Chlorine and Sulfur Analyzers

SINDIE Gen 2.0 / SINDIE Gen 2.0 XR

Measures total sulfur
LOD: 0.4 ppm/wt (400 ppb/wt)
LOQ: 1.3 ppm/wt
Analytical range
- Low range 0.4 ppm/wt – 3,000 or 3300[1] ppm/wt
- High range 3,000 ppm/wt – 10 wt% (XR analyzers only)

Complies with ASTM D 7039, ISO 20884 (mid-2009), GOST 52660 (pending), ASTM D 975 (approved, D 975-09a version available mid-2009), ASTM D 4814, ASTM D 6751, ASTM D 3699 (pending), ASTM D 396 (pending)
Analysis time: 10 – 300 seconds
Uses Chemplex sample cups (10ml)
Uses no gases
Weighs about 75 lbs
110/220 V
Introduced 2002 (XR feature introduced 2006)
Not available with Auto Sampler option

[1]depending on age, new Gen 2.0 analyzers measure to 3300

SINDIE Gen 3 / SINDIE Gen 3 XR

Measures total sulfur
LOD: 0.15 ppm/wt (150 ppb/wt)
LOQ: 0.45 ppm/wt (450 ppb/wt)
Analytical range
- Low range 0.15 ppm/wt – 3,300 ppm/wt
- High range 3,000 ppm/wt – 10 wt% (XR analyzers only)

Complies with ASTM D 7039, ISO 20884 (mid-2009), GOST 52660 (pending), ASTM D 975 (approved, D 975-09a version available mid-2009), ASTM D 4814, ASTM D 6751, ASTM D 3699 (pending), ASTM D 396 (pending)
Analysis time: 10 – 300 seconds
Uses no gases
Weighs about 75 pounds
110/220 V
Introduced 2007

SINDIE Gen 3 with Auto Sampler (XR Feature Optional)

Measures total sulfur
8 position Auto Sampler (introduced 2008)
LOD: 0.15 ppm/wt (150 ppb/wt)
LOQ: 0.45 ppm/wt (450 ppb/wt)
Analytical range
    Low range 0.15 ppm/wt – 3,300 ppm/wt
    High range 3,000 ppm/wt – 10 wt% (XR analyzers only)
Complies with ASTM D 7039, ISO 20884 (mid-2009), GOST 52660 (pending), ASTM D 975 (approved, D 975-09a version available mid-2009), ASTM D 4814, ASTM D 6751, ASTM D 3699 (pending), ASTM D 396 (pending)
Analysis time: 10 – 300 seconds
Uses no gases
Weighs about 75 pounds
110/220 V

SINDIE ISO XR

Measures total sulfur
LOD: 0.4 ppm/wt (400 ppb/wt)
LOQ: 1.3 ppm/wt
Analytical range
    Low range: 0.4 ppm/wt – 3,300 ppm/wt
    High range[1]: 3,000 ppm/wt – 10 wt%
Complies with ASTM D 7039, ISO 20884, GOST 52660, ASTM D 975 (approved, D 975-09a version available mid-2009), ASTM D 4814, ASTM D 6751, ASTM D 3699 (pending), ASTM D 396 (pending)
Correlates to ASTM D 2622 in low range
Analysis Time: 10 – 300 seconds
Total measurement time is twice the analysis time (due to additional background measurement)
Uses Chemplex cups (10ml)
Uses Helium in ISO mode and no gases in 7039 mode
Weighs about 75 pounds
110/220 V
Introduced 2007
Not available with Auto Sampler option

[1]high range is a standard SINDIE ISO feature

SINDIE OTG

Measures total sulfur
LOD: 1 ppm/wt
LOQ: 3 ppm/wt
Analytical range
- Low range: 1 ppm/wt – 3,300 ppm/wt
- High range[1]: 3,000 ppm/wt – 10 wt%

Complies with ASTM D 7039, ISO 20884 (mid-2009), GOST 52660 (pending), ASTM D 975 (approved, D 975-09a version available mid-2009), ASTM D 4814, ASTM D 6751, ASTM D 3699 (pending), ASTM D 396 (pending)
Analysis time: 150 – 1200 seconds
Uses no gases
Weighs about 27 pounds (12.2 kg)
110/220 V 24 DC
Introduced 2007

