

PRODUCT INDEX

Fluid monitoring and testing equipment ensure diagnostics are quick and easy to achieve.

Ideal for mobile and static plant, the range of hydraulic test points, adaptors, gauges and microbore hose assemblies provide in-line pressure rating for hydraulic circuits. These test products are available in handy kit form or as individual items. Microbore test point hoses can be custom manufactured to suit your needs.

Temperature sensors, flow turbines, pressure transducers and flow meters provide industry standard outputs and a high degree of accuracy when measuring oil functionality in operation. These items are ideal for test, R&D and service engineers working in the field.

Portable test equipment monitors all aspects of oil diagnosis. Simple hand held devices, through to online hydro Comsys software enabled instruments, ensure oil analysis has never been easier. GSM text alert can send information direct to your phone or by email to your computer; ensuring contamination or system health checks are available round the clock- even from remote locations.

Portable oil filtration carts are designed for constant or intermittent oil flushing and contamination control. Water removal and 0.5 to 28 micron elements allow users to select the most appropriate cleanliness level for the system. Filter carts can achieve cleanliness levels up to ISO 13/11/8 (NAS Class 2).

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Minimess® 1620 Test Point

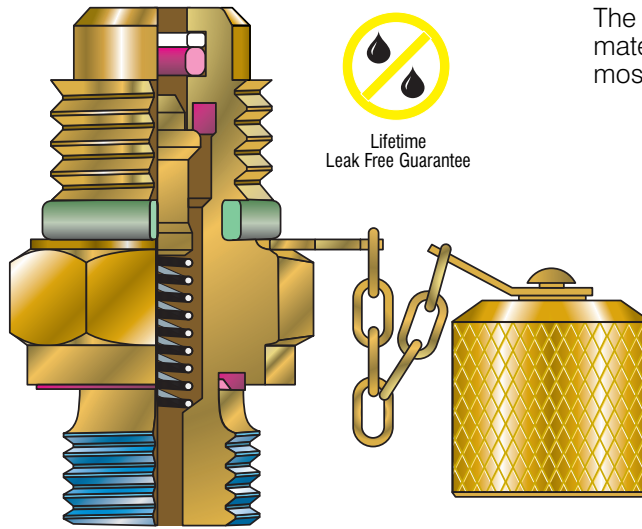
1620 Series

The original and still the market leader, **MINIMESS®** pressure test points offer the most advanced sealing system available.

A lifetime leak free guarantee and suitability for almost any fluid or gas makes **MINIMESS®** the natural choice to specify.

A user list throughout the world reads as a who's who of industry from mobile plant to steel and gas production.

1620 = M16 x 2 Cap



MINIMESS® 1620 or 'Test 20' is the most commonly used test point across all industries. The wide range of choice in materials and threads make this the most commonly used test point.

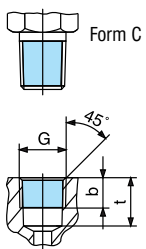
Applications include:

- > Mobile plant original equipment
- > Test rigs
- > Gas testing
- > Sample points
- > Bleeding points
- > Steel making
- > Offshore oil
- > Gas charging valves

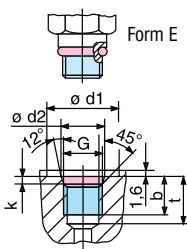
Material availability:

- > Steel
- > Stainless Steel
- > Anti-magnetic
- > Brass
- > Monel
- > Stainless Steel

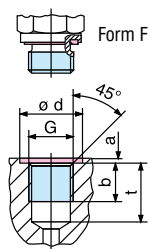
Thread connections and sealing details



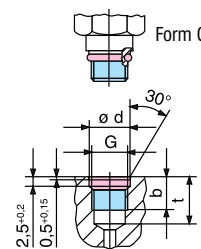
Screw hole according to DIN 3852 part 1 and part 2, from Z. (Sealing by suitable jointing solutions)



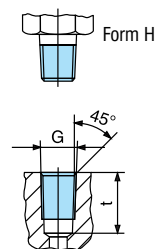
Screw hole according to ASA B 1.1-1960 or SAE J 514 (Sealing by O-ring)



Screw hole up to ϕd according to DIN 3852 part 1 and part 2, form X (Sealing by O-ring)



Screw hole according to factory standard N 901-01-14 (Sealing by O-ring)



Screw hole according to ANSI/ ASME B 1.20.1-1983 (self-sealing thread)

Form C		
G	b	t
ISO 7 / I-R1/8	5.5	9.5
ISO 7 / I-R1/4	8.5	13.5

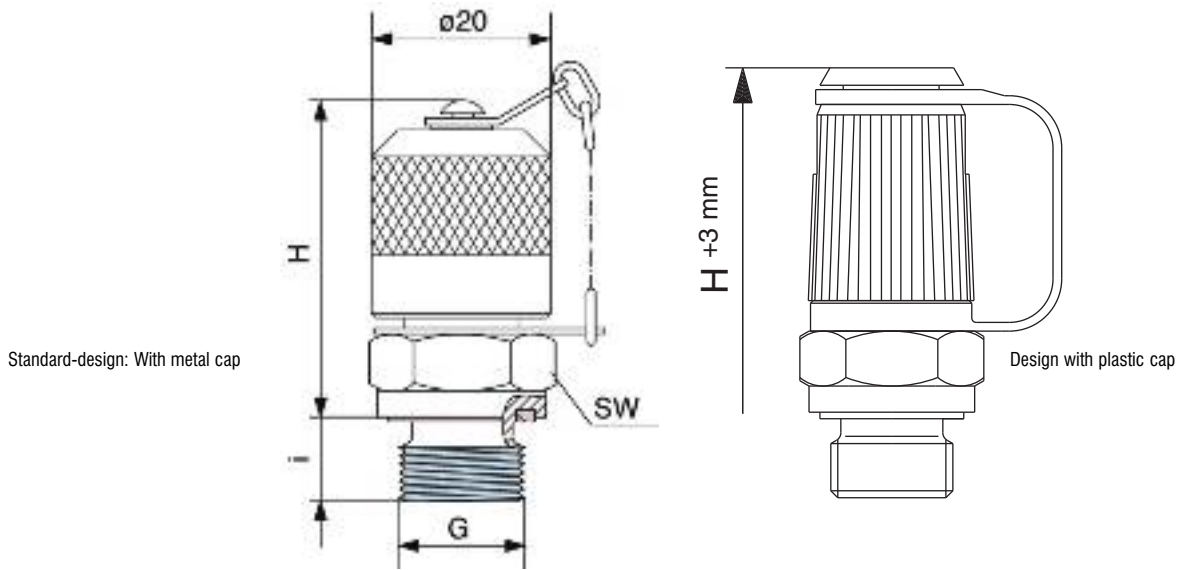
Form E					
G	d1	d2	b	k	t
7/6-20 UNF	21	12.4	12	2.4	14
9/16-18 UNF	25	15.6	12.7	2.5	15.5

Form F				
G	d	a	b	t
ISO 228-G 1/8	15	1	8	13
ISO 228-G 1/4	20	1.5	12	18.5
ISO 228-G 1/2	27	2.5	14	22
ISO 228-G 3/4	33	2.5	16	24
M 12 x 1.5	18	1.5	12	18.5
M 14 x 1.5	20	1.5	12	18.5

Form G			
G	d	b	t
M 8 x 1	9.5	9	13
M 10 x 1	11.5	9	13

Drill bit on request

Form H	
G	t
1/8 NPTF	12
1/4 NPTF	17.5
1/2 NPTF	22.9



Thread	Sealing details	Torque (Nm)	p max	H _i (mm)	l (mm)	SW (mm)	Part Number with metal cap
M 8 x 1	O-Ring/Form G	6	250bar (3600psi)	41	8.5	17	2103-01-32.00
M 10 x 1		12		37.5	8.5	17	2103-01-33.00
M 12 x 1.5		30		36	10	17	2103-01-13.00
M 14 x 1.5	Gi-Ring / Form F	40	630bar (9000psi)	36	10	19	2103-01-14.00
M 16 x 1.5		60		36	10	22	2103-01-15.00
ISO 228-G 1/8		18		38	8	17	2103-01-17.00
ISO 228-G 1/4	Gi-Ring / Form F	40	630bar (9000psi)	36	10	19	2103-01-18.00
ISO 228-G 3/8		60		36	10	22	2103-01-16.00
1/2 NPTF		Self-sealing thread. Form H		-	400bar (5800psi)	13	13
1/4 NPTF	-		16.5	16.5		17	2103-01-47.00
7/16-20 UNF	O-Ring / Form E	20	630bar (9000psi)	37	9	17	2103-01-21.00
9/16-18 UNF		35		36	10	19	2103-01-53.00
ISO 7/I-R 1/8	Sealing by suitable jointing solutions	-	400bar (5800psi)	33	13	17	2103-01-40.00
ISO 7/I-R 1/4		-		33	13	17	2103-01-41.00
M10 x 1	O-Ring / Form E ISO 6149-2	12	630bar (9000psi)	38	9.5	17	2103-01-94.00
M12 x 1.5		30		35.5	11	17	2103-01-95.00
M14 x 1.5		45		35.5	11.5	19	2103-01-96.00
M16 x 1.5		55		35.5	12.5	22	2103-01-97.00

Options

All sealings of the screw coupling in Viton
 Valid for metal- and plastic cap design metal cap design without safety device
 (When ordering please exchange the end number 00 for 10)

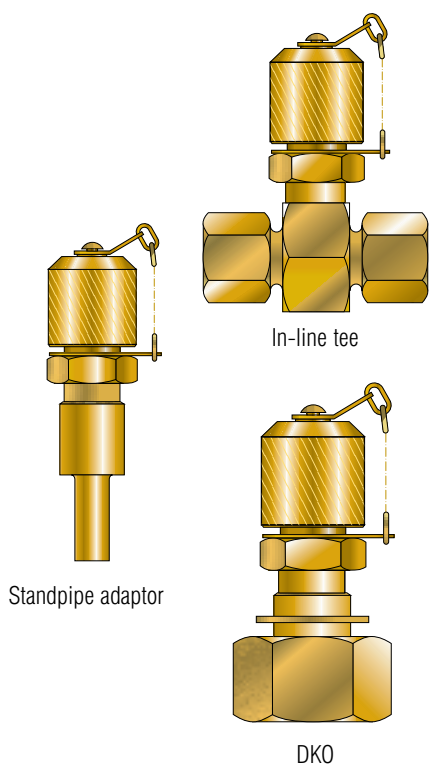
Screw couplings with EPDM-sealing for brake fluid and other fluids on request.
 We reserve the right to make technical modifications.

Note: All test points are supplied with anti vibration 'O' rings in the cap and integral seating seal as standard

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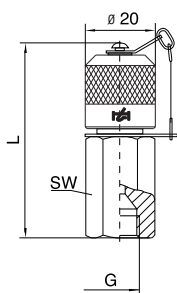
Minimess®

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	Size	Standpipe Part Number	In-line tee Part Number	DKO Part Number
Light	6	2103-15-06.00	2103-11-06.00	2103-93-06.00
	8	2103-15-08.00	2103-11-08.00	2103-93-08.00
	10	2103-15-10.00	2103-11-10.00	2103-93-10.00
	12	2103-15-12.00	2103-11-12.00	2103-93-12.00
	15	2103-15-15.00	2103-11-15.00	2103-93-15.00
	18	-	2103-11-18.00	2103-93-18.00
	22	-	2103-11-22.00	2103-40-22.00
	28	-	2103-11-28.00	2103-40-28.00
	35	-	2103-11-35.00	2103-40-35.00
	42	-	2103-11-42.00	2103-40-42.00
Heavy	6	-	2103-12-06.00	2103-94-06.00
	8	-	2103-12-08.00	2103-94-08.00
	10	-	2103-12-10.00	2103-94-10.00
	12	-	2103-12-12.00	2103-94-12.00
	14	-	2103-12-14.00	2103-41-14.00
	16	-	2103-12-16.00	2103-94-16.00
	20	-	2103-12-20.00	2103-41-20.00
	25	-	2103-12-25.00	2103-41-25.00
30	-	2103-12-30.00	2103-41-30.00	
38	-	2103-12-38.00	2103-41-38.00	

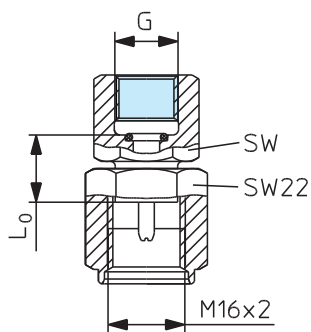
Standpipe Adaptor 37°- Edged Screwing SAE J514



Thread	P Max	Dia mm	Dia	L mm	SW mm	Part Number
7/16-20 UNF	600 bar (9000 psi)	6	1/4"	55	17	2103-85-21.00
1/2-20 UNF	420 bar (6000 psi)	8	5/16"	56.5	17	2103-85-22.00
9/16-18 UNF	315 bar (4500 psi)	10	3/8"	57.5	19	2103-85-23.00
3/4-16 UNF		12	1/2"	60.5	22	2103-85-24.00

Further threads on request

Direct Gauge Adaptor



Internal Thread	P Max	L0 mm	SW mm	Part Number
ISO 228-G 1/4	630 bar (9000 psi)	14.5	19	2103-07-11.62
ISO 228-G 1/2		17	27	2103-07-12.62
1/4 NPT		-	19	2103-07-23.62

Bulkhead Coupling

Fig.1: for solderfree screw-in pipe connection acc. to DIN 2353, other side: **MINIMESS®** 1620 connection (M16 x 2)

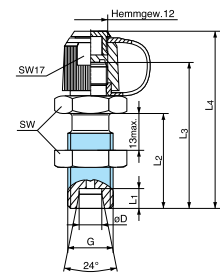


Fig. 1

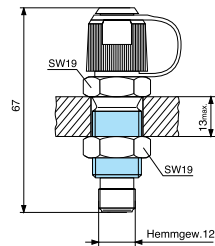
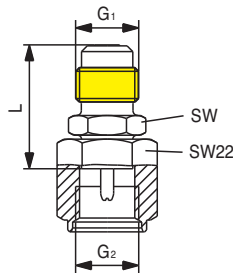


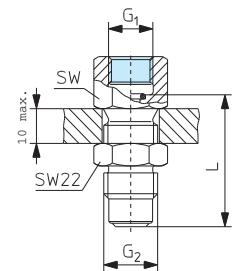
Fig. 2

Fig	Thread	P Max	Connection	L1 mm	L2 mm	L3 mm	L4 mm	ød mm	SW mm	Part Number
1	M 12 x 1.5	315 bar (4500 psi)	L 6	7	33.5	58	66.5	6	17	2103-04-22.00
	M 14 x 1.5		L 8	7	33.5	58	66.5	8	19	2103-04-23.00
	M 16 x 1.5		L 10	7	33.5	58	66.5	10	22	2103-04-18.00
	M 18 x 1.5		L 12	7	33.5	58	66.5	12	24	2103-04-11.00
	M 14 x 1.5	630 bar (9000 psi)	S 6	7	33.5	58	66.5	6	19	2103-04-24.00
	M 16 x 1.5		S 8	7	33.5	58	66.5	8	22	2103-04-25.00
	M 18 x 1.5		S 10	7.5	35.5	60	68.5	10	24	2103-04-26.00
	M 20 x 1.5		S 12	7.5	35.5	60	68.5	12	27	2103-04-27.00
2	M 16 x 2	630 bar (9000 psi)	both sides for series 1620							2103-04-16.00

