR
Porting	Porting 1	Porting 2	Bypass	
	S24 = SAE-24 P24 = 1 1/2" NPT F32 = 2" SAE Code 61 Flange	S24 = SAE-24 P24 = 1 1/2" NPT F32 = 2" SAE Code 61 Flange	Omit = 35 PSI Cracking	
Indicator				
	Y2 = Tricolor Visual Indicator (Back Mounted) Y2C = Tricolor Visual Indicator (Bottom Mounted) ES = Electric Switch ES1 = Heavy Duty Electric Switch ES2 = Electric Switch with Deutsch Connector			

The 15DCLK element assembly is made up of the GPT diverter cap and the 15TLK element.
A list of model code pairings is shown below:

15DCLKZ10,ELEMENT = DIVERTER, ASSY, GPT, BUNA + 15TLKZ10, ELEMENT
15DCLKZ25,ELEMENT = DIVERTER, ASSY, GPT, BUNA + 15TLKZ25, ELEMENT
15DCLKZ3,ELEMENT = DIVERTER, ASSY, GPT, BUNA + 15TLKZ3, ELEMENT
15DCLKZ5,ELEMENT = DIVERTER, ASSY, GPT, BUNA + 15TLKZ5, ELEMENT

Return Line Filter

BRT

145 psi - 10 bar

160 gpm - 600 L/min



Features and Benefits

- Filter is mounted in the tank and flow comes to it from a pipe connection below it or from the side
- Optimal flow conditions created by flow from beneath guaranteeing optimal air separation, even tank mixing, and long element service intervals
- Patented de-aeration windows around the housing offer superior air bubble coalescence in a 360 degree discharge
- Quality Protected Inside-Out Flow Element Design

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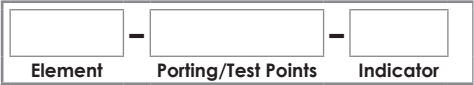
Model No. of filter in photograph is BRT6RBZ102.

Filter Housing Specifications

Flow Rating:	Up to 160 gpm (600 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	145 psi (10 bar)
Temp. Range:	-22°F to 248°F (-30°C to 120°C)
Bypass Setting:	Cracking: 36 psi (2.5 bar)
Filter Head & Cover:	BRT 2 - 6: Aluminum
Inlet Section:	Nylon (PA66)
Seals:	Buna N
Installation:	As in-tank filter

How to Build a Valid Model Number for a Schroeder BRT:

BRT



Element	Element Length	Media	Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	2RB 3RB 4RB 6RB	Z = Excellement Z Media (synthetic) Note: Other media is available upon request.	10 = 10 Micron 25 = 25 Micron	Omit = Buna V = Viton
Porting	Inlet Porting			
	2 = Side Inlet 1 = Bottom Inlet			
Indicator	Visual			
	Omit = None VA = Visual/Electrical VE = Electrical VO = Visual Indicator			

Return Line Filter

TRT

145 psi - 10 bar

100 gpm - 380 L/min



Features and Benefits

- Filter head is mounted on the tank like standard return-line solution
- The protective tube can be supplied in various optional versions: 1.) as a closed tube with the outlet opening facing downwards or with a closed base and rows of operating holes at the height of the tank's oil level 2.) with an optional magnetic core connected to the filter element guaranteeing effective magnetic pre-filtration
- Patented de-aeration windows around the housing offer superior air bubble coalescence in a 360 degree discharge
- Quality Protected Inside-Out Flow Element Design

Si Part of Schroeder Industries' Energy Sustainability Initiative

Model No. of filter in photograph is TRT3RTZ10MS.

Filter Housing Specifications

Flow Rating:	Up to 100 gpm (400 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	145 psi (10 bar)
Temp. Range:	-22°F to 248°F (-30°C to 120°C)
Bypass Setting:	Cracking: 36 psi (2.5 bar)
Filter Head & Cover: Inlet Section:	BRT 2 - 6: Aluminum Nylon (PA66)
Seals:	Buna N and Viton
Installation:	As in-tank filter

How to Build a Valid Model Number for a Schroeder TRT:

TRT

[]	-	[]	-	[]
Element		Porting/Test Points		Indicator

Element	Element Length (in)	Media	Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	1RT 2RT 3RT 4RT	Z = Excellement Z Media (synthetic) Note: Other media is available upon request.	5 = 5 Micron 10 = 10 Micron 25 = 25 Micron	Omit = Buna V = Viton
Porting	Bypass	Magnet	Inlet Porting	Housing Options
	Omit = 36 PSID Bypass 12 = 12 PSID Bypass	Omit = None M = Magnet	G = 1-½" bSPP S = G 1-½" BSPP, SAE DN 40 (1-½") S24 = SAE-24	Omit = Standard Housing Tube
Indicator	Visual			
	Omit = None VA = Visual/Electrical VE = Electrical VO = Visual Indicator			

Tank-Mounted Filter

GZT

100 psi - 7 bar

40 gpm - 150 L/min



Features and Benefits

- Low pressure tank-mounted filter
- Available with dual inlet porting
- Offered in pipe, SAE straight thread, and ISO 228 porting
- Various Dirt Alarm® options
- Optional PAB1 breather
- Optional dipstick

Model No. of filter in photograph is GZT8ZGZ10PPESAB.

Filter Housing Specifications

Flow Rating:	Up to 40 gpm (150 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	100 psi (7 bar)
Min. Yield Pressure:	300 psi (21 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	90 psi (6 bar), per NFPA T2.6.1-R1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 25 psi (1.7 bar) Full Flow: 39 psi (2.7 bar)
Porting Base & Cap:	Nylon
Element Case:	Aluminum
Weight of ZT-8ZG:	3.3 lbs. (1.49 kg)
Element Change Clearance:	10.0" (254 mm)

How to Build a Valid Model Number for a Schroeder GZT:

GZT

	-		-		-		-		-		-	
Element Length		Media		Micron Rating		Seals		Porting		Indicator		Outlet Porting Options

Element	Element Length	Media	Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	8	GTZZ = Excellement Z-Media (synthetic) Note: Other media is available upon request.	1 = 1 Micron (Z Media) 3 = 3 Micron (Z Media) 5 = 5 Micron (Z Media) 10 = 10 Micron (Z Media) 25 = 25 Micron (Z Media)	Omit = Buna V = Viton
Porting/Test Points	Porting			
	P = 1" NPTF PP = Dual 1" NPTF S = SAE-16 SS = Dual SAE-16 B = ISO 228 G-1" BB = Dual ISO 228 G-1"			
Indicator				
	Omit = None Y2 = Visual Back-Mounted Tri-Color gauge ES = Electric Switch with Screw Terminals ES1 = Electric Switch with 24" wire leads ES2 = Electric Switch with 2-Pin Deutche Connector ES3 = Electric Switch with DIN 43650 Y2C = Visual Bottom-Mounted Tri Color Gauge in Cap Y5 = Visual Back-Mounted Tri-Color Gauge			
Options	Outlet Porting Options	Options		
	Omit = 1-1/2" NPT male D = Diffuser T = 13" Tube extension	Omit = None G3039 = 1.5" NPT outlet removed B = Breather M = Mounting gasket (Buna N)		