[1]high range is a standard SINDIE OTG feature

SINDIE Bio

Measures total sulfur
LOD: 0.4 ppm/wt (400 ppb/wt)
LOQ: 1.3 ppm/wt
Analytical range 0.4 ppm/wt – 3,000 ppm/wt
Complies with ASTM D 7039, ISO 20884 (mid-2009), GOST 52660 (pending), ASTM D 975 (approved, D 975-09a version available mid-2009), ASTM D 4814, ASTM D 6751, ASTM D 3699 (pending), ASTM D 396 (pending)
Analysis time: 10 – 300 seconds
Uses Chemplex cups (10ml)
Uses no gases
Weighs about 75 pounds
110/220 V
Introduced in 2007
Not available with Auto Sampler option

SINDIE 2622

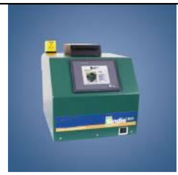
Measures total sulfur
LOD: 0.4 ppm/wt (400 ppb/wt)
LOQ: 1.3 ppm/wt
Analytical range
    Low range: 0.4 ppm/wt – 3,300 ppm/wt
    High range[1]: 3,000 ppm/wt – 10 wt%
Complies with ASTM D 2622, ASTM D 7039, ISO 20884 (mid-2009), GOST 52660 (pending), ASTM D 975, ASTM D 4814, ASTM D 6751, ASTM D 396, ASTM D 1655, ASTM D 3699, ASTM D 4806, ASTM D 5798
Analysis Time: 10 – 300 seconds
Total measurement time is twice the analysis time (due to additional background measurement)
Uses Chemplex cups (10ml)
Uses no gases in either 2622 or 7039 modes
Weighs about 75 pounds
110/220 V
Introduced 2009
Not available with Auto Sampler option

[1]high range is a standard SINDIE 2622 feature

CLORA

Measures total chlorine
LOD: 0.09 ppm/wt (90 ppb/wt)
LOQ: 0.30 ppm/wt (300 ppb/wt)
Analytical range
    Low range: 0.09 ppm/wt – 3,000 ppm/wt
    High range: 3,000 ppm/wt – 4 wt% (XR analyzers only)
ASTM Committee D16 method pending (mid-2009), GOST 52247 (pending)
Analysis time: 10 – 600 seconds
Uses Chemplex cups (10 ml)
Uses no gases
Weighs about 75 pounds
110/220 V
Introduced in 2007
Not available with Auto Sampler option

Compliance with Standard Test Methods and Product Specifications

Analyzer:	 SINDIE Gen 2.0	 SINDIE Gen 3	 SINDIE Gen 3 with Autosampler	 SINDIE ISO	 SINDIE OTG	 SINDIE Bio	 SINDIE 2622	 CLORA
Standard Test Methods:	ASTM D7039 ISO 20884 [A] GOST 52660 [B]	ASTM D7039 ISO 20884 [A] GOST 52660 [B]	ASTM D7039 ISO 20884 [A] GOST 52660 [B]	ASTM D7039 ISO 20884 [A] GOST 52660 [B]	ASTM D7039 ISO 20884 [A] GOST 52660 [B]	ASTM D7039 ISO 20884 [A] GOST 52660 [B]	ASTM D2622 ASTM D7039 ISO 20884 [A] GOST 52660 [B]	ASTM D16 method pending (mid-2009) GOST 52247 [C]
Product Specifications:	ASTM D975 Diesel ASTM D4814 Gasoline ASTM D6751 Biodiesel ASTM D3699 [D] Kerosine ASTM D396 [D] Fuel Oil	ASTM D975 Diesel ASTM D4814 Gasoline ASTM D6751 Biodiesel ASTM D3699 [D] Kerosine ASTM D396 [D] Fuel Oil	ASTM D975 Diesel ASTM D4814 Gasoline ASTM D6751 Biodiesel ASTM D3699 [D] Kerosine ASTM D396 [D] Fuel Oil	ASTM D975 Diesel ASTM D4814 Gasoline ASTM D6751 Biodiesel ASTM D3699 [D] Kerosine ASTM D396 [D] Fuel Oil	ASTM D975 Diesel ASTM D4814 Gasoline ASTM D6751 Biodiesel ASTM D3699 [D] Kerosine ASTM D396 [D] Fuel Oil	ASTM D975 Diesel ASTM D4814 Gasoline ASTM D6751 Biodiesel ASTM D3699 [D] Kerosine ASTM D396 [D] Fuel Oil	ASTM D975 Diesel ASTM D4814 Gasoline ASTM D6751 Biodiesel ASTM D3699 Kerosine ASTM D396 Fuel Oil ASTM D 1655 Jet Fuel ASTM D4806 Blending Ethanol ASTM D5798 Fuel Ethanol	

[A] Pending revision late-2009
[B] Pending acceptance of ISO 20884 revision
[C] Pending acceptance, late 2009
[D] Pending D2 committee approval