Adaptor for connection or change-over to various screw series such as 1620-1615-1215



Pressure gauge connection for bulkhead pipe fitting

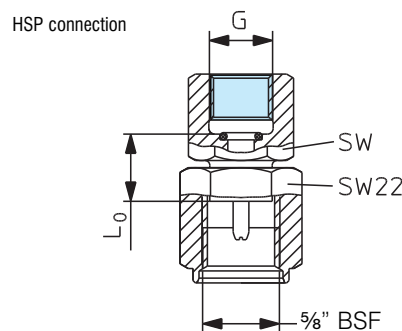


Thread G1	Thread G2	L mm	SW mm	Part Number
M 12 x 1,5	M 16 x 2	25,2	17	2103-07-42.62
M 16 x 2	M 12 x 1,5	32	17	2101-07-44.62
M 16 x 1,5	M 16 x 2	31,4	17	2103-07-43.62
M 16 x 2	M 16 x 1,5	31,4	17	2102-07-44.62

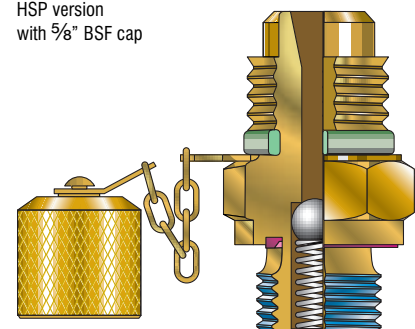
Thread G1	Thread G2	L mm(ca.)	SW mm	Part Number
ISO 228-G ¼	1620/ M 16 x 2	38	19	2103-05-11.00*
ISO 228-G ½		42.5	27	2103-05-12.00*
¼ NPT		—	19	2103-05-23.00*

Note: Without check valve

HSP style test points (5/8" BSF)



HSP version with 5/8" BSF cap



HSP Test Points

Size	Part Number
1/8" BSP	2107-01-17.00
1/4" BSP	2107-01-51.00

Gauge adaptors

HSP(F) to 1/4" Gauge (F)	2107-07-01.62
HSP(F) to 1620(M)	HSPF/1620M

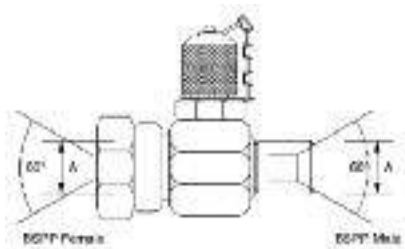
In-line Tee Adaptors

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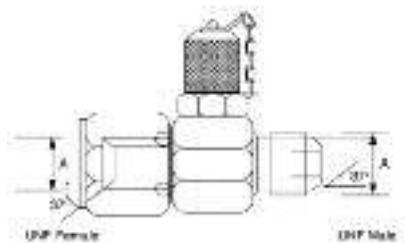
In-line SNA **MINIMESS®** pressure test point adaptors are a simple and easy method of adding test points into a system. Suitable for OEM build or retro - fitting to existing systems SNAs fit between hose joints or manifold and hose.
Special configurations are available for OEM applications.

BSP Format



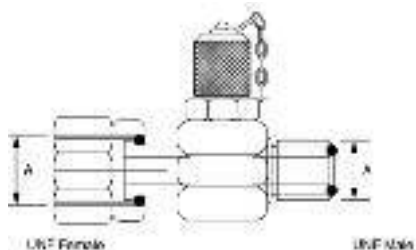
Description	A	Thread	Part Number
Male/Female BSPP 1620	1/4	BSPP	SNA01
Male/Female BSPP 1620	3/8	BSPP	SNA02
Male/Female BSPP 1620	1/2	BSPP	SNA03
Male/Female BSPP 1620	3/4	BSPP	SNA04
Male/Female BSPP 1620	5/8	BSPP	SNA05
Male/Female BSPP 1620	1	BSPP	SNA06
Male/Female BSPP 1620	1 1/4	BSPP	SNA07
Male/Female BSPP 1620	1 1/2	BSPP	SNA08

JIC Format



Description	A	Thread	Part Number
Male/Female JIC 1620	7/16	— 20 UNF	SNA55
Male/Female JIC 1620	1/2	— 20 UNF	SNA56
Male/Female JIC 1620	9/16	— 18 UNF	SNA57
Male/Female JIC 1620	3/4	— 16 UNF	SNA58
Male/Female JIC 1620	7/8	— 14 UNF	SNA59
Male/Female JIC 1620	1 1/16	— 12 UNF	SNA60
Male/Female JIC 1620	1 5/16	— 12 UNF	SNA61
Male/Female JIC 1620	1 5/8	— 12 UNF	SNA62
Male/Female JIC 1620	1 7/8	— 12 UNF	SNA63

ORFS Format



Description	A	Thread	Part Number
Male/Female ORFS 1620	9/16	— 18 UNF	SNA70
Male/Female ORFS 1620	1 1/16	— 16 UNF	SNA71
Male/Female ORFS 1620	1 9/16	— 16 UNF	SNA72
Male/Female ORFS 1620	1	— 14 UNF	SNA73
Male/Female ORFS 1620	1 3/16	— 12 UNF	SNA74
Male/Female ORFS 1620	1 7/16	— 12 UNF	SNA75

Working pressure 630 bar (9000 psi) on the basis of ISO 15171-2

Media application

Suitable for hydraulic and other oils on mineral oil basis

Material

Steel coupling body and metal cap made of steel 1.0718

Note: Unless stated otherwise, all products shown in this catalogue are made of free-cutting steel 1.0718

Sealings

Internal primary and secondary sealing and sealing for screw-in thread made of NBR (Buna N). Option: in FKM (Viton)

Screw-in thread

Different kinds of thread are available
Option: Safety devices against vibration
Safety device against torsion and loosening of metal cap made of NBR (Buna N).

Temperature ranges

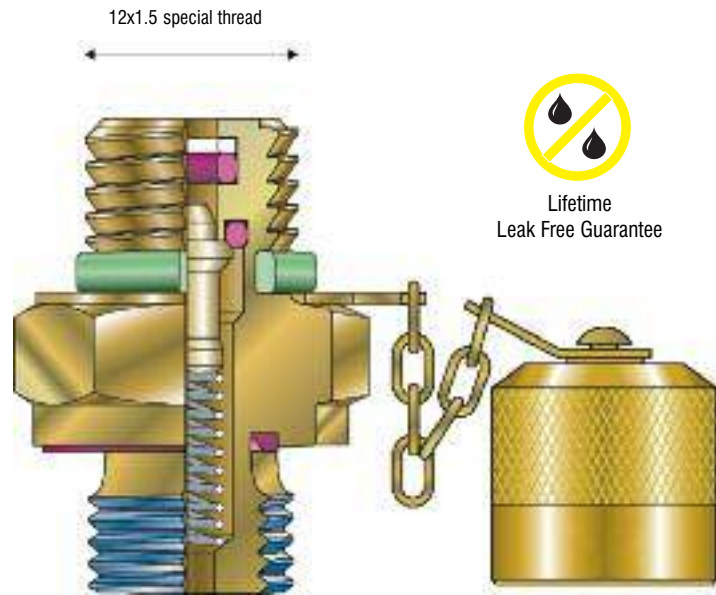
Application with plastic cap (standard) for both sealing-materials:
-20°C to +100°C (-4°F to +212°F)

Application with metal cap

Sealings out of NBR (Buna N):
-30°C to + 120°C (-22°F to +248°F)
Sealings out of FKM (Viton) option:
-20°C to +135°C (-4°F to +275°F)

MINIMESS® 1215 or 'Test 15' is commonly used in the construction and gas industries. Small and compact in design with a 12mm threaded cap the 1215 test point is capable of a 630 bar working pressure. The 1215 is available in many materials including Steel, Stainless Steel and Brass.

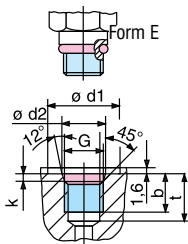
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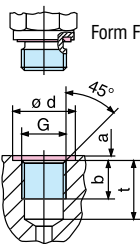
Thread connections and sealing details



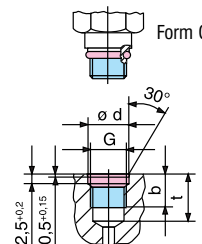
Screw hole according to DIN 3852 part 1 and part 2, form Z. (Sealing by suitable jointing solutions)



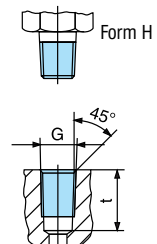
Screw hole according to ASA B 1.1-1960 or SAE J 514 (Sealing by O-ring)



Screw hole up to ϕd according to DIN 3852 part 1 and part 2, form X (Sealing by O-ring)



Screw hole according to factory standard N 901-01-14 (Sealing by O-ring)



Screw hole according to ANSI/ ASME B 1.20.1-1983 (self-sealing thread)

Form C		
G	b	t
ISO 7 / I-R1/8	5.5	9.5
ISO 7 / I-R1/4	8.5	13.5

Form E					
G	d1	d2	b	k	t
7/16-20 UNF	21	12.4	12	2.4	14
9/16-18 UNF	25	15.6	12.7	2.5	15.5

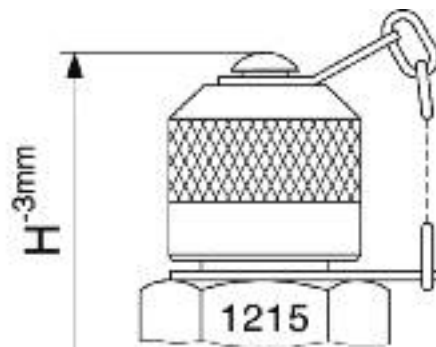
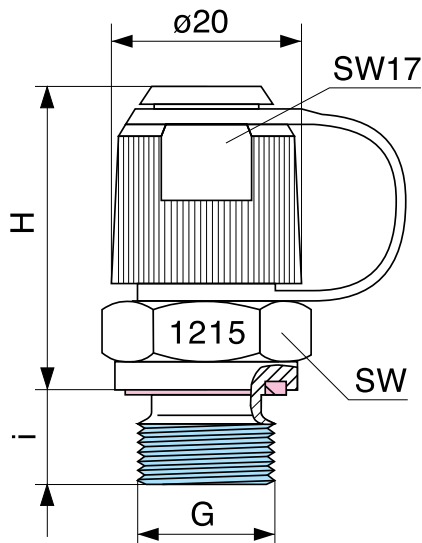
Form F				
G	d	a	b	t
ISO 228-G 1/8	15	1	8	13
ISO 228-G 1/4	20	1.5	12	18.5
ISO 228-G 1/2	27	2.5	14	22
ISO 228-G 3/4	33	2.5	16	24
M 12 x 1.5	18	1.5	12	18.5
M 14 x 1.5	20	1.5	12	18.5

Form G			
G	d	b	t
M 8 x 1	9.5	9	13
M 10 x 1	11.5	9	13
Drill bit on request			

Form H		
G	b	t
1/8 NPTF	12	
1/4 NPTF	17.5	
1/2 NPTF	22.9	

MINIMESS® 1215 Test Point

Standard-design: With plastic cap and integrated safety device against vibration



Design with metal cap

Thread (G)	Sealing Details	Torque	Max Pressure	H mm	i mm	SW mm	Part Number with plastic-cap
ISO 228-G 1/8	Gi-Ring/Form F	18	400 bar (5800 psi)	33	8	14	2101-01-17.00
ISO 228-G 1/4		40	630 bar (9000 psi)	32	10	19	2101-01-18.00
M 8 x 1	O-Ring/Form G	6	250 bar (3600 psi)	33	8.5	14	2101-01-32.00
M 10 x 1		12		33	8.5	14	2101-01-33.00
M 12 x 1,5	Gi-Ring/Form F	30	630 bar (9000 psi)	32	10	17	2101-01-13.00
M 14 x 1,5		40		32	10	19	2101-01-14.00
1/8 NPTF	Selbstdichtendes Gewinde/ Form H	–	400 bar (5800 psi)	29	12	14	2101-01-46.00
1/4 NPTF		–		29	15	14	2101-01-47.00
7/16-20 UNF	O-Ring / Form E	20	630 bar (9000 psi)	32	9	17	2101-01-21.00
9/16-18 UNF		35		31	10	19	2101-01-53.00
ISO-7/l R 1/8	geeignete Dicht-mittel / Form C	–	400 bar (5800 psi)	29	12	14	2101-01-40.00
ISO-7/l R 1/4		–		29	12	14	2101-01-41.00

Options

All sealings of the screw coupling in Viton
Valid for metal- and plastic cap design metal cap design without safety device
(When ordering please exchange the end number 00 for 10)

10

Screw couplings with EPDM-sealing for brake fluid and other fluids on request.
We reserve the right to make technical modifications.

