



TECHNICAL SPECIFICATION OF PRODUCTS

JULY. 28. 2025
WINDA SYSTEMS INC.

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1.WINDA CORROSION COUPON SYSTEMS

1.1 WINDA Access Fitting Assembly

1.1.1 Flarweld type Access Fitting assembly

Specifications:

- Model: AFH10
- Mounting: 2" Flarweld
- Standard Temperature Rating: From -26° C To +204°C
- Pressure Rating: 6000 psi
- Meets Standard: NACE MR0175/MR0103
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.



1.1.2 ASME B16.5 Flanged type Access Fitting assembly

Specifications:

- Model: AFH50 / AFH60
- Mounting: 2" ASME B16.5 (ANSI) RF / RJ standard Flange
- Standard Temperature Rating: From -26° C To +204°C
- Pressure Rating: 150~2500# RF
- Meets Standard: NACE MR0175/MR0103
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.



1.1.3 API 6A – 6BX Flanged type Access Fitting assembly

Specifications:

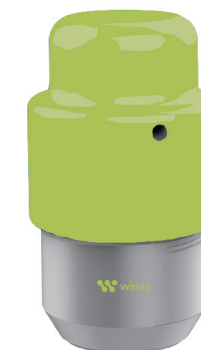
- Model: AFH70
- Mounting: 2-1/16" API 6A RTJ Flange
- Standard Temperature Rating: From -26° C To +204°C
- Pressure Rating: 2000~10000# RJ
- Meets Standard: NACE MR0175/MR0103
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.



1.1.4 Buttweld type Access Fitting assembly

Specifications:

- Model: AFH20
- Mounting: Buttweld on the Weldolet or Fitting Tee
- Standard Temperature Rating: From -26° C To +204°C
- Pressure Rating: 6000 psi
- Meets Standard: NACE MR0175/MR0103
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.



1.2 WINDA Solid Plug Assembly

1.2.1 Solid Plug assembly



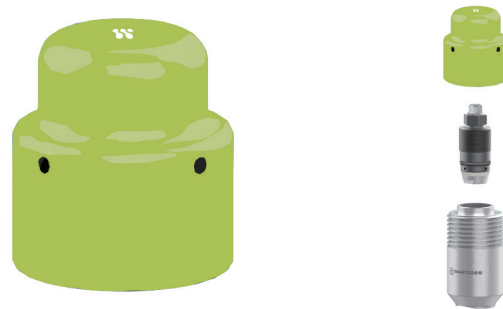
Specifications:

- Model: SPXXX
- Body Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.
- Primary Packing: Teflon/PFTE (25% Glass filled)
- O-Ring: Viton-AED
- Standard Temperature Rating: From -26° C To +204°C.

SAMPLE

1.3 WINDA Protective Cover Assembly

1.3.1 Access Fitting Threads Protective Cover



Specifications:

- Model: 220001-1
- Type: Access Fitting threads protective.
- Body Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.

1.3.2 Access Fitting Threads Protective & Pressure retaining Cover



Specifications:

- Model: 220002-1
- Body Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.
- Type: Pressure retaining cover
- Pressure Rating —10000 PSI MAX.
- Pressure Gauge: 316 S.S.
- Pressure Gauge rating: Based on the design pressure of the run pipe
- Bleed Valve: 316 S.S.
- O-ring: Viton / Viton AED

1.4 WINDA Coupon Holder Assembly

1.4.1 CCH10 Strip Coupon Holder



Specifications:

- Model: CCH10-LL, LL
- Body Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.
- Mounting: Winda model SP – Solid Plug
- Type: Non-welded Strip
- Tongue: Single
- Applicable Coupon: 3" / 6" Strip Coupon
- Meets Standard: NACE MR0175/MR0103

1.4.2 CCH20 Disc Coupon Holder



Specifications:

- Model: CCH20-LL, LL
- Body Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.
- Mounting: Winda model SP – Solid Plug
- Type: Non-welded Disc
- Applicable Coupon: Single layer Disc Coupon
- With Insulators & mounting Screw Bolts
- Meets Standard: NACE MR0175/MR0103

1.4.3 CCH30 Multi Disc Coupon Holder



Specifications:

- Model: CCH20-LL. LL
- Body Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.
- Mounting: Winda model SP – Solid Plug
- Type: Non-welded Disc
- Applicable Coupon: Single layer Disc Coupon
- With Insulators & mounting Screw Bolts
- Meets Standard: NACE MR0175/MR0103

1.4.4 CCH40 Ladder Strip Coupon Holder



Specifications:

- Model: CCH40-LL. LL
- Body Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.
- Mounting: Winda model SP – Solid Plug
- Feature: Simultaneously Monitors Top, Middle, and Bottom of a Pipeline
- Applicable Coupon: Multi Disc Coupon
- Meets Standard: NACE MR0175/MR0103

1.5 WINDA Coupon Assembly

1.5.1 CCS3 3" Strip Coupon

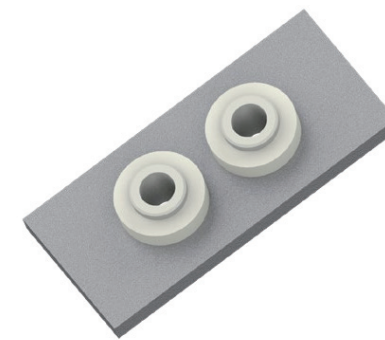


Specifications:

- Mounting: Through Winda Two-Inch CCH10 Strip Coupon Holder
- Material: Same as or similar in the Pipe material
- Type: 3" Strip
- Insulation: Nylon / Teflon
- Pre-weighed
- Furnished: Ground

3" Strip Coupon: WINDA standard coupon, measuring 2-7/8" x 7/8" x 1/8" (7.3 x 2.2 x 0.32cm) with two mounting holes, can be utilized for varied studies. The exposed surface area is 5.2 sq. in. (33.5 sq. cm.).

