

PROCAL

ANALYSER CONTROL UNIT Mark 4 (ACU)

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High Peak Power Plant
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Monthly report of instrument - 8591987
For period 01 October 2009 at 00:00 to 31 October 2009 at 09:00

Gas	Units	Ranges	High Limit
Water Vapour	H ₂ O	%	0.0 to 30.0
Sulphur Dioxide	SO ₂	ppm	0 to 350
Nitric Oxide	NO	ppm	0 to 300
Nitrogen Dioxide	NO ₂	ppm	0 to 250
Carbon Dioxide	CO ₂	%	0 to 15
Sample Temperature	T Sample	Deg C	-10.0 to 350.0
Sample Pressure	P Sample	mbar	0.0 to 1200.0

Results (Report Interval Daily)

Date	Time	Status	H ₂ O	SO ₂	NO	NO ₂	CO ₂
01-Oct-09	09:00	ON	11.5	256	268	41	12.8
02-Oct-09	09:00	ON	11.7	245	268	35	12.4
03-Oct-09	09:00	ON	11.8	290	267	35	12.8
04-Oct-09	09:00	ON	11.7	310	277	45	12.8
05-Oct-09	09:00	ON	12.2	278	252	38	12.3
06-Oct-09	09:00	ON	11.5	288	254	34	12.2
07-Oct-09	09:00	ON	11.6	224	254	33	12.1
08-Oct-09	09:00	ON	11.9	282	245	35	11.9
09-Oct-09	09:00	ON	11.3	277	272	38	12.6
10-Oct-09	09:00	ON	11.8	292	274	37	12.3
11-Oct-09	09:00	ON	11.7	273	263	34	12.5
12-Oct-09	09:00	ON	11.5	256	266	34	12.7
13-Oct-09	09:00	ON	11.7	267	271	36	12.4
14-Oct-09	09:00	ON	12.1	284	278	35	12.5
15-Oct-09	09:00	ON	12.0	297	267	32	12.8
16-Oct-09	09:00	ON	11.9	259	261	30	12.5
17-Oct-09	09:00	ON	11.2	280	266	32	12.9
18-Oct-09	09:00	ON	11.9	248	259	29	12.4
19-Oct-09	09:00	ON	11.9	251	254	32	12.2
20-Oct-09	09:00	ON	11.3	243	251	29	12.4
21-Oct-09	09:00	ON	11.8	290	249	30	11.8
22-Oct-09	09:00	ON	11.8	290	253	29	11.9
23-Oct-09	09:00	ON	11.7	319	258	31	12.8
24-Oct-09	09:00	ON	11.8	298	268	38	12.4
25-Oct-09	09:00	ON	11.2	307	260	43	12.4
26-Oct-09	09:00	ON	12.6	285	277	48	12.7
27-Oct-09	09:00	ON	12.4	293	275	43	12.6
28-Oct-09	09:00	ON	12.6	283	278	38	12.3
29-Oct-09	09:00	ON	12.6	283	278	28	12.4
30-Oct-09	09:00	ON	12.2	251	278	35	12.9
31-Oct-09	09:00	ON	12.2	251	278	35	12.7

Period Summary

Average Value	11.777	274.9	270.4	35.267	12.45
Peak Value (Average 5MIN)	At Date	At Time	At Date	At Time	At Date
Total time > high limit	18.22	24-Oct-09	26-Oct-09	11:10	-
Number of Exceedances	-	2	3	-	-



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EN14181
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40 CFR
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Analyser Control Unit Mark 4 (ACU) Specification

Analyser Control Unit Mk 4

Function - Controls and Processes the raw data from up to six (6) Procal Continuous Emission Monitoring Systems and Generates, Displays and Transmits concentration readings in customer specified units.

Facilities Include

The capability to not only display concentrations of gases monitored by the Procal Analyser but also to collect data from third party instruments such as Dust (Opacity), Oxygen, Temperature, Pressure and Velocity. This data can then be displayed and used in calculations to determine for example normalised concentration and mass measurements.

Display Parameters:

Main Screen displays gas concentrations (Optional Wet / Dry) and all inputted data with real time clock/ calendar and diagnostics status indication. The displayed concentration is "Flagged" with display criteria ie Normalised / Wet / Dry.

Test Screen (One screen for each analyser) displays Detector Signal, Input Data, Sample Pressure, Filter Wheel Speed, Sample Temperature, Analyser Temperature, Duty Cycle of Controlled Devices (Example Probe Heater)

Trend Screen displays (Minimum of 1 Year) history of each monitored concentration including data collected from third party instruments, selectable time scale and averaging function.

Analyser Controls are intuitive using touch screen to switch between windows and menus, optional keyboard and pointing device.

I/O (Standard):

Print Function - USB & parallel printer port

Data Dump Facility - USB memory stick

Modbus - Four wire RS485 Full Duplex, Standard MODBUS Slave

OPC & ODBC

LAN - Ethernet two ports 10/100/1000 Mbps

I/O (Optional)

Up to 32 Current Output / Inputs 0 - 20 mA / 4 - 20 mA, each galvanically isolated from ground and from each other. Normally only fitted with the same number of outputs as the number of Procal ranges, third party instruments connected to the system can also be allocated outputs.