Note: All test points are supplied with anti vibration 'O' rings in the cap and integral seating seal as standard

Bulkhead coupling

Fig.1: for solderless screw-in pipe connection acc. to DIN 2353, other side: **MINIMESS**®1215 standard connection

Fig	Thread (G)	Max Pressure	Connection	L1 mm	L2 mm	L3 mm	L4 mm	øD mm	SW mm	Part Number
1	M 12 x 1.5	630 bar (9000 psi)	L 6	7	34	52.5	63.5	6	17	2101-04-22.00
	M 14 x 1.5		L 8	7	34	52.5	63.5	8	19	2101-04-23.00
	M 16 x 1.5		L 10	7	33.5	52	63	10	22	2101-04-18.00
	M 18 x 1.5		L 12	7	33.5	52	63	12	24	2101-04-11.00
	M 14 x 1.5	315 bar (4500 psi)	S 6	7	36	54.5	65.5	6	19	2101-04-24.00
	M 16 x 1.5		S 8	7	33.5	52	63.5	8	22	2101-04-25.00
	M 18 x 1.5		S 10	7.5	37	55.5	66.5	10	24	2101-04-26.00
	M 20 x 1.5		S 12	7.5	38	56.5	67.5	12	27	2101-04-27.00
2	M 12 x 1.5		both sides 1215						2101-04-16.00	

Safety device against vibration (Buna N): When ordering, please exchange the end number 00 for 98

Pressure gauge connection for bulkhead pipe fitting

Internal thread (G)	Connection	Max Pressure	L mm	SW mm	Part Number
ISO 228-G 1/4	MINIMESS ® 1215 Hemmgew. 12 for 1215 connection	630 bar (9000 psi)	31	19	2101-05-11.00
ISO 228-G 1/2			38.5	27	2101-05-12.00

Note: Without check valve

Direct gauge adaptor

Internal thread (G)	Max Pressure	L mm	SW mm	Part Number
ISO 228-G 1/4	630 bar (9000 psi)	14.5	19	2101-07-11.62
ISO 228-G 1/2		17	27	2101-07-12.62
1/4 NPT		-	19	2101-07-23.62

Adaptor for connection or change-over to various screw series

Thread (G1)	Thread (G2)	L mm	Max Pressure	SW mm	Part Number
M 12 x 1.5	M 16 x 2	25.2	630 bar (9000 psi)	17	2103-07-42.62
M 16 x 2	M 12 x 1.5	32		17	2101-07-44.62
M 12 x 1.5	M 16 x 1.5	25.2		17	2102-07-42.62
M 16 x 1.5	M 12 x 1.5	31.7		17	2101-07-43.62

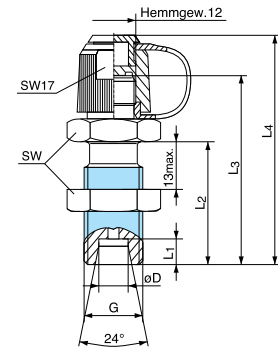


Fig. 1

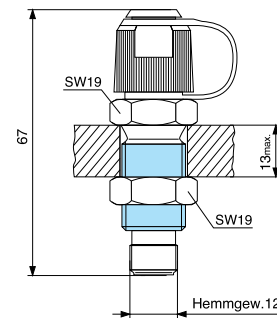
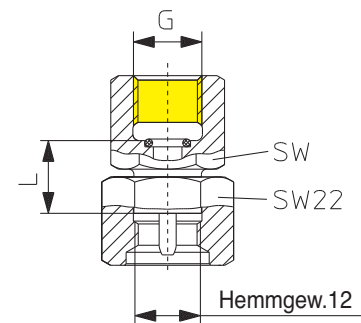
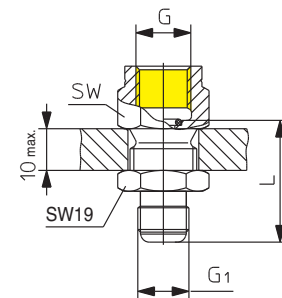
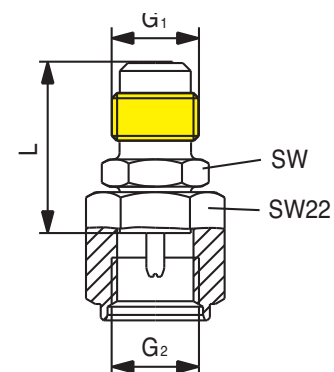


Fig. 2



Adaptor for connection or change-over to various screw series



Technical Data **MINIMESS® 1615**

Working Pressure 630 Bar (9000 psi) in Imitation of ISO 15171-2

Media application

Suitable for hydraulic and other oils on mineral oil basis

Material

Steel coupling body and metal cap made of steel 1.0718
Note: Unless stated otherwise, all products shown in this catalogue are made of free-cutting steel 1.0718

Sealings

Internal primary and secondary sealing and sealing for screw-in thread made of NBR (Buna N). Optional in FKM (Viton)

Screw-in thread

Different kinds of thread are available
Option: Safety devices against vibration
Safety device against torsion and loosening of metal cap made of NBR (Buna N).

Temperature ranges

Application with metal cap (standard)

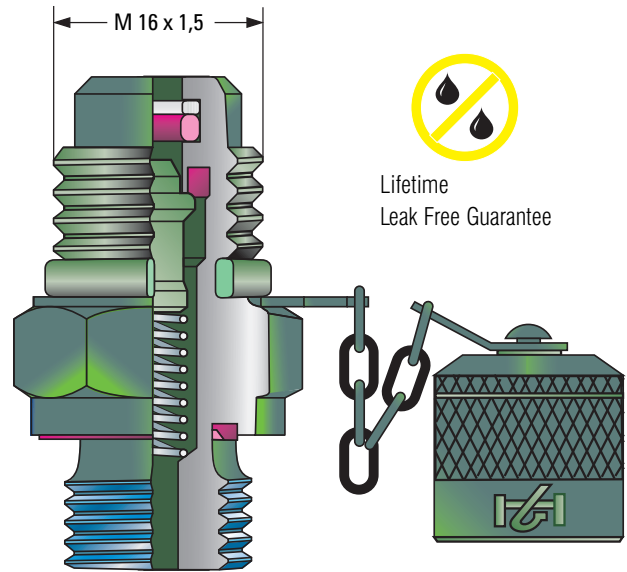
Sealings out of Buna N:
-30°C to + 120°C (-22°F to +248°F)
Sealings out of FKM (Viton) option:
-20°C to +200°C (-4°F to +392°F)

Application with plastic cap (option)

Sealings out of NBR (Buna N):
-30°C to + 100°C (-22°F to +212°F)
Sealings out of FKM (Viton) option:
-20°C to +100°C (-4°F to +212°F)

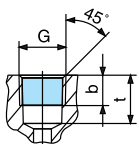
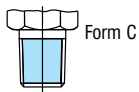
MINIMESS® 1615 or 'Test 15' coupling is used most commonly in the defence, gas and marine industries.

The 1615 has a green finish and has an M16 connection thread. Materials available are steel, stainless steel or monel.

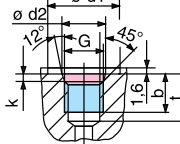
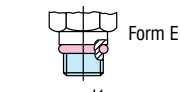


Thread Connections and Sealing Details

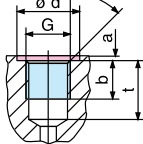
Screw holes and sealing details



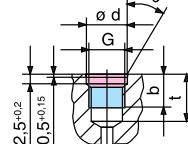
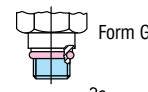
Screw hole according to DIN 3852 part 1 and part 2, from Z. (Sealing by suitable jointing solutions)



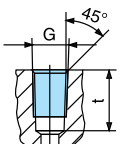
Screw hole according to ASA B 1.1-1960 or SAE J 514 (Sealing by O-ring)



Screw hole up to ϕd according to DIN 3852 part 1 and part 2, form X (Sealing by O-ring)



Screw hole according to factory standard N 901- 01-14 (Sealing by O-ring)



Screw hole according to ANSI/ ASME B 1.20.1-1983 (self-sealing thread)

Form C		
G	b	t
ISO 7 / I-R1/8	5.5	9.5
ISO 7 / I-R1/4	8.5	13.5

Form E					
G	d1	d2	b	k	t
7/16-20 UNF	21	12.4	12	2.4	14
9/16-18 UNF	25	15.6	12.7	2.5	15.5

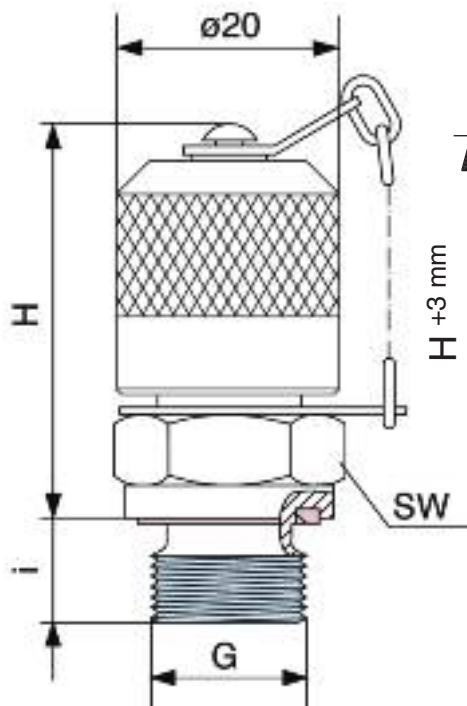
Form F					
G	d	a	b	t	
ISO 228-G 1/8	15	1	8	13	
ISO 228-G 1/4	20	1.5	12	18.5	
ISO 228-G 1/2	27	2.5	14	22	
ISO 228-G 3/4	33	2.5	16	24	
M 12 x 1.5	18	1.5	12	18.5	
M 14 x 1.5	20	1.5	12	18.5	

Form G			
G	d	b	t
M 8 x 1	9.5	9	13
M 10 x 1	11.5	9	13

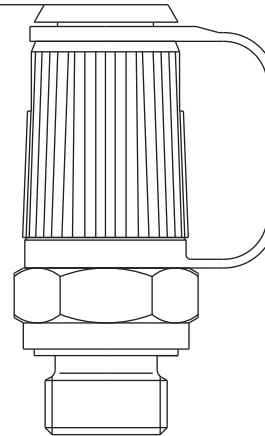
Drill bit on request

Form H		
G	t	
1/8 NPTF	12	
1/4 NPTF	17.5	
1/2 NPTF	22.9	

Standard-design: With metal cap



Design with plastic cap



Lifetime
Leak Free Guarantee

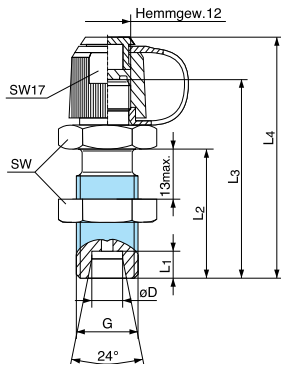
Thread (G)	Sealing Details	Torque Nm	pmax	H mm	i mm	SW mm	Part Number with metal cap	Part Number with plastic-cap
M 10 x 1	O-Ring / Form G	12	630 bar (9000 psi)	37.5	8.5	17	2102-01-33.00	2102-30-33.00
M 12 x 1,5	Gi-Ring / Form F	30		36	10	17	2102-01-13.00	2102-30-13.00
M 14 x 1,5	Gi-Ring / Form F	40		38	12	19	2102-01-14.00	2102-30-14.00
M 16 x 1,5	Form B	60		36	10	19	2102-01-50.00	2102-30-50.00
ISO 228-G 1/4	Gi-Ring / Form F	40		36	10	19	2102-01-18.00	2102-30-18.00
1/4 NPTF	Self sealing thread / Form H	–		33	16.5	17	2102-01-47.00	2102-30-47.00
3/16-18 UNF	O-Ring/Form E SAEJ514 (UNF)	35		36	10	19	2102-01-53.00	2102-30-53.00

Further screw-in threads and viton seals available on request

Note: All test points are supplied with anti vibration 'O' rings in the cap and integral seating seal as standard

1615 Accessories

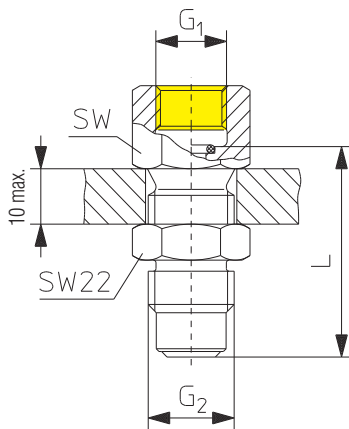
Bulkhead Coupling



Thread (G)	Max Pressure	Connection	Part Number
16 x 1.5	630 bar (9000 psi)	both sides for series 1615	2102-04-01.00

Safety device against vibration (Buna N): When ordering, please exchange the end number 00 for 98

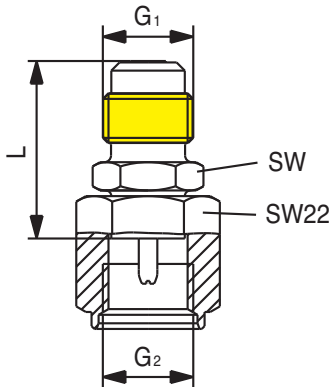
Pressure Gauge Connection for Bulkhead Pipe Fitting



Internal Thread (G1)	External Thread (G2)	L mm (ca)	SW mm	Part Number
ISO 228-G 1/4	1615 / M 16 x 1,5	38	19	2102-05-11.00*
ISO 228-G 1/2	pmax 630 bar	42.5	27	2102-05-12.00*
1/4 NPT	(9000 psi)	—	19	2102-05-23.00*

Note: Without check valve

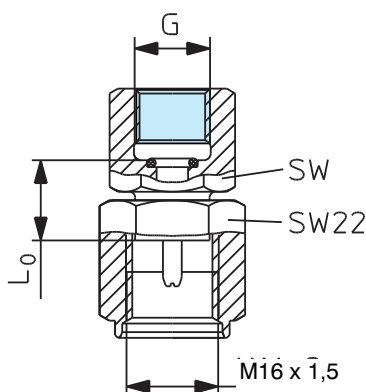
Adaptor for connection or change-over to various screw series such as 1620-1615-1215



Thread (G1)	Thread (G2)	L mm	SW mm	Part Number
M12x1.5	M 16 x 2	25.2	17	2103-07-42.62
M 16 x 2	M12x1.5	32	17	2101-07-44.62
M 16 x 1,5	M 16 x 2	31.4	17	2103-07-43.62
M 16 x 2	M 16 x 1,5	31.4	17	2102-07-44.62

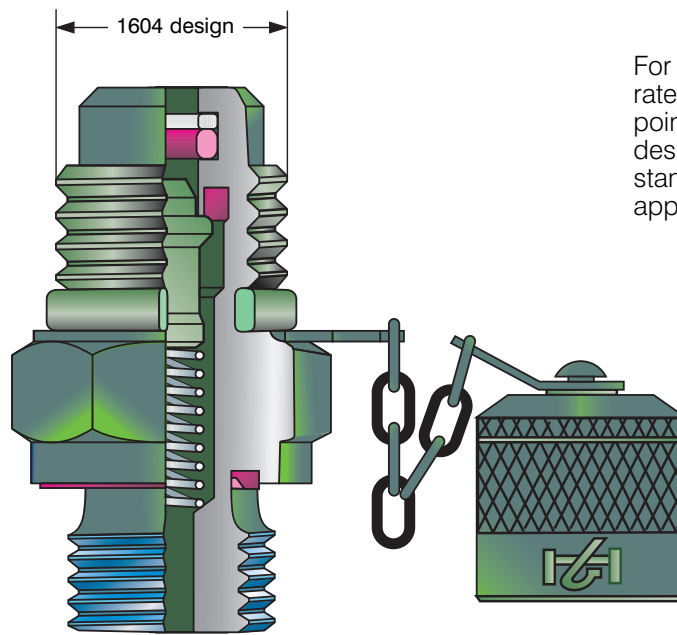
Further design from stainless steel with different sealings on request

Direct Gauge Adaptor



Internal Thread (G)	Max Pressure	L0 mm	SW mm	Part Number
ISO 228-G 1/4	630 bar (9000 psi)	14,5	19	2102-07-11.62
ISO 228-G 1/2		17	27	2102-07-12.62
1/4 NPT		—	19	2102-07-23.62

Further design from stainless steel with different sealings on request



For applications where a larger flow rate is required through the test point, the 1604 has a 4mm internal design compared to the 2mm standard in 1620, 1215 and 1615 applications.