1.5.2 CCS2 2" Ladder Strip Coupon



Specifications:

- Mounting: Through Winda Two-Inch CCH40 Strip Coupon Holder
- Material: Same as or similar in the Pipe material
- Type: 2" Strip
- Insulation: Nylon / Teflon
- Pre-weighed
- Furnished: Ground

2" Ladder Strip Coupon: WINDA standard coupon, measuring 2" x 7/8" x 1/8" (7.3 x 2.2 x 0.32cm) with two mounting holes, can be utilized for varied studies. The exposed surface area is 3.4 sq. in. (21.9 sq. cm.).

1.5.3 SSC3 3" Strip Scale Coupon

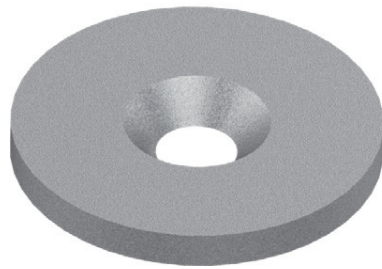
Specifications:

- Mounting: Through Winda Two-Inch CCH10 Strip Coupon Holder
- Material: Same as or similar in the Pipe material
- Type: 3" Strip Scale
- Insulation: Nylon / Teflon
- Pre-weighed
- Furnished: Ground
- Collect scale deposits

3" Strip Scale Coupon: WINDA standard coupon, measuring 2-7/8" x 7/8" x 1/8" (7.3 x 2.2 x 0.32cm) with two mounting holes and series of different sized holes, can be utilized for varied studies. The exposed surface area is 5.25 sq. in. (33.9 sq. cm.).



1.5.4 CCD Disc Coupon



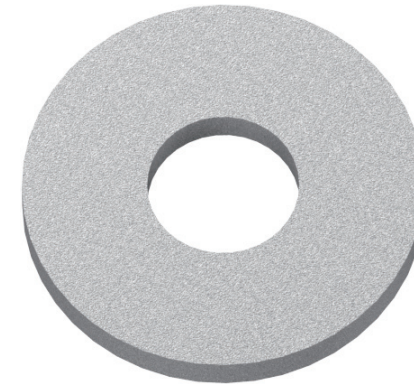
Specifications:

- Mounting: Through Winda Two-Inch CCH20 Disc Coupon Holder
- Material: Same as or similar in the Pipe material
- Type: Disc
- Insulation: None
- Pre-weighed
- Furnished: Ground

Single layer Disc Coupon: WINDA standard coupon, 1.25" Dia. X 0.125" thickness with one mounting hole ID 0.312", can be utilized for varied studies. The exposed surface area is 2.5 sq. in. (16.1 sq. cm.).

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1.5.5 CCMD Disc Coupon



Specifications:

- Mounting: Through Winda Two-Inch CCH30 Multi Disc Coupon Holder
- Material: Same as or similar in the Pipe material
- Type: Multi Disc
- Insulation: None
- Pre-weighed
- Furnished: Ground

Multi Disc Coupon: WINDA standard coupon, 1.25" Dia. X 0.125" thickness with one mounting hole ID 0.50", can be utilized for varied studies. The exposed surface area is 2.3 sq. in. (14.8 sq. cm.).

SAMPLE

2.WINDA CORROSION PROBE SYSTEMS

2.1 WINDA Access Fitting Assembly

2.1.1 Flarweld type Access Fitting assembly

Specifications:

- Model: AFH10
- Mounting: 2" Flarweld
- Standard Temperature Rating: From -26° C To +204°C
- Pressure Rating: 6000 psi
- Meets Standard: NACE MR0175/MR0103
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.



2.1.2 ASME B16.5 Flanged type Access Fitting assembly

Specifications:

- Model: AFH50 / AFH60
- Mounting: 2" ASME B16.5 (ANSI) RF / RJ standard Flange
- Standard Temperature Rating: From -26° C To +204°C
- Pressure Rating: 150~2500# RF
- Meets Standard: NACE MR0175/MR0103
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.



2.1.3 API 6A – 6BX Flanged type Access Fitting assembly

Specifications:

- Model: AFH70
- Mounting: 2-1/16" API 6A RTJ Flange
- Standard Temperature Rating: From -26° C To +204°C
- Pressure Rating: 2000~10000# RJ
- Meets Standard: NACE MR0175/MR0103
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.



2.1.4 Buttweld type Access Fitting assembly

Specifications:

- Model: AFH20
- Mounting: Buttweld on the Weldolet or Fitting Tee
- Standard Temperature Rating: From -26° C To +204°C
- Pressure Rating: 6000 psi
- Meets Standard: NACE MR0175/MR0103
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.



2.2 WINDA Hollow Plug Assembly

2.2.1 Hollow Plug assembly



Specifications:

- Model: HPXXX
- Body Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.
- Primary Packing: Teflon/PFTE (25% Glass filled) ;
- Probe insert Packing: Teflon/PFTE (25% Glass filled) ;
- Standard Temperature Rating: From -26° C To +204°C.

SAMPLE

2.3 WINDA Protective Cover Assembly

2.3.1 Access Fitting Threads Protective Cover

Specifications:

- Model: 220001-2
- Type: Access Fitting threads protective.
- Body Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.



2.3.2 Access Fitting Threads Protective & Pressure retaining Cover

Specifications:

- Model: 220002-2
- Body Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.
- Type: Pressure retaining cover
- Pressure Rating —2500 PSI MAX.
- Pressure Gauge: 316 S.S.
- Pressure Gauge rating: Based on the design pressure of the run pipe
- Bleed Valve: 316 S.S.
- O-ring: Viton / Viton AED



2.3.3 Access Fitting Threads Protective & Pressure retaining Cover – 10000 psi

Specifications:

- Model: 230003-2
- Body Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.
- Type: Pressure retaining cover
- Pressure Rating —10000 PSI MAX.
- Pressure Gauge: 316 S.S.
- Pressure Gauge rating: Based on the design pressure of the run pipe
- Bleed Valve: 316 S.S.
- O-ring: Viton / Viton AED



2.4 WINDA Protective Cover Assembly

2.4.1 HER420 Cylindrical Type Corrosion Probe

Specifications:

- Model: HER420
- Element type: Cylindrical
- Element thickness: 20mil / 10mil
- Body & Element material: Same as or similar in the Pipe material
- Temp. Rating: 500° F/260° C
- Pressure Rating: 6000 PSI/41.3 MPa
- Element Seal Material: Ryton
- Fill Material: Ceramic
- Resolution 18 bit (1 part in 262,144)



