

Original Minimess® test points, microbore hose, gauges & pressure test kits



MINIMESS® Product Range Overview



MINIMESS® Test Points & Adaptors

- 1620, 1620p/T, 1215, 1615 & 1604 male threaded test points
- In line test point tee adaptors for BSP, JIC, ORFS & Metric pipe systems
- Gauge, bulkhead & compact 90° adaptors
- Special application test points
- Zinc Nickel plated steel, 316Ti stainless steel, brass & monel materials



Microbore Hose, Fittings & Assemblies

- 2mm (Dn2) & 4mm (Dn4) microbore hose material options
- Polyamide synthetic braided & stainless steel braided PTFE bore materials
- Microbore hose end fittings for all major thread variants
- Zinc Nickel plated steel & 316Ti stainless steel materials
- · Hose assembly accessories & services



MINIMESS® Pressure Test Kits & Pressure Gauges

- 63 & 100mm analogue & 75mm digital pressure gauges
- Pressure gauge accessories
- BSP, JIC, Metric & Universal Minimess pressure test kits
- ICB style, Caterpillar style & Customer specific pressure test kits
- 700 bar hydraulic calibration hand pump kits



MINIMESS® Nitrogen Accumulator Charging **Valves & Kits**

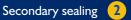
- Minimess 1620 & 1615 series gas charging valves
- Nitrogen accumulator Minimess test kits
- Charging & testing devices for accumulator or bottle connection
- · Adaptors for connection to leading accumulator brands

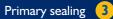


Developed by Hydrotechnik more than 50 years ago, Minimess test points & associated products are found worldwide in hydraulic, process and gas systems. Minimess pressure test points offer the most advanced sealing system available with working pressures up to 630 bar. A lifetime leak free guarantee and suitability with almost any fluid or gas makes Minimess the most versatile test point available.











Anti-vibration O ring 5

Cap fixing ring 6

Housing 7

Compression spring 8

Sealing according to DIN 9

Offshore hydraulics

& pneumatics

Mobile hydraulics

& pneumatics

Industrial hydraulics

& pneumatics

One product, Hydraulic testing Filling Oil sampling Mobile hydraulics

many applications Bleeding

- Offshore & subsea
- Pneumatics

Gas testing

• Gas charging

• Industrial hydraulics



Automotive

FLEXIA

Test points & adaptors

Minimess test points offer a uniquely simple method of accessing low or high pressure systems for the purpose of pressure testing, oil sampling or gas charging. Manufactured in steel, stainless steel, brass or monel with buna nitrile, viton or EPDM sealing options, ensures compatibility with most systems and media.

MINIMESS® or 'Test 15' is commonly

gas industries.

MINIMESS®

or 'Test 20' is the most commonly used test point across all industries.

steel & monel with a wide choice of connection threads, make this the most versatile range available.

Connection threads: BSP. BSPT. Metric, NPT & UNF

Standard sealing materials: Buna Nitrile. Viton & EPDM

Working pressures: up to 630 bar

Available in steel, stainless

Small and compact in design with a 12mm threaded cap, the 1215 is available in steel, stainless steel and

> Connection threads: BSP, BSPT, Metric, NPT & UNF Standard sealing materials: Buna Nitrile & Viton

Working pressures: up to 630 bar



used in the construction and

MINIMESS®

or 'Test 15' coupling is used most commonly in the defence, gas and marine industries. The 1615 has an M16 connection thread. Materials available are steel, stainless steel or

Connection threads: BSP. Metric. & NPT Standard sealing materials: Buna Nitrile & Viton

Working pressures:

up to 630 bar



MINIMESS®

is a larger bore (nominal 4mm) test point, used for higher flow requirements or for highly viscous fluids. 1604 test points are

Specials are our speciality

At Hydrotechnik, we manufacture to

special fitting requirements, body

or seal materials as seen here:-

In line test

point tee

adaptors

and media

specific customer requirements such as

Connection threads: BSP & Metric

Standard sealing materials: Buna Nitrile & Viton **Working pressures:** up to 400 bar