4mm internal bore for larger flow rates through test point

Max. working pressure 400 bar (5800 psi)

Media application

Suitable for hydraulic- and other oils on mineral oil basis

Material

Standard: coupling body and metal cap made from free cutting steel 1.0718, galvanised and chromised.

Option:

- Corrosion-resistant stainless steel 1.4104
- Acid-resistant stainless steel 1.4571 antimagnetic (on request)

Sealings

Internal primary- and secondary sealing and sealing for screw-in thread made of Buna N. Option in viton. Screw-in thread

Different kinds of thread connections are available.

Option: Safety devices against vibration

Safety device against vibration. Additional O-ring made from Buna N against loosening of metal cap.

Temperature ranges

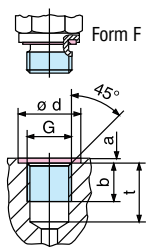
Sealings out of Buna N:

-30 °C to + 120 °C (-22 °F to +248 °F)

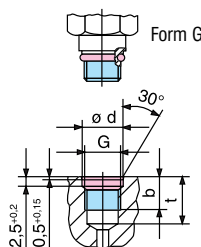
Sealings out of Viton (option):

-20 °C to +200 °C (-4 °F to +392 °F)

Screw-in Holes and Sealing Details



Screw hole up to $\varnothing d$ according to DIN 3852 part 1 and part 2, form X (Sealing by O-ring)



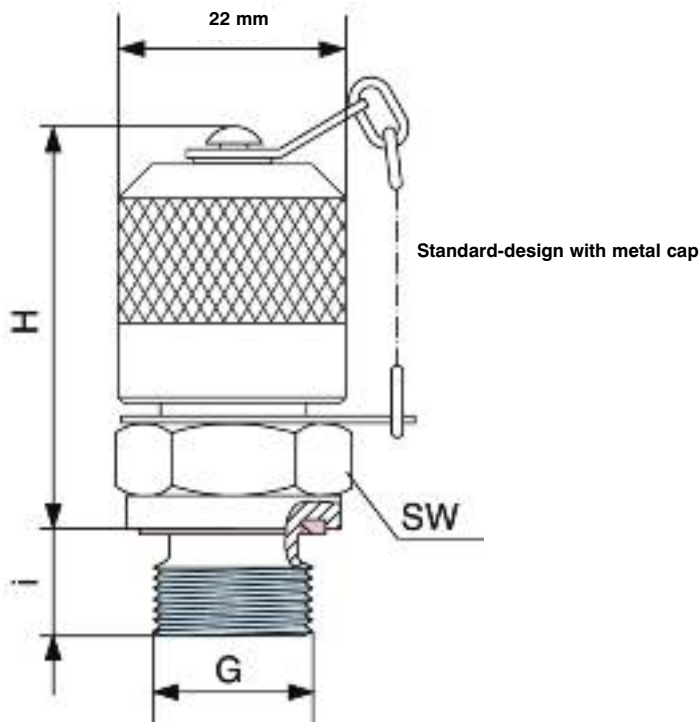
Screw hole according to factory standard N 901-01-14 (Sealing by O-ring)

Form F	d	a	b	t
ISO 228-G 1/4	20	1,5	12	18,5
M 14 x 1,5	20	1,5	12	18,5

Form G	d	b	t
M 10 x 1	11,5	9	13

Drill bit on request

MINIMESS® Test Point Series 1604



Thread (G)	Sealing Details	Max Pressure	Material	H mm	i mm	SW mm	Part Number with metal cap
M 10 x 1	O-Ring/Form G	400 bar (5800 psi)	1.0718	40	10	19	2106-01-33.00
M 14 x 1,5	Gl-Ring/Form F	400 bar (5800 psi)	1.0718	40	10	19	2106-01-14.00
ISO 228-G ¼	Gl-Ring/Form F	400 bar (5800 psi)	1.0718	43	8.5	17	2106-01-18.00

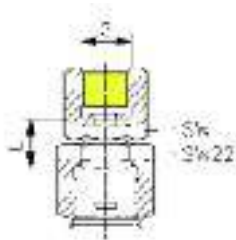
Options

All sealings of the screw coupling in Viton without safety device against vibration.
(When ordering please exchange the end number 00 for 10)

Further screw-in threads on request

10

Direct Gauge Connection



Thread (G)	Part Number	L	SW
1604 to G¼ (¼" BSP)	2106-07-01.62	16	19
1604 to G½ (½" BSP)	2106-07-02.62	18	27

The Microbore Hose Assembly, most commonly used to connect to a **MINIMESS®** Test Point for pressure testing, has many other diverse applications. The hose is available in 2mm and 4mm internal diameter. The Microbore Hose Assembly is extremely flexible, light weight and is specified for a large range of uses:

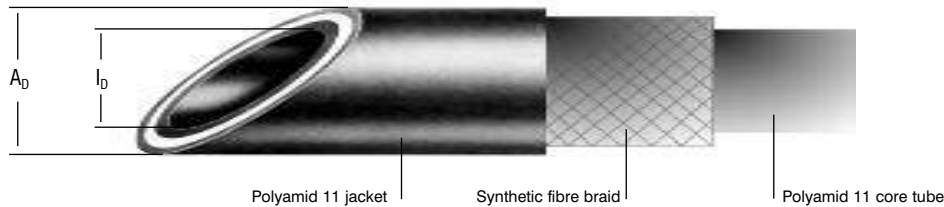
- Oils
- Water
- Gases
- Aggressive mediums
- Grease
- Pressure Testing up to 630 Bar
- Bleeding/Sampling
- Permanent installations
- Pipe up as electrical cabling



1.
7

Technical data of the measuring hoses DN 2 and DN 4

Hose structure



Reference of the specified data: 20 °C ± 3 K (68 °F ± 3 K)

Note: 1 bar = 14,503 psi

Nominal width	Design/Application	ID mm	AD mm	pN bar	pB bar	rmin	Operable temperature	Pressure utilisation factor
DN 2	Standard 400	2	5	400	1040		- 20 °C to + 100 °C	
DN 2	Standard 630	2	5	630	1950	20 mm below	(- 4 °F to + 212 °F)	0°C (+32°F) 122%
DN 2	Perforated hose /gaseous media	2	5	630	1950	-20°C 30 mm	for a short moment up to + 120 °C (+248 °F)	30°C (+86°F) 110%
DN 2	Low temperature	2	5	630	1500		+ 120 °C (+248 °F)	50°C (+122°F) 100%
DN 2								80°C (+176°F) 86%
DN 2								100°C (+212°F) 77%
DN 2								120°C (+248°F) 68%
DN 4	Standard 315	4	8	315	810	40 mm below	-54°C to + 100°C	Example for calculation:
DN 4	Standard 450	4	8	450	1500	-20°C 60 mm	(-65.2°F to + 212°F)	Measuring hose DN 2/630
DN 4	Perforated hose /gaseous media	4	8	450	1500		- 20 °C to + 100 °C	bar at 30°C Pressure
							(- 4 °F to + 212 °F)	utilisation factor: 630 x 1.10
							for a short moment up to + 120 °C (+248 °F)	= 693 bar

ID: internal diameter
AD: external diameter
pN: operable pressure
pB: bursting pressure
rmin: smallest bending radius of the hose

Perforated hose = perforated jacket of hose for gas applications

Criteria for selection of hoses and fittings

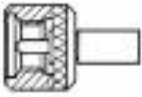

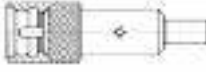

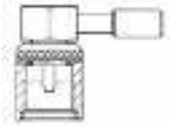

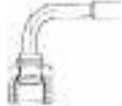

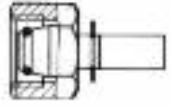
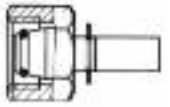
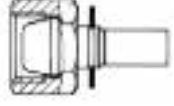

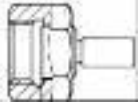
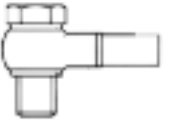
1. SELECTION OF THE MICROBORE HOSE FOR THE MAXIMUM OPERABLE PRESSURE (PN):

When ordering a microbore hose, please pay attention to the operable pressures of the hose material and of the connection fitting. The lowest pressure fixes the max. operable pressure of the complete measuring hose with fitting.

2. RESISTANCE AGAINST DIFFERENT MEDIA:

The microbore hose can be used for different media, as far as the connection fittings are suitable. In any case you should check the resistance against different media.

Microbore Hose End Fittings

	Thread	Part Number	Hose Code
	1215 test point	2119-02-00.00	AA
	1615 test point	2119-03-00.00	AB
	1620 test point	2119-04-00.00	AC
	1604 test point	2119-14-00.00	AD
	Steck plug in test point	2119-21-00.00	AI
 	1215 leakproof	2119-02-04.00	AP
	1615 leakproof	2119-03-04.00	AQ
	1620 leakproof	2119-04-04.00	AR
	1215 90 deg	2119-02-01.00	AJ
	1615 90 deg	2119-03-01.00	AK
	1620 90 deg	2119-04-01.00	AL
	ISO228-G1/4 gauge	5140-20-01.00	FA
	ISO228-G1/2 gauge	5140-20-02.00	FB
	ISO228-G1/4 gauge 90	5140-20-03.00	FC
	ISO228-G1/2 gauge 90	5140-20-04.00	FD
	4mm	5140-08-16.00	BA
	6mm	5140-08-01.00	BB
	8mm	5140-08-11.00	BC
	1/4"	5140-07-01.00	BD
	DKO M12 x 1.5 (6L)	5140-06-03.00	CQ
	DKO M14 x 1.5 (8L)	5140-06-04.00	CR
	DKO M16 x 1.5 (10L)	5140-06-07.00	CS
	DKO M18 x 1.5 (12L)	5140-06-08.00	CT
	DKO M14 x 1.5 (6S)	5140-06-01.00	CU
	DKO M16 x 1.5 (8S)	5140-06-02.00	CV
	DKO M18 x 1.5 (10S)	5140-06-05.00	CW
	DKO M20 x 1.5 (12S)	5140-06-06.00	CX
	1/8 BSP 60 deg cone	5140-09-03.00	FF
	1/4 BSP 60 deg cone	5140-12-01.00	DI
	ISO228-G1/8 male	5140-24-03.00	GA
	7/16" UNF female	5140-09-09.00	MJ
	9/16" UNF female	5140-27-01.00	BM
	11/16" UNF female	5140-26-03.00	HC
	To suit M10 x 1	5140-27-02.00	IB

If you do not see the end fittings you require, please contact your local Pirtek Centre

Make your own hoses for delivery next day from the ends shown to the left.
 Choose 400 or 630 bar hose, replace the XX end codes with the ones shown on the left hand grid.
 Lengths are designated in cm e.g 1300mm (130cm) code = 01.30

HOSE ORDERING CHART

X X X X XX XX XXXX

Length (ie 01.00 = 100cm)
 Hose End Code
 Hose End Code
 0 = Standard
 1 = Anti Buckle Collar - left
 2 = Anti Buckle Collar - right
 3 = Anti Buckle Collar both ends
 4 = Protective Aluminium cover sheath
 5 = Gas Hose (630 Bar)

Hose End Material
 1 = Standard (Zinc plated Steel DIN 1.0718)
 3 = Stainless Steel (DIN 1.4104)
 S = Hose

0 = DN2(400 Bar)
 1 = DN2(630 Bar)
 5 = DN4(315 Bar)
 6 = DN4(420 Bar)

EXAMPLE:
S100-AC-FA-02.00
 Hose 1620/1/4" Gauge
 400 Bar 2.0metre Long

we can assemble hoses to any length and any end configuration from stock

DATA:	DN2	DN2	DN4	DN4
Operating Pressure	400	630	315	420
Test Pressure (Bar)	630	930	490	675
Burst Pressure(Bar)	1040	1950	810	1500
Operating Temperature	(-20°C to +120°C for brief periods)			
Available Lengths	Any length ex-stock (up to 100 metres)			
Hose Structure				
Inner Tube	Polyamide 11/12	Polyamide 11/12	" "	" "
Integral Weave	Polyester Yarn	Kevlar Yarn	" "	" "
Outer Tube	Polyamide 11/12	Polyamide 11/12	" "	" "

Microbore Hose

Part Number	Lmm
S1X0-XX-XX-00.20	200
S1X0-XX-XX-00.40	400
S1X0-XX-XX-00.63	630
S1X0-XX-XX-00.80	800
S1X0-XX-XX-01.00	1000
S1X0-XX-XX-01.50	1500
S1X0-XX-XX-02.00	2000
S1X0-XX-XX-02.50	2500
S1X0-XX-XX-03.00	3000
S1X0-XX-XX-04.00	4000
S1X0-XX-XX-05.00	5000
S1X0-XX-XX-08.00	8000

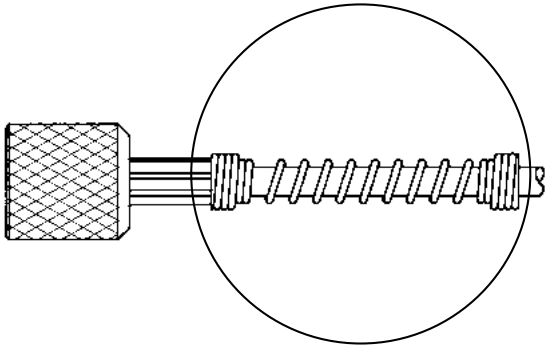
replace XX with code letters

Hose Accessories

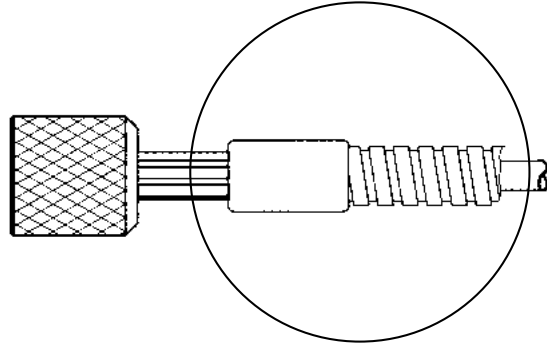
Anti-Buckle Springs

Useful for preventing hoses kinking and protecting against tight radii.

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Aluminium hose protection
Used along the entire length of a hose for protection against chafing



Hose options Part Number
Anti-buckle (per end)
Aluminium Protective sleeve (metre)

Stainless Steel Braided Hoses

Stainless steel wire-braided Microbore hose

Pirtek can now offer microbore hose with a stainless steel wire braid. With a large temperature range and rugged construction, this hose will stand up to the harshest of operating conditions. Suitable for most oils.



