

Glass-Filled Nylon and Metal Breathers

IP65 Rated, Metal, Screw-on and Lockables



MASTER DISTRIBUIDOR



Specification for Single and 6 Hole Installation



Option 1

Construction:

Moulded in non-corrodible glass-filled nylon combining strength with a lightweight design.

Options:

- (1) single (63mm dia) hole Filler breather installation that eliminates drilled and tapped holes using self-locking clamps.
- (2) 6 hole Filler Breather Installation that uses 6 x No 10 thread forming screws.
- (3) 3 hole filler breather utilises 3 x zinc and clear chromate plated steel screws.

Strainers:

Unique design diffuses oil flow into the reservoir.
 (1) Single length in polypropylene (95mm length)
 (2) 2-piece telescopic in polypropylene (195mm length max.)

Filtration element:

Expanded polyurethane foam, 10 micron nominal.

Seals:

Nitrile.

Working temperature:

-30°C to +90°C.

Pressurised filler breathers:

Available in 3 pressure options to maintain a positive pressure in a reservoir.

Pressurisation options:

0.2, 0.35 and 0.7 bar crack pressure.

Pressurisation valve:

Nylon/Nitrile.

Dipstick:

Available for use with options 1 and 2. Dipsticks are available in 2 lengths and in packs of 10.

Dipstick material:

ABS.

Hi/Lo indicators:

Acetal. Adjustable Red/Green level indicators.

Dipstick lengths:

200mm and 400mm.

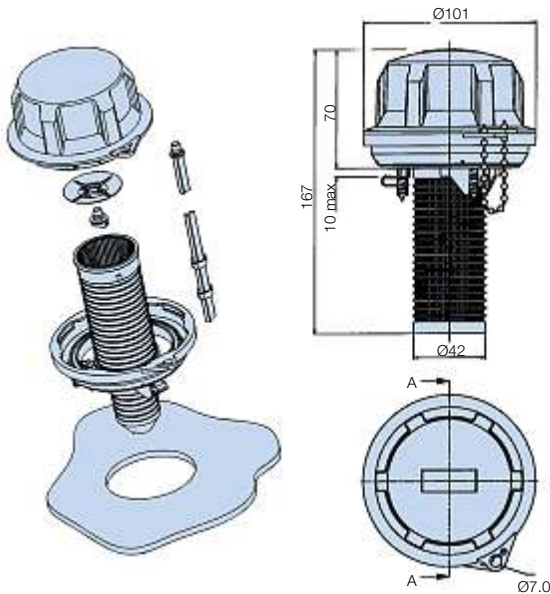
Breather weight:

0.2Kg.

Anti-splash feature:

The unique design anti-splash feature is standard on all options 1 and 2 and allows for a dipstick to be fitted if required.

Option 1 Filler Breathers (Single Hole Installation)

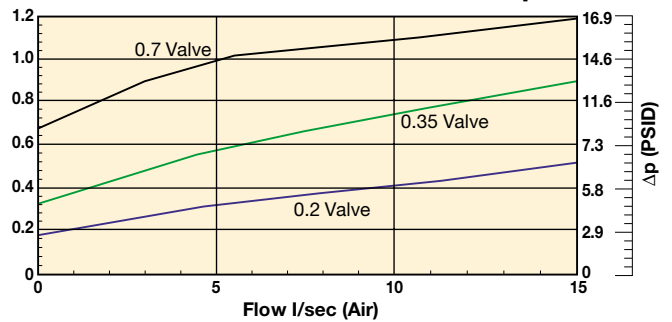


Option 1. Single Hole Filler Breathers – Pressurised

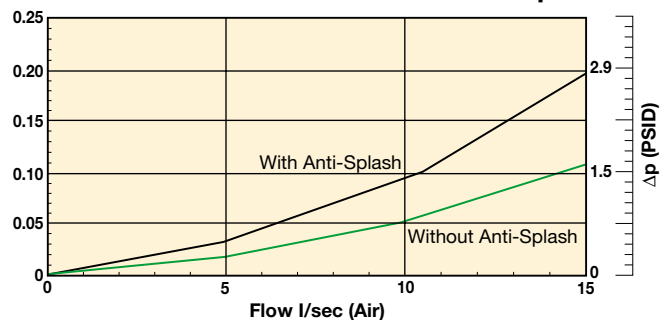
Part number	Supersedes	Description 10µ nom
AB98212011	AB.98212011.UC	Pressurised 0.2bar with 95mm strainer
AB98213011	AB.98213011.UC	Pressurised 0.35bar with 95mm strainer
AB98212001	AB.98212001.UC	Pressurised 0.2bar without strainer
AB98212021	AB.98212021.UC	Pressurised 0.2bar with telescopic strainer
AB98213001	AB.98213001.UC	Pressurised 0.35bar without strainer
AB98213021	AB.98213021.UC	Pressurised 0.35bar with telescopic strainer
AB98217001	AB.98217001.UC	Pressurised 0.7bar without strainer
AB98217011	AB.98217011.UC	Pressurised 0.7bar with 95mm strainer
AB98217021	AB.98217021.UC	Pressurised 0.7bar with telescopic strainer

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.
 Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

AB98XXX Pressurised Pressure Drop Curves



AB98XXX Non-Pressurised Pressure Drop Curves



Option 1. Single Hole Filler Breathers – Non-Pressurised

Part number	Supersedes	Description 10µ nom
AB98210011	AB.98210011.UC	Filler breather with 95mm strainer
AB98210021	AB.98210021.UC	Filler breather with telescopic strainer
AB98210001	AB.98210001.UC	Filler breather without strainer

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.
 Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Filler Breathers (6 Hole Installation)

Option 2

Note 1. Un-pressurised 6 hole fixing:

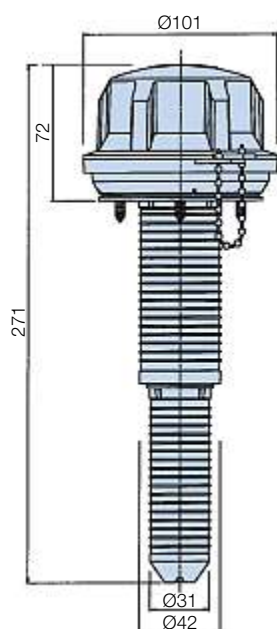
Form 6 off tank mounting holes between $\text{Ø}4.0$ and 4.4mm (dependent on the material and thickness – see guide below) equispaced on 70-73mm P.C.D. to suit supplied No.10 thread forming screws.

Note 2. Pressurised 6-hole fixing:

Form 6 off tank mounting holes between $\text{Ø}4.0$ and $\text{Ø}4.4\text{mm}$ (dependent on the material and thickness – see guide below) equispaced on 73mm P.C.D. to suit supplied No.10 thread forming screws.

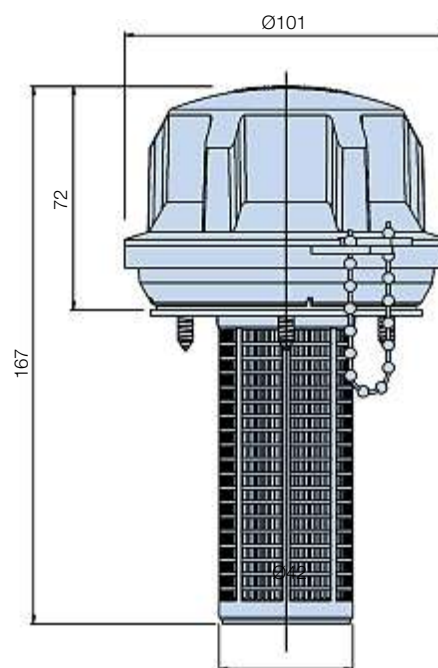
Note 3. Reservoir mounting guide

Sheet thickness mm	Hole size mm
1.2	4.0
2.0	4.10
3.15	4.30
4.0	4.30
5.0	4.40



Telescopic Strainer

The telescopic strainer design is ideal, where reservoir depth allows, to increase the surface area of the strainer, improving still further its straining ability, oil flow-through and allowing for longer dipstick lengths.



Option 2. 6 Hole Filler Breathers – Pressurised

Part number	Supersedes	Description 10 μ nom
AB98817011	AB.98817011.UC	Pressurised 0.7bar with 95mm strainer
AB98812001	AB.98812001.UC	Pressurised 0.2bar without strainer
AB98812011	AB.98812011.UC	Pressurised 0.2bar with 95mm strainer
AB98812021	AB.98812021.UC	Pressurised 0.2bar with telescopic strainer
AB98813001	AB.98813001.UC	Pressurised 0.35bar without strainer
AB98813011	AB.98813011.UC	Pressurised 0.35bar with 95mm strainer
AB98813021	AB.98813021.UC	Pressurised 0.35bar with telescopic strainer
AB98817001	AB.98817001.UC	Pressurised 0.7bar without strainer
AB98817021	AB.98817021.UC	Pressurised 0.7bar with telescopic strainer

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

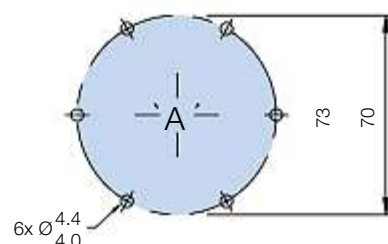
Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Option 2. 6 Hole Filler Breathers – Non-Pressurised

Part number	Supersedes	Description 10 μ nom
AB98810001	AB.98810001.UC	Filler breather without strainer
AB98810011	AB.98810011.UC	Filler breather with 95mm strainer
AB98810021	AB.98810021.UC	Filler breather with telescopic strainer

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.



Reservoir Equipment

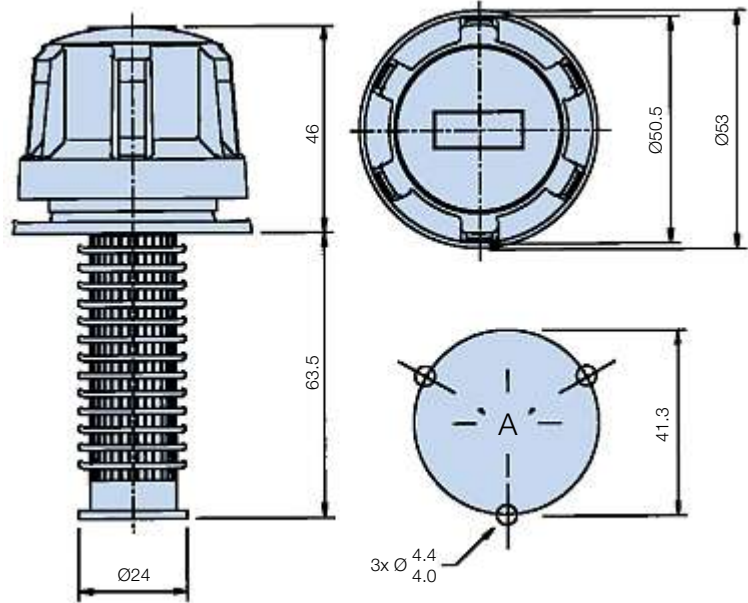
Filler Breathers

Option 3 Filler Breathers (3 Hole Installation)



New Options Fully Tested

As part of the design development programme for the new IP65 Filler Breathers, extensive performance and endurance testing was carried out to ensure durability and efficiency.



3-hole Filler Breathers (6-hole available)

Part number	Description 10µ nom
AB68110	Filler breather without strainer
AB68118	Filler breather with 95mm strainer

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Note 3: Not suitable for use with B.68206/207

Note 4: 6-hole AB.68910/AB.68918 option available.

Note: Form 3 off tank mounting holes between Ø4.0 and Ø4.4mm (dependent on the material and thickness – see chart for guide) equispaced on 41.3 P.C.D. to suit No. 10 thread forming screws supplied.