MINIMESS® P/T has been developed

temperature probe which gets in contact with the medium for accurate dynamic

temperature and/or pressure measurement

Connection threads: BSP & Metric

Standard sealing materials:





MINIMESS 1620 subsea

MINIMESS 1620 & 1604 gearbox oil sampling



MINIMESS Gas Charging Valve



Test point with internal burst disc



test point

BSP male x swivel female (60° cone sealing) test point tee



JIC male x swivel female (37° cone sealing) test point tee adaptor



ORFS male x swivel female (O-Ring face seal) test point tee



Metric DKO male x swivel female (24° cone sealing) test point tee adaptor



Metric DKO compression test point tee adaptor



Internal braid: **Polyester fibre**

Hose Core: Polyamide

Microbore **Hose Options**

Dn2 - 400 bar Hose Size: 2mm ID x 5mm OD

Working Pressure: 400 bar Burst Pressure: 1040 bar Temp: -20° C to $+100^{\circ}$ C Min Bend Radius: 20mm

Dn2 - 450 bar Stainless **Steel Hose PTFE bore**

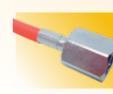
Size: 2mm ID x 5mm OD Working Pressure: 450 bar Burst Pressure: 1350 bar Temp: -70°C to +260°C Min Bend Radius: 13mm

Anti-buckle springs

Standpipe

adaptors

gauge and 90°



Hose tagging & sleeving



Pressure testing & Cleaning

Microbore Hose, **Fittings & Assemblies**

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 up to 630 bar working pressure. The hose material is extremely flexible, light weight and can be specified for a large range of uses.



Burst Pressure: 1950 bar Temp: -20° C to $+100^{\circ}$ C Min Bend Radius: 20mm

Dn4 - 3I5 bar Hose

Min Bend Radius: 40mm

Size: 4mm ID x 8mm OD Working Pressure: 315 bar Burst Pressure: 810 bar Temp: -20° C to $+100^{\circ}$ C

Dn4 - 450 bar Hose

Size: 4mm ID x 8mm OD Working Pressure: 450 bar

Dn2 - 630 bar Low Temp

Size: 2mm ID x 5mm OD

Working Pressure: 630 bar

Burst Pressure: 1950 bar

Temp: -54° C to $+100^{\circ}$ C

Min Bend Radius: 20mm

Burst Pressure: 1500 bar Temp: -20°C to +100°C Min Bend Radius: 40mm

Microbore Hose End Fittings

Hydrotechnik UK stock a huge range of microbore hose fittings with many thread and fitting variants ready for assembly to hose lengths of your choice. These include:-

- 1620, 1215, 1615, 1604, Steck, BSP 60° cone, BSP gauge form, Metric DKO, NPT, IIC, ORFS, Banjo, Standpipe
- Male, fixed female, swivel female & 90° elbows
- Zinc Nickel plated steel, 316 Grade Stainless Steel

Any hose length with any end fitting option available from stock





Metric DKO swivel female standpipe (24° cone sealing) test point



JIC fixed female standpipe (37° cone sealing) test





Test Point bulkhead adaptors





Pressure gauges & accessories

Hydrotechnik supply and stock a large range of analogue & digital pressure gauges from -1 bar up to 700 bar. Analogue gauges are 63mm or 100mm bottom or back entry with a 75mm digital option for greater accuracy and min/max data capture.



Sizes: 63mm & 100mm (others on request)

Ranges: -1 to 700 bar

Scale: psi outer (black), bar inner (red). Stainless steel case with brass wetted parts Glycerine filled



Digital Pressure Gauges

Sizes: 75mm

Ranges: 0...60, 250 & 600 bar (others on request)

Scale: bar, psi, MPa Min & Max reading memory

0...100% bar graph indicator 2 x AA

standard batteries

Accuracy: ±0.5%



Pressure Gauge Accessories

Gauge thread adaptors in Steel, brass & stainless steel.

Rubber protective covers. Gauge isolation valves. Pressure restrictor valves. UKAS traceable pressure gauge calibration service.