We can assemble to any length and hose end configuration from stock

Specifications

Internal Dia	2mm
External Diameter	5mm
Max Working Pressure	450bar
Min Bend Radius	13mm
Temperature range	-70°C to +260°C (pressure dependant over 130°C)

Ordering Table Part Number	Length (mm)
S190-XX-XX-00.20	200
S190-XX-XX-00.40	400
S190-XX-XX-00.63	630
S190-XX-XX-00.80	800
S190-XX-XX-01.00	1000
S190-XX-XX-01.50	1500
S190-XX-XX-02.00	2000
S190-XX-XX-02.50	2500
S190-XX-XX-03.00	3000
S190-XX-XX-04.00	4000
S190-XX-XX-05.00	5000

replace XX with code letters
from page 343

63mm Glycerine Filled

1/4" BSP bottom entry +/- 1.6 accuracy stainless steel case and brass internals

Pressure range	Part Number
0 - 1	PGBD-001
0 - 6	PGBD-006
0 - 10	PGBD-010
0 - 16	PGBD-016
0 - 25	PGBD-025
0 - 40	PGBD-040

Pressure range	Part Number
0 - 60	PGBD-060
0 - 100	PGBD-100
0 - 160	PGBD-160
0 - 250	PGBD-250
0 - 400	PGBD-400
0 - 700	PGBD-700

All gauges are dual psi / bar scales



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63mm Glycerine Filled

1/4" BSP rear entry +/- 1.6 accuracy stainless steel case and brass internals

Pressure range	Part Number
0 - 04	PGMD-004
0 - 10	PGMD-010
0 - 40	PGMD-040
0 - 60	PGMD-060
0 - 100	PGMD-100

Pressure range	Part Number
0 - 160	PGMD-160
0 - 250	PGMD-250
0 - 400	PGMD-400
0 - 600	PGMD-600

All gauges are dual psi / bar scales



100mm Glycerine Filled

3/8" - 1/2" BSP bottom entry +/- 1.6 accuracy stainless steel case and brass internals

Pressure range	Part Number
0 - 10	PGBD100-010
0 - 40	PGBD100-040
0 - 60	PGBD100-060
0 - 100	PGBD100-100
0 - 160	PGBD100-160

Pressure range	Part Number
0 - 250	PGBD100-250
0 - 400	PGBD100-400
0 - 600	PGBD100-600

All gauges are dual psi / bar scales



100mm Glycerine Filled

3/8" - 1/2" BSP rear entry +/- 1.6 accuracy stainless steel case and brass internals

Pressure range	Part Number
0 - 10	PGMD100-010
0 - 40	PGMD100-040
0 - 60	PGMD100-060
0 - 100	PGMD100-100
0 - 160	PGMD100-160

Pressure range	Part Number
0 - 250	PGMD100-250
0 - 400	PGMD100-400
0 - 600	PGMD100-600

All gauges are dual psi / bar scales



Digital Pressure Gauges

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The ideal low cost solution to digital pressure testing. With display of pressure and pressure peaks, digital pressure gauges offer excellent accuracy and peak capture which a standard pressure gauge simply could not provide. Min/Maximum values displayed with each test.

- > Great Accuracy
- > Easy to read
- > Rotate display
- > Easy to use
- > Peak min/max storage
- > Low cost

Display:	7-segment LCD-display, 12.7mm high, 9999 counts
Accuracy:	± 0.5% of F.S. Conversion rate: 5/sec
Measuring range:	0 to 60 bar or 0 to 600 bar
Overload limit:	60 bar = 2-fold, 600 bar = 1.1-fold
Pressure connection:	ISO 228-G 1/4
Wetted parts:	Stainless steel 1.4571
Power supply	9 V monoblock battery, 5000 h
Protection type:	IP 65 accord. to EN 60529/IEC 529
Case:	Plastic
Weight:	0.4 kg

Part Number	Pressure (bar)
PDPG-01	0-60
PDPG-02	0-600

Digital Pressure Gauge Kits



KIT CONTENTS

Digital gauge, case, microbore hose, six MINIMESS® test points of various sizes, transducer adaptor for test points.

Part Number	Pressure (bar)
PDTK-01	0-60
PDTK-02	0-600

Test kits made from a selection of items from the **MINIMESS®** 1620 series. Pirtek sells standard BSP test kits with 1/4", 3/8" and 1/2" adaptors, 2 gauges, microbore etc (shown right).

Alternatively, you can order a test kit to suit your application. OEM enquiries are welcome for volume applications e.g. Service Engineers or as a recommended spare to purchase with a piece of equipment.

Low cost test kit:

- Ultra-competitively priced
- Ideal for OEM's
- Life time leak free guarantee
- Everything you need to get two pressure readings
- BSP thread adaptors

Part Number

PTK-07



BSP Test Kit

- Still our most popular and best value kit
- In-line tees offer excellent versatility
- Break into the system quickly and simply with in-line tees
- BSP thread adaptors

Part Number

PTK-01



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BSP Style Test Kit

- Compatible with most mobile plant
- Connect and disconnect under full system pressure
- All the necessary in-line Tees, adaptors and fittings to get 2 x pressure readings from your equipment. (extra gauges on request)
- A must have kit for any Service Engineer working on mobile plant and machinery
- BSP thread adaptors

Part Number

PTK-05



JIC Style Test Kit

- Compatible with most mobile plant machines
- Connect and disconnect under full system pressure
- All the necessary in-line Tees, adaptors and fittings to get 2 x pressure readings from your plant machine. (extra gauges on request)
- A must have kit for any Service Engineer working on plant machinery
- JIC thread adaptors

Part Number

PTK-04

Universal Test Kit

- Will allow for pressure testing from any machine, no matter what style of test point is fitted
- Contains adaptors to 1215,1615,1620, HSP and Steck (Test10) formats
- BSP thread adaptors
- Inter-changes with all competitor test point versions
- A must have for every mobile service engineer



Part Number

PTK-02

Oil Sample Kit

- MINIMESS® Test points remain the best way to extract oil samples from the system
- Pre-paid sample bottle and report card supplied in kit
- BSP thread adaptors
- All the necessary adaptors and hoses to take fluid samples provided
- Ask us about our Full Oil Analysis service



Part Number

PTK-061.
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Hand Held Test Equipment

Hydraulic Test & Data-logging Solutions for all Budgets

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The excellent Hydrocomsys hydraulic analysis software is common across the entire hand held product range. This is a powerful, windows based programme, capable of advanced analysis of hydraulic system performance. It is shipped FREE with all hand held units with memory capability.

Today's hydraulics industry is becoming increasingly aware of the vast savings that can be made with a structured and proactive maintenance programme system. Not only in terms of reduced downtime, but component replacement and unnecessary system strain can be kept in check with the correct diagnostic equipment. With the wide range of instrumentation and sensors available from Pirtek, we can offer you the perfect test solution to suit your budget. High scanning rates, excellent accuracy and proven reliability make this test equipment the natural choice within the industry.

All of the hand held instruments within our range are compatible with the HydroWin software package. HydroWin allows for detailed zoom, spot, overlay and archive creation features. This is undoubtedly one of the most powerful hydraulic diagnostic software packages available today. The combination of accurate instrumentation and powerful software are proving to be invaluable tools to R&D and Service engineers in the quest for greater component efficiency and overall system performance.

Product range overview								
Instrument	channels	analogue	frequency	memory size	USB / RS232	graphic display	ISDS	
2040	2	2	0	-	- / -	-	-	-
2042	2	2	0	-	- / √	-	√	-
2045	2	2	0	30,000	- / √	-	-	-
3010	3	2	1	115,000	√ / √	-	√	-
3050	4	3	1	450,000	√ / √	-	√	-
5050	6	4	2	500,000	√ / √	√	√	-
8050	32	10	4	64Mb	√ / √	√	√	-

NOTE: ANALOGUE CHANNELS CAN BE CONFIGURED AS PRESSURE, TEMPERATURE, FLOW, VOLTAGE, CURRENT ETC. ISDS IS OUR INTELLIGENT SENSOR DETECTION SYSTEM WHERE CALIBRATION INFORMATION IS AUTOMATICALLY TRANSFERRED TO THE INSTRUMENT. FREQUENCY CHANNELS CAN BE CONFIGURED AS EITHER FLOW OR RPM TO READ WITH A DIGITAL SQUAREWAVE TRANSDUCER OUTPUT. UNITS WITH MEMORY WORK WITH HYDROWIN SOFTWARE SUPPLIED FOC WITH ALL INSTRUMENTS.

The entry level 2040 is the ideal unit for production line testing or for the service engineer where a straight forward test is required with peak storage.

The new 2042 instrument has all the same features of the 2040 but with the addition of an on-line memory transfer facility. This allows users to log data directly to their PC and analyse with the Hydrowin software.

The 2045 is an amazing instrument for test, service or R&D engineers. With direct printing and PC connectivity & download, the 2045 is bundled with the powerful Hydrocomsys software.

All units have a 2 line display or 1 line double sized, industry standard 4–20 mA inputs, rugged aluminium case and 7 hours battery life from a single charge.



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2040 / 2042 (with ISDS and RS232) 2045

Features	2 channels configured as: 2 x P (Pressure) 1 x P (Differential Pressure) 1 x P and any of the following: 1 x Q (flow) or 1 x N (RPM) or 1 x T (Temperature)
Peaks	Both channels – 1mS
Case	Rugged aluminium

Features	As 2040 plus:
Memory	2 channel; 15,000 readings Scanning rate from 1mS
Printing	A4 direct print in colour/b&w
RS232	Download results to PC and analyse results via powerful HydroComsys software

Portable hydraulic test kits. Consists of 2 channel hand-held digital measuring unit, (2040, 2042 or 2045) battery charger, 1 or 2 pressure transducers, connection cables, gauge adaptors and instruction disc (with software for 2042 / 2045 models) all supplied in hard wearing ABS carry case.

2040 / 2042 / 2045 Portable Test Kits

Part Number	Contents
3160-00-25.00K1	2040 kit 1 PTD
3160-00-25.00K2	2040 kit 2 PTD
3160-00-68.00K1	2042 kit 1 PTD
3160-00-68.00K2	2042 kit 2 PTD
3160-00-25.50K1	2045 kit 1 PTD
3160-00-25.50K2	2045 kit 2 PTD

PTD = Pressure transducer

3010 / 3050 / 5050 Portable Test & Data Log



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The All New Multi System 3010 & 3050

The Multi System 3050 is the little brother to the 5050 unit, packed with the same useful functions as the top end unit but with a 4 channel input and a 450,000, 14 test memory capacity. This unit also features a backlit display. As with the 5050 this unit is ISDS compatible which means that all the calibration data is sent automatically by the sensor to the unit when it is connected, saving time and eliminating the chance of any programming error.

3010

Features

3 Channels: 2 Analogue
1 Frequency

ISDS compatible
8 line backlit display
Battery level indicator
Alphanumeric keypad
115,000 value memory
5 test locations
Real time clock
User friendly menu operation
Centronics, RS232 and USB interfaces
Graphical or tabular printout
Storage of text with each test
Min/max values

3050

Features

4 Channels: 3 Analogue
1 Frequency

ISDS compatible
8 line backlit display
Battery level indicator
Alphanumeric keypad
450,000 value memory
14 test locations
Real time clock
User friendly menu operation
Centronics, RS232 and USB interfaces
Graphical or tabular printout
Storage of text with each test
Min/max values

The Market Leading Multi System 5050

The Multi System 5050 is the most advanced hand-held test and data acquisition instrument on the market. It is purpose built for the hydraulics industry and loaded with features specifically designed to capture key events. With the Multi System 5050 you can print directly to any A4 printer in colour with full zoom capabilities. Alternatively, you can transfer tests to HydroComsys software for further analysis.

The large 16 line LCD screen displays the information clearly and accurately, while the alphanumeric keypad allows the input of text with each test taken. Improved trigger functions and a switch output, increased memory (500,000 values, 36 tests), and on-line graphical monitoring make the 5050 the new benchmark in hydraulic data logging.

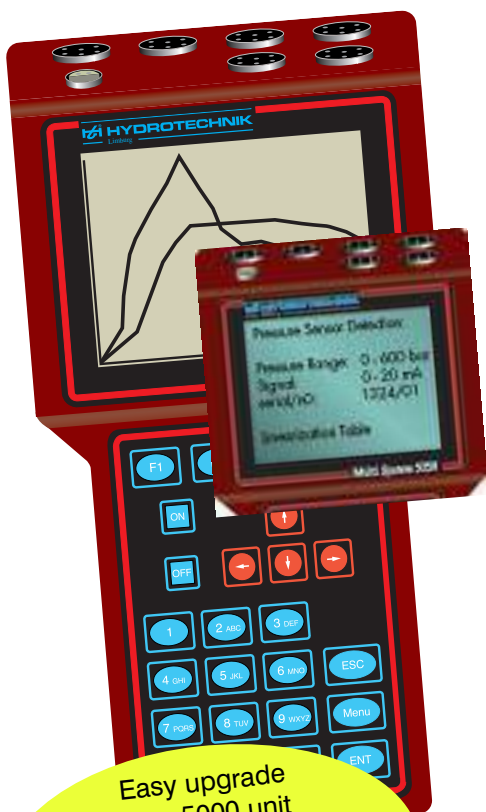
5050

6 Channels: 4 Analogue
2 Frequency

ISDS compatible
16 line LCD screen
Alphanumeric keypad
500,000 value memory capacity
Real time clock
Graphical, tabular and text display of result
Min/max values
Battery level indicator
User friendly "menu" operation
Centronics, RS232 and USB interfaces

**3010 / 3050 5050
Portable Test Kits**

Part Number	Contents
3160-00-67.00K1	3010 kit 1 PTD
3160-00-67.00K2	3010 kit 2 PTD
3160-00-63.00K1	3050 kit 1 PTD
3160-00-63.00K2	3050 kit 2 PTD
3160-00-62.00	5050



Easy upgrade from 5000 unit
In keeping with our expandability and upgrade policy we offer generous trade in terms against 5000 models

- Designed with test house and R&D applications in mind. The 8050 is the ultimate tool for test bench and end of line testing
- With advanced touch screen technology, this 32 channel data acquisition unit can also be integrated with users existing CAN-BUS system
- Up to three 8050 units can be connected in series
- New PAGES/PASS software package that enables the user to design and run bespoke test procedures for end of line testing.
- 10 analogue input channels for 0-20mA, 4-20mA and ± 10 VDC signals, 4 frequency input channels, one with the ability to be used as a high speed digital counter, 2 inputs for current and voltage measurement, 2 analogue outputs (0-20mA), 4 digital outputs, 4 digital inputs for external control of the unit and 6 virtual channels for user programmable calculations of sum, difference, power etc. Standard memory of the unit is 64MB and will hold up to 200 measurements series. PC connection is by USB for test analysis in the powerful Hydrocomsys / Win 32 software and there are also options for remote control by Ethernet or modem.