Dipstick Options

Dipstick Ordering

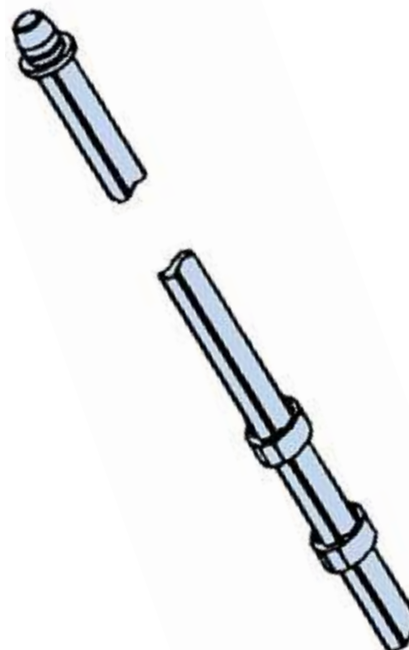
Part number	Supersedes	Description
B68206	DIP.206	10 x 200mm Dipsticks
B68207	DIP.207	10 x 400mm Dipsticks

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Dipsticks

The dipstick, available in 2 lengths – 200mm and 400mm, can be cut to the required length or left as it is and the Hi/Lo indicators moved and positioned on the dipstick itself by squeezing the sides of the indicator and repositioning along the dipstick.



Reservoir Equipment

Screw-On Type Air Breathers

Standard Screw-On Breathers - Specification



Option 1- G¹/₂ and G³/₄ (Ø101)

Construction:

Moulded in non-corrodible glass-filled nylon combining strength with a lightweight design.

Option 1:

2 screw on type air breathers are available – G¹/₂ or G³/₄ threaded base models.

Filtration element:

Expanded polyurethane foam, 10 micron nominal.

Seals:

Nitrile.

Working temperature:

-30°C to +90°C.

Pressurised air breathers:

Available in 3 pressure options to maintain a positive pressure in a reservoir.

Pressurisation options:

0.2, 0.35 and 0.7 bar crack pressure.

Pressurisation valve:

Nylon/Nitrile.

Dipstick:

Available for use with all options. Dipsticks are available in 2 lengths and in packs of 10.

Dipstick material:

ABS.

Hi/Lo indicators:

Acetal. Adjustable red/green level indicators.

Dipstick lengths:

200mm and 400mm.

Breather weight:

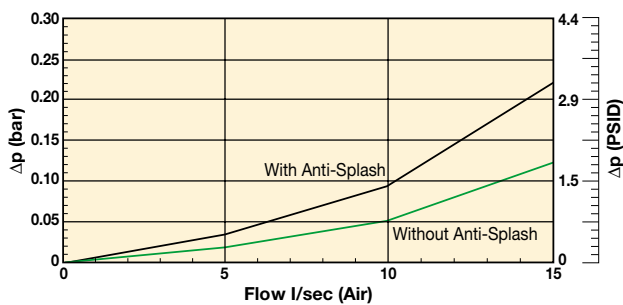
0.2Kg.

Anti-splash feature:

The unique design anti-splash feature is standard on option 1 and allows for a dipstick to be fitted if required.

Pressure Drop Flow Curve

AB98XXX Screw-on Non-Pressurised Pressure Drop Curves



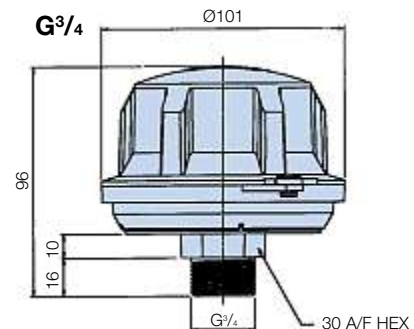
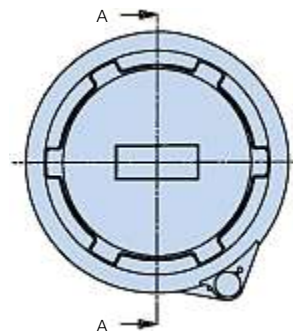
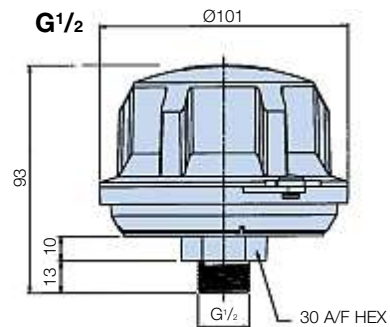
Note: For pressure drop information on the Option 1. Pressurised consult Parker Filtration.

Option 1 – G¹/₂ or G³/₄

Part number	Supersedes	Description 10µ nom
AB98610101	AB.98610101.UC	G ¹ / ₂ Un-pressurised
AB98612101	AB.98612101.UC	G ¹ / ₂ pressurised 0.2 bar
AB98613101	AB.98613101.UC	G ¹ / ₂ pressurised 0.35 bar
AB98617101	AB.98617101.UC	G ¹ / ₂ pressurised 0.7 bar
AB98410101	AB.98410101.UC	G ³ / ₄ Un-pressurised
AB98412101	AB.98412101.UC	G ³ / ₄ pressurised 0.2 bar
AB98413101	AB.98413101.UC	G ³ / ₄ pressurised 0.35 bar
AB98417101	AB.98417101.UC	G ³ / ₄ pressurised 0.7 bar

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.



Screw-On Type Air Breathers

Compact Screw-On Breathers - Specification

Option 2 – G^{1/4}, G^{3/8}, R^{1/2} and R^{3/4} (Ø40)

Construction:

G^{1/4}, G^{3/8}, R^{1/2} and R^{3/4} cap and base plate mouldings in nylon 66.

Element:

Expanded Polyurethane foam, 10 micron nominal.

Dipstick:

Available for use with R^{1/2} and R^{3/4}.

Dipstick material:

ABS.

Hi/Lo indicators:

Acetal adjustable red/green level indicators.

Dipstick lengths:

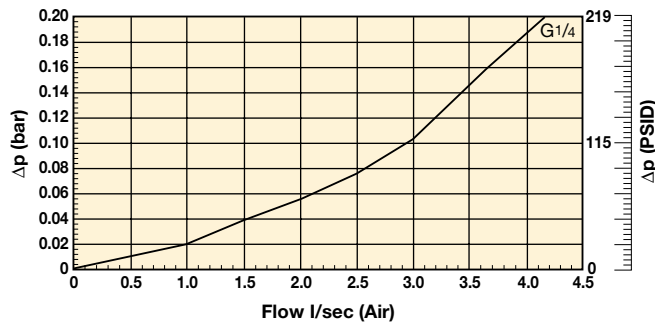
200mm and 400mm (packs of 10).

Breather weights:

0.028Kg



Pressure Drop Flow Curve



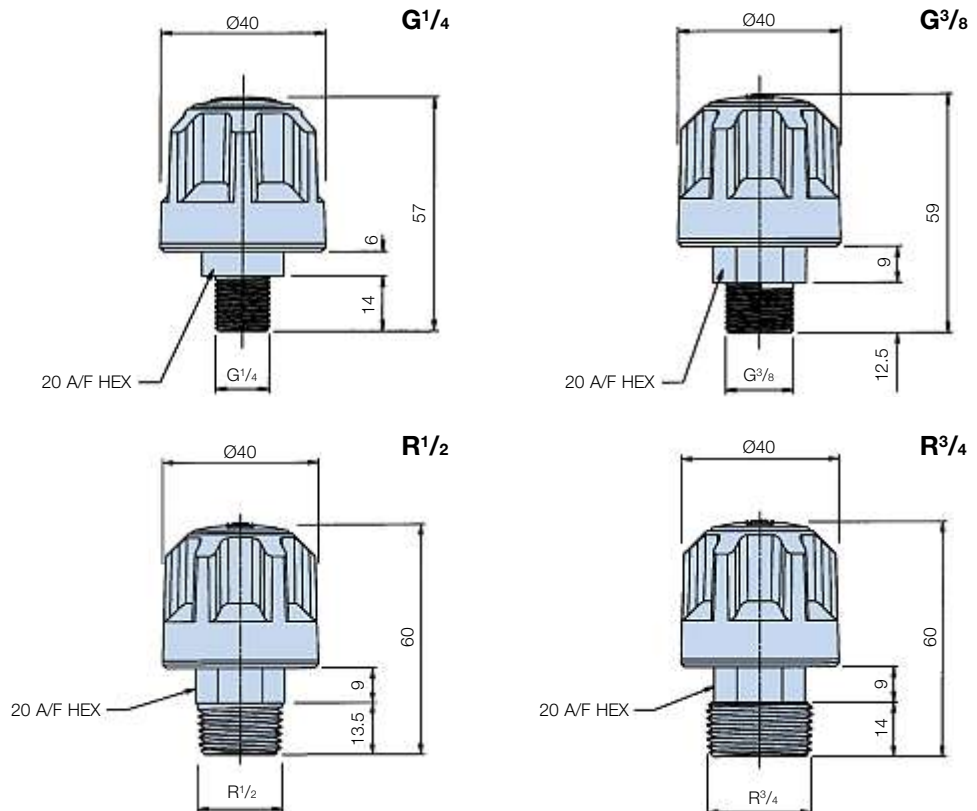
Note: For pressure drop information on G^{3/8}, R^{1/2} and R^{3/4}, consult Parker Filtration.

Ordering Information

Option 2 – G^{1/4}, G^{3/8}, R^{1/2} and R^{3/4} (Packs of 10 only)

Part number	Supersedes	Description 10µ nom
AB683101	AB.683101.UC	G ^{1/4} Un-pressurised
AB68X101	AB.68X101.UC	G ^{3/8} Un-pressurised
AB68Y101	AB.68Y101.UC	R ^{1/2} Un-pressurised
AB68Z101	AB.68Z101.UC	R ^{3/4} Un-pressurised

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.
 Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.



Screw-On Type Air Breathers - Specification

Option 3 – G³/₈, G¹/₂ and G³/₄ (Ø70)

Construction:

Mouldings in glass-filled nylon and glass coupled polypropylene.

Element:

Expanded Polyurethane foam, 10 micron nominal.

Seals:

Nitrile.

Pressurised air breathers:

Available G³/₈, G¹/₂ and G³/₄,
3 pressure options to maintain a positive pressure in a reservoir.

Pressurisation options:

0.2, 0.35 and 0.7 bar crack pressure.

Pressurisation valve:

Nylon.

Dipstick:

Available for use with G³/₈, G¹/₂ and G³/₄.

Dipstick material:

Mini-series in brass.

Hi/Lo indicators:

Acetal adjustable red/green level indicators.

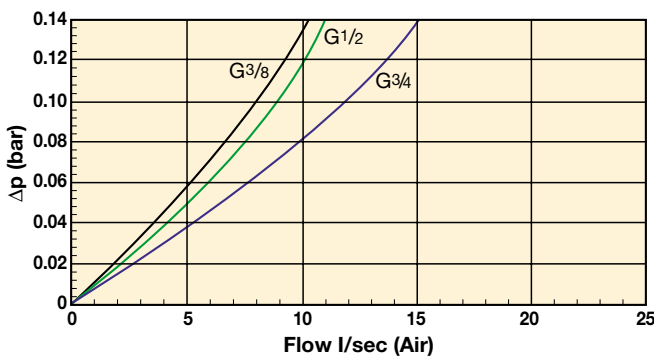
Dipstick lengths:

200mm and 400mm (packs of 10).

Breather weights:

0.075Kg, Mini-series – 0.019Kg.