2.4.2 SHER420 Cylindrical Type Erosion Probe

Specifications:

- Model: SHER420
- Element type: Cylindrical
- Element thickness: 20mil / 10mil
- Body & Element material: Same as or similar in the Pipe material
- Temp. Rating: 500° F/260° C
- Pressure Rating: 6000 PSI/41.3 MPa
- Element Seal Material: Ryton
- Fill Material: Ceramic
- Resolution 18 bit (1 part in 262,144)



SAMPLE

2.4.3 HER430 Flush Type Corrosion Probe

Specifications:

- Model: HER430
- Element type: Flush
- Element thickness: 20mil / 10mil
- Body & Element material: Same as or similar in the Pipe material
- Temp. Rating: 500° F/260° C
- Pressure Rating: 6000 PSI/41.3 MPa
- Element Seal Material: Ryton
- Fill Material: Ceramic
- Resolution 18 bit (1 part in 262,144)



2.4.4 SHER430 Flush Type Erosion Probe

Specifications:

- Model: SHER430
- Element type: Flush
- Element thickness: 20mil / 10mil
- Body & Element material: Same as or similar in the Pipe material
- Temp. Rating: 500° F/260° C
- Pressure Rating: 6000 PSI/41.3 MPa
- Element Seal Material: Ryton
- Fill Material: Ceramic
- Resolution 18 bit (1 part in 262,144)



2.4.5 HER250 Cylindrical & Flange Fixed Type Corrosion Probe

Specifications:

- Model: HER250
- Flange: ASME B16.5 / API 6A Flange
- Element type: Cylindrical
- Element thickness: 20mil / 10mil
- Body & Element material: Same as or similar in the Pipe material
- Temp. Rating: 500° F/260° C
- Pressure Rating: Based on the flange Rating
- Element Seal Material: Ryton
- Fill Material: Ceramic
- Resolution 18 bit (1 part in 262,144)



2.4.6 LPR420 Linear Polarization Resistance Probes

Specifications:

- Model: LPR420
- Pressure Rating: 6000 PSI/41.3 MPa
- Element Seal Material: Ryton
- Fill Material: Ceramic
- With two Electrodes



2.5 WINDA Probe Adapter Assembly

2.5.1 CA10 Probe adapter

Specifications:

- Model: CA10
- Pin Foot: Glass-gilding
- Pin: 6 Pins
- Pressure Rating: 2500 psi
- Mounting type: Applicable to model 220001-2 & 220002-2 protective cover
- Standard: ATEX 94/9/EC
- Hazardous area Certified: Ex d IIC T6



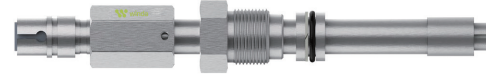
SAMPLE

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2.5.2 CA10-10000 Probe adapter

Specifications:

- Model: CA10-10000
- Pin Foot: Glass-gilding
- Pin: 6 Pins
- Pressure Rating: 10000 psi
- Mounting type: Applicable to model 230003-2 protective cover
- Standard: ATEX 94/9/EC
- Hazardous area Certified: Ex d IIC T6



2.6 WINDA HER & SHER Probe Transmitter

2.6.1 HER & SHER Probe Transmitter

Specifications:

- Model: ST-10
- Power supply: 10-32 VDC
- Current consumption: typical 17 mA @ 24VDC
- Weight: 3.75 lbs (1.7 Kg)
- Dimensions: Diameter 4.5" (115mm) x Height 4.25" (108 mm)
- Communication RS 485 two-wire 2400 Baud, 8 data bits, 1 stop bit, no parity.
- Proprietary communications protocol (see Appendix B for details)
- RS 485 addresses 0 to 31
- Probe element resistance range: 1 to 50 milliohms
- Resolution 18 bit (1 part in 262,144)
- Ambient temperature range -40°C to +70°C (-40 F° to 158 F°)
- Ingress Protection: IP66
- Hazardous Area Location Certified: II 1G Ex ia IIC T4 Ga Ex ia IIC T4 Ga CSANe 20ATEX2251X IECEx SIR 20.0043X



2.7 WINDA HER & SHER Probe Data Logger

2.7.1 HER & SHER Probe Transmitter

Specifications:

- Model: SDL-10
- Enclosure IP 66
- Weight 1.7KG
- Dimensions 4.5" (115mm) Diameter by 4.25" (108 mm) High including connectors
- Power supply 3.6 V 13Ah Lithium battery
- Quiescent current data logger and transmitter 0.4 mA
- Approximate current during probe reading 100 mA for 1 minute
- Approximate current during data transfer 40 mA
- Battery life at one reading per hour - approx. minimum 6 months
- Battery life at one reading every three hours - approx. minimum 12 months
- Maximum data storage capacity 8,000 readings
- Communicate with Transmitter by RS 485 two-wire 2400 Baud, 8 data bits, 1 stop bit, no parity
- Communicate with intrinsically safe PC by RS 232 9600 Baud
- Ambient temperature range -40°C to +70°C (-40°F to 158°F)
- Pole mounting bracket included
- Maximum transmitter to data logger cable length 152 meters (500 feet)
- Hazardous Area Location Certified: II 2(1)G Ex db ia [ia Ga] IIC T6 Gb Ex db ia [ia Ga] IIC T6 Gb
- CSANe 21ATEX1251X IECEx CSAE 21.0033X



2.8 WINDA Ex Junction Box

2.8.1 Ex Junction Box

Specifications:

- Model: JB-10
- Operating voltage: 10 to 32 Vdc
- Conduit entries: 2 ×¾-in. NPT; 1 ×1/2-in. NPT
- Storage temperature: -67 °F to +185 °F (-55 °C to +85 °C)
- Operating temperature: -67 °F to +185 °F (-55 °C to +85 °C)
- Relative humidity: 5–95% non-condensing
- Metallurgy (housing): Stainless steel (316)
- Ingress protection: IP 66
- Hazardous Area Location Certified: II 1G Ex ia IIC T4 Ga Ex ia IIC T4 Ga
- CSANe 21ATEX2101X IECEx SIR 21.0029X