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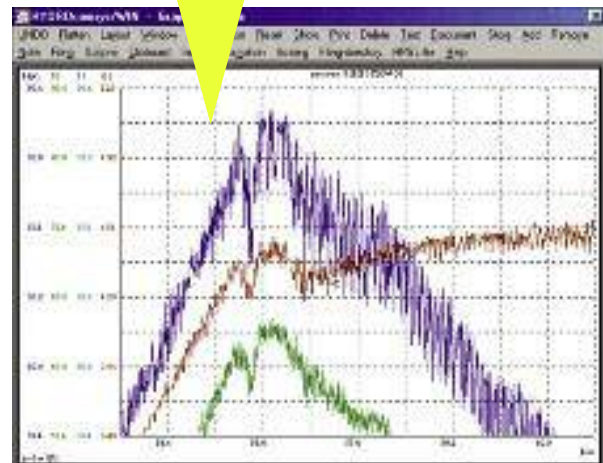
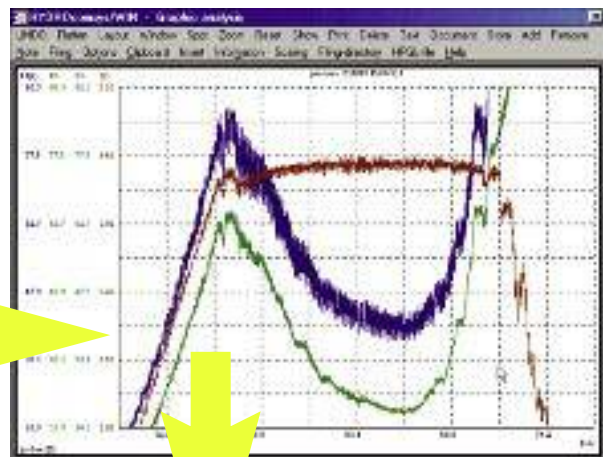
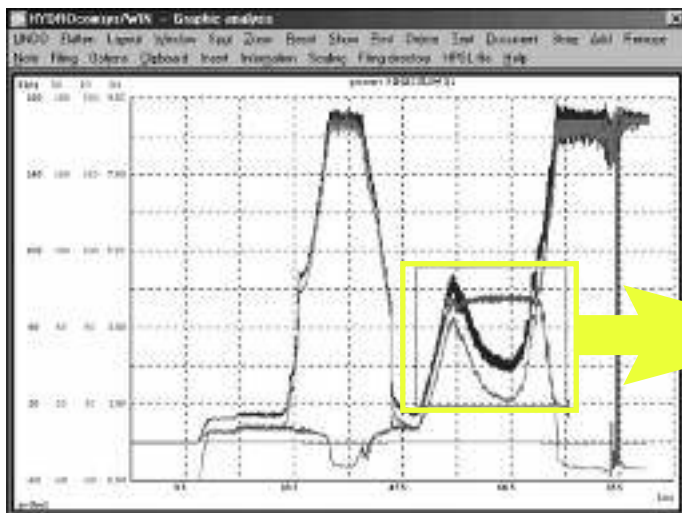
8050 Data Logger

Part Number	Contents
3160-00-65.00	8050

Hydrowin Software

All of the hand held instruments within our range with memory capability are compatible with the HydroWin software package. HydroWin allows for detailed zoom, spot, overlay and archive creation features. This is undoubtedly one of the most powerful hydraulic diagnostic software

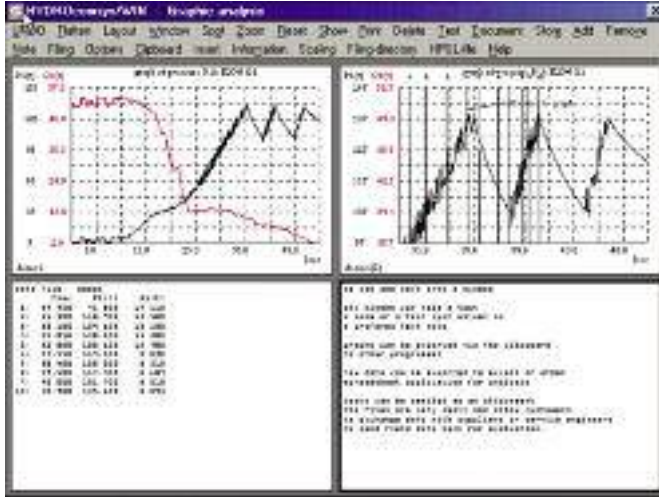
packages available today. The combination of accurate instrumentation and powerful software are proving to be invaluable tools to R&D and Service engineers in the quest for greater component efficiency and overall system performance.



FEATURE OVERVIEW:

- Multiple Zoom by mouse click
- Spot function allows pinpoint analysis and peak value check
- Overlay 1 test with another to check performances
- Remove the time element to plot one factor against another
- Add photographs to reports (eg. warranty claims)
- Files are small enough to be emailed back to base for analysis
- Screen can be split to show multiple graphs or test / spot value data

Hydrowin Software - continued



Hydrowin allows you to create multiple screen shots of the same data or different graphs all in one report page. This may be exported to other programmes such as Word or Excel.

Excellent for creating archive reports of field tests, end of production test records, warranty claims etc the Hydrowin software is a valuable tool and is shipped FREE with all hand held test equipment with memory capability

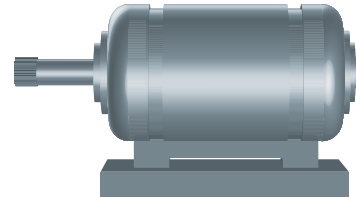
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Test Equipment Accessories



3969-04-01.00TP
Temperature sensor for use with 2040/45 units. -50-200°C range. Supplied with mounting test point with 1/4" BSP (M) thread.

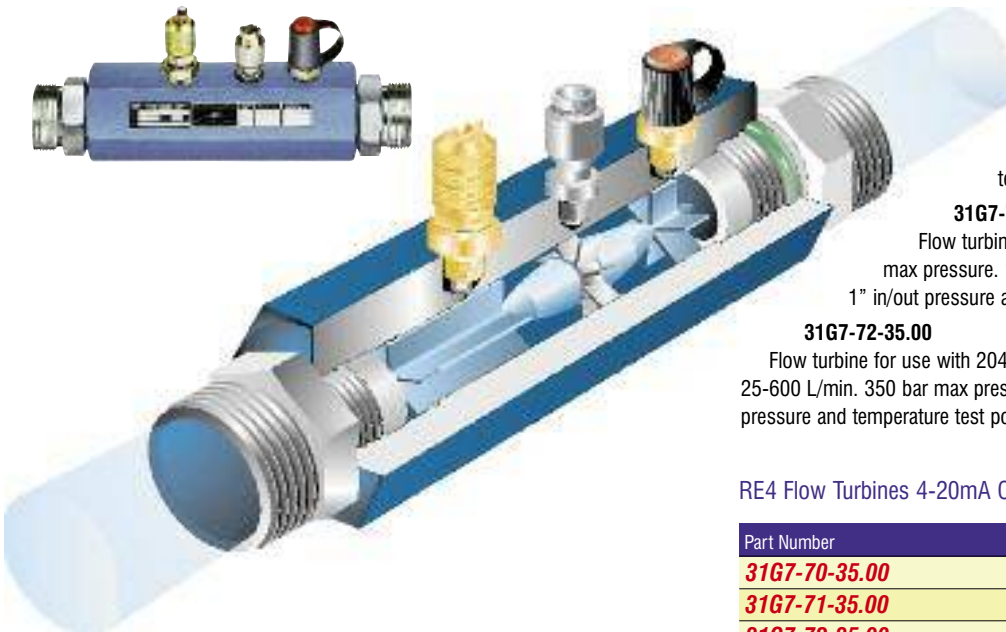
3130-06-01.00
Infra-red RPM sensor for use with the 2040/45 units. Supplied with self adhesive reflective foils.



Temp and RPM Probes

Part Number	Type
3969-04-01.00TP	temp
3130-06-01.00	rpm

RE4 Flow Turbines



31G7-70-35.00
Flow turbine for use with 2040/45 unit. 7.5-75 L/min. 400 bar max pressure. 120°C max temperature. 3/4" in/out pressure and temperature test points fitted.

31G7-71-35.00
Flow turbine for use with 2040/45 unit. 15-300 L/min. 400 bar max pressure. 120°C max temperature. 1" in/out pressure and temperature test points fitted.

31G7-72-35.00
Flow turbine for use with 2040/45 unit. 25-600 L/min. 350 bar max pressure. 120°C max temperature. 1.1/4" in/out pressure and temperature test points fitted.

RE4 Flow Turbines 4-20mA Output

Part Number
31G7-70-35.00
31G7-71-35.00
31G7-72-35.00

The Pirtek range of pressure transducers feature an all stainless steel construction, industry standard outputs and a high degree of accuracy. Below are listed our 4 most common ranges, other ranges outputs etc are available on request.

3403-32-C3.37

Stainless steel pressure transducer. -1 to +6 bar range. 1/4" BSP (M) pressure connection. 2 wire 4-20mA output.

3403-21-C3.37

Stainless steel pressure transducer. 0-60 bar range. 1/4" BSP (M) pressure connection. 2 wire 4-20mA output.

3403-10-C3.37

Stainless steel pressure transducer. 0-200 bar range. 1/4" BSP (M) pressure connection. 2 wire 4-20mA output.

3403-15-C3.37

Stainless steel pressure transducer. 0-400 bar range. 1/4" BSP (M) pressure connection. 2 wire 4-20mA output.

3403-18-C3.37

Stainless steel pressure transducer. 0-600 bar range. 1/4" BSP (M) pressure connection. 2 wire 4-20mA output.



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Pressure Transducers

Part Number	Range (bar)
3403-32-C3.37	-1 to +6
3403-21-C3.37	0-60
3403-10-C3.37	0-200
3403-15-C3.37	0-400
3403-18-C3.37	0-600

We can offer higher pressure ranges if required

Re-Calibration service available.
Special requirements
Call us now!

Hydra-Pro PTQ Tester

HT.702.S.030.TKV

Portable hydraulic test unit. 3/4" BSP (F) connections. Mechanical measurement of pressure (0-400 bar), temperature (0-120°C) and flow (10-110 L/min). Stainless steel construction with barrel type loading valve and internal safety blow out discs (400 bar). Supplied in hard wearing ABS carry case.

HT.762.S.050.TKV

Portable hydraulic test unit. 1" BSP (F) connections. Mechanical measurement of pressure (0-400 bar), temperature (0-120°C) and flow (19-190 L/min). Stainless steel construction with barrel type loading valve and internal safety blow out discs (400 bar). Supplied in hard wearing ABS carry case.



Hydra-Pro

Part Number	Range
HT.702.S.030.TKV	10-110L/min
HT.762.S.050.TKV	19-190L/min

Flow Meters for Industry and Related Instrumentation

Variable area low cost flow meters	0.1 to 560 L/min
DM100 Fuel Flow meters	10 to 110 L/min
Stainless Steel flow turbines	1.2 to 9,000 L/min
K Series low cost Positive displacement flow meters	5 to 150 L/min
Macnaught Positive displacement flow meters	0.5 to 1,200 L/min
Panel mounted displays and special order process/control displays	



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Low Cost Variable Area Flow Meters

Low cost in-line flow meter that provides a mechanical indication of flow rate.

Maximum pressure:

Aluminium	240bar (3500psi)
Brass	240bar (3500psi)
Stainless	< 3/4" 414bar (6000psi) > 3/4" 414bar (5000psi)
Maximum	116°C.
Accuracy	±2% of full scale.
Repeatability	±1%



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Part Number Oil Duty	Part Number Water Duty	Port Size BSP (F)	Flow Range L/Min
HT202X002	HT206X002	1/4"	0.1 – 0.75
HT202X005	HT206X005	1/4"	0.2 – 1.9
HT202X010	HT206X010	1/4"	0.5 – 3.75
HT202X020	HT206X020	1/4"	1 – 7.5
HT602X001	HT606X001	1/2"	0.5 – 3.75
HT602X002	HT606X002	1/2"	1 – 7.5
HT602X005	HT606X005	1/2"	2 – 19
HT602X010	HT606X010	1/2"	5 – 38
HT602X015	HT606X015	1/2"	4 – 56
HT702X002	HT706X002	3/4"	1 – 7.5
HT702X005	HT706X005	3/4"	2 – 19
HT702X010	HT706X010	3/4"	5 – 38
HT702X020	HT706X020	3/4"	10 – 76
HT702X030	HT706X030	3/4"	10 – 115
HT762X002	HT756X002	1"	1 – 7.5
HT762X005	HT756X005	1"	2 – 19
HT762X010	HT756X010	1"	5 – 38
HT762X020	HT756X020	1"	10 – 76
HT762X030	HT756X030	1"	10 – 115
HT762X040	HT756X040	1"	15 – 150
HT762X050	HT756X050	1"	20 – 190
HT802X030	HT806X030	1 1/4"	10 – 110
HT802X050	HT806X050	1 1/4"	20 – 190
HT802X075	HT806X075	1 1/4"	40 – 280
HT802X100	HT806X100	1 1/4"	50 – 380
HT802X150	HT806X150	1 1/4"	50 – 560

Flow Meters

DM100 Fuel Flow meter

Suitable for diesel, kerosene and petrol, the DM100 is specifically designed for the accurate measurement of fuels in non-resale applications. Manufactured from corrosion resistant materials the DM100 features an easy-to-read mechanical register.



Meter Features:

Measures diesel, kerosene and petrol

Oval gear design

Low pressure drop allows for gravity and pump (in-line) applications

Register cap can be easily removed and rotated in 90 degree steps

Resettable and non-resettable totalisers

Supplied with a wire mesh strainer (2mm hole size)

5 year warranty (conditions apply)

10 year guaranteed parts availability

Meter Specifications

Wetted components aluminium, zinc plated carbon steel, nitrile, viton

Accuracy +/- 1% of reading

Flow range 3 - 80 litres (0.8 - 21 US gal) per min

Max. pressure 10 BAR/145psi

Register/totaliser 0 – 999,999 litres/US gal

Register/reset 0 – 999.9 litres/US gal

Max. temp 80 degrees C (176 degrees F)

Inlet/outlet thread 1" BSP (F) (NPTF option available)

Dimensions 134mm (w) x 118mm (h) x 121mm (d)

Weight 1.2kg

DM100 Flow Meter

Part Number	Range
DM100	10-110L/min

Stainless Steel RN3/4/7 Turbine Flowmeter

These Turbines may be used on liquids such as water, light oils, solvents and low viscosity chemicals. Suitable for batching, flowrate monitoring and process controlling they are designed to work with a variety on LCD displays or programmable controllers. Sub Sea versions are available on request.

The Turbines are made entirely of 316 stainless and the rotors are machined from solid, making them almost indestructible. Sleeve bearings provide reliable performance with longevity.

All RN series turbines are CE marked under the Pressure Equipment Directive. They are all calibrated on water and are traceable to national standards.

Maximum pressure and temperature ratings are subject to the fluid specification, please call to confirm before ordering.