Pressure Drop Flow Curve



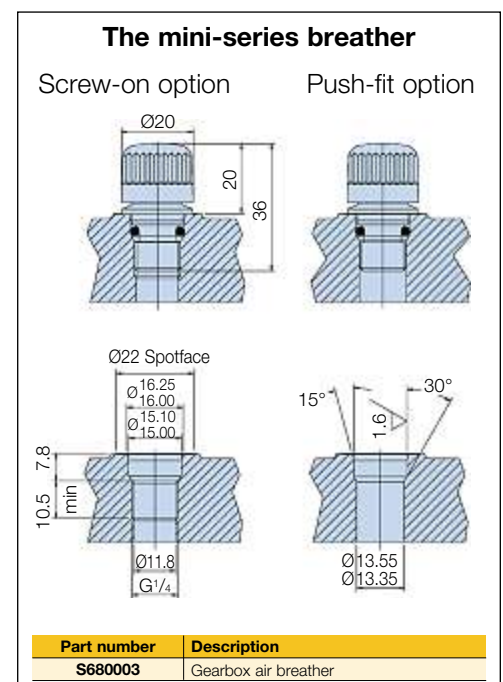
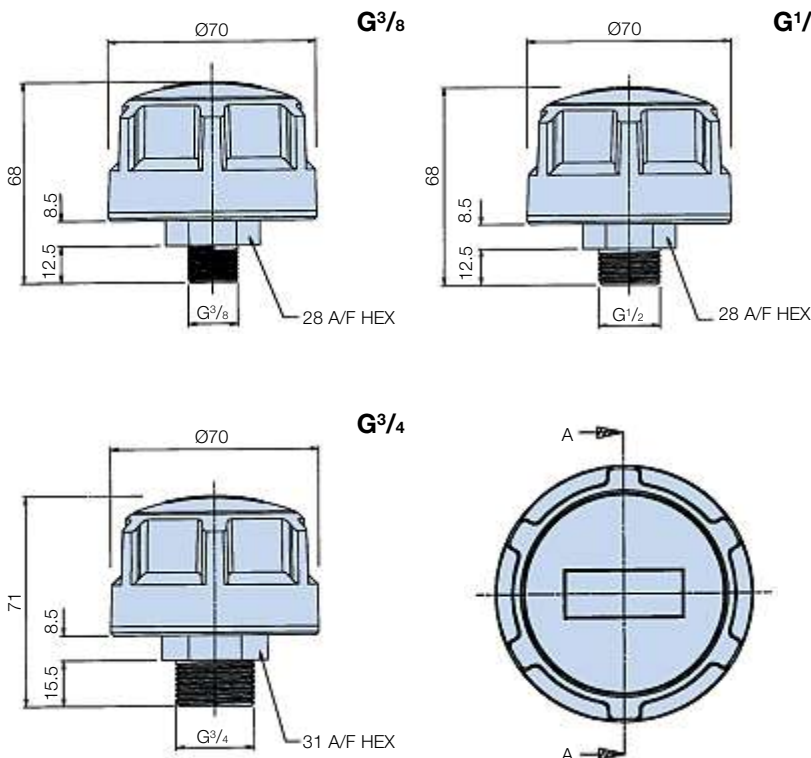
Ordering Information

Option 3 – G³/₈, G¹/₂ and G³/₄

Part number	Supersedes	Description 10µ nom
AB685101	SAB.5101	G ³ / ₈ Un-pressurised
AB687101	SAB.7101	G ¹ / ₂ Un-pressurised
AB686101	SAB.6101	G ³ / ₄ Un-pressurised

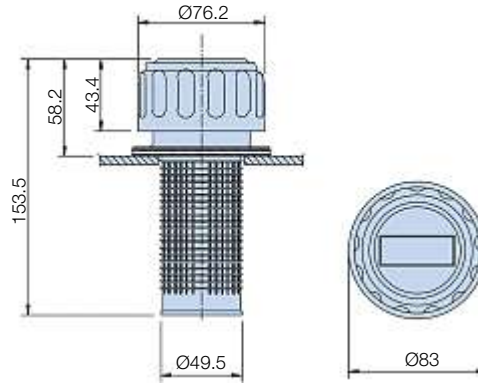
Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.



Filler Breathers (Metal)

Metal Airbreather/Filler breather Specification



Locking lug option (5561)

For added security, certain Parker Filtration Metal Filler Breather Filters can be specified with a locking lug option.



Ordering Information

Standard products table

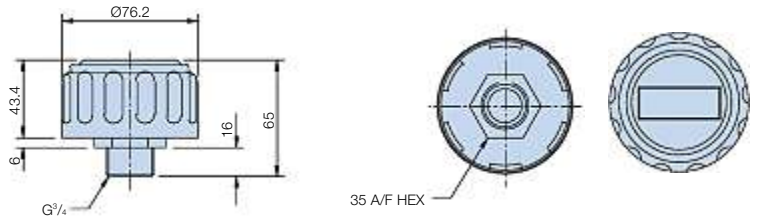
Part number	Supersedes	Replacement cap	Supersedes	Displacement l/min	Crack pressure	Micron rating	Air flow m³/min	Thread	Weight
Threaded airbreather (unpressurised)									
SAB156210	SAB.1562.10	N/A	N/A	430	N/A	10µ nom	0.45	G ³ / ₄	0.20kg
SAB156310	SAB.1563.10	N/A	N/A	135	N/A	10µ nom	0.15	G ¹ / ₄	0.06kg
Filler breather - filter flange type (unpressurised)									
AB116310	AB.1163.10	CAP.116310	CAP.1163.10	430	N/A	10µ nom	0.45	N/A	0.24kg
AB138010	AB.1380.10	CAP.138010	CAP.1380.10	135	N/A	10µ nom	0.15	N/A	0.08kg
5561	N/A	N/A	N/A	430	N/A	10µ nom	0.45	N/A	0.24kg
Filler breather - filter flange type (pressurised)									
PAB1730105	PAB.1730.10.5	CAP.1730105	CAP.1730.10.5	430	0.35 bar	10µ nom	0.45	N/A	0.27kg
PAB17301010	PAB.1730.10.10	CAP.17301010	CAP.1730.10.10	430	0.70 bar	10µ nom	0.45	N/A	0.27kg
Air breather - threaded type (pressurised)									
SPA1731105	SPA.1731.10.5	N/A	N/A	430	0.35 bar	10µ nom	0.45	G ³ / ₄	0.20kg
SPA17311010	SPA.1731.10.10	N/A	N/A	430	0.70 bar	10µ nom	0.45	G ³ / ₄	0.20kg

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

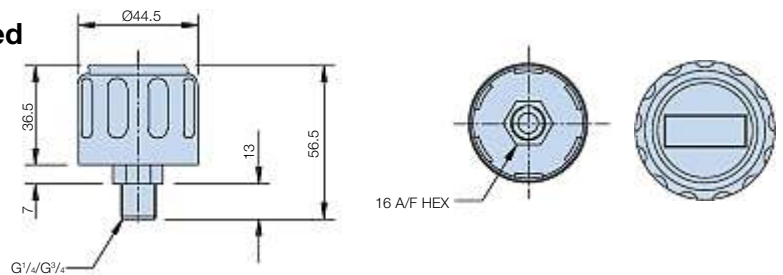
1731 - Threaded type (Pressurised)

Displacement: 430 l/min.
Weight: 0.2 Kg.
Micron rating: 10µ nominal
Thread: G^{3/4}.
Air flow: 0.45m³/min.
Valve crack-pressure: 0.35 and 0.7 bar.



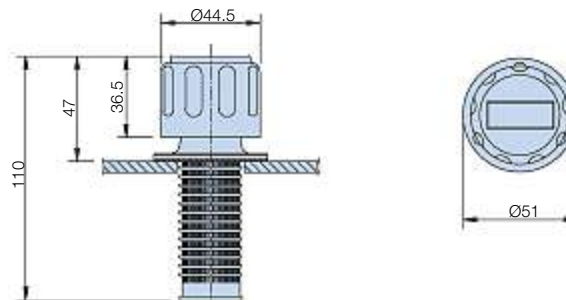
1562-1563 - Threaded type (Un-pressurised)

Displacement: 1562 = 430 l/min.
 1563 = 135 l/min.
Weight: 1562 = 0.20 Kg.
 1563 = 0.06 Kg.
Micron rating: 10µ nominal
Thread: 1562 = G^{3/4}.
 1563 = G^{1/4}.
Air flow: 1562 = 0.45m³/min.
 1563 = 0.15m³/min.



1380 - Filter flange type

Displacement: 135 l/min.
Air flow: 0.15m³/min.
Micron rating: 10µ nominal
Weight: 0.08 Kg.



Tank installation notes

1. Un-pressurised 6 hole fixing

Form off tank mounting holes between Ø4.0 and Ø4.4 (dependant on the material and thickness, consult Parker Filtration) equispaced on 70.0-73.0 P.C.D. to suit
 No. 10 thread forming screws supplied.

2. Pressurised 6 hole fixing

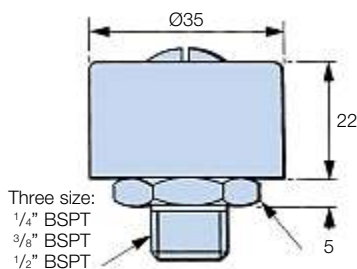
Form 6 off mounting holes between Ø4.0 and Ø4.4 equispaced on 73.0 P.C.D. to suit
 No. 10 thread forming screws supplied.

3. Un-pressurised 3 hole fixing

Form 3 off tank mounting holes between Ø4.0 and Ø4.4 equispaced on 41.3 P.C.D. to suit
 No. 10 thread forming screws supplied.

Breather Units

Small Breather Specification



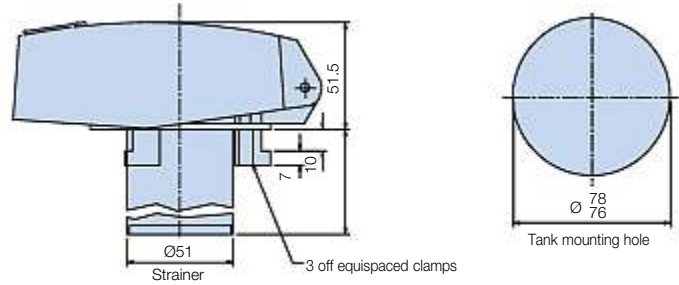
Ordering Information

Part number	Supersedes	Description
H00279001	H00279-001	Small breather 1/4 BSPT thread
H00279002	H00279-002	Small breather 3/8 BSPT thread
H00279003	H00279-003	Small breather 1/2 BSPT thread

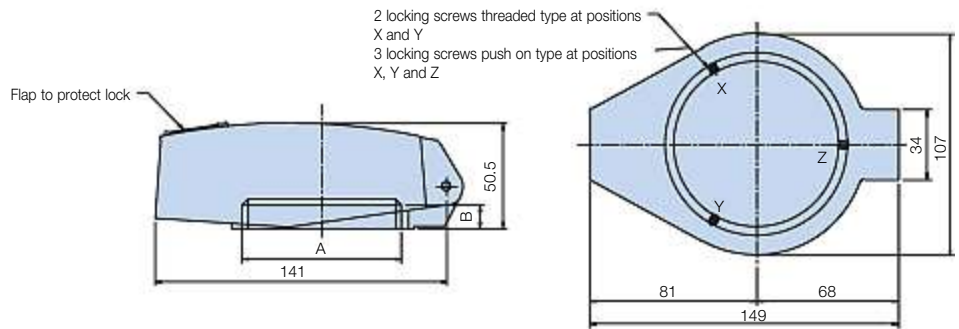
Installation Details



Tank Mounting

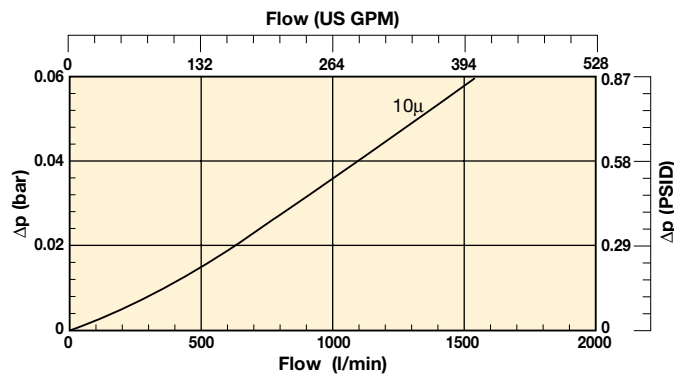


Stand Pipe Mounting



Lockable Filler Breather Selection

Total assembly pressure drop flow curve – 10µ elements



Ordering Information

Part number	Description
LFC622142	Non-breathing (No element) Clamp mounting with strainer
LFC622212	10µ nom element, G2 thread with strainer
LFC622242	10µ nom element, clamp mounting with strainer
LFC622432	10µ nom vented (air in) push on mounting with strainer
LFC622122	Non-breathing (No element) 2" BSP thread with strainer
LFC622222	10µ nom element, G2½ thread with strainer
LFC622411	10µ nom vented (air in) G2 thread without strainer

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Fluid Level Measurement

Fluid Level Temperature Gauges



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Fluid Level/Temperature Gauges



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Specification



Construction:

Lens Transparent polyamide.
 Lens base Nylon 66.
 Shroud High impact polystyrene.
 No aluminium content.

Bolts:

Steel.

Seals:

Nitrile.

Maximum working pressure:

1 bar.

Working temperature:

-30°C to +90°C.

Fluid compatibility:

Mineral and petroleum based oils.

Note:

A 500mm model with metal shroud finished in black available.

Recommended bolt tightening torque:

10 Nm maximum.

Thermometer scale range:

+30°C to +90°C.

Temperature Indicator:

Blue alcohol.

Note:

1. Locate seals in mounting recess before fitting.
2. Select the size required by studying the installation details to determine a part number.

