

**X-RAY  
SULFUR  
METER  
model**

**RX-360SH**



**RX-360SH** determines **total sulfur in petroleum products**, such as gas oil, fuel oil, crude oil and naphtha, using energy dispersive X-ray fluorescence (EDXRF) method, which is an accurate, non-destructive, economical and yet quick method prescribed in ISO 8754 and ASTM D4294-03.

**HIGH PRECISION:** Digital pulse height analysis is automatically carried out at each measurement to adjust the system. This innovative system design has further improved the precision.

**WIDE RANGE OF SAMPLES:** Patented "Diamond Parameter Method" accurately compensates for measurement error caused by different carbon/hydrogen(C/H) ratio of individual sample. This state-of-art technology enabled measurement of wide range of samples of different C/H ratios with uncompromising precision.

**AMBIENT TEMPERATURE AND BAROMETRIC PRESSURE COMPENSATION:** Compensation for ambient temperature and barometric pressure are made automatically to drastically minimize the drift.

**AUTOMATIC CALIBRATION:** Set certified calibration standards and start automatic calibration program to carry out automatic calibration. Either multiple point calibration at up to 10 points or two points calibration starts.

**EASY OPERATION:** Minimum numbers of membrane switches are located on the operation panel along with an LCD for easy dialogue type operation.

**COMPACT DESIGN/2-WAY POWER SOURCE:** Compact design unit with carrying handle and 2-way power source (100-240VAC\*<sup>1</sup> or 12VDC battery\*<sup>2</sup>) allows such applications as spot-checking in the field.

\*1: When used with the provided AC Adapter

\*2: When used with optional 12VDC cord with lighter plug

**LOWER RUNNING COST:** The Teflon sample cell is permanent and used with a small piece of disposable Mylar film. The only other consumable is the printing paper, making the running cost at minimal.

### SPECIFICATIONS:

#### TYPE:

Total sulfur analyzer for petroleum products by energy-dispersive X-ray fluorescence method

#### CONFORMING STANDARDS:

ISO 8754, ASTM D4294-03, etc.

#### NUMBER OF TEST:

One(1)

#### SAMPLE VOLUME:

3-5ml

#### MEASURING RANGE:

0-6.00wt%

#### REPEATABILITY: (Typical)

Range	Std Deviation	Measuring Time
0.008wt%max	5ppm	300sec x 3times
0.05wt%max	10ppm	100sec x 3times
0.05-0.50wt%	20ppm	100sec x 3times
0.51-1.50wt%	30ppm	100sec x 3times
1.51-2.00wt%	50ppm	100sec x 3times
2.01-4.00wt%	100ppm	100sec x 3times
4.01-6.00wt%	200ppm	100sec x 3times

#### C/H RATIO COMPENSATION:

Automatic with 0.003wt% max of compensation error when a 1wt% sample is tested.

#### MEASURING TIME:

10-990sec with a 10sec increment. 1-99 times.

#### CALIBRATION:

\*Automatic two point calibration

\*Manual two point calibration

\*Automatic multiple-point calibration(up to 10 points)

\*Manual multiple-point calibration(up to 10 points)

#### X-RAY SOURCE:

X-ray tube operated at 7kV-0.15mA

#### SAMPLE CUP:

2-piece Teflon cup with disposable Mylar film

#### PRINTER:

Built-in impact dot matrix printer (W57mm)

#### DISPLAY:

LCD (20 characters x 4 lines)

#### X-RAY LEAKAGE:

0.6 micro Sv/Hr or less on instrument surface

#### DATA OUTPUT:

RS-232C 1 channel

#### OPERATING TEMPERATURE/HUMIDITY:

10-30 with a temperature drift within 10°C in a day.

RH to be within 80%.

#### POWER SUPPLY:

DC12V (with the provided AC Adapter or optional 12VDC cord with lighter plug)

#### SAFETY:

Interlock mechanism against accidental X-ray leakage

#### DIMENSIONS/WEIGHT:

Test head: 420mmW x 350mmD x 140mmH/11kg

AC Adapter: 50mmW x 115mmD x 25mmH/0.25kg

#### ORDERING INFORMATION:

##### STANDARD ACCESSORIES:

1.AC Adapter	1pc
2.Teflon sample cells (5pcs/box)	1box
3.Sample cell assembling jig	1set
4.Sample cell disassembling jig	1pc
5.Sample cell stand	1pc
6.Mylar film (200mm x 1,000m)	1roll
7.Printer roll paper	3rolls
8.Spare Printer ink ribbon	1pc

##### START-UP KIT

Certified Reference Material\*

Sulfur in gas oil: 100, 200, 500 and 800 ppm level

Sulfur in residual fuel oil:

0.0, 0.1, 0.2, 0.5, 1, 2, 3 and 4wt% level

\*: For a traceable calibration, the CRMs are necessary

##### OPTIONAL ACCESSORIES:

12VDC cord with lighter plug (3.0m)

##### SUGGESTED SPARES:

1. Teflon sample cells (5pcs/box)	1 box
2. Mylar film (200mm x 1,000m)	1 roll
3. Printer roll paper (5rolls/pack)	5 pcs
4. Printer ink ribbon	5 pcs

Specifications subject to change without prior notice.

### TANAKA SCIENTIFIC LIMITED

7-10-3, Ayase, Adachi-ku, Tokyo 120-0005 Japan

Tel: +81-3-3620-1711 Fax: +81-3-3620-1713

URL: <http://www.tanaka-sci.com>

e-mail: [sales@tanaka-sci.com](mailto:sales@tanaka-sci.com) Printed in Japan 0909(E)