



NBM-580 Broadband Radiation Meter



- ◆ Up to 8 Input Metering Station for NBM Meters and/or NS3 Monitors
- ◆ Allows Central Control of Multiple Field Sensors
- ◆ Built-in, Low and High Power Alarm Relays
- ◆ Touch Screen Controls
- ◆ Fiber Optic and USB Inputs
- ◆ IEEE-488 or Ethernet Connectivity

Description

The Narda NBM-580 allows users to combine multiple-sensor installations into a fully functioning monitoring or alarm system. Configured as a single communication point, this product allows complete control over sensors that are stationed tens or hundreds of meters away from the metering station. The built-in color, touch screen display can be user configured to display individual readings of each sensor or the maximum, minimum or average of one or more of the connected sensors. Programmable analog voltage outputs can also be arranged to generate positive or negative going voltages, depending on detected fields. Digital TTL-levels can be tied to alarm settings as well as two built-in high power relays.



Individual Channel readings can be displayed (left) as well as all channels (below). The system will automatically adjust the size and color of the font to indicate normal or alarm situations. The pictures here just indicate a fraction of the information available on the front panel or through the Ethernet interface.

| | | | | |
|-----------|-----|-----------|------|------------|
| Channel 1 | 8 % | Channel 2 | 11 % | Status All |
| Channel 3 | | Channel 4 | | Status Max |
| Channel 5 | | Channel 6 | | |
| Channel 7 | | Channel 8 | | Settings |

| | | | | |
|-----------|-------|-----------|------|------------|
| Channel 1 | 150 % | Channel 2 | 11 % | Status All |
| Channel 3 | | Channel 4 | | Status Max |
| Channel 5 | | Channel 6 | | |
| Channel 7 | | Channel 8 | | Settings |

| | | | | |
|-----------|-------|-----------|------|------------|
| Channel 1 | 204 % | Channel 2 | 11 % | Status All |
| Channel 3 | | Channel 4 | | Status Max |
| Channel 5 | | Channel 6 | | |
| Channel 7 | | Channel 8 | | Settings |



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Area Monitoring

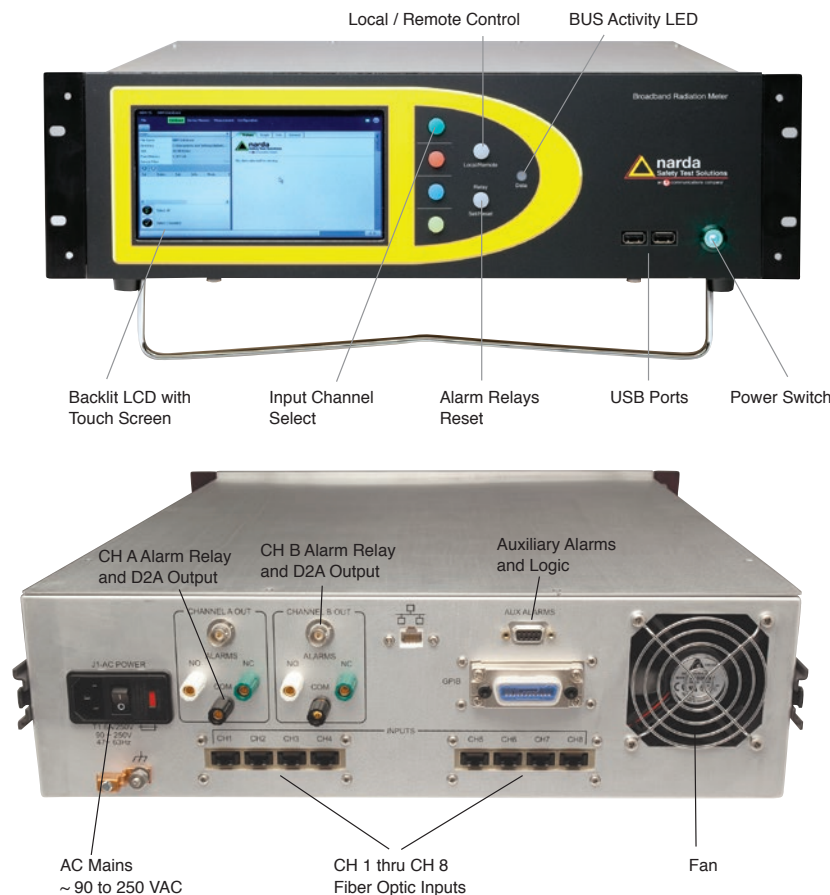
Intelligent area monitoring is made possible by the NBM-580 and Nardalert S3 (NS3) monitors. NS3 monitors can be placed strategically around high-power test areas, powered by DC voltage and connected by fiber optic cables back to the NBM-580. Levels detected by the monitors can be continuously compared to preset thresholds and generate immediate alarms if those thresholds are exceeded. With the built-in Ethernet connection, monitoring can be configured anywhere that a connection exists. NS3 monitors have NEMA enclosure and solar charging panel optional accessories for outdoor monitoring applications.

Field Monitoring

For more precise field monitoring, the NBM-580 can be connected to NBM meters and probes. A typical system would consist of NBM series field probes and NBM-520 meters. The fiber optic output of the NBM-520 is routed to the NBM-580 where display of the detected fields is processed. Many NBM probes cover dynamic ranges of 60 dB and provide detection of E or H fields to provide coverage of most any industrial, communication or military applications.