Size 1 Installation Details

For 'through hole' mounting:

Hole size	-Thread-	
	M10	M12
Preferred	11.0	13.0
Maximum	13.0	14.0

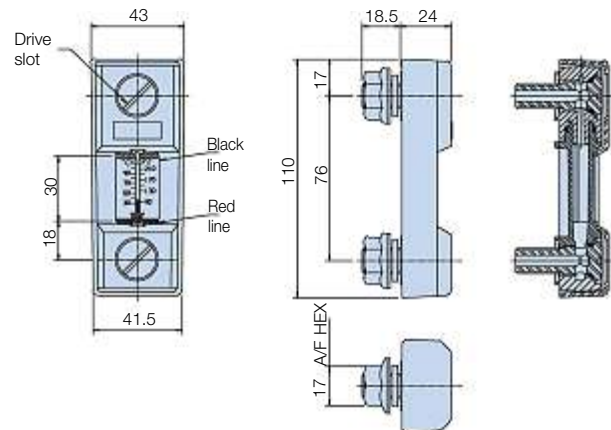
For tapped holes:

Holes to be tapped square to mounting face.

Tolerance on hole centres: +0.5
 -0.2

For welded back nuts:

The above details should be combined.



Installation and Application Information

Simple to Install

The universal fixing is designed for either front or rear fixing. Just two holes in the tank – threaded for front fixing – and the gauge is ready to install. After positioning the gauge the bolts are simply tightened to provide a secure seal. There is no fear of leakage with the square section seals and the two-point mounting system eliminates problems with tank distortion. M10 and M12 bolt thread options are available.

Easy to Read

The high-visibility lens is one-piece for added security and moulded in shatterproof, transparent polyamide for an accurate and clear oil level and temperature indication. Further gauge protection is provided by a specially designed shroud moulded in high-impact, black polystyrene.

Size 1 Ordering Information

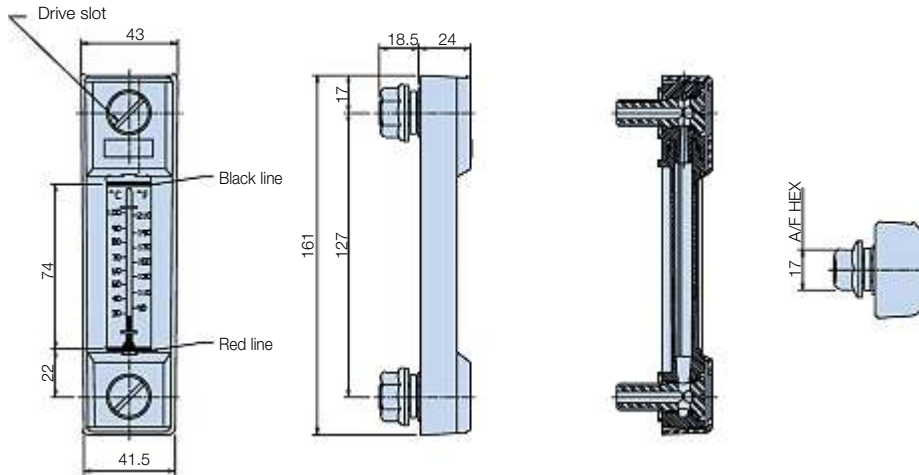
Standard products table

Part number	Supersedes	Description	Centres	Thread	Max temp	Weight
FL69121	FLT.121	Fluid level/temp	76mm	M10	90°C	0.13Kg
FL69123	FLT.123	Fluid level/temp	76mm	M12	90°C	0.13Kg
FL69111	FL.111	Fluid level	76mm	M10	90°C	0.13Kg
FL69113	FL.113	Fluid level	76mm	M12	90°C	0.13Kg

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Size 2 Installation Details



Size 2 Ordering Information

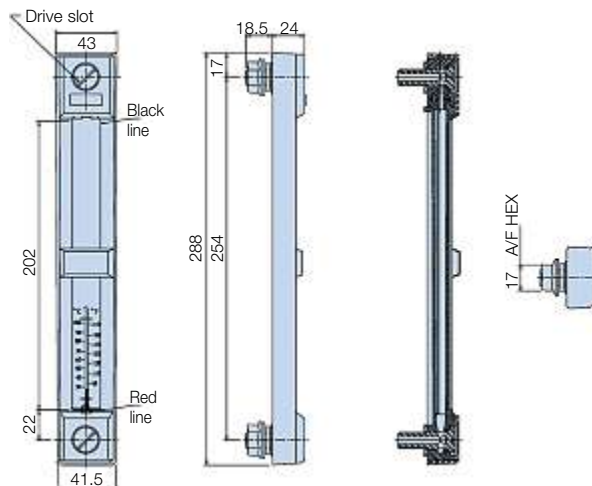
Standard products table

Part number	Supersedes	Description	Centres	Thread	Max temp	Weight
FL69221	FLT.221	Fluid level/temp	127mm	M10	90°C	0.15Kg
FL69223	FLT.223	Fluid level/temp	127mm	M12	90°C	0.15Kg
FL69211	FL.211	Fluid level	127mm	M10	90°C	0.15Kg
FL69213	FL.213	Fluid level	127mm	M12	90°C	0.15Kg

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Size 3 Installation Details



Size 3 Ordering Information

Standard products table

Part number	Supersedes	Description	Centres	Thread	Max temp	Weight
FL69321	FLT.321	Fluid level/temp	254mm	M10	90°C	0.23Kg
FL69323	FLT.323	Fluid level/temp	254mm	M12	90°C	0.23Kg
FL69311	FL.311	Fluid level	254mm	M10	90°C	0.23Kg
FL69313	FL.313	Fluid level	254mm	M12	90°C	0.23Kg

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Suction Elements



MASTER DISTRIBUIDOR



Specification



Construction:

Stainless steel media 30% glass filled nylon head. Zintec centre tube. Epoxy adhesives.

Maximum working temperature:
90°C.

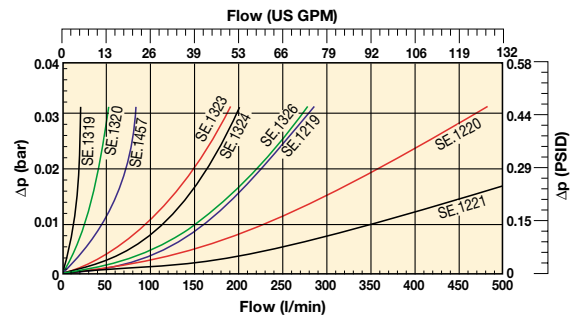
Filtration media:
125 micron*.

Flow range:
15-500 l/min.

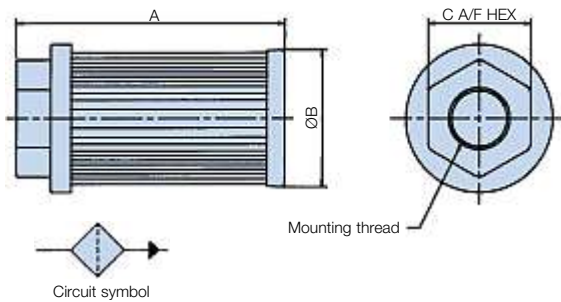
Bypass rating:
0.17 bar.

Mounting threads:
G¹/₂ up to G3.

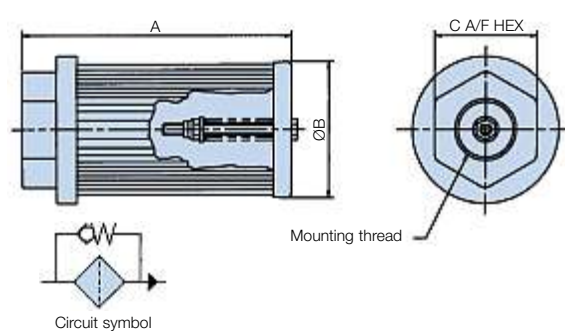
* Non-standard elements are available to order. Consult Parker Filtration.



Installation - Suction Elements Without Bypass



Installation - Suction Elements with Bypass



Ordering Information - Without Bypass

Standard products table

Part number	Supersedes	Air flow l/min	Ports BSP	Micron rating	Dimensions (mm)			Weight kg	Bypass rating
					A	B	C		
SE75111110	SE.1319	15	1/2	125	105.5	46	36	0.08	N/A
SE75221110	SE.1320	25	3/4	125	109.5	64	46	0.15	N/A
SE75231210	SE.1457	50	1	125	139.5	64	55	0.17	N/A
SE75351210	SE.1323	95	1 1/2	125	140	86	65	0.28	N/A
SE75351310	SE.1324	130	1 1/2	125	200	86	65	0.33	N/A
SE75361410	SE.1326	180	2	125	260	86	75	0.40	N/A
SE75461210	SE.1219	225	2	125	150	150	70	0.64	N/A
SE75471310	SE.1220	350	2 1/2	125	212	150	90	0.72	N/A
SE75481410	SE.1221	500	3	125	272	150	100	0.92	N/A

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Ordering Information - With Bypass

Standard products table

Part number	Supersedes	Air flow l/min	Ports BSP	Micron rating	Dimensions (mm)			Weight kg	Bypass rating
					A	B	C		
SE75111111	SE.5100	15	1/2	125	105.5	46	36	0.11	0.17 bar
SE75221111	SE.5101	25	3/4	125	109.5	64	46	0.18	0.17 bar
SE75231211	SE.5102	50	1	125	139.5	64	55	0.21	0.17 bar
SE75351211	SE.5103	95	1 1/2	125	140	86	65	0.31	0.17 bar
SE75351311	SE.5104	130	1 1/2	125	200	86	65	0.36	0.17 bar
SE75361411	SE.5105	180	2	125	260	86	75	0.43	0.17 bar
SE75461211	SE.5106	225	2	125	150	150	70	0.67	0.17 bar
SE75471311	SE.5107	350	2 1/2	125	212	150	90	0.75	0.17 bar
SE75481411	SE.5108	500	3	125	272	150	100	0.95	0.17 bar

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Installation Details



Specification

Construction:

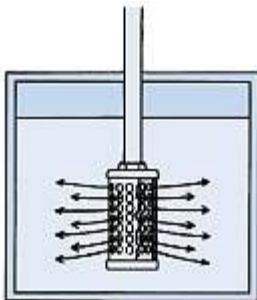
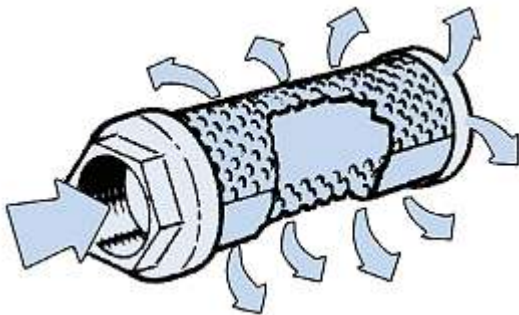
Zintec body.
30% glass-filled nylon head.
Zintec end cap.
Epoxy adhesives.

Flow range:

50 l/min up to 454 l/min.

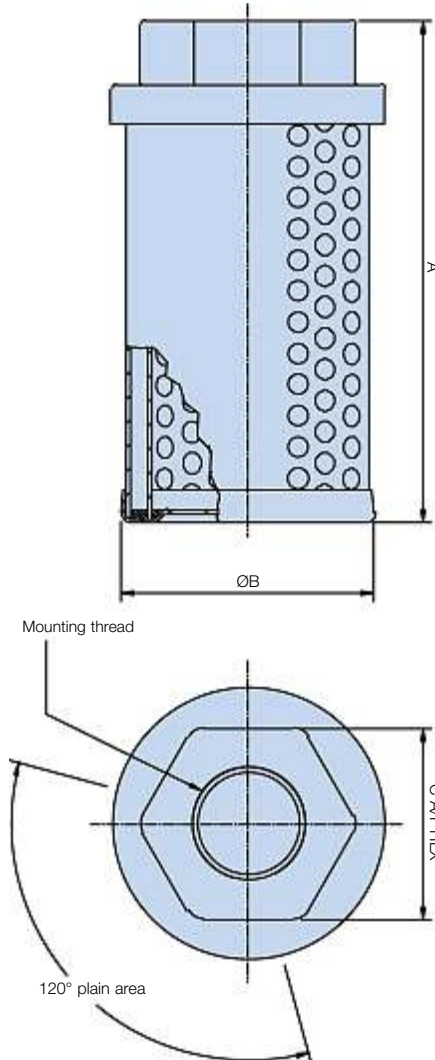
Mounting threads:

G^{3/4} up to G2.