2.9 WINDA Ex Junction Box

2.9.1 Ex Junction Box

Specifications:

- Model: TDC10-10
- AWG: 20
- Nominal Order Length: 10 Feet.
- Conductor Material: TC - Tinned Copper
- Insulation Material: S-R PVC - Semi-Rigid Polyvinyl Chloride
- Inner Shield Material: Aluminium Foil-Polyester Tape
- Inner Shield Drain Wire AWG: 22
- Outer Jacket Material: PVC - Polyvinyl Chloride
- Overall Nominal Diameter: 0.300 in.
- Pair colour Code Chart:1 Red & Black; 2 Green & White



2.9.2 Ex Junction Box

Specifications:

- Model: TJC10-15
- AWG:20
- Nominal Order Length: 15 Feet.
- Conductor Material: TC - Tinned Copper
- Insulation Material: S-R PVC - Semi-Rigid Polyvinyl Chloride
- Inner Shield Material: Aluminium Foil-Polyester Tape
- Inner Shield Drain Wire AWG: 22
- Outer Jacket Material: PVC - Polyvinyl Chloride
- Overall Nominal Diameter: 0.300 in.
- Pair colour Code Chart:1 Red & Black; 2 Green & White



2.10 WINDA Handhold Data Transfer Unit

2.10.1 Handhold Data Transfer Unit

Specifications:

- Model: HTU-1
- Power supply: 6 VDC, 4 AA Alkaline Batteries
- Memory: 256 megabits
- Element Seal Material: Rubber
- Operation Temperature: -20 °C to 50 °C
- Ambient temperature: -20 °C to 70 °C
- Communication: RS-232 Serial ASCII Bus, 9600, 8, No, 1; USB
- Dimension: 265.25 mm x 114.32 mm x 50 mm
- Display: 4 Inch LCD display
- Kay board: Splash-proof enclosure with sealed membrane keyboard
- Hazardous Area Location Certified: Ex ia IIC T4 Ga



SAMPLE

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2.11 WINDA Interface Unit Server & Data Converter Unit- Corrosion Data Analysis and Processing

2.11.1 Wall Mounted type Interface Unit

Specifications:

- Model: IU230-0-32
- Maximum transmitters - 32
- Transmitter type - ST-10 & LPR-10 Transmitter
- Power supply - 110VAC/220VAC
- Input signal type1 - TCP/IP
- Input signal type2 - Two direct hard-wired RS 485 multi-drop cables with serial connection up to 4000ft (1200m) max longest cable run
- Output Ports - One RS232, One isolated RS485 two wire, two TCP/IP port
- Temperature Rating - 0°C to 60°C
- Operating System - Windows® 10 /32GB RAM
- Modbus - ASCII and RTU, 32-bit float, swappable bits, settable slave ID, address range 40,000 upwards
- Wall Mount - 24" W x 24"H x 8.5" D



2.11.2 19" rack mounted type Interface Unit

Specifications:

- Model: IU230-1-32
- Maximum transmitters - 32
- Transmitter type - ST-10 & LPR-10 Transmitter
- Power supply - 110VAC/220VAC
- Input signal type1 - TCP/IP
- Input signal type2 - Two direct hard-wired RS 485 multi-drop cables with serial connection up to 4000ft (1200m) max longest cable run
- Output Ports - One RS232, One isolated RS485 two wire, two TCP/IP port
- Temperature Rating - 0°C to 60°C
- Operating System - Windows® 10 /32GB RAM
- Modbus - ASCII and RTU, 32-bit float, swappable bits, settable slave ID, address range 40,000 upwards
- Type: 19" rack mounted



2.11.3 Data Converter Unit

Specifications:

- Model: HERC-10
- Maximum transmitters - 32
- Transmitter type - ST-10 & LPR-10 Transmitter
- Power supply - 110VAC/220VAC
- Input signal type: Modbus 485
- Output RS-232 Signal to PC



2.12 WINDA Corrosion and Erosion Management Server

2.12.1 Handhold Data Transfer Unit

Specifications:

- Model: CMS-230
- The Winda Corrosion Monitoring Server is commonly mounted in a 19" rack in an equipment room adjacent to the plant central control room along with the DCS and SCADA servers.
- Web – based software allows any customer or corrosion engineer at same LAN with CMS Server can input one IP address of CMS on the browser address bar then check all the corrosion monitoring location's all corrosion information.
- Weight loss coupon data manually input.
- Best fitting curve by day, week, month, year.
- Detail information at each monitored location such as plant, device, pipe, vessel, probe technique, process parameters.
- Extensive Powerful Graphical Data Displays Correlation Graphical Displays
- Extensive Hardware input options Built-in Corrosion Coupon Calculator Excel Import and Export Functions
- Easy Interfacing with DCS and SCADA Systems Multiple Database Exchange options
- Multi-Level Alarms
- Built-In Standard Reports Custom Report Generator
- Log book links to graphical displays Logbook Search Function
- Winda PROSERVE Remote Support



SAMPLE

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3.WINDA CHEMICAL INJECTION OR SAMPLING SYSTEM

3.1 WINDA Access Fitting with Tee Assembly

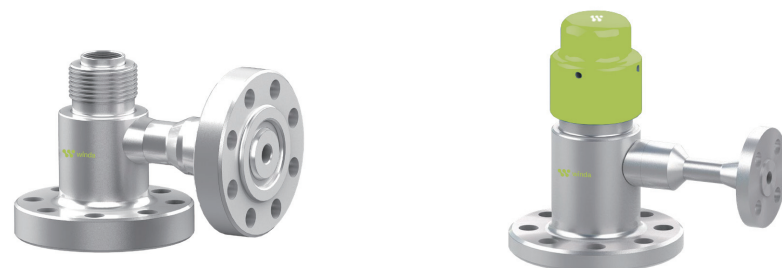
3.1.1 Flarweld type Access Fitting with Tee assembly

Specifications:

- Model: AFH10
- Mounting: 2" Flarweld
- Standard Temperature Rating: From -26° C To +204°C
- Tee Type: 1/2" ~1" ASME B16.5 Flanged / Nipple with shut-off valve
- Pressure Rating: Based on the Side Tee rating
- Meets Standard: NACE MR0175/MR0103
- Applicability: Chemical Injection System and Sampling System
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.