Tank-Mounted Filter

GRT

100 psi - 7 bar

100 gpm - 380 L/min



Features and Benefits

- Low pressure tank-mounted filter with up to 3 inlet ports
- HF4 Footprint filter with patented Quality Protection element
- Top, side, or bottom mounting
- Optional check valve prevents reservoir siphoning
- RTW model allows filter to be welded to tank, instead of being bolted
- Double and triple stacking of KG-size element can be replaced by single KKG or 27KG-size element
- Various Dirt Alarm® options
- Allows consolidation of inventoried replacement elements by using KG-size elements

Model No. of filter in photograph is GRTK5G24NP16Y2

Filter Housing Specifications

Flow Rating:	Up to 100 gpm (380 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	100 psi (7 bar)
Min. Yield Pressure:	400 psi (28 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	90 psi (6 bar), per NFPA T2.6.1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 25 psi (1.7 bar) Full Flow: 48 psi (3.3 bar)
Porting Base & Cap: Element Case:	Die Cast Aluminum Steel
Weight of RT-1KG: Weight of RT-2KG:	11.4 lbs. (5.2 kg) 14.5 lbs. (6.6 kg)
Element Change Clearance:	8.0" (205 mm) for 1KG; 17.50" (445 mm) for KKG; 26.5" (673 mm) for 27KG

How to Build a Valid Model Number for a Schroeder GRT:

GRT

	-		-		-		-	
Bowl Length		Element		Porting/Test Points		Indicator		Options

Bowl Length				
1 = 9"/18"/27 Bowl with one (1) element				
Element	Element	Media	Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	KG (9" Bowl)	Z = Excellement Z-Media (synthetic) Note: Other media is available upon request.	1 = 1 Micron	Omit = Buna V = Viton
	KKG (18" Bowl)		3 = 3 Micron	
	27KG (27" Bowl)		5 = 5 Micron	
			10 = 10 Micron	
			25 = 25 Micron	
Porting	Port A	Port B	Port C	Outlet Porting Options
	P16 = 1" NPTF P20 = 1-1/4" NPTF P24 = 1-1/2" NPTF P32 = 2" NPTF S16 = SAE-16 S20 = SAE-20 S24 = SAE-24 S32 = SAE-32 F20 = 1-1/4" SAE 4-bolt flange Code 61 F24 = 1-1/2" SAE 4-bolt flange Code 61 F32 = 2" SAE 4-bolt flange Code 61 B24 = ISO 228 G-1-1/2"	N = None P16 = 1" NPTF P20 = 1-1/4" NPTF P24 = 1-1/2" NPTF P32 = 2" NPTF S16 = SAE-16 S20 = SAE-20 S24 = SAE-24 S32 = SAE-32 F20 = 1-1/4" SAE 4-bolt flange Code 61 F24 = 1-1/2" SAE 4-bolt flange Code 61 F32 = 2" SAE 4-bolt flange Code 61 B24 = ISO 228 G-1-1/2"	N = None P2 = 1/8" P16 = NPTF S16 = 1" NPTF SAE-16	C = Check valve D = Diffuser CD = Check Valve & Diffuser T = 13" Tube Extension A = Non-threaded output
Indicator				
Omit = None Y2 = Visual Back-Mounted Tri-Color gauge ES = Electric Switch with Screw Terminals ES1 = Electric Switch with 24" wire leads ES2 = Electric Switch with 2-Pin Deutche Connector ES3 = Electric Switch with DIN 43650 Y2C = Visual Bottom-Mounted Tri Color Gauge in Cap Y5 = Visual Back-Mounted Tri-Color Gauge				
Options				
Omit = None G2293 = Cork Gasket G547 = Two 1/8" Gauge Ports G820 = Stamped Cap				

Tank-Mounted Return Line Filter

GRTB

100 psi - 7 bar

100 gpm - 380 L/min



Features and Benefits

- Various Dirt Alarm® options
- Cost optimized for in-tank applications
- Plastic bowl and cap lower cost and minimize weight
- OUV resistant cap

Model No. of filter in photograph is GRTB1KBGZ10S.

Filter Housing Specifications

Flow Rating:	Up to 100 gpm (380 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	100 psi (7 bar)
Min. Yield Pressure:	400 psi (28 bar)
Rated Fatigue Pressure:	145 psi (10 bar), per NFPA T2.6.1-2005
Temp. Range:	-20°F to 200°F (-29°C to 93°C)
Bypass Setting:	Cracking: 25 psi (1.7 bar) Full Flow: 42 psi (2.9 bar)
Cap & Bowl:	Nylon
Porting Head:	Aluminum
Weight of GRTB-1K:	5.2 lbs. (2.36 kg)
Element Change Clearance:	9.5" (240 mm)

Tank-Mounted Filter

GLRT

100 psi - 7 bar

150 gpm - 570 L/min



Features and Benefits

- Low pressure tank-mounted filter
- Multiple inlet/outlet porting options
- Top, side, or bottom mounting
- Optional check valve prevents reservoir siphoning
- Can also be used in return line application (contact factory)
- Visual gauge or electrical switch dirt alarms
- Offered in pipe, SAE straight thread, flanged, and ISO 228 porting

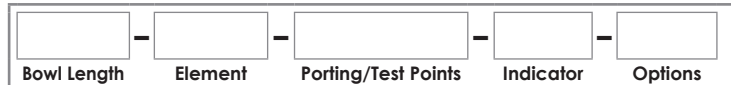
Model No. of filter in photograph is GLRT18LGZ10S24NP16Y2.