The effect of fitting a diffuser

Note: When installing a diffuser the plain area on the outside must be facing the pump inlet.



The benefits of specifying a Parker Filtration Diffuser

Installing a Parker Filtration Diffuser in a hydraulic reservoir is a simple operation that can make a big difference to system efficiency.

With its special concentric tubes designed with discharge holes 180° opposed fluid aeration, foaming and reservoir noise are reduced and pump life extended by reducing cavitation to the pump inlet.

Diffusers manufactured to customer specifications and other sizes of diffusers are available.

Ordering Information

Standard products table

Part number	Flow l/min	Ports BSP	Dimensions (mm)			Weight kg
			A	B	C	
2201	114	1	127	86	55	0.42
2202	227	1½	178	86	65	0.56
2210	50	¾	120	62	46	0.27
2203	454	2	242	86	75	0.69

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.
Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Technical Data



Materials

Coupling halves
Sintered Steel

Sleeve
Nylon 66

Max temp sleeve
83°C

To select coupling model check application to establish running load condition.

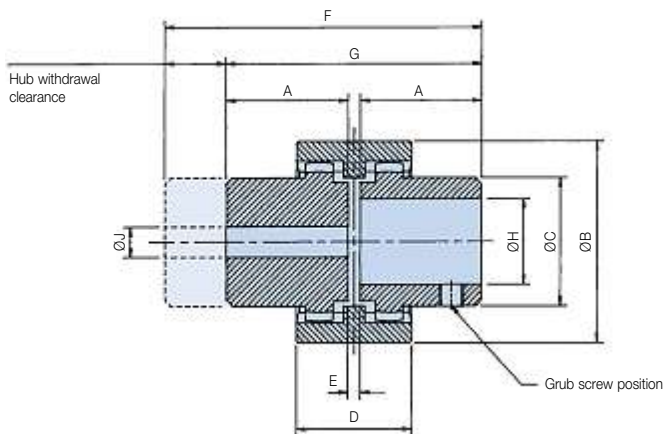
Check chart for factor (F) and apply factor (F) to *Rating of coupling formulae. This answer you now apply to *Rating/100 rev/min below.

It is advisable always to check shaft sizes being used on application and check with dimension 'H'.

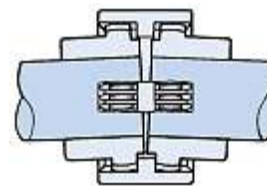
Application	Factor (F)	
	Electric motor	Petrol/diesel engine
Uniform load	1.00	1.20
Medium shock	1.25	1.50
Heavy shock	1.75	2.00

$$\text{*Rating of coupling} = \frac{\text{HP of application} \times 100 \times F}{\text{rev/min of application}}$$

Installation Details



Sectioned detail



Part number prefix	Max speed rev/min	*Rating/ 100 rev/min		Weight	A mm	B mm	C mm	D mm	E mm	F mm	G mm	max bore	-H- min bore	J pilot bore
DC28*	5000	0.75	1.00	0.4	40.0	66.0	44.5	38.0	4.0	104.0	84.0	28.0	10.0	7.0
DC42*	5000	1.32	1.75	0.75	42.0	90.0	60.0	42.0	4.0	115.0	88.0	42.0	14.0	10.5
DC55*	4000	6.00	8.00	2.05	59.0	125.0	83.0	65.0	4.0	158.0	122.0	55.0	19.0	16.0 min 38.1 max

Height of keyway from base of bore

	Metric	Imperial
Standard bore	BS 4500, (1985)	BS 1916, Part 1, (1985)
Standard keyway	BS 4325, Part 1 (1980)	BS 46, Part 1, (1985)

Assembly data

- Maximum angular misalignment is ±2°. Maximum radial misalignment is ±0.4mm.
- Ensure that the Parker Filtration drive coupling gear hubs are an easy fit to their respective shafts. Do not use heavy blows to force the hubs on.
- When in position, the hubs should have a gap of 4mm as denoted by 'E' dimension.
- Tighten grub screws to locate both gear hubs on to their respective shafts.

Ordering Examples

Parker Filtration drive coupling components are ordered separately. Here are three examples of complete assemblies ordered this way.

- Complete assembly – **DC28M14B04K**
Made up of a **DC28M14**
DC28B04K
DC28.S (Sleeve)

Complete model **DC28** drive coupling: One gear hub has 14mm bore with 5mm wide keyway and other hub has a 1/2" bore with 0.125" wide keyway.

Both hubs supplied with locating grub screw.

- Complete assembly – **DCR42PBPB**
Made up of 2x **DCR42PB's**
DC42S (Sleeve)

Complete model **DC42** drive coupling: Both gear hubs have pilot bore of 10.5mm. Not supplied with grub screws.

- Complete assembly – **DCR55PBB12K**
Made up of a **DCR55PB**
DC55B12K
DC55S (Sleeve)

Complete model **DC55** drive coupling: One gear hub pilot bored 5/8", the other hub pilot bored 1 1/2". Latter only supplied with grub screw.

Ordering Information

Model DC.28

Part number	Supersedes	Dimensions (mm)			Weight
		Ø Bore	Width	Height	
DC28M16	DC.28.M16	16.0mm	5.0mm	18.4mm	Range from 0.259Kg to 0.411Kg
DC28M19	DC.28.M19	19.0mm	6.0mm	21.9mm	
DC28M20	DC.28.M20	20.0mm	6.0mm	22.9mm	
DC28M22	DC.28.M22	22.0mm	6.0mm	24.9mm	
DC28M24	DC.28.M24	24.0mm	8.0mm	27.5mm	
DC28M25	DC.28.M25	25.0mm	8.0mm	28.5mm	
DC28M28	DC.28.M28	28.0mm	8.0mm	31.5mm	
DCR28PB	DCR.28.PB	N/A	8.0mm	N/A	
DC28S	DC.28.S	N/A	N/A	N/A	
DC28M10	DC.28.M10	10.0mm	3.0mm	11.5mm	
DC28M11	DC.28.M11	11.0mm	4.0mm	12.9mm	
DC28M14	DC.28.M14	14.0mm	5.0mm	16.4mm	
DC28M18	DC.28.M18	18.0mm	6.0mm	20.9mm	
DC28B03K	DC.28.B03K	7/16	0.125 ins	0.50 ins	
DC28B04K	DC.28.B04K	1/2	0.125 ins	0.57 ins	
DC28B05K	DC.28.B05K	5/8	0.188 ins	0.72 ins	
DC28B06K	DC.28.B06K	3/4	0.188 ins	0.84 ins	
DC28B07K	DC.28.B07K	7/8	0.250 ins	0.99 ins	
DC28B08K	DC.28.B08K	1	0.250 ins	1.12 ins	
DC28B09K	DC.28.B09K	1 1/8	0.313 ins	1.24 ins	

Model DC.42

Part number	Supersedes	Dimensions (mm)			Weight
		Ø Bore	Width	Height	
DC42M25	DC.42.M25	25.0mm	8.0mm	28.5mm	Range from 0.436Kg to 0.753Kg
DC42M28	DC.42.M28	28.0mm	8.0mm	31.5mm	
DC42M30	DC.42.M30	30.0mm	8.0mm	33.5mm	
DC42M35	DC.42.M35	35.0mm	10.0mm	38.5mm	
DC42M38	DC.42.M38	38.0mm	10.0mm	41.5mm	
DC42M42	DC.42.M42	42.0mm	12.0mm	45.5mm	
DCR42PB	DCR.42.PB	N/A	12.0mm	N/A	
DC42S	DC.42.S	N/A	N/A	N/A	
DC42M18	DC.42.M18	18.0mm	6.0mm	20.9mm	
DC42M19	DC.42.M19	19.0mm	6.0mm	21.9mm	
DC42M20	DC.42.M20	20.0mm	6.0mm	22.9mm	
DC42M22	DC.42.M22	22.0mm	6.0mm	24.9mm	
DC42M24	DC.42.M24	24.0mm	8.0mm	27.5mm	
DC42M32	DC.42.M32	32.0mm	10.0mm	35.5mm	
DC42B05K	DC.42.B05K	5/8	0.188 ins	0.72 ins	
DC42B06K	DC.42.B06K	3/4	0.188 ins	0.84 ins	
DC42B07K	DC.42.B07K	7/8	0.250 ins	0.99 ins	
DC42B08K	DC.42.B08K	1	0.250 ins	1.12 ins	
DC42B09K	DC.42.B09K	1 1/8	0.313 ins	1.24 ins	
DC42B10K	DC.42.B10K	1 1/4	0.313 ins	1.37 ins	
DC42B11K	DC.42.B11K	1 3/8	0.375 ins	1.49 ins	
DC42B12K	DC.42.B12K	1 1/2	0.375 ins	1.61 ins	
DC42B13K	DC.42.B13K	1 5/8	0.439 ins	1.76 ins	

Model DC.55

Part number	Supersedes	Dimensions (mm)			Weight
		Ø Bore	Width	Height	
DCR55PB	DCR.55.PB	N/A	16.0mm	N/A	Range from 1.248 Kg – 2.046 Kg
DC55S	DC.55.S	N/A	N/A	N/A	
DC55M25	DC.55.M25	25.0mm	8.0mm	28.5mm	
DC55M28	DC.55.M28	28.0mm	8.0mm	33.5mm	
DC55M30	DC.55.M30	30.0mm	8.0mm	33.5mm	
DC55M32	DC.55.M32	32.0mm	10.0mm	35.5mm	
DC55M35	DC.55.M35	35.0mm	10.0mm	38.5mm	
DC55M38	DC.55.M38	38.0mm	10.0mm	41.5mm	
DC55M42	DC.55.M42	42.0mm	12.0mm	45.5mm	
DC55M55	DC.55.M55	55.0mm	16.0mm	59.5mm	
DC55B09K	DC.55.B09K	1 1/8	0.313 ins	1.24 ins	
DC55B10K	DC.55.B10K	1 1/4	0.313 ins	1.37 ins	
DC55B11K	DC.55.B11K	1 3/8	0.375 ins	1.49 ins	
DC55B12K	DC.55.B12K	1 1/2	0.375 ins	1.61 ins	
DC55B13K	DC.55.B13K	1 5/8	0.439 ins	1.76 ins	
DC55B14K	DC.55.B14K	1 3/4	0.439 ins	1.89 ins	
DC55B15K	DC.55.B15K	1 7/8	0.501 ins	2.01 ins	
DC55B16K	DC.55.B16K	2	0.501 ins	2.13 ins	
DC55B17K	DC.55.B17K	2 1/8	0.626 ins	2.31 ins	

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.
 Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Specification



Construction:
Steel UNI 5105.

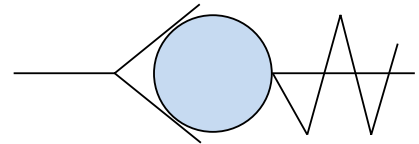
Ball and spring:
Chrome finished steel.

Retainer:
Nylon.

Flow rates:
From 20 l/min to 150 l/min.

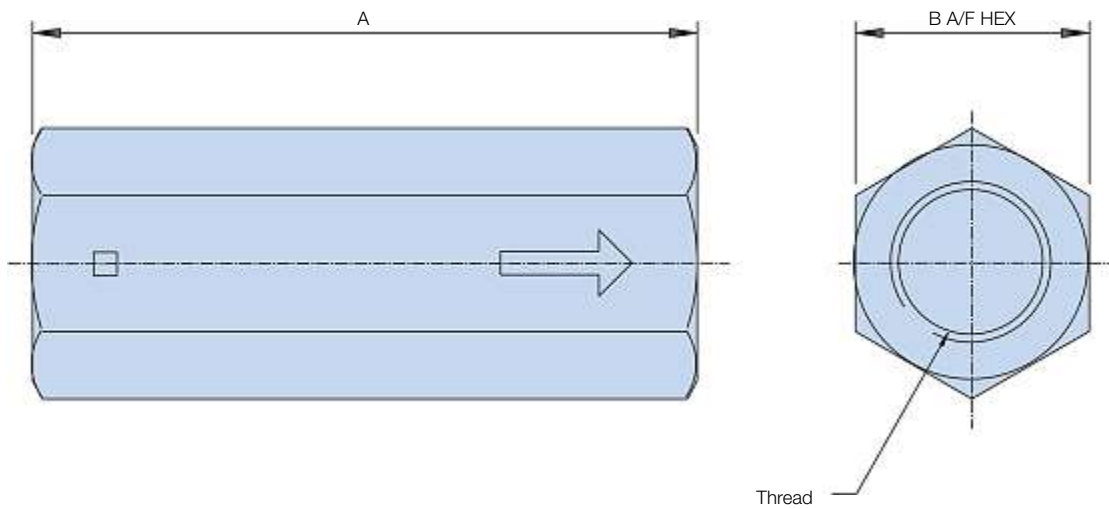
Max. working pressure:
350 bar.