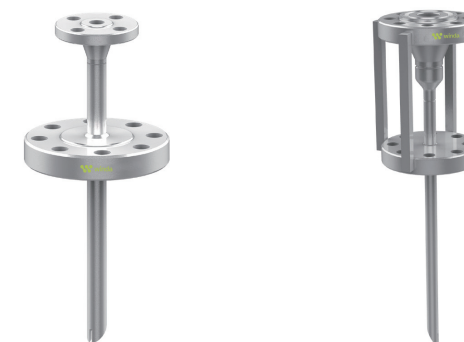
3.1.2 Flanged type Access Fitting with Tee assembly



Specifications:

- Model: AFH50 / AFH60 / AFH70
- Mounting: 2" ASME B16.5 Flanged / 2-1/16" API 6A Flanged
- Standard Temperature Rating: From -26° C To +204°C
- Tee Type: 1/2" ~1" ASME B16.5 Flanged / 1-13/16" API 6A Flanged
- Pressure Rating: Based on the Flanged rating
- Meets Standard: NACE MR0175/MR0103
- Applicability: Chemical Injection System and Sampling System
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization

3.1.3 Flanged Fixed type Fitting with Inlet Port assembly – Quill type



Specifications:

- Model: FQIT
- Chemical Inlet port: 1/2" ~2" ASME B16.5 Flanged type
- Run pipe Connection: 2" ASME B16.5 Flanged type
- Injection Quill Tube size: 1/2" ~ 1-1/2"
- Meets Standard: NACE MR0175/MR0103
- Applicability: Chemical Injection System and Sampling System
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization

3.1.4 Flanged Fixed type Fitting with Inlet Port assembly – Nozzle type

Specifications:

- Model: FHIT
- Chemical Inlet port: 1/2" ~2" ASME B16.5 Flanged type
- Run pipe Connection: 2" ASME B16.5 Flanged type
- Injection Quill Tube size: 1/2" ~ 3/4"
- Meets Standard: NACE MR0175/MR0103
- Applicability: Chemical Injection System
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization



SAMPLE

3.1.5 Flanged Fixed type Fitting with Inlet Port assembly – Open type

Specifications:

- Model: FIT
- Chemical Inlet port: 1/2" ~2" ASME B16.5 Flanged type
- Run pipe Connection: 2" ASME B16.5 Flanged type
- Injection Quill Tube size: 1/2" ~ 1-1/2"
- Meets Standard: NACE MR0175/MR0103
- Applicability: Chemical Injection System and Sampling System
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization



3.1.6 Flanged Insertion type Fitting assembly

Specifications:

- Model: FBD
- Flange Connection: ASME B16.5 Flanged type
- Injection Quill Tube size: 1/2" ~ 1-1/2"
- Meets Standard: NACE MR0175/MR0103
- Applicability: Chemical Injection System and Sampling System
- Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization



3.1.7 Solid Plug assembly

Specifications:

- Model: SPXXX
- Body Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization
- Primary Packing: Teflon/PFTE (25% Glass filled)
- O-Ring: Viton-AED
- Applicability: Chemical Injection System and Sampling System
- Standard Temperature Rating: From -26° C To +204°C



SAMPLE

3.2 WINDA Protective Cover Assembly

3.2.1 Access Fitting Threads Protective Cover

Specifications:

- Model: 220001-1
- Type: Access Fitting threads protective.
- Body Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.



3.2.2 Access Fitting Threads Protective Cover

Specifications:

- Model: 220002-1
- Body Material: A105N C.S. / A350 C.S. / SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization.
- Type: Pressure retaining cover
- Pressure Rating —10000 PSI MAX.
- Pressure Gauge: 316 S.S.
- Pressure Gauge rating: Based on the design pressure of the run pipe
- Bleed Valve: 316 S.S.
- O-ring: Viton / Viton AED



3.3 WINDA Injection Nut Assembly

3.3.1 Injection Nut Assembly – Standard

Specifications:

- Model: INT001/2/3
- Order length: 1.75 ~ 5.50 inches
- Connection: 1/4" NPT / 1/2" NPT / 3/4" NPT
- Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization
- Applicability: Chemical Injection System and Sampling System
- Seal Material: 1 Viton O-ring & 2 Teflon Back up Rings
- Type: Standard

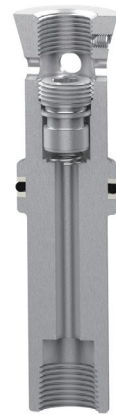


SAMPLE

3.3.2 Injection Nut Assembly – Integrated check valve

Specifications:

- Model: INT001/2/3
- Order length: 2.75 ~ 5.50 inches
- Connection: 1/4" NPT / 1/2" NPT / 3/4" NPT
- Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization
- Applicability: Chemical Injection System
- Seal Material: 1 Viton O-ring & 2 Teflon Back up Rings
- Type: With Integral check valve



3.4 WINDA Injection Tube

3.4.1 Injection Tube - Quill

Specifications:

- Model: QIT00X
- Connection: 1/4" ~3/4" NPT
- Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization
- Typically used for moderate to fast flow
- Reliable and even chemical dispersion when Center-of-line
- No restricting orifice and consequently no backpressure
- nor pressure differential is experienced at the injection tube orifice.
- Virtually clog proof even for unscreened inhibitors
- Applicability: Chemical Injection System and Sampling System
- Easy maintenance



3.4.2 Injection Nozzle Tube – Axial

Specifications:

- Model: ITH00X
- Connection: 1/4" NPT or 1/2" NPT connect the Injection Nut & 9/16-18UNF connect Nozzle
- Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization
- Injection dispersion always parallel to product flow
- Applicable environment: Gas Phase
- Typically used for center-of-line injection
- Applicability: Chemical Injection System
- Easy maintenance



3.4.3 Injection Nozzle Tube – Perpendicular

Specifications:

- Model: ITN00X
- Connection: 1/4" NPT or 1/2" NPT connect the Injection Nut
- Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization
- Injection dispersion always perpendicular to product flow
- Applicable environment: Gas Phase
- Typically used for top of line injection
- Applicability: Chemical Injection System
- Easy maintenance