Filter Housing Specifications

Flow Rating:	Up to 150 gpm (570 L/min) for 150 SUS (32 cSt) fluids
Max. Operating Pressure:	100 psi (7 bar)
Min. Yield Pressure:	400 psi (28 bar), per NFPA T2.6.1
Rated Fatigue Pressure:	90 psi (6 bar), per NFPA T2.6.1-2005
Temp. Range:	-20°F to 225°F (-29°C to 107°C)
Bypass Setting:	Cracking: 25 psi (1.7 bar) Full Flow: 34 psi (2.3 bar)
Porting Base & Cap: Element Case:	Die Cast Aluminum Steel
Weight of GLRT-18L:	14.6 lbs. (6.6 kg)
Element Change Clearance:	17.0" (432 mm)

How to Build a Valid Model Number for a Schroeder GLRT:

GLRT

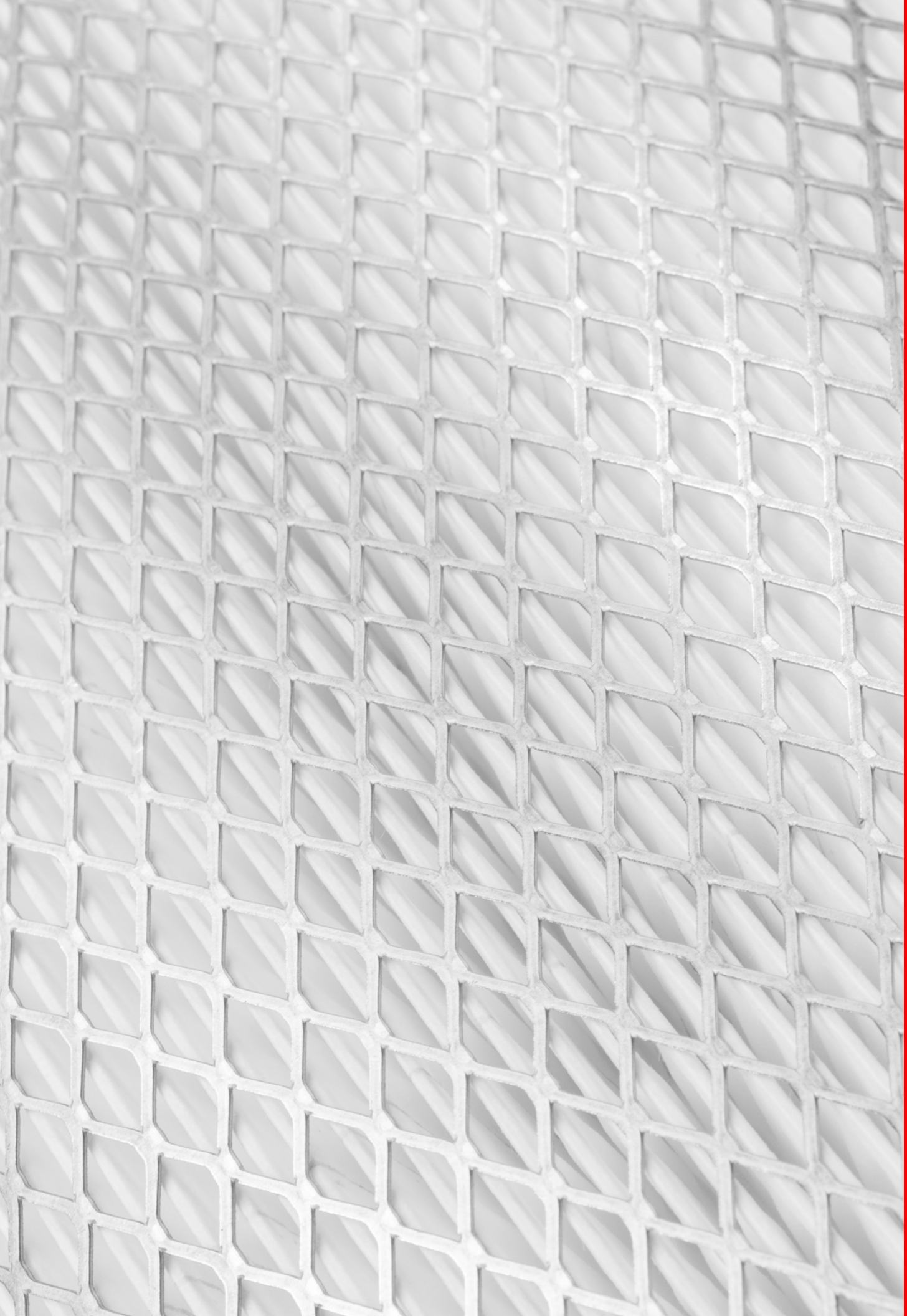


Element	Element Length	Media		Micron Rating	Seals
Note: Element code can also be used to build a replacement element.	18	LGZ = Excellement Z-Media (synthetic) Note: Other media is available upon request.		1 = 1 Micron 3 = 3 Micron 5 = 5 Micron 10 = 10 Micron 25 = 25 Micron	Omit = Buna V = Viton
Porting/Test Points	Port A	Port B	Port C	Bypass Options	Outlet Porting Options
	P16 = 1" NPTF P20 = 1-¼" NPTF P24 = 1-½" NPTF P32 = 2" NPTF S16 = SAE-16 S20 = SAE-20 S24 = SAE-24 S32 = SAE-32 F20 = 1-¼" SAE 4-Bolt flange Code 61 F24 = 1½" SAE 4-Bolt flange Code 61 F32 = 2" SAE 4-Bolt flange Code 61 B24 = ISO 228 G-1½" Flange Port Option Only: M = Metric SAE 4 Bolt Flange	N = None P16 = 1" NPTF P20 = 1-¼" NPTF P24 = 1-½" NPTF P32 = 2" NPTF S16 = SAE-16 S20 = SAE-20 S24 = SAE-24 S32 = SAE-32 F20 = 1-¼" SAE 4-Bolt flange Code 61 F24 = 1½" SAE 4-Bolt flange Code 61 F32 = 2" SAE 4-Bolt flange Code 61 B24 = ISO 228 G-1½"	N = None P2 = 1/8" NPT P16 = 1" NPTF S16 = SAE-16	Omit = 25 PSID setting 40 = 40 PSID setting	Omit = 2" NPT male C = Check valve D = Diffuser T = 13" Tube Ext. A = Non-thread outlet
Indicator					
	Omit = None Y2 = Visual Back-Mounted Tri-Color gauge ES = Electric Switch with Screw Terminals ES1 = Electric Switch with 24" wire leads ES2 = Electric Switch with 2-Pin Deutche Connector ES3 = Electric Switch with DIN 43650 Y2C = Visual Bottom-Mounted Tri Color Gauge in Cap Y5 = Visual Back-Mounted Tri-Color Gauge				
Options					
	Omit = None G2293 = Cork gasket G547 = Two 1/8" gauge ports G820 = Stamped cap				

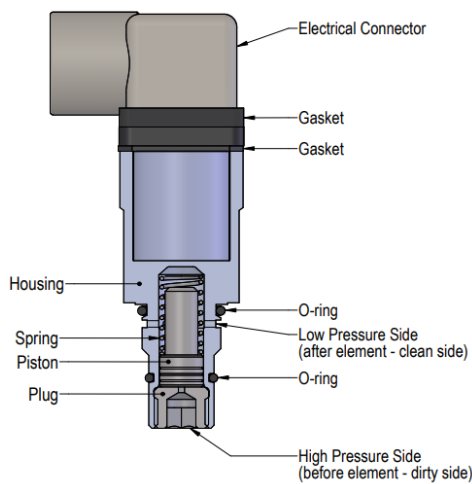
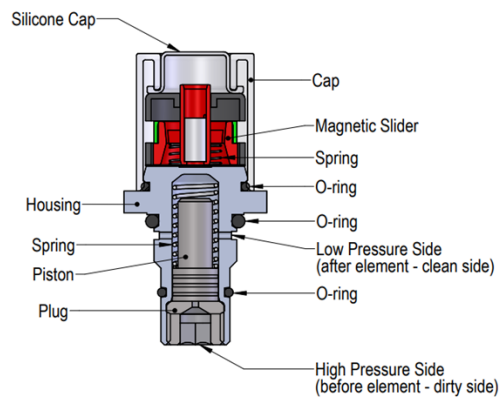


