PRODUCT SPECIFICATIONS

# Thermo Scientific Sarasota RTR900

Instrument Retractor for use with the Thermo Scientific<sup>™</sup> Sarasota ID900 Gas Density Meter

The advanced Thermo Scientific<sup>™</sup> Sarasota RTR900 instrument retractor allows the Thermo Scientific Sarasota ID900 gas density meter to be installed directly into the pipeline or tank under operational conditions. The retractor enables the safe insertion and removal of the gas density meter without the need to isolate or depressurize the pipeline or process, avoiding the inconvenience and costs associated with downtime while contributing to plant safety.

#### **Features**

- High pressure capability
- Enables safe insertion and removal of Sarasota ID900 gas density meter
- Wide operating temperature range
- Rugged construction
- Interlock vent valve for safe operation
- Integral seal housing
- Suitable for use with pipelines or vessels
- Dual vent valve option for in-situ calibration check

Sarasota RTR900 instrument retractor enables the safe insertion or removal of a Thermo Scientific Sarasota ID900 gas density meter from a pipeline or tank without the need toshutdown the process. It is suitable for use in high pressure applications up to the maximum working pressure of the gas density meter of 150 bar (2175 psi), or flange rating. Mounted on a standard ball or gate isolation valve, the Sarasota RTR900



retractor is secured to the system pipelinewith a flange to suit customer requirements. A 1000-mm (39.4-in) stem within the retractor shaft enables the gas density meter to be accommodated. The meter is inserted or removed from the line or vessel by the rotation of the handwheel. After retracting the instrument from the line, a simple venting procedure ensures that the meter is fully isolated and depressurized before removal. The option of a second vent valve allows the density meter to be isolated in the retractor and the isolated volume to be evacuated or purged, enabling the introduction of a sample gas for online validation of the density meter's calibration. Complete retraction requires an unobstructed headroom of 1400 mm (55 in).

A simple mechanical interlock between the vent valve and the retractor closure system minimizes the likelihood of the retractor seal housing being opened while the retractor is still pressurized.

Routine maintenance to the Sarasota RTR900 retractor is minimal and can usually coincide with the routine maintenance of the Sarasota ID900 gas density meter and other line instruments to maximize uptime.



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#### Thermo Scientific<sup>™</sup> Sarasota RTR900 Instrument Retractor

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Functional	Specifications

Process temperature range	-50°C to +200°C (-58°F to + 392°F) or -200°C to + 50°C (-328°F to + 122°F)
Operating pressure range	177 bar (2567 psi) maximum or flange pressure/temperature rating Note: maximum working pressure is 150 bar (2175 psi)
Length of stroke	660 mm (26 in)
Leadscrew pitch	4.23 mm (6 threads per inch)
Physical specifications	
Materials	<ul> <li>Seal Housing: Stainless steel</li> <li>Leadscrew: Dry lubricant coated stainless steel</li> <li>Gland Nut: Aluminum bronze • Seal: Silver plated Inconel® X750</li> <li>Handwheel: Nylon coated aluminum alloy</li> </ul>
Net weight	Typically 40 kg (90 lb) Note: based on 3-in ASME B16.5 RF Class 300 flange
Shipping weight	Typically 45 kg (100 lb) Note: based on 3-in ASME B16.5 RF Class 300 flange
Dimension	See dimensional diagram below; Minimum headroom required 1400 mm (55 in); For use with Sarasota ID900 gas density meter with 1000 mm (39.4 in) stem; Handwheel diameter 510 mm (20 in)
Shipping dimensions	1020 mm × 660 mm × 380 mm (40 in × 26 in × 15 in)
Installation requirements	Must be mounted on a full bore isolation valve or ball valve. The isolation valve must be mounted squarely on the nozzle attached to the system pipeline or tank, and must be clear of obstructions. It should be installed directly on a mating flange allowing a minimum headroom of 1400 mm 55 in) for complete retraction.
Environmental rating	IP65 (NEMA 4X)
Compliance/certification	
Quality assurance	ISO 9001:2000
CE mark	Compliant
Pressure equipment directive (97/23/EC)	SEP (sound engineering practice)
BS EN ISO 15156/available as option NACE MR0175 Conformance	Available as option
Calibration certification	Optional traceable calibration equipment listing available
Material traceability	Wetted parts traceable to BS EN 10204.3.1.b; Certification available

#### Amplifier Coated Handwheel Leadscrew Minimum Headroom 1400 mm (55.19 in) Length When Fully Retracted 1144 mm (45.04 in) Ľ, - Clamp Nut 373 mm (14.69 in) Vent Valve 180 mm (7.09 in) Seal Housing Flange ₫ Density Meter

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### **Ordering information**

Sarasota RTR900 Instrument Retractor
Flange size and pressure class
B = 3" ANSI B16.5 Class 150
F = 3" ANSI B16.5 Class 300
A = 3" ANSI B16.5 Class 600
E = 3" ANSI B16.5 Class 900
H = BS EN 1092 DN 80 PN 40
J = BS EN 1092 DN 80 PN 100
Retractor flange type
RF = ASME B16.5 raised face/ BS EN 1092 type B
RJ = ASME B16.5 ring joint—not available with DN flange
Temperature rating
$S = -50^{\circ}C$ to $+200^{\circ}C$ (-58°F to $+392^{\circ}F$ )
$T = -200^{\circ}C \text{ to } +50^{\circ}C (-328^{\circ}F \text{ to } +122^{\circ}F)$
Vent valve
1 = Single vent valve
2 = Dual vent Valve
Options
M = Wetted and pressure retaining parts traceability certification to BS EN 10204.3.1.b
N = BS EN ISO 15156 / NACE MR0175 conformance certification
S = Special documentation package including quality plan, ISO9001 certification and quality assurance manual
D = Non-destructive testing

#### Your Order Code: RTR900 -



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