3.4.4 Injection Tube - Open

Specifications:

- Model: ST00X
- Connection: 1/4" ~3/4" NPT
- Material: SS316L/316 / S31803 / S32760 / S32750 / N06625 / N08825 / N10276 or Customization
- Typically used for moderate to fast flow
- No restricting orifice and consequently no backpressure
- nor pressure differential is experienced at the injection tube orifice.
- Virtually clog proof even for unscreened inhibitors
- Applicability: Chemical Injection System and Sampling System
- Easy maintenance



SAMPLE

SAMPLE

4.WINDA NON-TELESCOPING RETRIEVER TOOL AND SERVICE VALVEM

4.1 WINDA Non-telescoping Retriever Tool

4.1.1 Non-telescoping Retriever Tool

Specifications:

- Model: RT10
- Order length: 18", 25", 37
- Pressure Rating: 2500 (17.2 MPa) / 6000 PSI (41.3 MPa)
- Short length: non-telescoping design
- Compatible with industry standard: 2" Access fittings
- Weight: Lightweight and easy to use
- Training: Winda Systems Safety Awareness Training available
- Meets Standard: NACE MR0175/MR0103



4.2 WINDA Service Valve

4.2.1 Single Ball Service Valve

Specifications:

- Model: SV10
- Pressure Rating: 3600 PSI (24.80 MPa) / 6000 PSI (41.3 MPa)
- Temperature Rating: -26°C - 232°C
- Safety: By-Pass Bleed Valve Provides Safe Pressurization
- Design: Compact Design
- Meets Standard: NACE MR0175/MR0103



4.2.2 Double Block & Bleed Service Valve

Specifications:

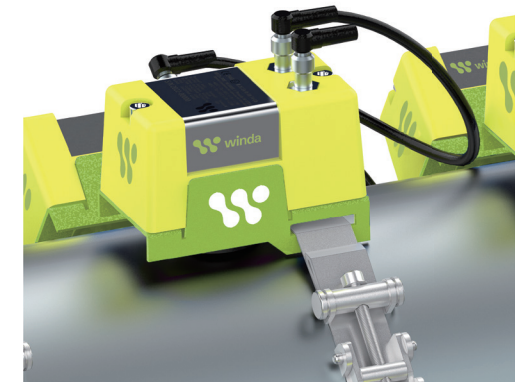
- Model: SV10-DBB
- Pressure Rating: 3600 PSI (24.80 MPa) / 6000 PSI (41.3 MPa)
- Temperature Rating: -26°C - 232°C
- Safety: Double By-Pass Bleed Valve Provides Safe Pressurization & Double Block Valve for Enhanced Safety
- Design: Compact Design
- Meets Standard: NACE MR0175/MR0103



5.WINDA HIGH-SENSITIVITY THICKNESS MONITORING

5.1 WINDA UT Sensor

5.1.1 UT Sensor - Standard



Specifications:

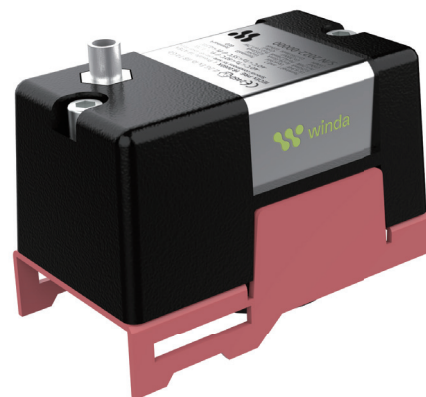
- Non-intrusive mount to monitoring Corrosion and Erosion
- Resolution better than 0.1 mils, or 2.5 µm
- Temperature Rating -40 to +257 °F (-40 to +125 °C)
- Real-time feedback Corrosion/Erosion data
- Makes a significant OPEX saving
- Retrofittable for easy relocation
- Fast, maintenance-free installation
- No need to remove coatings
- No need for maintenance or calibration after installation
- Modbus TCP, RTU, or OPC to control systems
- Bluetooth or USB communication with a portable instrument
- Operating voltage: 24VDC
- Typical Ultrasound frequency: 5 MHZ
- Pipeline operating temperature: -40 to +125 °C
- Ingress protection: IP 67
- Weight: 110g
- Hazardous Area Location Certified: II 2G Ex ib IIB T4 Gb, Ex ib IIB T4 Gb Certificate No.: CSANe 22ATEX1103X IECEx CSAE 22.0055X

SAMPLE

5.1.2 UT Sensor – High Temperature

Specifications:

- Non-intrusive mount to monitoring Corrosion and Erosion
- Resolution better than 0.1 mils, or 2.5 μm
- Temperature Rating: -40 to +125 °C
- Real-time feedback Corrosion/Erosion data
- Makes a significant OPEX saving
- Retrofittable for easy relocation
- Fast, maintenance-free installation
- No need to remove coatings
- No need for maintenance or calibration after installation
- Modbus TCP, RTU, or OPC to control systems
- Bluetooth or USB communication with a portable instrument
- Operating voltage: 24VDC
- Typical Ultrasound frequency: 5 MHz
- Pipeline operating temperature: -40 to +150 °C
- Ingress protection: IP 67
- Weight: 110g



5.2 WINDA SSDL Data Logger

5.2.1 SSDL Data Logger

Specifications:

- SmartUT-20 Sensor channels: 16
- Operating temperature: -30 to +80 °C (-22 to +176 °F)
- Power Supply: 12-24 VDC or 110/240 VAC
- Typical power consumption: <20 W
- Interface: RS485
- Communicates with the control system: Modbus TCP
- Data download: USB

SAMPLE

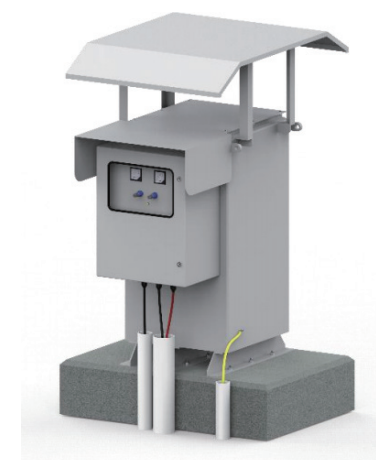
6. WINDA Cathodic Protection System

6.1 CATHODIC PROTECTION SYSTEM TRANSFORMER RECTIFIER UNIT (MODEL P300-0013)

6.1.1 INTRODUCTION

The Winda Transformer Rectifier (TR) are designed to convert alternating current to direct current. To provide the best protection to a buried or submerged structure, which can efficiently convert power, automatically adjust for numerous types of environments, and quickly relay critical corrosion protection data.