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INDICATORS



Filter Dirt Alarms



Dirt Alarms

Dirt alarms are essential to monitoring the filter element life and ensuring your downstream equipment gets filtered oil and meets the desired ISO code of the equipment. As filter elements collect contaminant the differential pressure across the filter housing rises until the bypass starts to crack and dump contaminated fluid downstream. Placing an indicator on your filter will trip 5 PSID before the bypass cracks open. This is good to warn the user the differential pressure is getting too high before the bypass valve opens.

Schroeder offers a variety of dirt alarms to meet a wide range of customer applications.

Differential Indicators

Visual indicators provide an economical way to know quickly when a filter element needs to be replaced. A variety of styles are available, ranging from gauges to mechanical pointers to pop-up cartridges.

Electrical

The electrical indicators provide an electrical signal for activating various electric alarms. These cartridge-style indicators are available on Schroeder high pressure, medium pressure, and low-pressure filters.

Thermal Lockout

The thermal lockout feature prevents activation of the indicator below fluid temperatures of 90°F (32°C). This feature can be helpful in mobile applications where fluid temperatures may be well below 90°F at equipment start-up and will prevent the indicator from tripping prematurely.

Pressure Switch

Pressure switches measure inlet pressure and trip at a desired pressure setting. Schroeder offers a wide variety of electrical and visual indicator switches for return line and vacuum filtration applications.

Building a Differential Indicator Part Number

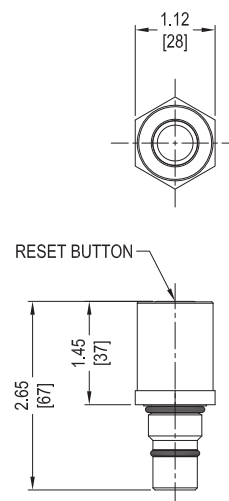
Electrical							
Indicator Series	Seal Material	Indicator Material	Voltage	Current	Thermal Lockout	—	Bypass Cracking Pressure (reference specifications for valid cracking pressure)
MS5	Omit = Buna	Omit = Steel	AC = Alternating Current	Omit = Standard	Omit = None		
MS10							
MS11							
MS12							
MS13	V = Viton	SS = Stainless Steel	DC = Direct Current	LC = Low Current	T (available on select models reference specifications)		
MS14							
MS15							
MS16							
MS17	B = EPR						
MS18							
MS19							

Visual			
Indicator Series	Seal Material	—	Bypass Cracking Pressure (reference specifications for valid cracking pressure)
D5	Omit = Buna		
D8			
D9	V = Viton		
D10			
D10SS	B = EPR		
D13			

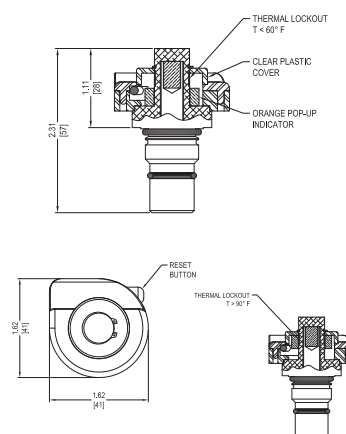
*Please contact factory for structuring a pressure switch part number



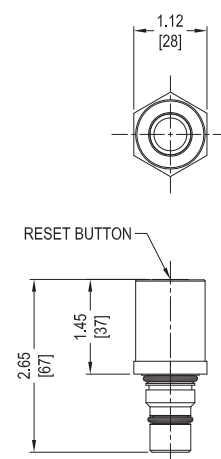
Application	Visual Dirt Alarm
Max Pressure	6,000 PSI
Max Cyclic Pressure	4,000 PSI
Trip Pressure <i>(Bypass Cracking Pressure)</i>	10 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Thread	3/4-16 UNF - 2A
Switch Type	Latching
Seal	Buna, Viton
Material	Aluminum
Order Example	D5-20, D5V-40



Application	Visual Dirt Alarm with Thermal Lockout
Max Pressure	6000 PSI
Max Cyclic Pressure	4000 PSI
Trip Pressure <i>(Bypass Cracking Pressure)</i>	20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 85 (90) PSID
Thread	3/4-16 UNF - 2A
Switch Type	Latching
Seal	Buna, Viton
Material	Aluminum
Order Sample	D8-60, D8V-40



Application	Visual Dirt Alarm
Max Pressure	6,500 PSI
Max Cyclic Pressure	6,000 PSI
Trip Pressure <i>(Bypass Cracking Pressure)</i>	10 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Thread	3/4-16 UNF - 2A
Switch Type	Latching
Seal	Buna, Viton
Material	Aluminum
Order Sample	D9-30, D9V-30

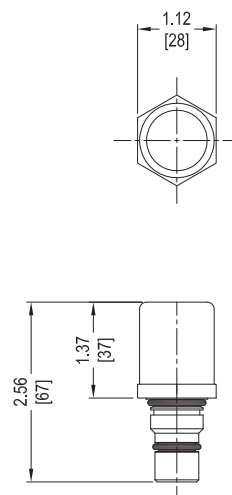


Visual Indicators

D10



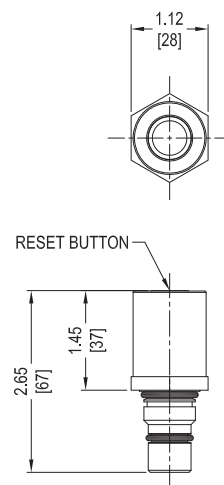
Application	Visual Dirt Alarm
Max Pressure	6,500 PSI
Max Cyclic Pressure	4,000 PSI
Trip Pressure <i>(Bypass Cracking Pressure)</i>	10 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Thread	3/4-16 UNF - 2A
Switch Type	Non-latching
Seal	Buna, Viton
Material	Stainless body, music wire spring
Order Sample	D10-30, D10V-50



