

To complement its range of ultrasonic thickness gauges Cygnus offer a range of ultrasonic probes. The performance of any ultrasonic thickness gauge relies heavily on the quality of the probe and its suitability to the material being measured. Therefore selecting the right probe is vital.

All Cygnus probes are constructed from stainless steel and incorporate a replaceable wear membrane to protect the probe face ensuring years of reliable, accurate service.



Remote Probes

Guidelines for Probe Frequency Selection

The probe frequency will be determined by the minimum thickness you need to measure, however the lower the probe frequency the more effective the ultrasound will be at penetrating coatings and corrosion. The 2.25 MHz 13mm probe is recommended for the majority of applications as it performs the best on corroded metal and through thick coatings.

Frequency	Face Size	Face Colour	Range in Steel	Typical Applications
5.0 MHz	6 mm (¼")	Black ●	1 to 50 mm	Small diameter pipes and boiler tubes/heat exchangers
5.0 MHz	13 mm (½")	Black ●	1 to 50 mm	Measuring wall thickness down to 1mm
3.5 MHz	13 mm (½")	Orange ●	2 to 150 mm	Measuring wall thickness down to 2mm with corrosion through coatings
2.25 MHz	13 mm (½")	Red ●	3 to 250 mm	Standard probe supplied, best for all round measurement of wall thickness with corrosion through coatings.
2.25 MHz	19 mm (¾")	Red ●	3 to 250 mm	Large flat plates with heavy corrosion and/or through thick coatings.

Probe Membranes

All Cygnus probes have a protective membrane fitted in front of the probe face to protect it from damage during use on rough corroded surfaces. A thin film of membrane couplant sits between the membrane and the probe face to allow the ultrasound to pass through. The membrane also helps the probe face "mould" to uneven corroded surfaces aiding measurement.

The performance of the probe depends on the condition of the membrane and how well it has been fitted. Cygnus recommends membranes are replaced frequently as a precaution or at the first sign of any scoring, tearing or damage.

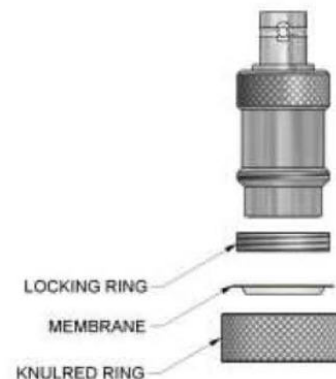
Membranes are available in two materials, the standard Polyurethane membrane is suitable for surface temperatures up to 75°C (167°F), the Teflon membrane is suitable for surface temperatures up to 150°C (302°F) with a maximum contact time of 5 seconds.

Standard Polyurethane (75°C) Pack of 20

Order Code	Probe Size
001-3702	6 mm Probe
001-3701	13 mm Probe
001-3700	19 mm Probe

Teflon (150°C) Pack of 10

Order Code	Probe Size
001-4873	6 mm Probe
001-4874	13 mm Probe
001-4875	19 mm Probe



Remote Probes

Remote Probes for use with **Cygnus 2, Cygnus 3 & Cygnus 4** Gauges. Probes are fitted with a BNC connector as standard but can be supplied with a Lemo-00 connector upon special request.

All Remote Probes are supplied with a 1.35 meter probe cable with a choice of connector to suit the model of thickness gauge.

Note. For Underwater, Intrinsically Safe & Heavy Duty gauges specific remote probes are available and are detailed on separate Data Sheets.

Probe Connectors



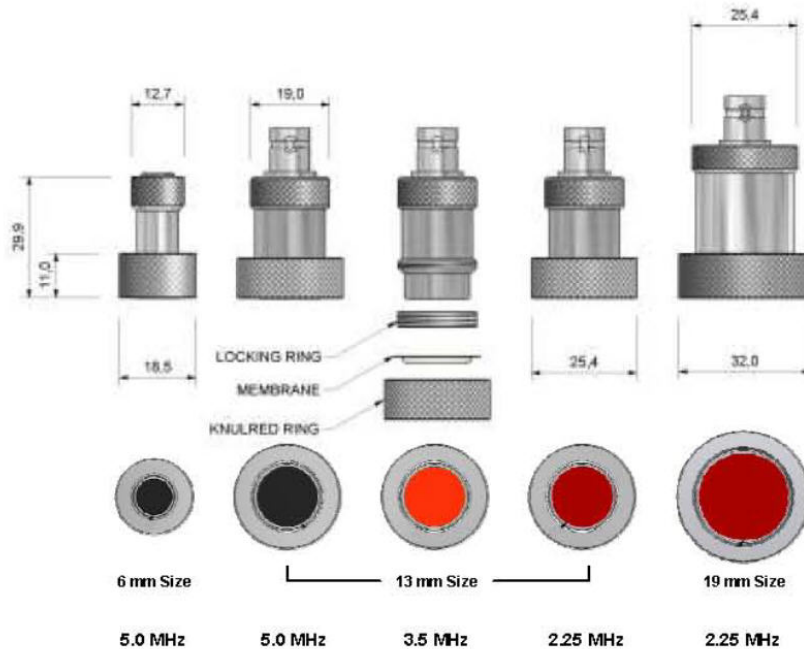
BNC



Lemo 00

Order Code	Frequency	Face Size	Probe Connector	Cable Connector	Cable connects to
001- 9316	5.0 MHz	13 mm	BNC	Lemo 1	Mk4 Cygnus 2, 3 & 4 Gauges
001- 9313	3.5 MHz	13 mm	BNC	Lemo 1	"
001- 9310	2.25 MHz	13 mm	BNC	Lemo 1	"
001- 9311	2.25 MHz	19 mm	BNC	Lemo 1	"
001- 9314	5.0 MHz	6 mm	Lemo 00	Lemo 1	"
001- 9317	5.0 MHz	13 mm	Lemo 00	Lemo 1	"
001- 9312	3.5 MHz	13 mm	Lemo 00	Lemo 1	"
001- 9301	2.25 MHz	13 mm	Lemo 00	Lemo 1	"

Remote Probe Dimensions



Probe face colour denotes the probe frequency.

Specifications

Body	Stainless Steel 304
Weight	6 mm: 30 g (1 oz) 13 mm: 55 g (2 oz) 19 mm: 100 g (3.5 oz)
Connectors	13, 19 mm: BNC or Lemo 00 6 mm: Lemo 00
Membrane	Polyurethane (Standard) up to 75°C Teflon (High Temperature) up to 150°C

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