RN3 BSP (M)

Max Pressure 35 Bar

Max Temperature 110°C

Part Code	Pipe Size	Flow Range L/min
RN3/15/1	3/8"	1.2 – 10
RN3/15/2	1/2"	2 – 20
RN3/20/5	3/4"	5 – 50
RN3/20/8	3/4"	8 – 80
RN3/25/15	1"	15 – 150
RN3/25	1"	25 – 250
RN3/32	1.1/4"	45 – 450
RN3/40	1.1/2"	67 – 670
RN3/50	2"	110 – 1100
RN3/65	2.1/2"	225 – 2250



Rn4 Flanged Connections

(Ansi 150 / Pn16) Call For Other Flange Types

Max Pressure As Per Flange Type call For Atex Versions

Max Temperature 110°C

Part Code	Pipe Size	Flow Range L/MIN
RN4/15/1-X	3/8"	1.2 – 10
RN4/15/2-X	1/2"	2 – 20
RN4/20/5-X	3/4"	5 – 50
RN4/20/8-X	3/4"	8 – 80
RN4/25/15-X	1"	15 – 150
RN4/25-X	1"	25 – 250
RN4/32-X	1.1/4"	45 – 450
RN4/40-X	1.1/2"	67 – 670
RN4/50-X	2"	110 – 1100
RN4/80-X	3"	225 – 2250
RN4/100-X	4"	450 – 4500
RN4/150-X	6"	900 – 9000



For flange types replace x with

- B = ANSI 150 - N = ND 16 - I = ANSI 600 - K = ANSI 1500 - C = ANSI 300 - J = ANSI 900

Flow Meters PD Type

This range of positive displacement flowmeters use the well proven oval rotor design to accurately measure fluids of any viscosity. Available with pulsed, LCD or mechanical outputs, and in a variety of materials. If the meter type you require is not listed below please call your local Pirtek centre

**Flow ranges from 0.5 to 72,000 L/hour
(0.008 to 1,200 L/min)**



M1 / M2 Pulsar



M50 / M80 LCD



M4 / Pulsar



M7 Pulsar



M4 / M10 Mechanical



M80 Pulsar



M4 / M10 Mechanical Flanged



M40 / M50 Pulsar

Part Number	Pipe size	Material	Flow range	Pressure	Temperature	Output
M1ASP-1R	1/4"	Aluminium	2...100 L/hr	5 bar max	80°C max	Pulse
M2SSP-1R	1/4"	Stainless Steel	15...500 l/hr	10 bar max	120°C max	Pulse
M4ARM-1	1/2"	Aluminium	2...30 L/min	34 bar max	80°C max	Mechanical
M7RRG-1	1"	PPS Plastic	3...80 L/min	10 bar max	80°C max	LCD
M10ARM-1	1"	Aluminium	6...120 L/min	34 bar max	80°C max	Mechanical
M10SSP-1	1"	Stainless Steel	6...120 L/min	55 bar max	120°C max	Pulse
M40ARP-1	1 1/2"	Aluminium	10...250 L/min	18 bar max	80°C max	Pulse
M50ARM-1	2"	Aluminium	15...350 L/min	18 bar max	80°C max	Mechanical

TC67-C.CC.DC

Panel mounted, 4 digit process indicator. 4-20mA input. 90-250 VAC/DC supply. X2 programmable relay outputs (3A/250V max switch). 96mm x 48mm panel size. IP54/20 protection.

TC67-C.CC.DB

Panel mounted, 4 digit process indicator 0-20mA input. 90-250 VAC/DC supply. X2 programmable relay outputs (3A/250V max switch). 96mm x 48mm panel size. IP54/20 protection.

TC67-C.CC.DK

Panel mounted, 4 digit process indicator. 0-10 VDC input. 90-250 VAC/DC supply. X2 programmable relay outputs (3A/250V max switch). 96mm x 48mm panel size. IP54/20 protection.

TC67-P.CC.DC

Panel mounted, 4 digit process indicator. 4-20mA input. 12-24 VDC supply. X2 programmable relay outputs (3A/250V max switch). 96mm x 48mm panel size. IP54/20 protection.

TC67-P.CC.DB

Panel mounted, 4 digit process indicator. 0-20mA input. 12-24 VDC supply. X2 programmable relay outputs (3A/250V max switch). 96mm x 48mm panel size. IP54/20 protection.

TC67-P.CC.DK

Panel mounted, 4 digit process indicator. 0-10 VDC input. 12-24 VDC supply. X2 programmable relay outputs (3A/250V max switch). 96mm x 48mm panel size. IP54/20 protection.



TC67 display

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Panel Mounted Displays

Part Number
TC67-C.CC.DC
TC67-C.CC.DB
TC67-C.CC.DK
TC67-P.CC.DC
TC67-P.CC.DB

Portable Filtration: Sentry / SFC2000 / SFC3000

SFC 2/3000
18 or 45 L/min 9" or 14" RLT
2000 = single 3000 = duplex
(pictured)

Sentry
18..30 L/min
(adjustable) 6"
SRLT

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Part Number	Size L/min
SFC-SEN	18 to 30
SFC2000	18 or 45
SFC3000	18 or 45 duplex

Pirtek low cost, rugged filtration carts designed for constant industrial or intermittent oil transfer use. Low noise motors, high capacity and flexible filter element selection, as well as easy element changeover are just a few of the design advantages.

- Off-line contamination control
- Replenishing systems with filtered oil
- Emptying waste oil quickly
- End of production line flushing
- Transfer and filtration of diesel fuel (Sentry unit only)

MAIN FEATURES:

- 1.0, 3.0, 5, 10, 15, 25, 60, 100, 150 micron elements
- Water removal element option
- 18 or 45 L/min flow rates
- 5.0m of suction / return hoses
- Strainer for internal pump protection
- 240 or 110 VAC options
- High dirt holding capacity elements
- Easy element changeover and disposal due to cartridge element design

Part Number	Micron rating at Beta 200	Cleans to ISO level	Dirholding Capacity
6RZ3	3	14/12/9	15
6RZ5	5	15/13/10	12
6RZ10	10	18/16/13	14
6RZ25	25	19/17/14	25

All Z media elements suitable for use with diesel.

Part Number	Micron Rating at Beta 200	Cleans to ISO Level	Dirt Holding Capacity (g)
9VZ1	1	13/11/8	55g
9VZ3	3	14/12/9	57g
9VZ5	5	15/13/10	45g
9VZ10	10	18/16/13	52g
9VZ25	25	19/17/14	48g
9VW	30	18/16/13	250ml*

*Water removal element on 18L/min unit only

SPECIFICATIONS:

ELECTRIC MOTOR

- 110 and 240 VAC
- Kws: 0.18
- Amps: 5.2 (110VAC) and 2.3 (240VAC)
- RPM: 1425
- Protection: IP55

PUMP PERFORMANCE

- Flow rate through high-performance filters: ± 10 L/min
- Flow rate through SRLT Transfer filter: ± 15 L/min
- Pump suction lift: self priming to 5.5 meters

FILTRATION EFFICIENCY

- Super Duty Filter Cartridges achieve ISO 14/12/9 (NAS Class 5)
- SRLT Transfer filter achieves up to ISO 13/11/8 (NAS Class 2)
- Particulate removal: Up to 2500 g of dirt per cartridge
- Water removal: ± 800 ml of water per cartridge

RIG DIMENSIONS

- Length: 576mm
- Width: 576 mm
- Height: 550 mm
- Rig weight: 45 Kg

ACCESSORIES

- 6 metres of reinforced $\frac{3}{4}$ " hose with quick-release couplings

IFC 6000
8 or 11 litres/min.
Water and particulate
cleanup



Now fitted with water meter and PC9000 as standard!



IFC6000

Part Number	Description
IFC6000	Filter trolley water/particulate
SDFC	Replacement element

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Pot Filters for Water and Particulate

6 pot trolley design



Units are available for hire. Please call your local Pirtek centre for details

IHG can offer a wide range of Water/particulate removal filter rigs from simple 1 pot fixed units up to large 6 pot mobile or fixed units. If it is only to help extend the length of time you need to drain your gearbox oil or an urgent need to clean up your 3000 ltr dirty or emulsified hydraulic system, Pirtek can offer a rig for your application.

IHG offer fixed or mobile 1,2,4 or 6 pot units with the dirt and water holding capacities listed below. The units have a simple "in/out" design with pressure compensating flow control valves (where needed) as well as units with filter clogging alarms – all to make installing and using whichever unit you choose as easy as possible.



Twin pot fixed design

Pirtek's Super Duty Filter Cartridge (SDFC) is designed to simultaneously remove both water and particulate from a wide range of Oils. SDFC cartridges filter oil down to 14/9 or better (ISO4406) and will not affect the additive package of your oil. Each cartridge will remove approx 2.2kg dirt / 0.75ltr water and is made from combustible materials for easy disposal. Pirtek also offer a cartridge designed for use with Water based Oils e.g Glycols (SDFC-P).

Note: Coming soon: super water element removal cartridges with extended water removal capabilities, please call for details



Fixed Filter Units Part Number	Description	Flow Range L/hour	Water Removal L/changeout	Dirt Holding Kg/changeout
FT-SDU-8	Fixed 1 pot super duty unit, flow restrictor, 8 bar	300	0.75	2.2
FT-SDU-H350	Fixed 1 pot super duty unit, flow restrictor, 350 bar	300	0.75	2.2
FT-SDU-350-RK	Fixed 2 pot super duty unit, flow restrictor, 350 bar	600	1.5	4.4
FT-350CL-12	Fixed 4 pot super duty unit, flow restrictor, 350 bar	1200	3.0	8.8

Mobile oil Filtration Rigs (available as 240 or 110 Volts)				
FT-7000	Mobile 4 pot off line with standard electric control	1200	3.0	8.8
FT-7000LX	Mobile 4 pot off line with Filter clog alarms	1200	3.0	8.8
FT-8000	Mobile 6 pot off line with standard electric control	1500	4.5	13.2
FT-8000LX	Mobile 6 pot off line with Filter clog alarms	1500	4.5	13.2

Spare Elements				
SDFC	Super Duty Cartridges		0.75	2.2
SDFC-P	Super Duty Cartridges for water glycol applications		0.75	2.2

Hot Oil Flushing Unit: OTS : 50.6.ACMU

The unit is driven by a 380V, 16A electric motor. The unit transfers the oil automatically in the system periodically, controlled by a timer which allows for a PULSATION effect in the pipe system. The accumulator pressure (pulsation effect) is adjustable through a sensitive switch from 0-200 bar. The unit can operate with pipe dimensions from 3/8" to 1 1/4", and achieve system / product cleanliness better than ISO4406 Class 14/11 or NAS 1638 Class 5.

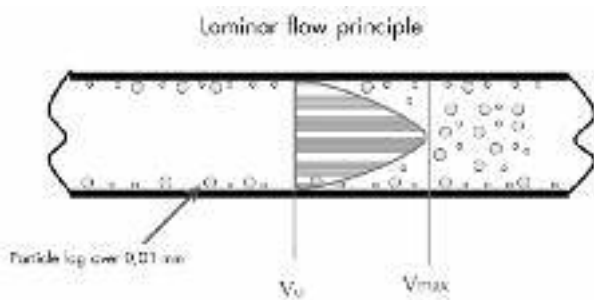


Units are available for hire. Please call your local Pirtek centre for details



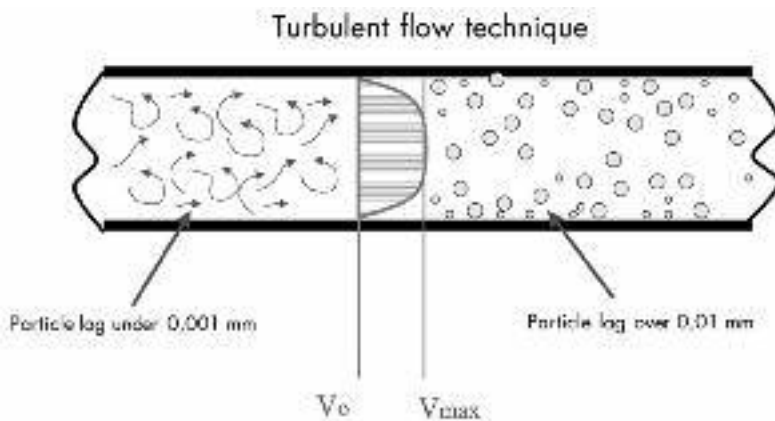
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Laminar Flow – Not Effective



Laminar flow is not effective in the flushing process and results in contaminant and particulate clinging to the inner-bore

Turbulent Flow – Totally Effective



Turbulent flow is effective in removing particulate and contaminant from the inner bore.

PC9000 Particle Counter

Gives you accurate on-line condition monitoring results you can trust!



Perfect for proactive maintenance and on-line monitoring, the PC9000 is a continuous particle counter with instant LED readout, computer interface and trending software. It is simple to use, low cost and can be used as an alarm to notify you of any changes in contamination levels. It is also ideal for plotting ISO cleanliness trends. Accuracy is +/- half an ISO code.