The Transformer Rectifier (TR) may be produced with different controls upon request (or according to cathodic protection design). Oil-cooled transformer rectifiers are ideally suited to heavy-duty applications in arduous environments with ambient temperatures up to 55°C and are available with current ratings of up to 400 amperes.



The Winda Cathodic Protection Explosion-Proof Transformer Rectifier is the ultimate solution for hazardous environments. Designed to withstand extreme conditions, the transformer rectifier offers reliable and safe corrosion protection in explosive atmospheres. With its explosion-proof construction and certified components, you can trust our product to operate flawlessly in volatile settings.

Our explosion-proof transformer rectifier is meticulously engineered to meet the strictest safety standards, ensuring protection for both personnel and equipment. Additionally, the compact and rugged design allows for easy installation and minimal maintenance.

SAMPLE

6.1.2 Oil-Cooled Transformer Rectifier (P300-0013) Specifications

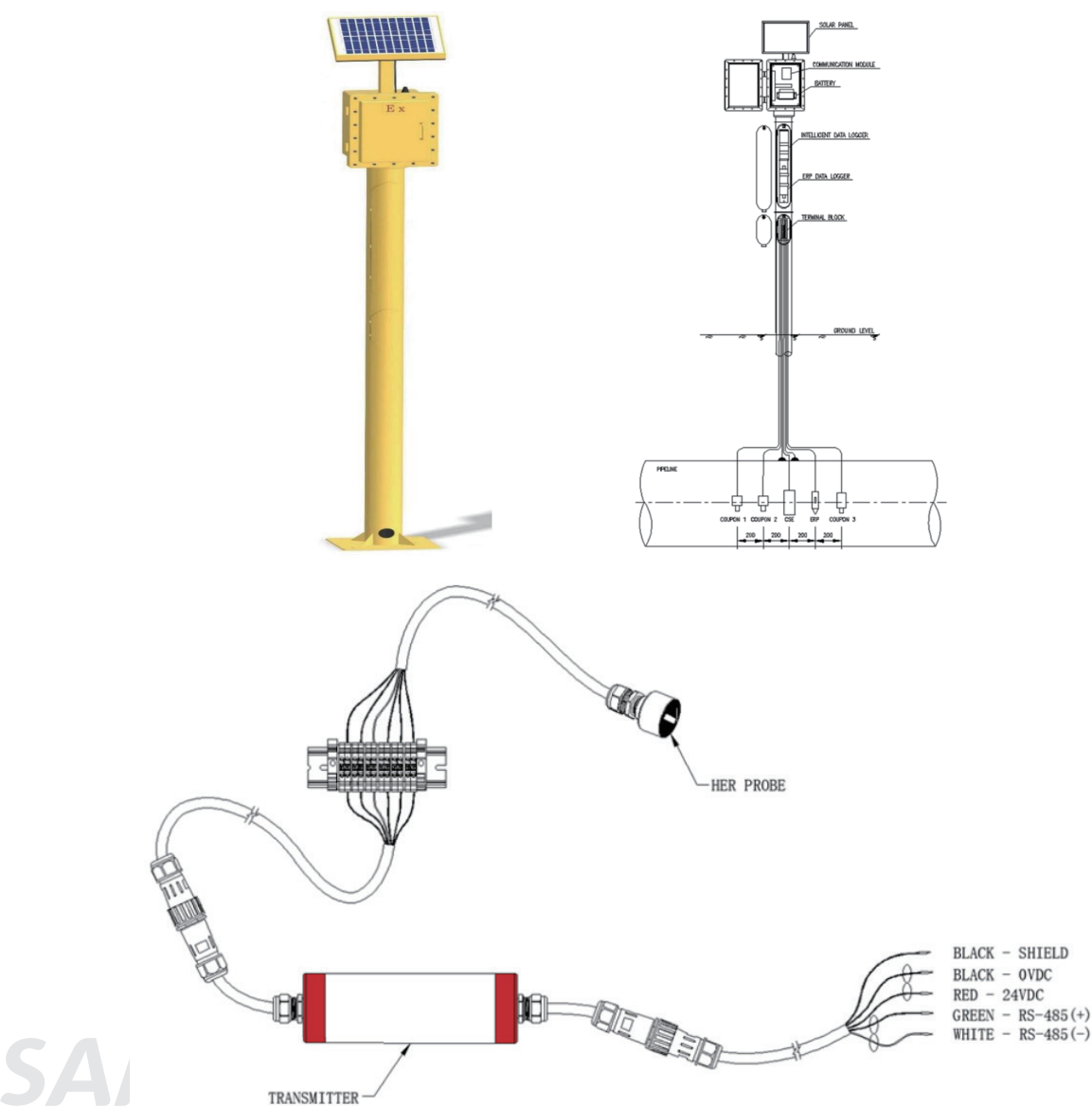
1	SPECIFIC REQUIREMENTS:	
2	APPLICABLE STANDARD	IEC 60947-4-1: LOW VOLTAGE SWITCHGEAR / BS 171-78: POWER TRANSFORMER
		BS EN 60529: CASING IP PROTECTION
3	FUNCTION	THE PRINCIPLE OF OPERATION OF REGULATING THE OUTPUT ADJUSTMENT TAPS BE PROVIDED FOR TR UNIT FOR THE CONSTANT CURRENT, AUTO MODE (CONSTANT POTENTIAL).
4	TECHNICAL DATA	
4.1	INPUT VOLTAGE	240 ± 10% VAC
4.2	INPUT PHASE	1PH
4.3	FREQUENCY	50 ± 5% Hz
4.4	RATED OUTPUT	50V 125/150A
4.5	RIPPLE	< 10% RMS at 100% of LOAD
4.6	VOLTAGE REGULATION RANGE	0~50V
4.7	COOLING METHOD	OIL COOLING, WITH OIL TEMPERATURE GAUGE AND SILICA GEL BREATHER.
4.8	TYPE OF TRANSFORMER RECTIFIER	SILICON- CONTROLLED TYPE
4.9	EFFICIENCY	AT LEAST 75%
4.10	POWER FACTOR	NOT LESS THAN 0.8
4.11	DIELECTRIC STRENGTH	NO FLASH OVER SHALL OCCUR AT 50 Hz ,1000VAC
4.12	INSULATION RESISTANCE	MORE THAN 10 MEGAOHM
4.13	RECTIFICATION	THYRISTOR RECTIFIER
4.14	LIMITS FOR SETTING OUTPUT PARAMETERS	5-100%
4.15	PARAMETER STABILIZATION ACCURACY	3%
4.16	% IMPEDANCE	NO MORE THAN 3%
4.17	PROTECTION	OVERVOLTAGE PROTECTION
		OVERCURRENT PROTECTION
		OVERPOTENTIAL PROTECTION
		INPUT AND OUTPUT FAST FUSE PROTECTION
		LIGHTNING PROTECTION