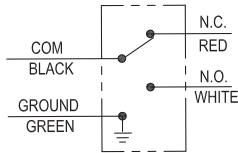
D13



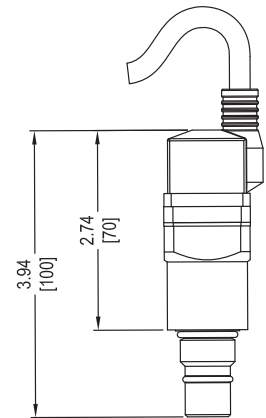
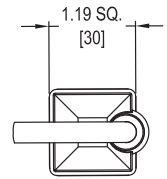
Application	Visual Dirt Alarm
Max Pressure	6,500 PSI
Max Cyclic Pressure	6,000 PSI
Trip Pressure <i>(Bypass Cracking Pressure)</i>	10 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Thread	3/4-16 UNF - 2A
Switch Type	Latching
Seal	Buna, Viton
Material	Aluminum
Order Sample	D13-50, D13V-75



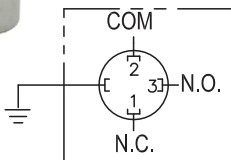
MS5



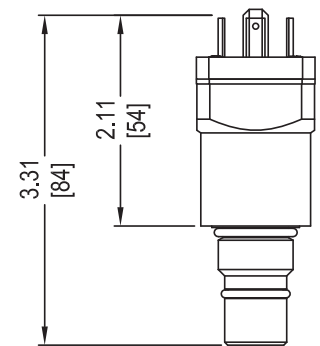
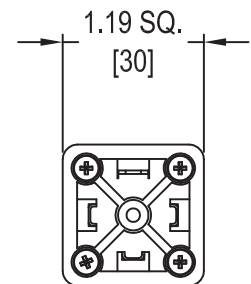
Application	Electrical Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure <i>(Bypass Cracking Pressure)</i>	10 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	1 ft. 18 gauge 4 conductor cable
Thread	3/4-16UNF-2A
Switch Type	N.O./N.C
Seal	Buna, Viton
Available Options	Low Current, Thermal Lockout
Electrical Ratings	Reference Table 1
Order Example	MS5-40, MS5LC-40, MS5LCT-40, MS5VLCT-50



MS10

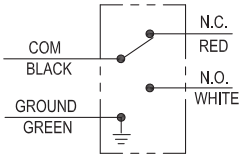


Application	Electrical Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure <i>(Bypass Cracking Pressure)</i>	11 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	DIN 43650 Connector, Male
Thread	3/4-16UNF-2A
Switch Type	N.O./N.C
Seal	Buna, Viton
Available Options	Low Current, Thermal Lockout
Electrical Ratings	Reference Table 1
Order Example	MS10-40, MS10LC-40, MS10LCT-40, MS10VT-40

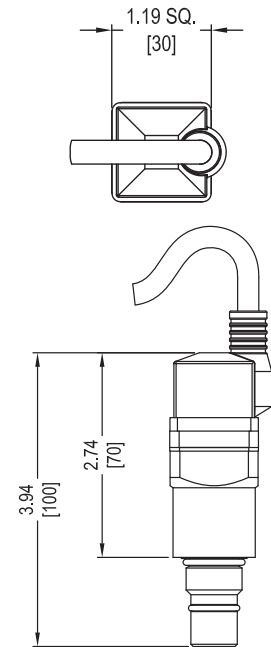


Electrical Indicator

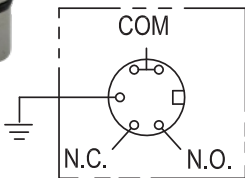
MS11



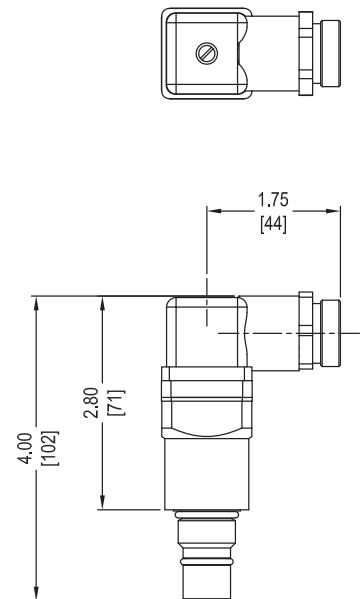
Application	Electrical Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure (Bypass Cracking Pressure)	13 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	12 ft. 18 gauge 4 conductor cable
Thread	3/4-16UNF-2A
Switch Type	N.O./N.C
Seal	Buna, Viton
Available Options	Low Current, Thermal Lockout
Electrical Ratings	Reference Table 1
Order Example	MS11-40, MS11V-50



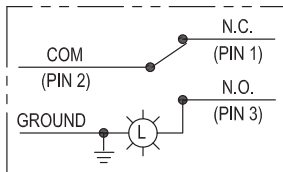
MS12



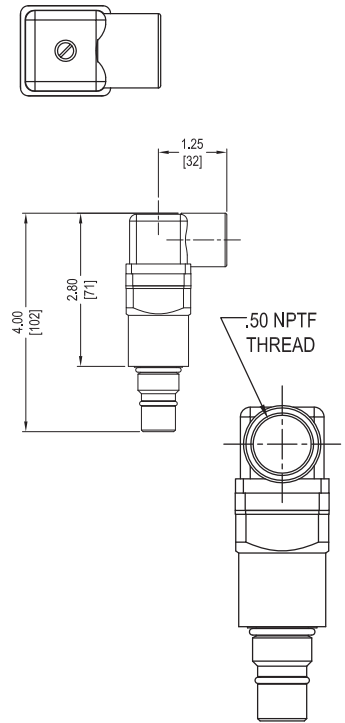
Application	Electrical Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure (Bypass Cracking Pressure)	13 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	5 Pin Brad Harrison Connector
Thread	3/4-16UNF-2A
Switch Type	N.O./N.C
Seal	Buna, Viton
Available Options	Low Current, Thermal Lockout
Electrical Ratings	Reference Table 1
Order Example	MS12-40, MS12LC-40, MS12LCT-40, MS12VLCT-40



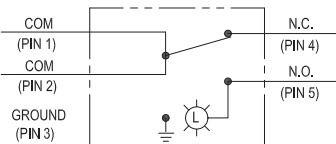
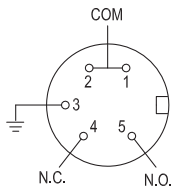
MS13DC



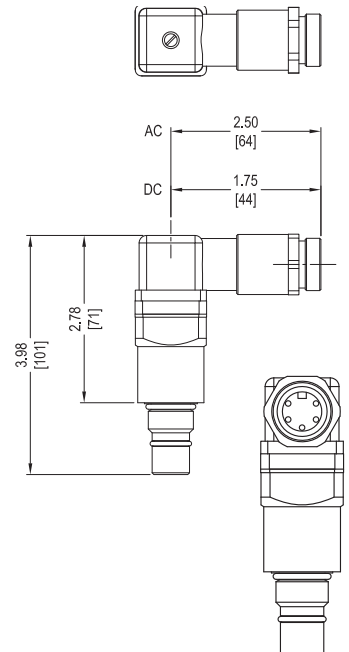
Application	Electrical Visual Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure (Bypass Cracking Pressure)	14 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	1/2" NPT Connection
Thread	3/4-16UNF-2A
Switch Type	N.O./N.C
Seal	Buna, Viton
Available Options	Low Current, Thermal Lockout
Electrical Ratings	Reference Appendix A
Order Example	MS13DC-40, MS13D-CLC-40, MS13DCLCT-30, MS13VDC-60



