Product sheet

SmartRadar antennas

Benefits

Maintenance free

Easy to install

Choice of antennas to suit every application

Different stem lengths

Unique tank seperator

An antenna for every application

Enraf SmartRadar gauges can be equipped with a wide range of antennas suitable for many applications. A number of free space antennas is available, as are versions for high temperature, high pressure and installation close to the tank shell. Still pipe antennas are available in different diameters, without the need for cone adapters.
The unique tank separator makes installation easy and provides both an approved and safe process seal.

Planar antennas

Enraf was the first company to introduce planar antennas to the industry for use with radar level gauging. Planar antennas are used in many applications and have proven their effectiveness over the years. They are small, available with different stem lengths and do not contaminate.

RoD antenna

The free space Dielectric RoD antenna is specially designed for the highest resistance to aggressive chemicals and extreme high temperatures. Constructed of glass reinforced TFM including a 1½" NPT threaded tank separator makes installation very easy.

High Pressure H04 antenna

The 4" High Pressure antenna is designed for use on spheres and bullets with pressures up to 40 bar. This antenna in combination with a 4" still pipe with verification pins allows safe verification of the measurement without opening the tank.

Enraf

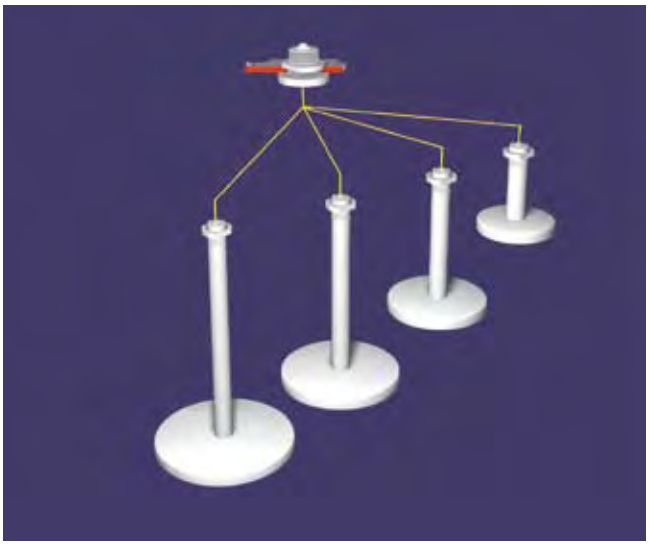
Free space

Free space type F06 and F08

The planar free space antennas can be mounted on a roof nozzle or manhole for most applications.

- Different stem lengths
- Enables manual dipping (F08)

Still pipe



Still pipe types S06, S08, S10 and S12

For stilling well applications. Even on rusty and contaminated stilling wells, reliable level measurement is performed.

- No cone adapters
- Various stem lengths and antenna diameters

Free space WALP

Free space WALP types T06 and W06

The WALP (Wide Array Linear Planar) antenna is the solution when the antenna position is close to the tank shell.
The unique hinged construction of the T06 enables mounting through a standard 6” nozzle.

- Mounting close to tank shell
- Installable through 6” nozzle (hinged version)

High temperature

High temperature RoD type D04

For free space applications at high temperature and aggressive chemical environments.