4.18	WORKING MODE	CONSTANT CURRENT OPERATING MODE
		CONSTANT POTENTIAL OPERATING MODE
		STANDBY MOD
		CURRENT INTERRUPT OPERATION MODE (12S ON,3S OFF)
4.19	CONTROLS	THYRISTORS (SCR)
		RS485 INTERFACE (OR AN ANALOGUE)
4.20	INDICATION / DISPLAY	OPERATION MODE
		FAULT ALARM
		OUTPUT CURRENT, OUTPUT VOLTAGE, REFERENCE ELECTRODE DISPLAY
5	CONSTRUCTION	
5.1	TERMINALS	AC INPUT, OUTPUT ANODE, OUTPUT CATHODE, REFERENCE ELECTRODE, STRUCTURE EARTH, MONITOR
5.2	COATING THICKNESS	NOT LESS THAN 120 MICRONS
5.3	FITTINGS & ACCESSORIES(MINIMUM)	LIFTING LUG
6	ENCLOSURE PROTECTION GRADE	IP55
7	CONSTRUCTION	
7.1	DESIGN LIFE	AS DESIGN REQUIREMENT
7.2	WEIGHT	180kg (WITHOUT OIL)
7.3	DIMENSIONS	1000(W)x1150(H)x1020(D)
7.4	GPS ON-OFF TEST FUNCTION	Yes
7.5	EXPLOSION-PROOF GRADE:	EX D TYPE SUITABLE FOR ZONE 2, IIA/IIB, T3 AREA.
8	COMMUNICATION	
8.1	REMOTE MONITORING SYSTEM REQUIRED	I/A
8.2	CONTROL OF PARAMETERS	I/A
8.3	INBUILT INTERRUPTER	YES
9	INSTALLATION	
9.1	ENVIRONMENT	OUTDOOR, WEATHERPROOF WITH A SUNSHADE
9.2	MOUNTED	FLOOR
9.3	CABLE ENTRY	GLAND PLATE
10	ACCESSORIES	SILICONE RESPIRATOR
		SUNSHADE
		OIL LEVEL GAUGE
		DRAIN VALVE
		OIL HOLE

6.2 CATHODIC PROTECTION SYSTEM
SMART TEST STATION
(MODEL M400-0018)

6.2.1 INTRODUCTION

The Winda Smart Test Station (STS) is designed for the online real-time cathodic protection system monitoring. It includes Permanent Reference Electrodes (PRE) Polarization Coupon (PC), High-Resolution Electrical Resistance (HER) Probe, Transmitters, Solar Panel and High-Capacity Lithium Battery. Remote monitoring and control of cathodic protection parameters for pipelines and protective structure can be achieved.



6.2.2 Smart Test Station (M400-0018) Specifications

1	CLIMATIC CONDITIONS	
1.1	Operating Temperature	-25℃~60℃
2	TECHNICAL PARAMETER	
2.1	Body Material	CS
2.2	Dimensional	Φ108*4*2600mm
2.3	Color	Yellow
2.4	Installation Type	Concrete installation
2.5	Polarization Coupon	Material: CS
		Quantity: 3 No. Area: 2 set 1cm ² , 1 set 6.5cm ²
2.6	Reference Electrode	Copper/ Copper sulphate reference electrode
		5mV with micro amp load
2.7	On Potential	Measurement Range: ±5VDC; ±100VDC; Auto Switch Range
		Accuracy: ≤±5mV;
2.8	Off Potential	Measurement Range: ±5VDC; ±100VDC; Auto Switch Range
		Accuracy: ≤±5mV;
2.9	DC Interference Voltage	Measurement range: ±100VDC
		Accuracy: ≤1%;
2.10	AC Interference Voltage	Measurement range: 1;100VRMS
		Accuracy: ≤0.5V;
2.11	Input Impedance	Reference and pipe: >10MΩ;
		Reference and test piece: > 10 MΩ
2.12	Power Supply	High-capacity lithium battery: ≥20Ah
		Power supply method of solar energy: Service life of no less than 10 years (under suitable service conditions); rechargeable battery
2.13	Monitoring Mode	Timer measurement: remotely set measurement cycle, 1 second/ each time~1 day/each time.
		Alarm monitoring: With adjustable alarm triggering voltage setting
2.14	High-Resolution Electrical Resistance (HER) Probe	Element type: Flat-surface Element
		Element material: Carbon Steel
		Resolution: 1/262,144 of Thickness of Element

2.15	Transmitter	Power supply:10~32VDC
		Current consumption: typical 17mA@24VDC
2.16	Communication Methods	LTE-TDD
2.17	Remote Monitoring	DC Voltage Off Potential DC Current
		AC Current On Potential ACIF Voltage Supply Voltage Metal Loss
2.18	CP Remote Control	Power-on Time Sampling Time Power-off Potential Measurement Time Depolarization Time ER Probe Power-on Time Work Mode
2.19	Enclosure Protection Grade	IP65
2.20	Explosion-proof Requirement	EXD IIB T4