MS14DC



Application	Electrical Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure (Bypass Cracking Pressure)	15 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	5 Pin Brad Harrison w/ light
Thread	3/4-16UNF-2A
Switch Type	N.O./N.C
Seal	Buna, Viton
Available Options	Low Current, Thermal Lockout
Electrical Ratings	Reference Table 1
Order Example	MS10-40, MS10LC-40, MS10LCT-40, MS10VT-40

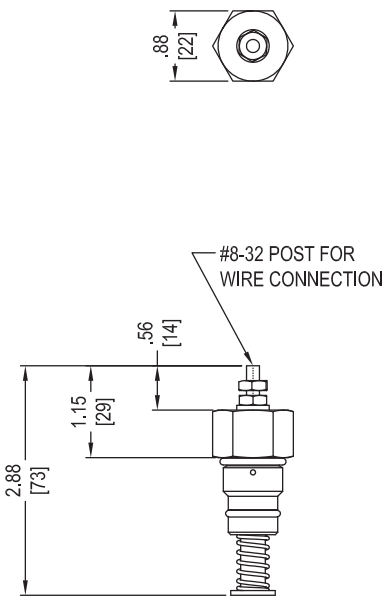


Electrical Indicator

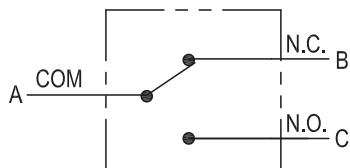
MS15DC



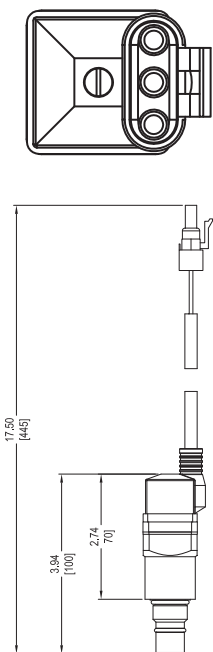
Application	Electrical Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure <i>(Bypass Cracking Pressure)</i>	16 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	#8-32 post for wire connection
Thread	¾-16UNF-2A
Switch Type	N.O./N.C
Seal	Buna, Viton
Electrical Ratings	Reference Table 1
Order Example	MS15DC-40



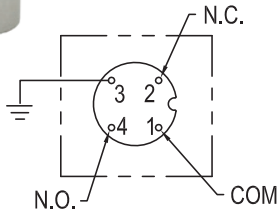
MS16



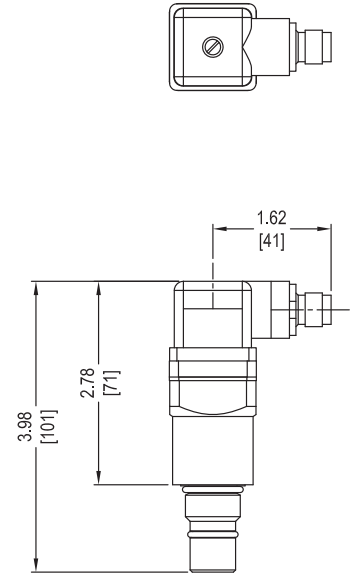
Application	Electrical Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure <i>(Bypass Cracking Pressure)</i>	17 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	3 Contact Weather packed, DIN 43650
Thread	¾-16UNF-2A
Switch Type	N.O./N.C
Seal	Buna, Viton
Available Options	Low Current, Thermal Lockout
Electrical Ratings	Reference Table 1
Order Example	MS16-40, MS16LC-90, MS16VLC-40



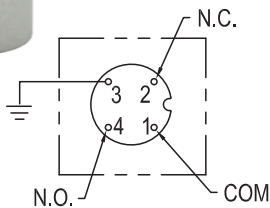
MS17LC



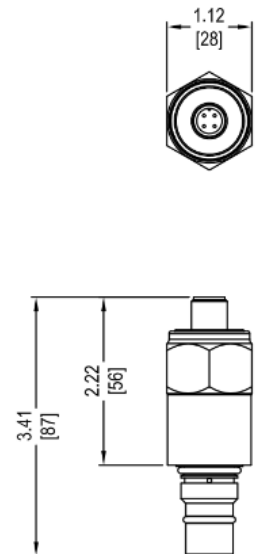
Application	Low Current Electrical Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure (Bypass Cracking Pressure)	18 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	4 Pin Brad Harrison "Micro"
Thread	3/4-16UNF-2A
Switch Type	N.O./N.C
Seal	Buna, Viton
Available Options	Thermal Lockout
Electrical Ratings	Reference Table 1
Order Example	MS17LCT-40, MS17VLC-30,



MS17

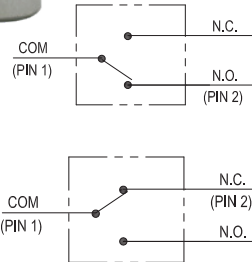


Application	Electrical Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure (Bypass Cracking Pressure)	19 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	4 Pin M12 "Micro" Connector
Thread	3/4-16UNF-2A
Switch Type	N.O./N.C
Seal	Buna, Viton
Available Options	Thermal Lockout
Electrical Ratings	Reference Table 1
Order Example	MS17-30, MS17T-40, MS17VT-50