- > RS232/RS485/ analogue outputs for trend monitoring
- > GSM text module allows live alarms to be sent to mobile phones
- > Accurate ISO 4406:1999 4/6/14 micron (c) counting
- > Up to 500 bar pressure
- > Takes live oil feed so true dynamic particle counting achieved
- > Instantly spot contamination level increases before any long term system damage is caused

APPLICATIONS:

- Any hydraulic or lubrication plant where a rise in contamination will lead to expensive downtime
- Production line testing

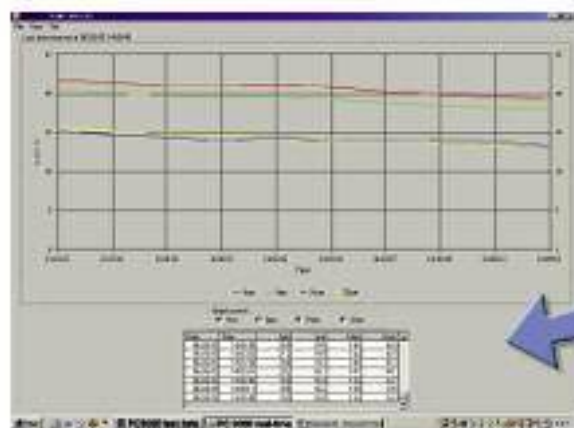
EARLY WARNING SIGN FOR:

- Rise in contamination
- Component wear
- Filter and seal failure
- Water ingress
- Oil oxidation
- Cavitation

Part Number

PC9000

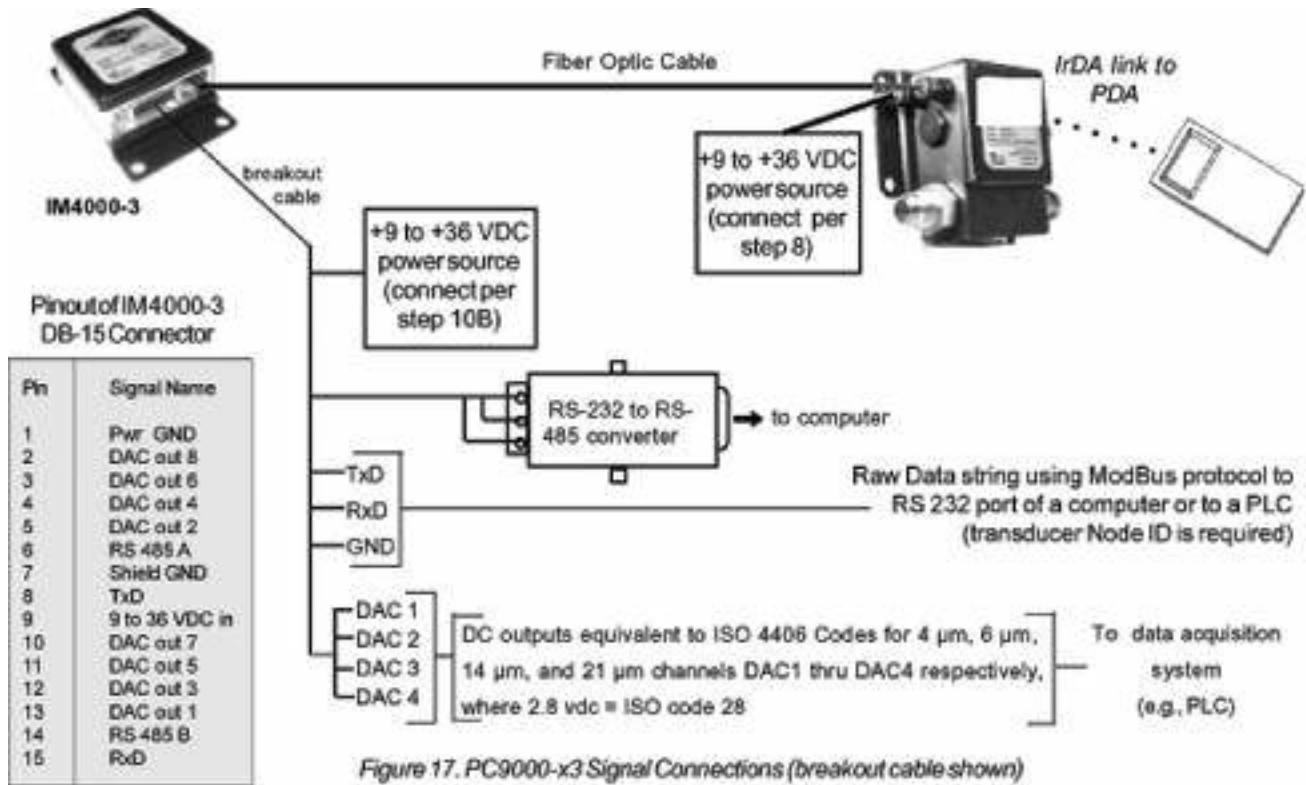
Now available with NAS / SAE display if required, please advise at time of order



All PC9000 units link to excellent on-line trending software to keep you in control. Software is supplied with each PC9000 unit, regardless of how the PC9000 is applied.

PC9000 Options IM4000-3 (Data Converter)

The IM4000-3 receives raw signal data from the PC9000 transducer through a fibre optic cable. This data string is analysed and converted into 0 – 5 VDC analogue output voltages proportional to ISO codes, and also into ModBus ASCII device protocol for interface to a PLC or computer via RS485 and RS232 serial. All signal outputs are connected to the IM4000-3 through the 15 pin D connector.



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Part Number

IM4000-3

PC9000 GSM Telemetry

GSM Text Alert monitor for PC9000
 The GSM Text Alert Monitor is an add on module that can send text information to a mobile phone or by e-mail to your computer. It is ideal for monitoring remote systems or for keeping busy maintenance staff informed of contamination problems before catastrophic failures occur. Alarms can be either pre-set or modified by the user, putting you in control of your equipment.



Part Number

PC9000 Telemetry

Oil Analysis Service



The analysis service enables customers to take their own fluid samples using bottles pre-cleaned to ISO 3722 standards, and post them off in a bottle (pre-labelled bottle and box provided). The customer fills in a form giving facts such as machine identification, serial number, fluid type etc, so as to help build a historical database of cleanliness for the same machine. Results are then e-mailed back to the customer in 2-3 working days in a pdf format. Alternatively, results may be posted by Royal Mail or accessed via the web. Results sheets show the latest ISO 4406: 1999 4/6/14 micron (c) coding (e.g. 18/14/11) using APC equipment calibrated in accordance with ISO 11171. The reports also give valuable information on the condition of the oil e.g. water contamination, metal content etc. Subsequent reports for the same machine build up a monitoring history and these are displayed graphically over time, thus providing a trend analysis.

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Make:	Model:	Serial No.: OFFLOADER	System: HYDRAULIC
Sample No.: 180050	Job No.:	Standard:	Received: 12/5/02
Machine No.: M1 0200	Form No.:	Oil Type: M1 0200	Notes: NOT OPEN

Observation:
OIL APPEARS SATISFACTORY. NO SIGNIFICANT CONTAMINATION. ADVISE MONITOR AT THE RECOMMENDED SAMPLING PERIOD.

An. No.	Sample Date	Oil Condition													Applied Elements ppm							
		Visc	Acid	Water	Al	Fe	Si	Ca	Na	SO4	Initial	TAN	DL	TBN	PCPN	ISO	Ca	Co	Mg	P	Zn	
1	Not Given	32	28	0.02	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

An. No.	Sample Date	Elemental Analysis - Concentration & Wet Metals ppm																		
		B	Na	Si	K	Li	Al	Cr	Co	Fe	Pb	Sr	Mn	P	Ti	Ag	Mg	V	Oil	Oil
1	Not Given	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

ISO Cleanliness Code - ISO 4406	Ref: Normal Caution Failure
Code: 18/14/11	
Counts/100ml: 1800 1400 1100	

Particle Count

Aluminum

Iron

Water

FAO Joe Bloggs
100 Street Road
Townsville
Countyshire
AB12 3CD

Signed: B Penn
Ref: 1234567890
Date: 12/3/2004



Oil Sampling Service

Part Number	OSB1
OSB1/50	Box of 50

The Pirtek portable patch test kit is a must for identifying and monitoring the types and levels of contamination in fluid power systems.

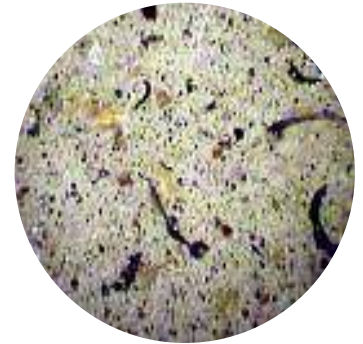
The kit enables instant visual analysis through an optical microscope of the major types of system wear including bright and black metals, silica, fibres, elastomers, plastics and others.

A sample of the test fluid is passed through a filter membrane via the vacuum pump dried and mounted in a membrane holder ready for visual assessment. Comparator slides are supplied to help establish and identify cleanliness levels etc of the fluid sample.

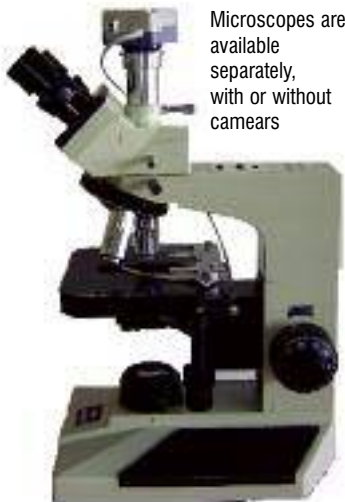
The kit is supplied complete with everything required for taking immediate samples and is simple to assemble and use with full training available on request.

THE KIT INCLUDES THE FOLLOWING

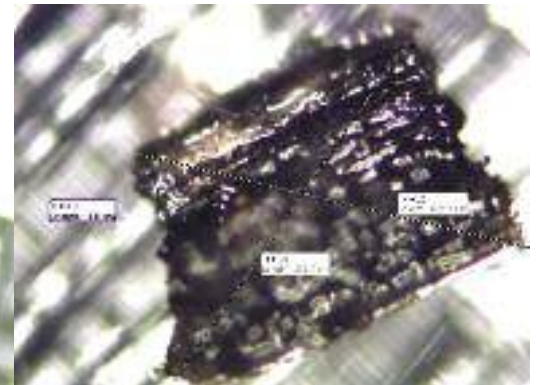
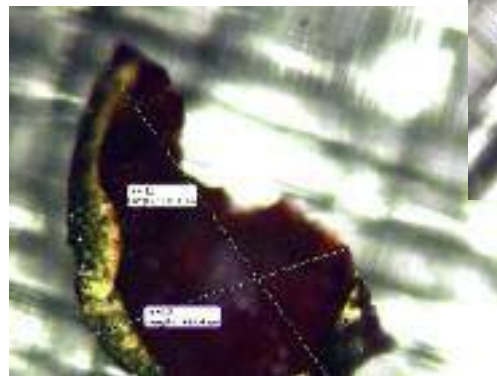
- Biocular Microscope
- Vacuum Pump
- Glassware including Filter Holder
- Pressurised Sure Shot Spray Gun
- Filter Membranes and Mounting slides.
- Forceps and Clamps
- Plastic Beaker
- Solvent
- Petri Dishes
- Carry Case
- Full instruction manual
- Contaminant size reference charts



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Microscopes are available separately, with or without cameras



Part Number	Description
HTPT-KIT1	Full Patch Test Kit including Microscope
HTPT-KIT2	Full Patch Test Kit without Microscope

Spare Patches

Part Number	Description
FT-AAWP02500	25mm Membrane 0.8 microns (pack of 100)
FT-RAWG04700	25mm Membrane 1.2 microns (pack of 100)
FT-SSWP04700	25mm Membrane 3.0 microns (pack of 100)
FT-NY8004700	25mm Membrane 80.0 microns (pack of 100)

*Other membrane sizes available on request. All kit parts available for sale separately, please call your local Pirtek Centre for more information.

Microscopes with cameras are supplied with software that allows the user to size individual contaminants on screen. This aids the reporting function for items such as warranty claims, supplier disputes etc.

Hoseclean Solution

Cleaning up in the world of **hose and tube maintenance**

Today, modern systems that rely on hydraulics or other fluid handling technology are being pushed to the limit. But as ever higher performance levels are demanded, the problem of system pollution becomes increasingly critical.



It's a fact of life, but when you cut hoses or tubes, tiny particles inevitably find their way inside. Unfortunately, the resulting wear and tear not only raises running costs, but can even lead to total system failure.

But Pitek's Hoseclean Solution means small problems needn't turn into major disasters. A simple yet ingenious system, Hoseclean Solution internally cleans hoses and tubes quickly and effectively.

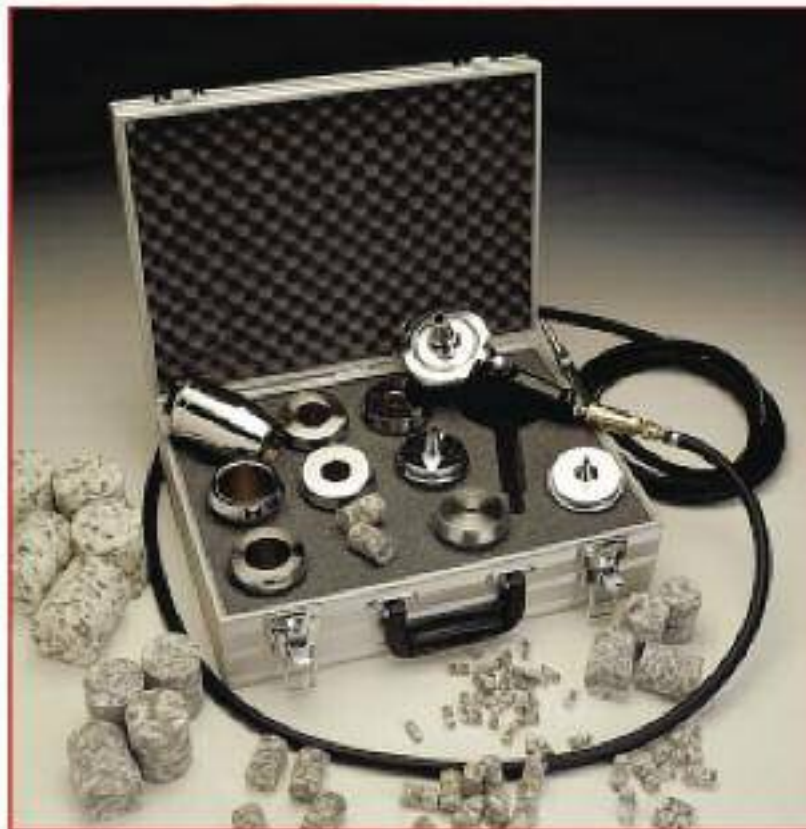
The principle is straightforward. Using compressed air, a soft, absorbent plastic plug is forced through the tube - the friction created leaves the tube free of potentially harmful pollution.

Hoseclean Solution is already being used across a wide variety of industries - iron and steel, chemicals, brewing and oil exploration, to name just a few.

And now it's backed by Pitek's renowned customer service: whenever you need Hoseclean Solution, we'll be there fast - ETA 1 hour.

Hoseclean Solution

Quick, simple and effective



Hose Jet Clean Pistol and Kits



Part Number	Description
PHGUN-01	Hose Jet Clean Pistol only

Part Number	Description
PHCK-01	Centre Hose Jet Clean Kit
PHVK-01	Van Hose Jet Clean Kit
PTCK-01	Centre Tube Jet Clean Kit

Hose Pellets



Tube Pellets



Part Number	Description	Bag Quantity
HCP-04	¼" Hose Plug	100
HCP-05	⅝" Hose Plug	25
HCP-06	¾" Hose Plug	100
HCP-08	½" Hose Plug	100
HCP-10	⅝" Hose Plug	25
HCP-12	¾" Hose Plug	100
HCP-16	1" Hose Plug	25
HCP-20	1¼" Hose Plug	25
HCP-24	1½" Hose Plug	25
HCP-32	2" Hose Plug	25

Part Number	Description	Bag Quantity
TCP-03	3mm Tube Plug	100
TCP-04	4mm Tube Plug	100
TCP-05	5mm Tube Plug	100
TCP-06	6mm Tube Plug	100
TCP-08	8mm Tube Plug	100
TCP-11	10-11mm Tube Plug	100
TCP-12	12mm Tube Plug	100
TCP-14	13-14mm Tube Plug	100
TCP-15	15mm Tube Plug	100
TCP-17	16-17mm Tube Plug	100
TCP-18	18mm Tube Plug	100
TCP-19	19mm Tube Plug	100
TCP-21	20-21mm Tube Plug	25
TCP-23	22-23mm Tube Plug	25
TCP-25	24-25mm Tube Plug	25
TCP-31	29-31mm Tube Plug	25
TCP-40	36-40mm Tube Plug	25