- Operates in high temperatures
- Resistant to aggressive chemicals

High pressure cone

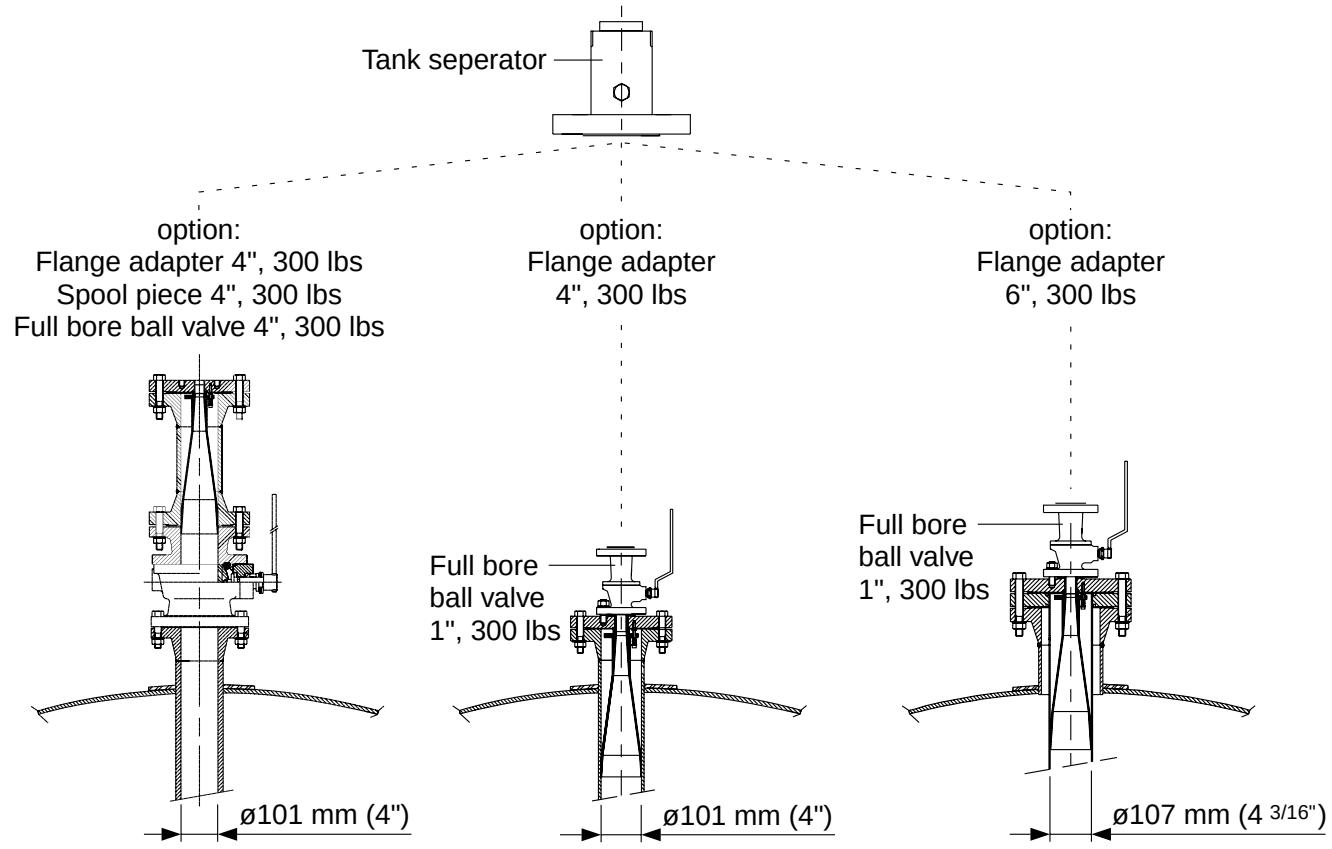
High pressure cone type H04

This antenna is designed for use in spheres and bullet tanks at pressures up to 40 bar / 4 Mpa (580 psi).
The reference pin function allows safe verification (when used in combination with a 4” still pipe with verification pins), without opening the tank.

The unique tank separation provides an approved and safe process seal. Optional a 1” or 4” full bore ball valve can be delivered. Several types are available for different installation methods.

- Safe verification with reference pin function
- Pressures up to 40 bar

High pressure cone type H04



Installation on
4" ball valve
(type H04B4)
Horn: length 360 mm (1' 2 3/16")

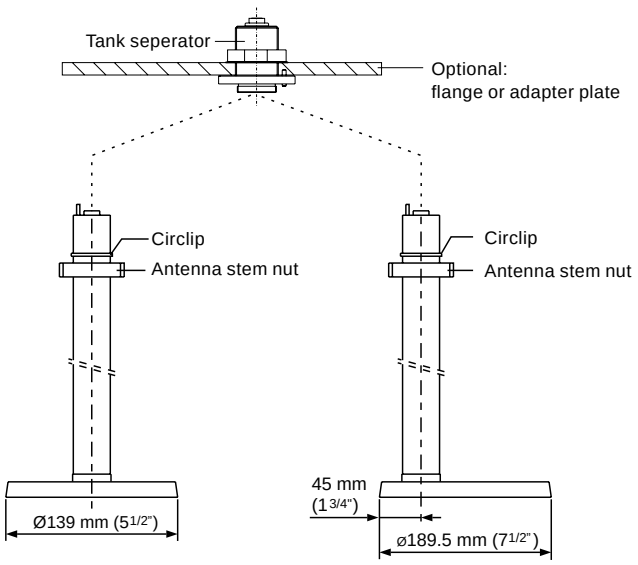
Installation in
4" SCH40 still pipe
(type H04N4)
Horn: length 360 mm (1' 2 3/16")