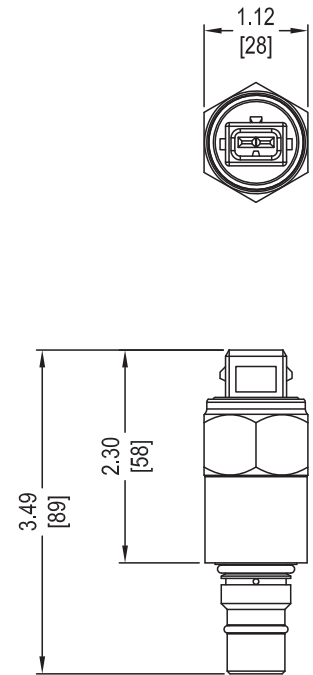


Electrical Indicator

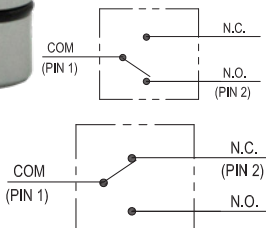
MS18



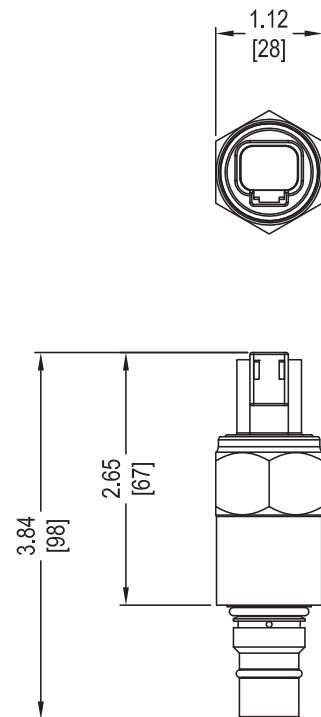
Application	Electrical Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure (Bypass Cracking Pressure)	20 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	2 Pin Amp Junior power timer connector
Thread	3/4-16UNF-2A
Switch Type	N.O./N.C. (Must designate NO or NC)
Seal	Buna, Viton
Available Options	Low Current, Thermal Lockout
Electrical Ratings	Reference Table 1
Order Example	MS18LCNO-40, MS18NC40, MS18TNO-50, MS18LCT-NO-40



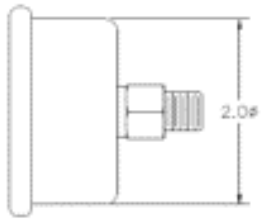
MS19



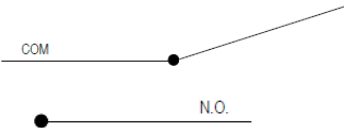
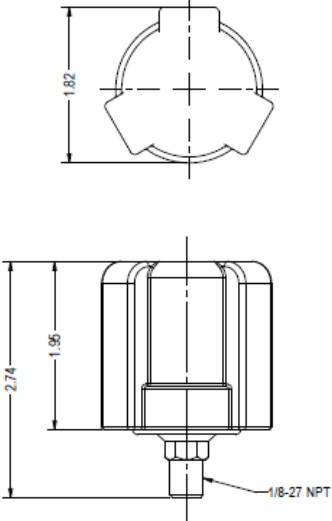
Application	Electrical Dirt Alarm
Max Pressure	6,000 psi
Max Cyclic Pressure	4,000 psi
Temperature Range	-20°F to 225°F (-29°C to 107°C)
Trip Pressure (Bypass Cracking Pressure)	21 (15), 15 (20), 20 (25), 25 (30), 35 (40), 45 (50), 55 (60), 70 (75), 85 (90), 95 (100) PSID
Connector	2 Pin Deutsch Connector (D04-2-P)
Thread	3/4-16UNF-2A
Switch Type	N.O./N.C. (Must designate NO or NC)
Seal	Buna
Available Options	Low Current, Thermal Lockout
Electrical Ratings	Reference Table 1
Order Example	MS19NC-15, MS19NO-40, MS19LCNO-40, MS19T-NC-50, MS19VNC-75



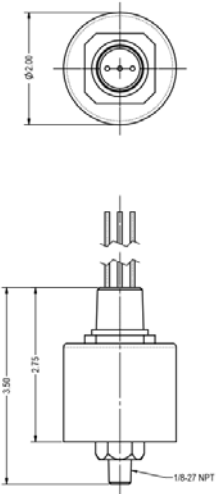
Y

	Application	Visual Vacuum Gauge	
	Trip Pressure <i>(Bypass Cracking Pressure)</i>	0-30 inch HG	
	Thread	1/8" NPT	
	Switch Type	Gauge	
	Seal	Buna, Viton	
	Material	Steel	
	Order Sample	Contact Factory	

VS

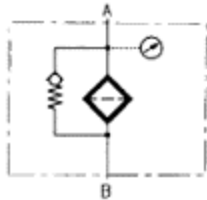
  COM —●— N.O.	Application	Vacuum	
	Temperature Range	Contact Factory	
	Trip Pressure <i>(Bypass Cracking Pressure)</i>	10" HG	
	Connector	Yes	
	Thread	1/8" NPT	
	Switch Type	N.O.	
	Seal	Buna	
	Available Options	N/A	
	Electrical Ratings	8 AMPS @ 12 VDC 4 AMPS @ 24 VDC 1 AMPS @ 120 VAC 0.5 AMPS @ 240 VAC	
	Order Example	Contact Factory	

VS1

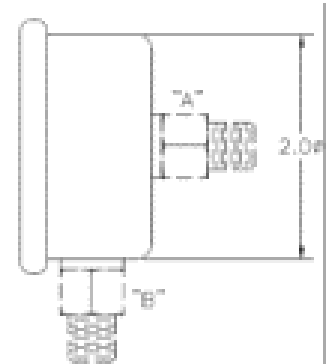
  BLACK —●— COM BLUE —●— N.C. RED —●— N.O.	Application	Vacuum	
	Temperature Range	Contact Factory	
	Trip Pressure <i>(Bypass Cracking Pressure)</i>	10" HG	
	Connector	Yes	
	Thread	1/8" NPT	
	Switch Type	N.O.	
	Seal	Buna	
	Available Options	N/A	
	Electrical Ratings	10 AMPS @ 125/250 VAC 5 AMPS @ 30 VDC	
	Order Example	Contact Factory	

Tank Mounted Indicators

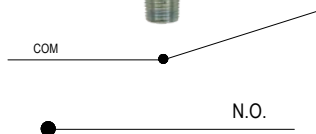
Y2



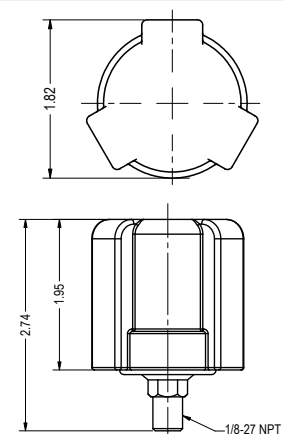
Application	Visual Tank Mounted Gauge
Max Pressure	Up to 100 psi
Max Cyclic Pressure	Contact Factory
Trip Pressure <i>(Bypass Cracking Pressure)</i>	25PSI option: (Green) 20 psi (Yellow) 25 psi (Red) 60 psi; 40PSI option: (Green) 35 psi (Yellow) 40 psi (Red) 100 psi
Thread	1/8" NPT
Switch Type	Gauge
Seal	Buna, Viton
Material	Steel
Order Sample	Y2



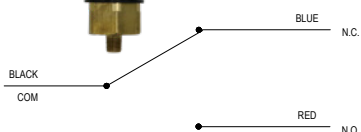
ES



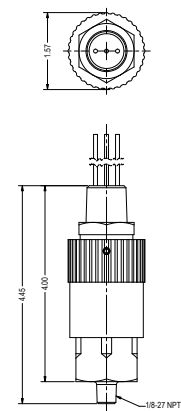
Application	Tank Mounted
Pressure Range	23, 37, 47 PSi
Thermal Lockout	Yes
Connector	Screw terminals with rubber boot
Thread	1/8" NPT
Switch Type	N.O.
Order Info	Contact Factory