Up to 32 Relay Outputs Volt-Free 28V dc 1A (n/c or n/o selectable) for channel alarms, analyser 'fault' relay, and for other functions.

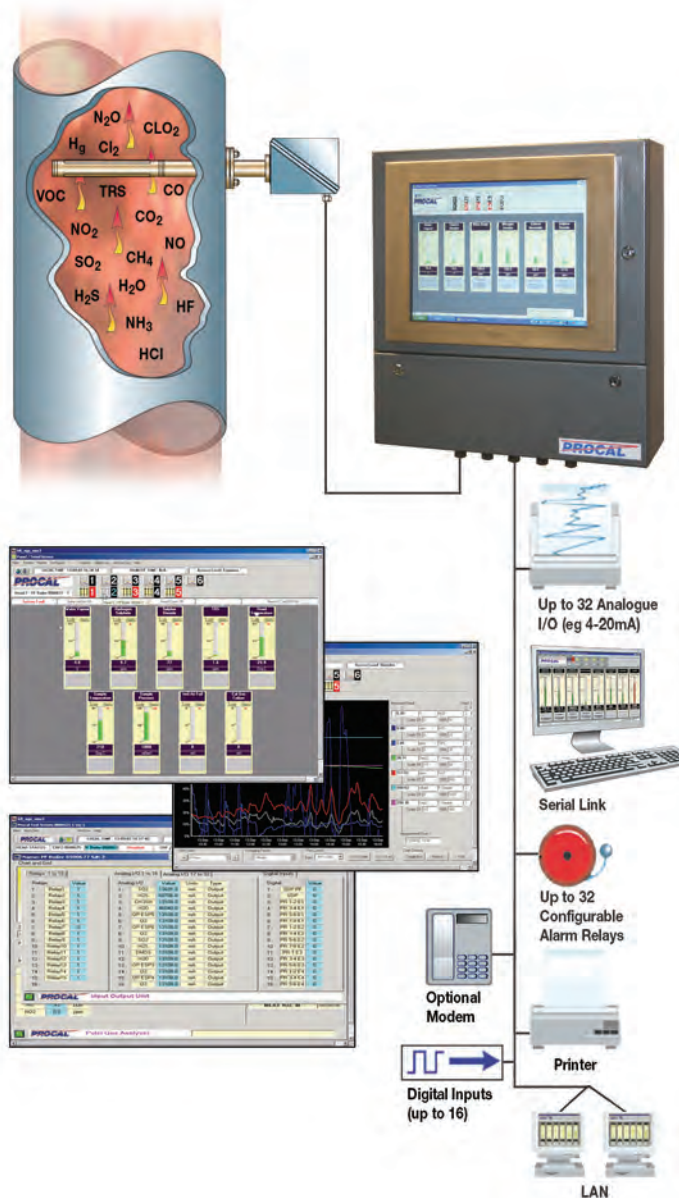
Up to 16 Digital Inputs 24V / 20mA logic or Contact closure detection Link Selectable.

Reports

Reports can be generated to meet the requirements of the majority of national environmental authority reporting requirements.

These include:

- Calibration Status Report (Zero and Cal Report)
- Trend Reports (Configurable Period & Averaging)
- Hourly, Daily and Weekly averaging reports
- Excursion report
- Special Reports can be configured - please consult factory



Data Storage: 140GB - In excess of eighteen months data storage on a six analyser system

Software: Analyser Control for Windows Network (ACWN) see Data Sheet 7-3037 for further details Microsoft XP Pro™

Enclosure: Polyester powder coated mild steel, Stainless steel panel PC bezel. Sealed to IP 65/NEMA 4X

Operating Environment: Operating temperature range: -10°C to +45°C (+14°F to +113°F)

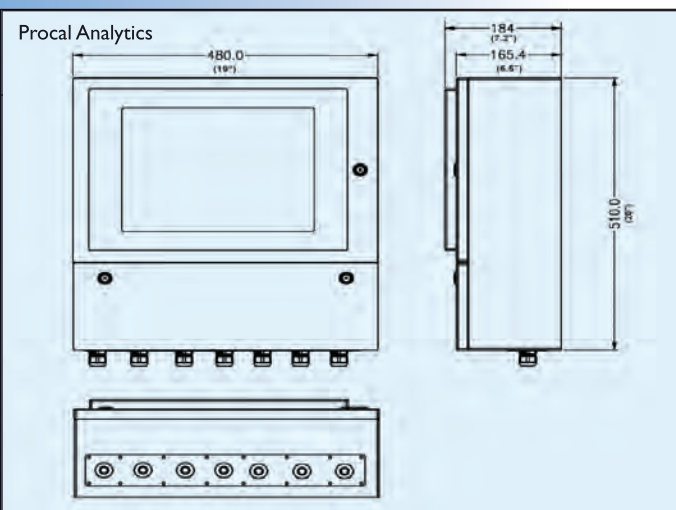
Enclosure Classification: Non-hazardous area

Services Required: 90-264Vac 47-63Hz 70W Typical / 160W Maximum (Dependent on options fitted)

Weight: 23kg (50lb)

Dimensions: 510mm(H) x 480mm(W) x 184mm(D)

20"(H) x 19"(W) x 7.2"(D)





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