MINIMESS® Gas charging test points

Hydrotechnik offer a range of high quality gas charging valves and test points for use with most gases in the Minimess 1615 & 1620 series design. Our Minimess gas charging valves are manufactured with very precise internal tolerances to give maximum sealing integrity, not possible with standard Minimess test points.

- Excellent leak proof integrity, leakage
 2x10-5 mbar l/s operating within
 -20°C to +135°C
- Uses the proven Minimess construction for safe & leak free gas charging or testing
- Working pressure up to 630 bar
- Subsea versions to 3000m depth

Options Include:

MI4xI.5,
ISO228-GI/4" BSP,
I/2"-20 UNF or others on request.

Operating temperatures:

 -20° to + 135°C,

 -30° to $+80^{\circ}$ C or

-40° to +135°C

- Individual testing with Nitrogen at -33°C or -46°C at 60 bar or Helium at 500m bar
- 100% Pressure Testing
- 100% Helium Odour Test
- 100% Cryogenic testing at -40°C
- 3.1B Certification

MINIMESS® Pressure Test Kits

Hydrotechnik offer a huge range of hydraulic pressure test kits that are catered to a wide variety of users & thread variants. Each kit contains all the necessary equipment, including analogue pressure gauges that are suitable for all test point sizes and a large selection of pipe adaptors tailored to suit nearly all hydraulic machines or systems.



Kits available:

Low Cost

Basic Minimess pressure test kit with all you need to take 2 pressure readings.

BSP

Minimess pressure test kit with additional inline BSP 1620 test tees.

Metric

Minimess pressure test kit with additional inline Metric 1620 test tees.

JIC

Minimess pressure test kit with additional inline JIC 1620 test tees.

Universal

Covers all Minimess test point series plus HSP, quick release and inline test

JCB & Caterpillar Style

JCB and Caterpillar style test kits with in line test tees and associated test points.

4 & 6 Gauge Metal Box

Stylish metal pressure test box with fixed 4 or 6 gauges and all test points & hoses Removable lid.

Customer Specific

Any test point series, fittings & kit size catered for to your requirement.

700 Bar hand pump kit

700 bar hydraulic calibration hand pump & minimess fitting test kits.

MINIMESS® Gas Charging Test Kits

Hydrotechnik UK recently launched a new extended range of universal nitrogen gas charging kits for accumulators, dampers, fire suppression and other pneumatic or gaseous systems.

Kits are based around Hydrotechnik's Minimess leak free gas charging valves which are widely adopted and allow an operator to easily connect and disconnect under full system pressure without loss of gas. Suitable up to 630 bar, Minimess charging and testing valves are dual purpose with a reliable positive screwed connection that allow for safe charging and discharging of gas.

Universal kits contains a range of valve adaptors to allow charging of Italian, Bosch, Hydac, Olaer & Parker accumulators.

All kits can be tailored to specific needs.



5401-21-03.KITX



Low cost charging & testing kit for Minimess accumulator valves. Device connects to Nitrogen bottle with simple hose connection to Minimess accumulator valve.

540I-PCFPU280/70 **2**



Universal charging & testing kit for Minimess accumulator valves and all other industrial standard valve types. Comes with stylish pressure regulator & industrial charging device with full adaptor & hose set. The ultimate service tool!

PC & PCFPU280/70



Industrial standard accumulator charging kits with Minimess charging hoses for easy, safe and controlled operation. Full charging valve adaptor set & competitive pricing sets our kits apart.

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HYDROTECHNIK

Other products and services available from Hydrotechnik:







Dataloggers

2 to 48 channel handheld or fixed measuring & datalogging instruments to suit all budgets and technical requirements.



Test Sensors

Pressure, temperature, flow, RPM, force, torque, vibration, position & many more test sensors for service, end of line production or R&D testing.



Pressure Sensors

A huge range of pressure sensors for OEM industrial, automotive, food & beverage applications. Pressures from 10mbar to 4000 bar to suit most mechanical or electrical connections & signal output requirements.

Test Rigs

Design & build service for manual or automated component proving test rigs. Mechanical or plc control options for testing using air, water or oils.

Repair and Calibration

In house calibration service for flow, pressure & temperature sensors to national standards. Competitive pricing and turnaround times.





Contact

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