ES1

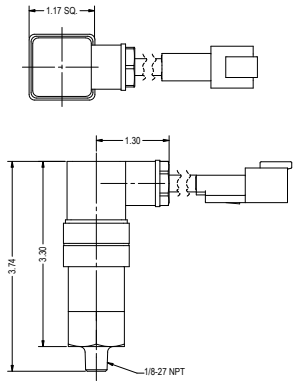


Application	Tank Mounted
Pressure Range	12, 23, 30, 37, 47 PSI
Thermal Lockout	Yes
Connector	1/2" male NPT conduit with 24" wire leads
Thread	1/8" NPT
Switch Type	N.O., N.C.
Order Info	Contact Factory



Tank Mounted Indicators

ES2

 Diagram showing the internal wiring of the ES2 indicator. It includes a pressure switch (P) and a temperature switch (T). The pressure switch is labeled 'CONTACT TO OPEN AT 37 PSI' and the temperature switch is labeled 'CONTACT TO OPEN AT 80°F'. The wiring is connected to a 2-pin Deutsch connector. Labels indicate '(PIN #1 ON DEUTSCH CONNECTOR)' and '(PIN #2 ON DEUTSCH CONNECTOR)'.	Application	Tank Mounted	 Technical drawing of the ES2 indicator showing dimensions: 1.17 SQ. (top view), 1.30 (side view), 3.74 (total height), 3.30 (height to top of connector), and 1/8-27 NPT (thread).
	Pressure Range	37 PSI	
	Thermal Lockout	No	
	Connector	2 Pin Deutsche connector DT04-2P	
	Thread	1/8" NPT	
	Switch Type	N.C.	
	Order Info	Contact Factory	

ES3

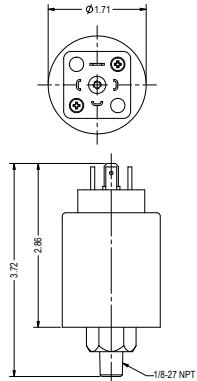
 Diagram showing the internal wiring of the ES3 indicator. It includes a pressure switch (P) and a temperature switch (T). The pressure switch is labeled 'CONTACT TO OPEN AT 37 PSI' and the temperature switch is labeled 'CONTACT TO OPEN AT 80°F'. The wiring is connected to a DIN 43650 connector. Labels indicate '(PIN #1 ON DIN 43650 CONNECTOR)' and '(PIN #2 ON DIN 43650 CONNECTOR)'.	Application	Tank Mounted	 Technical drawing of the ES3 indicator showing dimensions: Ø1.71 (top view), 3.72 (total height), 2.86 (height to top of connector), and 1/8-27 NPT (thread).
	Pressure Range	22, 37 PSI	
	Thermal Lockout	Yes	
	Connector	DIN 43650 connector	
	Thread	1/8" NPT	
	Switch Type	N.O., N.C.	
	Order Sample	Contact Factory	

Table 1

Electrical Ratings: Electrical Cartridge Indicators Without Thermal Lockout

Voltage	Voltage Volts@ Amps	Current Range (amps)	MS5	MS5LC	MS10	MS10LC	MS11	MS12	MS12LC	MS13DC	MS13DCLC	MS14DC	MS14DCLC	MS15DC	MS16	MS16LC	MS17	MS17LC	MS14AC	MS14ACLC	MS18	MS18LC	MS19	MS19LC
AC	240 @ 3	0.02 to 3	✓		✓		✓	✓										✓						
AC	220 @ 0.05	0.005 to 0.05		✓		✓			✓													✓		✓
AC	120 @ 5	0.02 to 5	✓		✓		✓	✓																
AC	120 @ 0.05	0.005 to 0.05		✓		✓			✓											✓		✓		✓
AC	24 @ 0.10	0.005 to 0.10		✓		✓			✓											✓				
AC	12 @ 0.25	0.005 to 0.25		✓		✓			✓											✓				
AC	120 @ 4	0.05 to 4																	✓					
AC	115 @ 0.05	0.01 to 0.05															✓				✓		✓	
DC	110 @ 0.3	0.02 to 0.3	✓		✓		✓	✓							✓		✓				✓		✓	
DC	110 @ 0.05	0.005 to 0.05		✓		✓			✓							✓		✓				✓		✓
DC	24 @ 3	0.01 to 3																			✓		✓	
DC	24 @ 2	0.02 to 2	✓		✓		✓	✓		✓		✓			✓									
DC	24 @ 1	0.01 to 1															✓							
DC	24 @ 0.20	0.0 to 0.20												✓										
DC	24 @ 0.10	0.005 to 0.10		✓		✓			✓		✓		✓			✓		✓				✓		✓
DC	12 @ 5	0.01 to 5																			✓		✓	
DC	12 @ 2	0.02 to 2	✓		✓		✓	✓		✓		✓			✓									
DC	12 @ 1	0.01 to 1															✓							
DC	12 @ 0.25	0.005 to 0.25		✓		✓			✓		✓		✓			✓		✓				✓		✓

Electrical Ratings: Electrical Cartridge Indicators With Thermal Lockout*

Voltage	Voltage Volts@ Amps	Current Range (amps)	MS5T	MS5LCT	MS10T	MS10LCT	MS12T	MS12LCT	MS13DCT	MS13DCLCT	MS14DCT	MS14DCLCT	MS16T	MS16LCT	MS17T	MS17LCT	MS14ACT	MS18T	MS18LCT	MS19T	MS19LCT
AC	120 @ 5	0.02 to 5	✓		✓		✓														
AC	220 @ 0.05	0.005 to 0.05		✓		✓		✓											✓		✓
AC	120 @ 5	0.05 to 4															✓				
AC	115 @ 0.05	0.01 to 0.05																✓		✓	
DC	24 @ 2	0.02 to 2	✓		✓		✓		✓		✓		✓		✓			✓		✓	
DC	24 @ 0.10	0.005 to 0.10		✓		✓		✓		✓		✓		✓		✓			✓		✓
DC	12 @ 2	0.02 to 2	✓		✓		✓		✓		✓		✓		✓			✓		✓	
DC	12 @ 0.25	0.005 to 0.25		✓		✓		✓		✓		✓		✓		✓			✓		✓

*Thermal lockout prevents activation below 90°

[illegible]

Notes

This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal red lines across the entire width of the page, providing a guide for handwriting or typing. The background is a clean, solid white color.

This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal red lines across its entire width. The background is a solid off-white color, typical of standard notebook or school paper. There are no margins, text, or other markings present.



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