Installation in
4" SCH10s insert pipe
(type H04N1)
Horn: length 410 mm (1' 4 1/8")

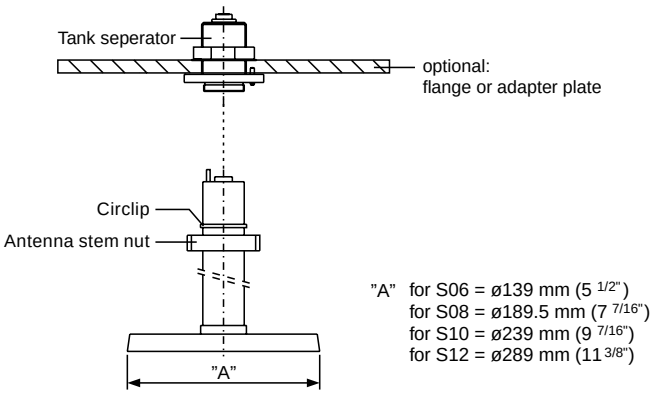
High pressure cone type H04

Measuring range	: Up to 40 m (131 ft)
Temperature range	: -200 °C to +250 °C (-330 °F to +482 °F)
Operating pressure	: Up to 40 bar / 4 MPa (580 psi)
Wetted parts	: AISI 316, PTFE and CF8M for optional ball valve

Free space type F06 and F08



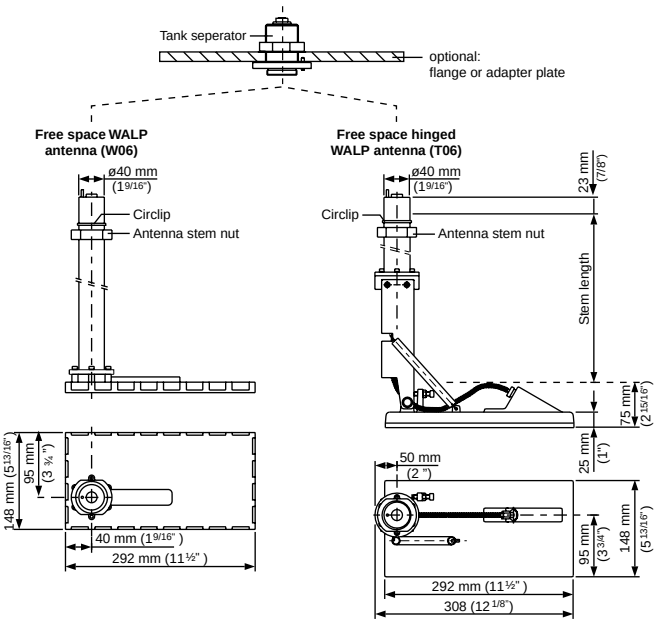
Still pipe types S06, S08, S10 and S12



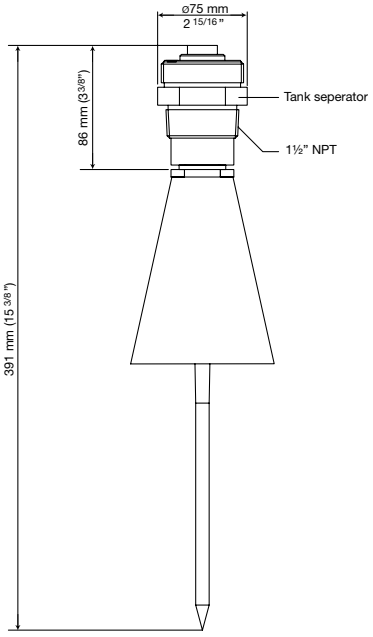
Free space types F06, F08 & Still pipe types S06, S08, S10 and S12

Measuring range	: Up to 40 m (131 ft)
Temperature range	: -40 °C to +100 °C (-40 °F to +212 °F)
Operating pressure	: Up to 6 bar / 0.6 MPa (87 psi)
Wetted parts	: AISI 316 and FEP