System Operation

As the NBM-580 is a metering station it requires no re-calibration. Therefore it can form part of a comprehensive monitoring system where it can be semi-permanently mounted. All probes, meters and Nardalerts do require periodic re-calibration and can be readily substituted with other calibrated units directly for seamless operation.





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Specifications

| NBM-580 | |
|---|--|
| DISPLAY | |
| Display Type | TFT Active Matrix, Touchscreen |
| Display Size | 6.95 inches, 156 x 82.8 mm, 800 x 480 pixels |
| Backlight | White LED's |
| Display Refresh Rate | 250 msec. |
| MEASUREMENT FUNCTIONS | |
| Result Units | mW/cm ² , W/m ² , V/m, A/m, % of standard |
| Display Range | 0001 to 9999, switchable between variable and permanent triads |
| Display Range, Variable Triads | 0.01 V/m to 100.0 kV/m • 0.01 mA/m to 265.3 A/m 0.001 mW/m ² to 26.53 MW/m ² • 0.1nW/cm ² to 2.653 kW/cm ² 0.0001% to 9999% |
| Display Range, Fixed Triads | 0.01 to 9999 V/m • 0.0001 to 265.3 A/m • 0.0001 to 9999 W/m ² 0.0001 to 9999 mW/cm ² • 0.0001% to 9999% |
| Result Types (Isotropic, RSS) | Actual (ACT), Maximum (MAX), Minimum (MIN), Average (AVG), Maximum Average (MAX AVG) |
| Result Types (X-Y-Z Mode) | Latest values: Actual X, Actual Y, Actual Z (for probes with separate axis connections) |
| Time Averaging | Averaging time selectable from 4 s to 30 min (2 s steps) |
| Spatial Averaging | Individual or continuous sampling |
| Multi-Position Spatial Averaging | Averaging over up to 24 spatially averaged results, storage of individual position results and of the total value |
| Progress Memory (History Mode) | Graphical display of the latest values versus time (time span 2 min to 8 h) |
| Correction Frequency | 1 kHz to 100 GHz or OFF (direct frequency selection, interpolation between calibration points) |
| Hot Spot Search | Acoustic indication of increasing or decreasing field strength (Actual or Maximum) |
| Alarm Function | 2 kHz warning tone (4 Hz repetition rate), variable threshold |
| Timer Controlled Recording (Timer Logging) | Starting time setting: Up to 24 h in advance or record immediately Recording time: up to 100 h Store interval: Every 1s to 6 min (in 11 steps) Number of store intervals: up to 32000 |
| MEMORY | |
| Memory | 4 GB (expandable through USB Memory) |
| INTERFACES | |
| Remote Operation Interface | Ethernet and IEEE-488.2 (Standard), RS-232 (Optional) |
| Sensor Connection | 4 optical USB interfaces (serial, full duplex, 115200 baud, no parity, 1 start bit, 1 stop bit). 4 additional USB interfaces on rear panel. |
| Keyboard and Mouse | 2 front panel USB interfaces |
| High Power Alarm Relays | Two user-configurable relays rated for 3 Amps at 115/130 VAC or 5 Amps at 30 V |
| GENERAL SPECIFICATIONS | |
| Recommended Calibration Interval | 24 months ^a |
| Temperature Range | Operational: -10°C to +50°C • Non-operational (transport): -30°C to +70°C |
| Humidity | 5 to 95% relative humidity, no condensation; ≤29 g/m ³ absolute humidity (IEC 60721-3-2 class 7K2) |
| Size | 21 x 17 x 5.25 in. (53.4 x 43.2 x 13.4 cm) excluding rack mount angles |
| Weight | 14.25 lbs. (6.46 kg) |
| Accessories Included | AC Power Cord, Manual, Calibration Certificate |

NOTES: ^a Only for basic instrument; probes are specified separately



Ordering Information

| NBM-580 | Part Number |
|---|-------------|
| NBM-580 Narda Broadband Field Meter, Set 1 contains: <ul style="list-style-type: none"> • NBM-580 Basic Unit (2405/01) • Operating Manual NBM-580 • Certificate of Calibration | 2400/801 |
| OPTIONAL ACCESSORIES | |
| Test generator 27 MHz | 2244/90.38 |
| Tripod (non-conducting), 1.65 m, with carrying bag | 2244/90.31 |
| Tripod extension (non-conducting), 0.50 m (for 2244/90.31) | 2244/90.45 |
| Extension handle (non-conducting), 0.42m | 2250/92.02 |
| Cable, coaxial, multi-pin to BNC for NBM-550, external triggering, 2m | 2400/90.04 |
| Cable, optical fiber, duplex (1000 μm) RP-02, 2m | 2260/91.02 |
| Cable, optical fiber, duplex (1000 μm) RP-02, 20m | 2260/91.03 |
| Cable, optical fiber, duplex, F-SMA to RP-02, 0.3m | 2260/91.01 |
| O/E converter RS232, RP-02/DB9 | 2260/90.06 |
| O/E converter USB, RP-02/USB | 2260/90.07 |
| Cable, adapter, USB 2.0 - RS232, 0.8m | 2260/90.53 |