Valve crack pressures:
0.35 and 4.5 bar.



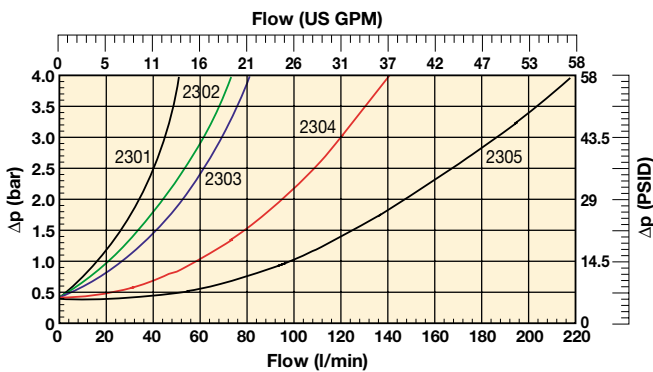
Circuit symbol

Installation Details



Technical Data

Pressure Drop Flow Curves



Ordering Information

Standard products table

Part number	Flow l/min	Cracking pressure bar	Thread G	A mm	B mm	Weight Kg
2301	20	0.35	1/4	54	19	0.09
2302	30	0.35	3/8	66	24	0.17
2303	50	0.35	1/2	77	30	0.32
2304	100	0.35	3/4	88	36	0.48
2305	150	0.35	1	108	46	0.99
2311	20	4.50	1/4	54	19	0.09
2312	30	4.50	3/8	65	24	0.17
2313	50	4.50	1/2	77	30	0.32
2314	100	4.50	3/4	88	36	0.48
2315	150	4.50	1	108	46	0.99

Single Station Gauge Isolator Valves



MASTER DISTRIBUTOR

Specification



Construction:

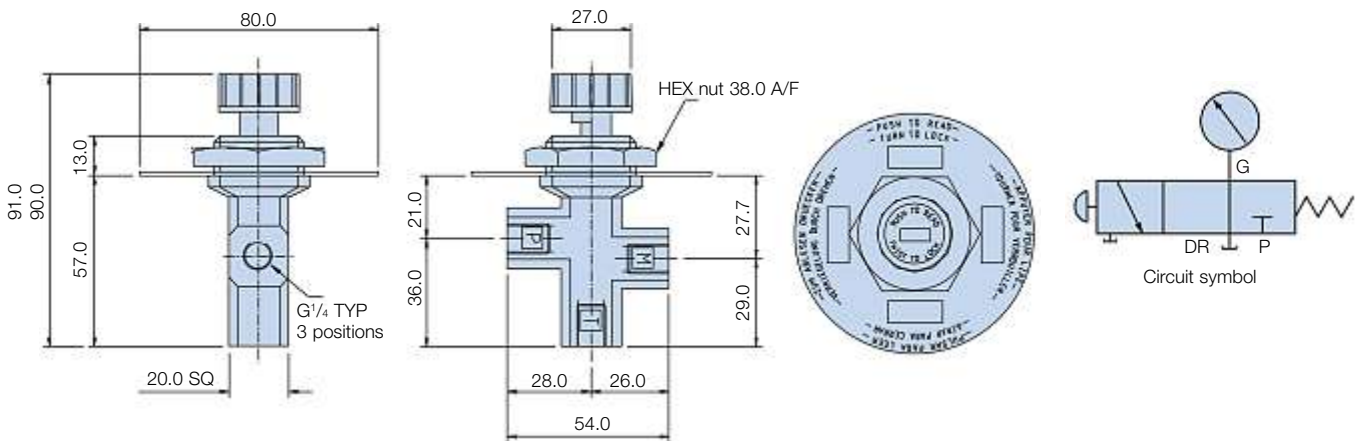
Single Station: Cast iron and steel. Knurled aluminium knob with 'Twist to lock' or 'push to read' type.

Max. working pressure:
350 bar.

Port size:
Single Station: G¹/₄.

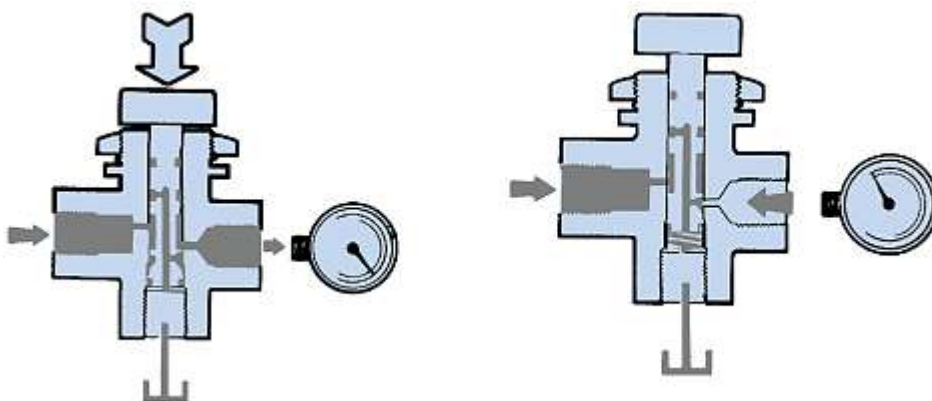
Weight:
Single Station: 0.90 Kg.

Single Station Installation Details



Operation Details

Single Station



Ordering Information

Standard products table

Part number	Description	Weight
GI1486	Single station gauge isolator "twist to lock" type	0.90 Kg
GI1414	Single station gauge isolator "push to read" type	0.90 Kg

System 20



MASTER DISTRIBUIDOR



System 20

Features & Benefits

Covering a wide range of flow rates, fluid types and applications, Parker's System 20 sensors are designed to be used with System 20 electronic or analogue monitors, contamination monitors and the H₂Oil. Specially developed System 20 sensors are available for use with aggressive fluids. (EPDM Seals)

- System 20 monitors, combined with the inline sensor, give the user accurate and instant readings of flow, pressure and temperature without the need to shut down the system.
- For use with all mineral oils, water and water/oil emulsions.
- **Analogue Monitor** utilises 3 Day-Glo dial gauges with a protective hinged cover.
- Calibrated up to 380 l/min with dual scale bar/psi & °C/°F. (US GPM also available)
- **EM20 Electronic Monitor** gives a full digital display.
- Automatically calibrated for all 3 sizes of sensor.
- Indicates line, differential and rising peak pressure.
- Easily scrolled from metric to US.
- 300 test memory.
- Capable of downloading saved data to datum.



Typical Applications

- Drilling equipment
- Mining
- Grinding and conveying
- Industrial hydraulics
- Mobile

Hydraulic system users need to ensure that lost production is kept to the absolute minimum. To ensure this, predictive maintenance and therefore routine condition monitoring of major components is essential.

System 20 inline sensors remain at the heart of condition and contamination monitoring. Whether you're mining the coal, building the new bypass, harvesting the crops, crossing the oceans or drilling offshore – whatever the industry, System 20 represents the premier system monitoring available today.



Specification: Sensors

Construction:

Machined steel body. Electroless nickel coating to minimum depth of 40 microns
Brass/stainless steel internal components

Flow capacities:

All suitable for use with oil, water and water/oil emulsion

Size 0 – 6-25 l/min (0.5-7US GPM)

Size 1 – 20-100 l/min (1.5-26 US GPM)

Size 2 – 80-380 l/min (5-100 US GPM)

Max. working pressure:

420 bar (6000psi)

Capability:

Reverse flow

Pressure drop:

At max. rated flow, Δp is 1.1 bar (mineral oil fluid at 30 cSt 140 SSU).

Ports:

Size 0 – G^{3/8}
Size 1 – G^{3/4}
Size 2 – G1^{1/4} } (SAE threads also available)

Repeatability:

±1% FSD

Accuracy:

Flow ±2.5% full scale deflection

Weight:

Size 0 – 0.5kg (1.2lbs)

Size 1 – 3.5kg (8.4lbs)

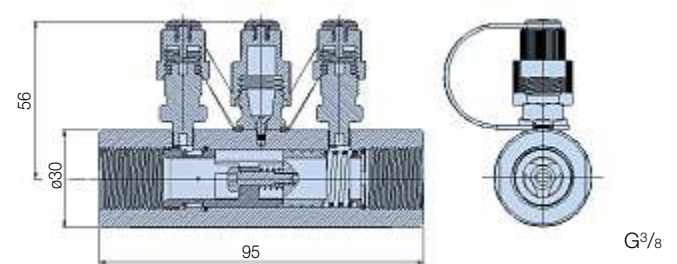
Size 2 – 4.4kg (9lbs)

Aggressive Fluid Applications:

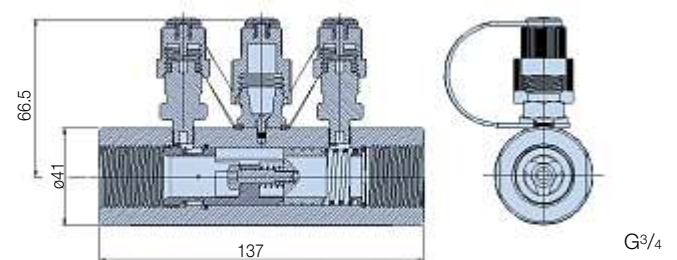
EPDM internal/external 'O'-rings and seals

Installation Details

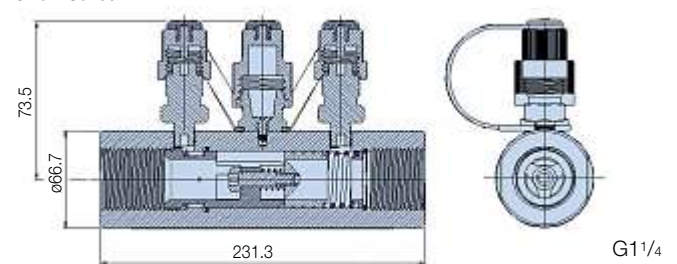
Size 0 Sensor



Size 1 Sensor



Size 2 Sensor



Ordering Information

Standard products table

Product number	Supersedes	Size	Flow range l/min	Fluid type	Port threads
STI0144100	STI.0144.100	0	6-25	Mineral	3/8
STI1144100	STI.1144.100	1	20-100	Mineral	3/4
STI2144100	STI.2144.100	2	80-380	Mineral	1 1/4
STI0148100	STI.0148.100	0	6-25	Aggressive	3/8
STI1148100	STI.1148.100	1	20-100	Aggressive	3/4
STI2148100	STI.2148.100	2	80-380	Aggressive	1 1/4

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Note 3: Mobile Sensors are also available - Contact Parker

System 20

A drilling equipment operation in a zinc mine has had System 20 installed for several years.

System 20 Saving £50,000 Pump Damage

Installing System 20 was part of a major restructuring plan to improve mining effectiveness and profitability. Machine operator training and oil storage operative training were essential elements of the plan. Prior to this investment, pump terminal damage could cost £10,000 for a replacement, over £1000 service costs and up to £39,000 in lost production. Add to this the difficulties of the mine's geography and it's easy to see the problems that have now been overcome.

System 20 Electronic Monitor

With System 20 inline sensors installed in a hydraulic system, faults can be predicted and remedied, all you have to do is connect the System 20 Electronic Hand Held Monitor (EM20). Designed to display flow, temperature, differential, rising peak and line pressure, System 20 Electronic can also calculate hydraulic power (kW and hp.) at a given point in a system to establish efficiency and power consumption.

System 20 electronics versatility does not end there. The EM20 is automatically calibrated for all System 20 inline sensors using water or oil and can display in l/min, US GPM, bar, psi and kg/cm².



Battery powered and completely portable, the EM20 displays readings on the LCD and can store under a test number. Data can be downloaded via an RS232 connection to Datum. A sealed keyboard and fingertip control make the unit maintenance free and simple to use anywhere.

