



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

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

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

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Personal and Area Monitors

NBM-580 Broadband Radiation Meter



Area Monitoring

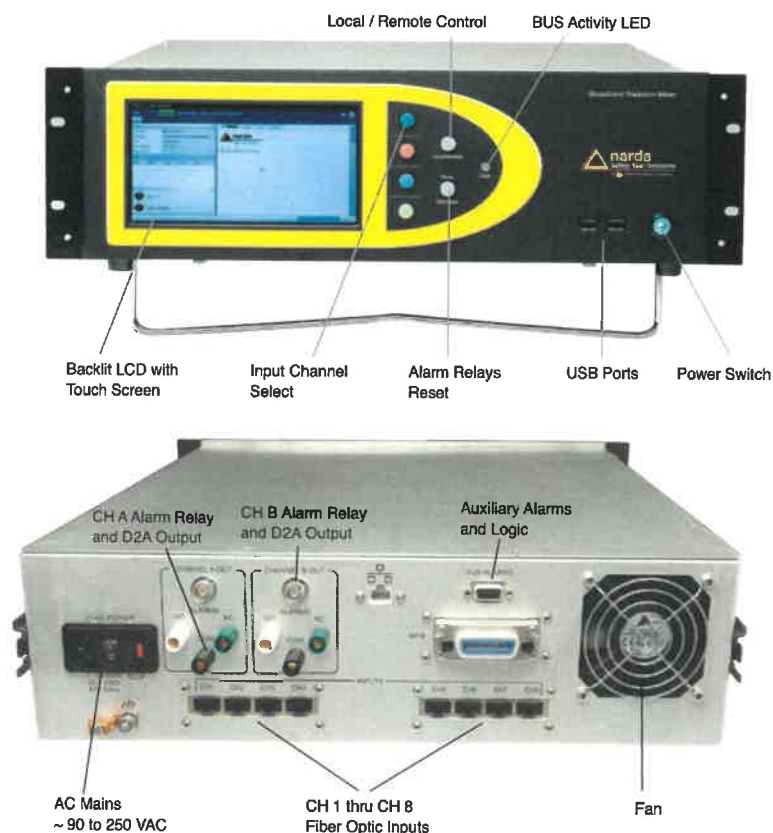
Intelligent area monitoring is made possible by the NBM-580 and Nardalert S3 (NS3) monitors. NS3 monitors can be placed strategically around high-power test areas, powered by DC voltage and connected by fiber optic cables back to the NBM-580. Levels detected by the monitors can be continuously compared 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

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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



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