Free space WALP types T06 and W06



High temperature RoD type D04



Free space WALP types T06 and W06

Measuring range	: Up to 40 m (131 ft)
Temperature range	: -40 °C to +100 °C (-40 °F to +212 °F)
Operating pressure	: Up to 6 bar / 0.6 MPa (87 psi)
Wetted parts	: AISI 316 and FEP

High temperature RoD type D04

Measuring range	: Up to 18 m (59 ft)
Temperature range	: -40 °C to +230 °C (-40 °F to +446 °F)
Operating pressure	: Up to 6 bar / 0.6 MPa (87 psi)
Wetted parts	: AISI 316 and reinforced TFM

Identification code

Pos 11, 12, 13	Antenna
F 0 6	6” PAT, free space
F 0 8	8” PAT, free space
T 0 6	6” WALP, free space, hinged version
W 0 6	6” WALP, free space, fixed version
H 0 4	4” Cone, high pressure, still pipe, 40 bar / 4 MPa (560 psi)
D 0 4	RoD Antenna, free space, 1½” NPT threaded
S 0 6	6” PAT, still pipe
S 0 8	8” PAT, still pipe
S 1 0	10” PAT, still pipe
S 1 2	12” PAT, still pipe

Pos 14, 15	Antenna specification
0 0	**RoD Antenna D04**
	Antenna stem length for F06, F08, T06, W06, S06, S08, S10, S12
0 5	5 cm (2”) (not available for T06)
3 0	30 cm (1 ft)
5 0	50 cm (1.6 ft)
8 0	80 cm (2.6 ft)
	Antenna installation specification for H04
B 1	Installation on 6” 300 lbs nozzle with 4” SCH10 still pipe
B 4	Installation on 4” 300 lbs full bore ball valve
N 1	Installation on 6” 300 lbs nozzle with 4” SCH10 still pipe, incl. 1” full bore ball valve
N 4	Installation on 4” 300 lbs SCH40 nozzle, including 1” full bore valve

						7									Your identification code

To achieve a complete identification code, combine the Antenna identification code and the Instrument identification code from the SmartRadar or SmartRadar LT product sheet.

Optional:	Roof reflectors:	- Aluminum, part no. 1873.801 advised for internal floating roof
		- AISI 316, part no. 1873.802 advised for external floating roof (consult factory)
	Beam aligner (all sizes):	Consult factory
	Sample hatch (still pipe):	Consult factory
	Verification pins (H04):	Consult factory

We at Enraf are committed to excellence.

The Netherlands Enraf B.V.
Tel.: +31 (0)15 2701 100, Fax: +31 (0)15 2701 111
Email: info@enraf.nl, www.enraf.com

Americas: Enraf Inc.
Tel.: +1 832 467 3422, Fax: +1 832 467 3441
Email: sales@enrafinc.com

Americas: Enraf Fluid Technology Ltd.
Tel.: +1 (770) 475 1900, Fax: +1 (770) 475 1717
Email: info@us.enraf.com

Australia: Enraf Contrec Ltd.
Tel.: +61 3 9804 4200, Fax: +61 3 9822 8329
Email: contrec@contrec.com

China: Enraf B.V. (Shanghai Rep. Office)
Tel.: +86 21 50367000, Fax: +86 21 50367111
Email: enraf@enraf.com.cn

France: ENRAF S.a.r.l.
Tel.: +33 (0)1 49 36 20 80, Fax: +33 (0)1 43 85 26 48
Email: enraffrance@compuserve.com

Germany: Enraf GmbH
Tel.: +49 (0)212 58 750, Fax: +49 (0)212 58 7549
Email: info@enraf.de

India: Enraf India Pvt. Ltd. (Mumbai)
Tel.: +91 22 28523990, Fax: +91 22 28522264
Email: enraf@enraf.in

Russia: Enraf B.V. (Moscow Rep. Office)
Tel. / Fax: +7 495 788 0713, Tel. / Fax: +7 495 788 0691
Email: enrafrus@co.ru

Singapore: Enraf Pte. Ltd.
Tel.: +65 676 94 857, Fax: +65 683 67 496
Email: enraf@enraf.com.sg

Switserland: Enraf Tanksystem SA
Tel.: +41 26 91 91 500, Fax: +41 26 91 91 505
Email: info&tanksystem.com

United Kingdom: Enraf Ltd.
Tel.: +44 (0)1329 825823, Fax: +44 (0)1329 825824
Email: info@uk.enraf.com