System 20 -The Key To Predictive Maintenance

The risk of fluid contamination by intrusive test devices is eliminated. Using System 20 Sensors and the monitor together, hydraulic fluids need never be disturbed. The monitoring procedure takes only a matter of minutes. With one System 20 monitor a user can check a complete fleet of vehicles or a factory full of hydraulic plant equipment. Predicting a problem means it can be put right as part of a planned maintenance programme. Simple routine monitoring with System 20 keeps machines running at a high level of operational efficiency.

System 20 Saving £325,000 A Day Lost Production

The mining industry puts a considerable demand on hydraulics and there are others such as agricultural machinery, harvesters or tractors and, for example, cement manufacturing plants that are equally demanding of hydraulic efficiency.

A grinding and conveying plant processes in excess of 1000 tons of ore per day in the manufacture of cement products. A days lost production costs £32,000. After one year of operation the Plant Engineers decided to invest in System 20 equipment, strategically placed to allow the Engineers to 'fault-find' the major components quickly and easily. The result is that downtime and loss of production have been reduced by 80%.



System 20 -The Proven System

For operators of industrial and mobile machinery who recognise the benefits of installing System 20 in a hydraulic system, the System 20 hand-held analogue monitor offers significant advantages, particularly in intrinsically safe applications. Like the System 20 electronic, the analogue monitor is completely portable and can be connected immediately to a purpose-designed inline System 20 sensor but requires no power source.

The analogue monitor will then - provide the user with an accurate and repeatable analysis of system flow, pressure and temperature - without having to stop the machine.

Designed as a sealed assembly requiring no routine maintenance or adjustment, analogue monitors are suitable for use with all mineral oils, water/oil emulsions and water.



The lightweight monitor has 3 dayglo dial gauges and features a protective hinged cover. The flow scale features double scale calibration - up to 100 l/min and 380 l/min and has excess flow and reverse flow indication.

Electronic Monitor Specification

Construction:

A sealed assembly requiring no routine maintenance or adjustment. Body moulding in Acrylonitrile Butadene Styrene (ABS). Key pad moulded in silicon rubber. The monitor is suitable for use with all mineral oils, water and water/oil emulsions.

LCD details

Flow section:

The analogue flow scale has reverse flow and overflow indication and provides a percentage reading of the digital full scale display automatically calibrated for all sizes of System 20 Sensor.

Pressure section:

Designed to indicate line pressure, differential pressure and rising peak pressure. Connected to a System 20 Sensor it will monitor pressure up to 420 bar (6000 psi) with an accuracy of $\pm 1\%$ FSD.

Temperature section:

Temperature reading between -10°C and $+110^{\circ}\text{C}$ (0°F to 230°F).

Dimensions:

The ABS Case is 291mm (11.46") long, 105mm (4.13") wide and 76mm (3") deep overall.

Weight:

1.4kg (3lbs).

Data logging:

Each test logs the following data:

Test number; time & date; sensor size; media tested; flow rate, pressure & temperature.

Data download:

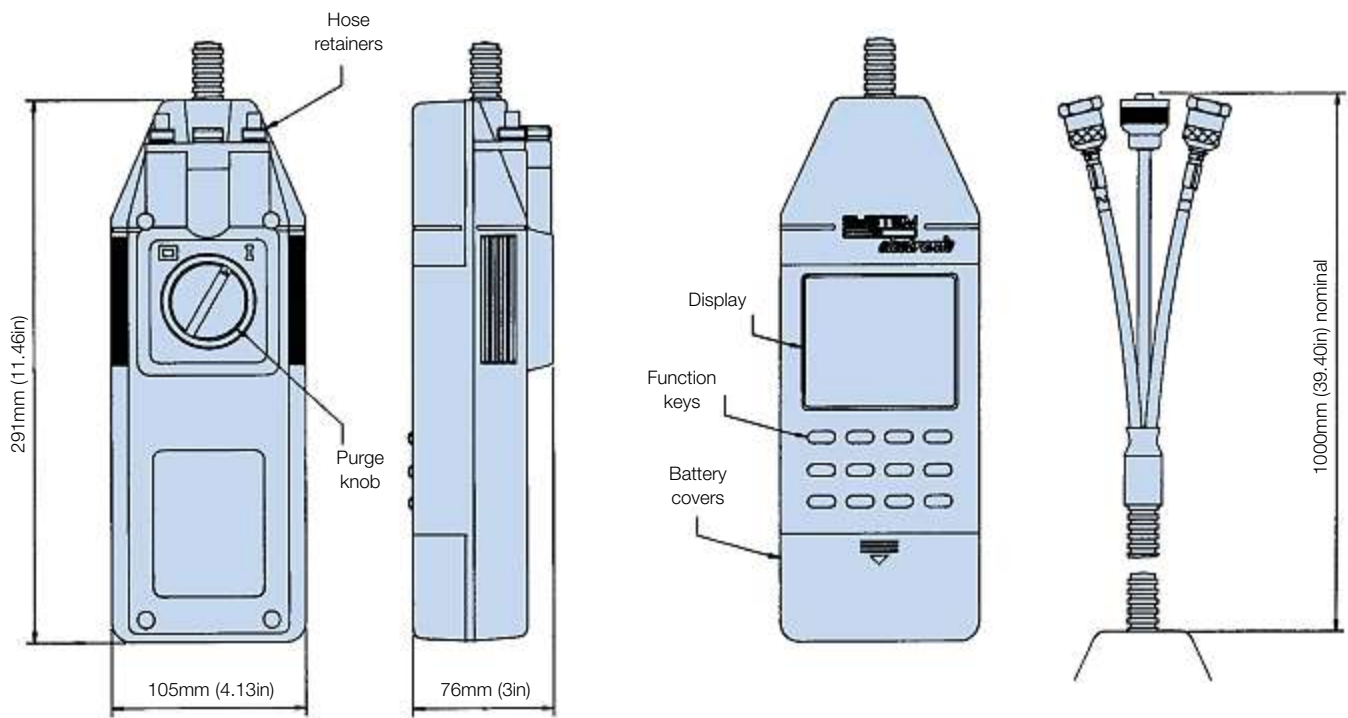
The System 20 electronic monitor is capable of downloading saved test data to a 16 column serial printer, or a compatible PC via an RS232 connection using datum.

Batteries:

6 x AA batteries.

Re-calibration:

Annual certification by an approved Parker Service Centre.



Ordering Information

Standard products table

Product number	Supersedes	Description
EM209000	N/A	System 20 electronic monitor
B84779	B.84.779	Datum download software
P653607	N/A	Monitor and sensor carrying case
B85617	B.85.617	Dongle and cable assembly

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.

Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

System 20

Analogue Monitor Specification

Construction:

A sealed assembly requiring no routine maintenance or adjustment. Body moulding in Acrylonitrile Butadene Styrene (ABS). The monitor is suitable for use with all mineral oils, water and water/oil emulsions. The monitor has 3 dayglo dial gauges and features a protective hinged cover.

Gauge details

Flow section:

The flow scale has double scales for size 1 and 2 sensors only. Calibrated up to 100 l/min (26 US GPM) and 380 l/min (100 US GPM). The flow dial has excess-flow indication.

When the system is in reverse flow or when the high pressure lines to the sensor have been transposed, a 'below zero' indication is given.

Pressure section:

Dial readings in both bar and psi up to 420 bar (6000psi).

Temperature section:

The temperature dial gives readings between -10°C and +110°C (0°F to 230°F).

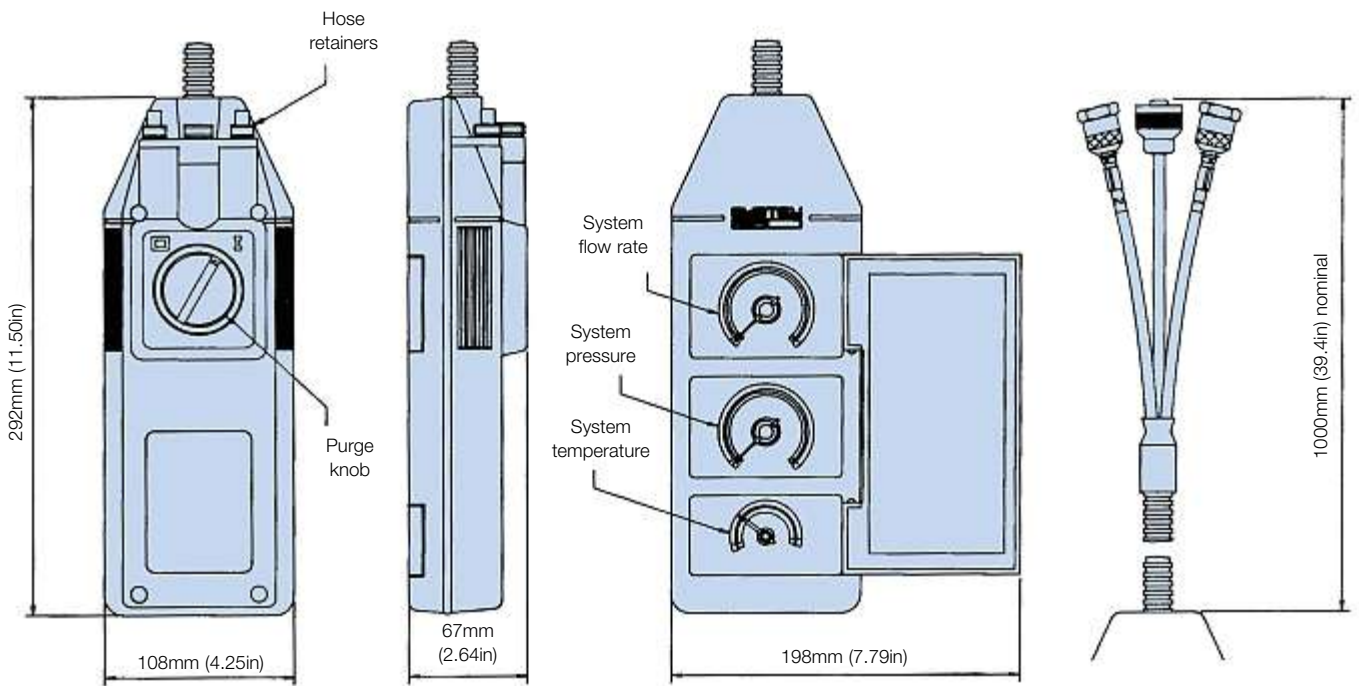
Dimensions:

The ABS Case is 292mm (11.5in) long, 108mm (4.25in) wide and 67mm (2.64in) deep overall.

Weight:

1.4kg (3lbs).

A viscosity chart is provided for mineral oil applications where monitoring is required at variable viscosities (cSt).



Ordering Information

Standard products table

Product number	Supersedes	Media type	Flow readings	Pressure readings	Temperature readings
STM6211110	STM.6211.110	Oil	l/min	Dual scale bar/PSI	Dual scale °C/°F
STM6611110	STM.6611.110	Oil	US GPM	Dual scale bar/PSI	Dual scale °C/°F
STM6211120	STM.6211.120	Water	l/min	Dual scale bar/PSI	Dual scale °C/°F
STM6611120	STM.6611.120	Water	US GPM	Dual scale bar/PSI	Dual scale °C/°F

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.
 Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

Accessories

Product number	Description
P653607	Monitor and sensor carrying case
P653106	Metal sensor protective cap

Icount_{PD}



MASTER DISTRIBUTOR



Parker Hannifin (UK) Ltd
Filter Division Europe
Condition Monitoring Centre
Bristol Way, Thetford
Norfolk IP24 1PP, UK
Tel: +44 (0) 1842 783289
Fax: +44 (0) 1842 788290
E-mail: conmon@parker.com
Website: www.parker.com

Part No. IPD12222100
Serial No. HK6NN015

Features & Benefits

Diagnostic Self Check Start-up Time:

5 seconds

Measurement Period:

5 to 180 seconds

Reporting interval through RS232:

0 to 3600 seconds

LED display response time:

Every second

Limit Relay Output:

Changes occur +/- 1 ISO code at set limit (Hysteresis ON) or customer set (Hysteresis OFF)

4-20mA Output Signal:

Continuous

Principle of operation:

Optical detection of actual particulates using on-board laser diode.

Reporting Codes:

ISO 7 – 21, NAS 0 – 12, (AS 00 – 12 Contact Parker)
Icount will also report less than ISO 7, subject to the statistical uncertainty defined in ISO4406:1999, which is shown in the RS232, reporting results as appropriate e.g ">6"

Performance:

+/- 1 ISO Code (Dependant on stability of flow)

Reproducibility / Repeatability:

Better than 1 ISO Code

Power Requirement:

Regulated 9 to 40Vdc

Maximum Current Draw:

150mA

Hydraulic Connection:

M16 x 2 minimes hydraulic test points (5/8" BSF for aggressive version)

Flow Range through the device:

40 to 140 ml/min (Optimum Flow = 60ml/min)

Online Flow Range via System 20 Inline Sensors:

Size 0 = 6 to 25 l/min - (Optimum Flow = 15 l/min)
Size 1 = 24 to 100 l/min - (Optimum Flow = 70 l/min)
Size 2 = 170 to 380 l/min - (Optimum Flow = 250 l/min)

Required Differential Pressure across Inline Sensors:

0.4 bar (Minimum)

Viscosity Range:

10 to 500 cSt

Storage temperature:

-40°C to +80°C (-40°F to +176°F)

Operating environment:

-20°C to +60°C (-4°F to +140°F)

Operating fluid temperature:

0°C to +85°C (32°F to +185°F)

Working pressure:

2 to 420 bar (6,000 psi)

IP Rating:

IP66, EMC/RFI, LVD

Materials:

User friendly glass-bead nylon construction.
Stainless Steel hydraulic block.
Viton seals.

Dimensions:

182mm x 155mm x 86mm (7.2" x 6.1" x 3.4")

Weight:

1.3kg

- Independent monitoring of system contamination trends
- Calibration by recognised on-line principles confirmed by the relevant International Standard Organisation procedures.
- Early warning LED display indicators user set.
- % RH LED indicator (optional)
- Cost effective solution to prolonging fluid life and reducing machine downtime.
- Visual indicators with power and alarm output warnings.
- Continuous performance for prolonged analysis
- Hydraulic, Phosphate Ester & Fuel fluid compatible construction
- Self diagnostic software
- Fully PC/PLC integration technology such as:
 - RS232 / 4-20mA / 0-5Volts / CANBUS / LAN.

Icount PD

The Icount Particle Detector from Parker represents the most up to date technology in solid particle detection.

The design dynamics, attention to detail and moulding compactness of the permanently mounted, on-line particle detector module, combines with on-board, laser based, leading-edge technology, to bring to all industry a truly revolutionary particle detector as a remarkable cost effective market solution to fluid management and contamination control.



Typical Applications

- **Mobile Equipment**

- Earth Moving Machinery
- Harvesting
- Forestry
- Agriculture

Monitoring of the hydraulics, enabling the vehicles to function to their best capability under load conditions through pistons, servo valves, control rams and gear pumps.

- **Industrial Equipment**

- Production Plants
- Fluid Transfers
- Pulp & Paper
- Refineries



To monitor the cleanliness of the equipment throughout the production line, from the machine tool controlled hydraulics through to contamination of fluid transfer. Ensuring the integrity of the fluid is maintained throughout the refining process.

- **Power Generation**

- Wind Turbines
- Gearboxes
- Lubrication Systems

With continuous monitoring the optimum level is achieved in the least amount of time.

- **Maintenance**

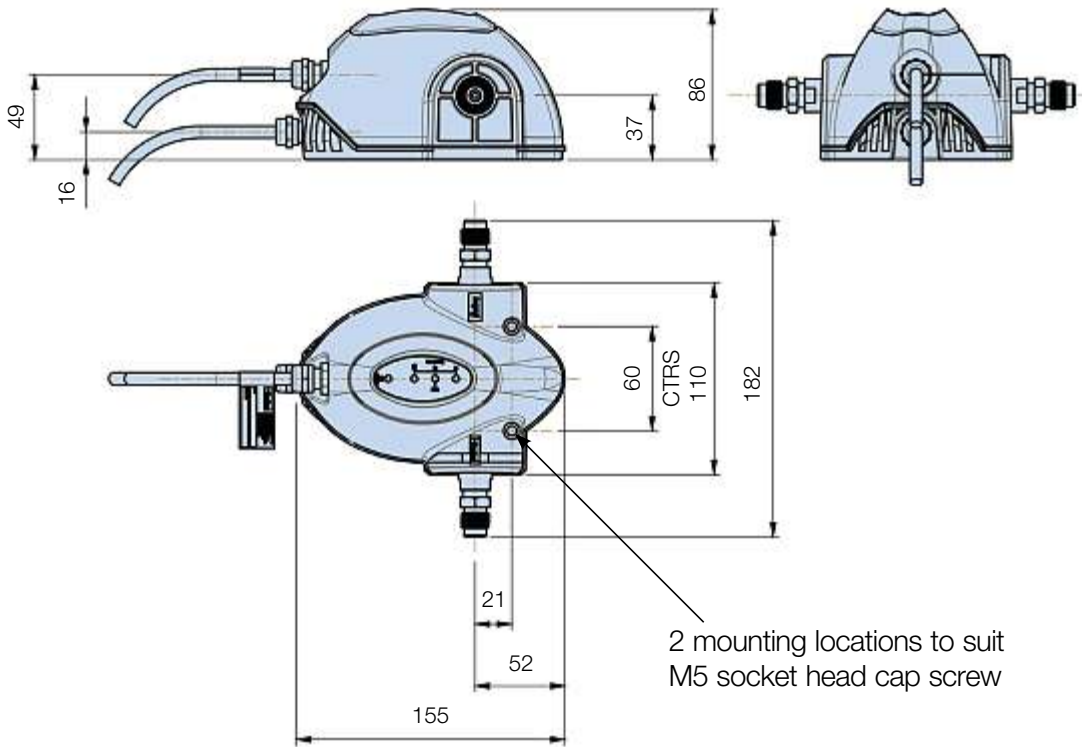
- Test Rigs
- Flushing Stands

To increase efficiency of your equipment by continuously monitoring the cleanliness level of the hydraulic fluid.

- **Who will buy Icount?**

All the usual targets for fluid contamination particle detecting.

- Design Engineers / System Specifiers
- Maintenance Technicians / Fitters
- Purchasing Executives



Communications wiring configuration

Wire colour	Description
RED	Supply 9 - 40Vdc
BLACK	Supply -0Vdc
GREEN	4-20mA (Channel A, ISO 4um(c))
YELLOW	4-20mA (Channel B, ISO 6um (c)) Use Channel B for NAS 4-20 mA output.
WHITE	4-20mA (Channel C, ISO 14um(c))
BLUE	<i>Used only for Parker Calibration.</i>
BROWN	4-20mA (12Vdc - 20Vdc)
ORANGE	RS232 Ground (* Pin 5)
GREY	RS232 Receive (* Pin 3)
PINK	RS232 Transmit (* Pin 2)
VIOLET	NOT USED
TURQUOISE	NOT USED

* 9 way D-type socket recommendation from Parker.

Note: that a standard USB Serial adaptor can be used with the recommended 9 way D-type connector to convert RS232 to USB.

LED display parameters (ISO4406 / NAS1638)

The device uses 3 sets of LED for the indication of ISO 4406 and NAS1638 code figures. Individual code lights will trigger based on the customer settings.

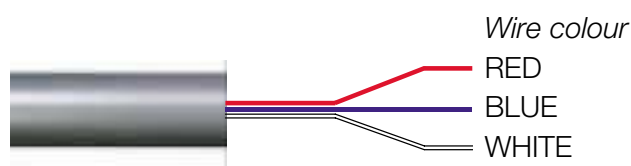
Order of trigger will be:

- Solid green LED to be illuminated at all codes below the set point code.
- Blinking green LED will trip at the set point code.
- Solid Red LED will trip at the set point plus 1 code.
- Blinking Red LED will trip at the set point plus 2 codes.



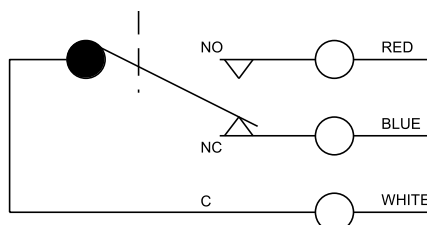
Limit relay alarm levels

The Icount PD can be specified with a built-in limit switch relay which can be triggered when a preset alarm level is reached. The relay contacts can be used to switch on or off an external device. Each wire within the Icount limit relay cable is identified as RED, WHITE and BLUE which corresponds with the diagram below.



Description
NORMALLY OPEN
NORMALLY CLOSED
COMMON

The contact rating is 5A at 5 to 24Vdc



Communication protocol

The Communication protocol for the serial communication link is to be used with **Microsoft Windows HyperTerminal**. The settings are as follows:

Baud rate	9600
Data bits	8
Parity	None
Stop bits	1
Flowcontrol	None

The commands used with this product are made up of Read, Set and Start / Stop commands.

- Set commands allow the value or values of parameters to be set
- Read commands allow the value or values or parameters to be read
- Start/Stop allows the user to start and stop tests.

Example:

[SDF dd/mm/yy] - sets the date format.

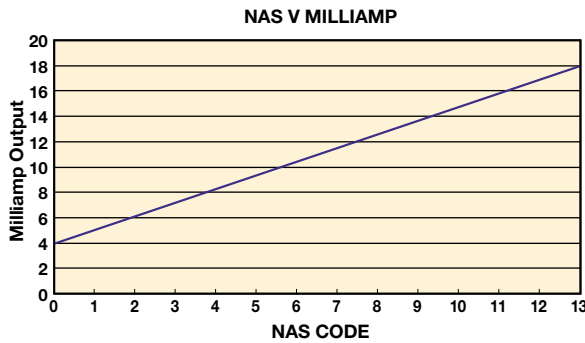
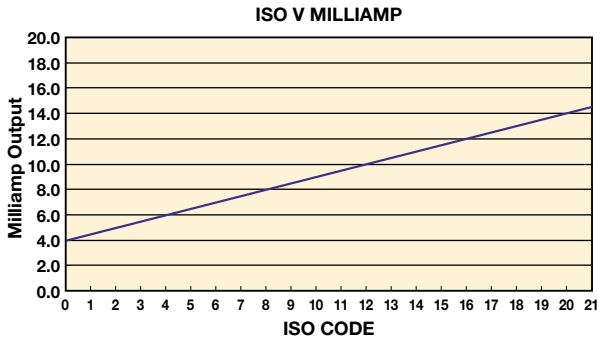
[RDF] - reads the product date format.

All commands are sent in ASCII characters, and the protocol accepts both upper and lower case characters as the examples below:

SdF

SdF

Installation Details



The following table can be used to equate the analogue output to an ISO or NAS Code.

Example ISO code 12 is equal to 10mA

mA	ISO	mA	NAS
4.0	0	4	00
4.5	1	5	0
5.0	2	6	1
5.5	3	7	2
6.0	4	8	3
6.5	5	9	4
7.0	6	10	5
7.5	7	11	6
8.0	8	12	7
8.5	9	13	8
9.0	10	14	9
9.5	11	15	10
10.0	12	16	11
10.5	13	17	12
11.0	14	18	**
11.5	15	19	**
12.0	16	20	ERROR
12.5	17		
13.0	18		
13.5	19		
14.0	20		
14.5	21		
15.0	**		
15.5	**		
16.0	**		
16.5	**		
17.0	**		
17.5	**		
18.0	**		
18.5	**		
19.0	OVERRANGE		
19.5	OVERRANGE		
20.0	ERROR		

Note: **= Saturation (Above ISO Code 21 and NAS Class 12)

4-20mA output settings

ISO Setting

mA current = (ISO Code / 2) + 4 eg. 10mA = (ISO 12 / 2) + 4

or

ISO Code = (mA current - 4) * 2 eg. ISO 12 = (10mA - 4) * 2

NAS Setting

mA current = NAS Code + 5 eg. 15mA = NAS 10 + 5

or

NAS Code = mA current - 5 eg. NAS 10 = 15mA - 5

Flow Rate x Differential Pressure x Viscosity

The following charts indicate the differential pressure required to run a successful test at the appropriate flow rates.

Example:

If the fluid you wish to analyse has a relative viscosity of 60 cSt, to generate the optimum flow rate of 60ml/min a differential pressure of 0.5 bar is required.

If the fluid you wish to analyse has a relative viscosity of 400 cSt, a 4 bar differential pressure would result in 130 ml/min.

