DeviceNet NetMeter®
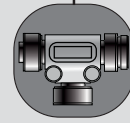
- Diagnostic/troubleshooting tool
- Analyzes both power and bit stream information
- Hand held with simple user interface

The DeviceNet NetMeter empowers untrained personnel to diagnose and troubleshoot network installations quickly and easily, without risk. Completely passive on the network, the meter analyzes the data and power lines on your DeviceNet network. In seconds, both network-wide and device-specific traffic as well as power monitoring information is captured and displayed on a simple, straightforward user interface. Auto Search checks bus errors, bus traffic, bus power voltage, shield voltage, common mode voltage, CAN_H/L Differential, CAN_H and CAN_L Voltage and summarizes network health with helpful troubleshooting icons.

- Empowers untrained personnel to diagnose and troubleshoot the network quickly and easily
- Simplifies network wide and device specific information with easy user interface for fast diagnostics and troubleshooting
- Certifies proper operation of new DeviceNet installations quickly

NetMeter® offers

- *simple user interface*
- *great value proposition for the features*
- *passive on network, cannot create faults or bus errors on network through usage*
- *links faults found to extensive diagnostic of cross-reference likely network fixes for fast real world troubleshooting*
- *generates statistics for troubleshooting intermittent faults*
- *high accuracy*
- *includes mating cordsets N15030D20M0103 and N85030D20M0103*
- *prevents downtime as it detects marginal conditions prior to them causing faults*

PART NUMBER	DESCRIPTION
DN-MTR	NETMETER – MONITORS BITSTREAM TRAFFIC; POWER LINES FOR DEVICENET
DN-MTR-BAG	CONVENIENCE BAG FOR DEVICENET METER

BradCommunications™
from Woodhead Industries

POWER SUPPLY:	NETWORK 11 – 30V DC < 60mA BATTERIES 2 X AA ALKALINE BATTERIES 6 HOURS OF OPERATION APPROX. 1 YEAR DATA RETENTION
CONNECTORS:	QTY (1) MICRO-MICRO CONNECTOR AND QTY (1) MICRO-MINI
BAND RATES:	125K, 250K AND 500K (AUTO –DETECT)
ANALOG ACCURACY	BUS POWER ± 100mV, BUS SIGNAL ± 20mV
ANALOG RANGE:	BUS POWER 0 TO 25V WITH OVER/UNDER RANGE INDICATION BUS SIGNAL -5 TO 10 WITH OVER/UNDER RANGE INDICATION
ANALOG SAMPLE RATE:	BUS POWER 1 KHZ BUS SIGNAL IDEAL SAMPLE PT±250 nS
SIGNAL ERROR THRESHOLD:	PER DEVICENET SPEC FOR NETWORK POWER
BUS LOAD MEASUREMENT:	DETECTS BUS IDLE IN REAL TIME
BUS MESSAGE RATE MEASUREMENT:	DETECTS 100% OF INDIVIDUAL **CAN** FRAMES IN REAL TIME
ERROR RATE MEASUREMENT:	DETECTS 100% OF INDIVIDUAL ERROR FRAMES IN REAL TIME

TWO OPERATIONAL MODES OF USE

Electrician Mode (simple)

1. PLUG IN AND SET NETMETER ROTARY SWITCH TO "AUTOSEARCH"

2. IDENTIFY NETWORK HEALTH
   – HAPPY FACE = HEALTHY

   – NEUTRAL FACE = NOMINAL

   – SAD FACE = FAULTY

3. SCROLL THROUGH FAULTS. REFER TO USER MANUAL TO LINK THESE FAULTS TO MOST LIKELY NETWORK PROBLEMS OR FREEZE AND LOCK SETTINGS FOR THE PLANT CONTROL ENGINEER TO REVIEW

DeviceNet Expert Mode (advanced)

1. SCROLL THROUGH DEVICENET PARAMETERS FOR EACH ACTIVE DEVICENET NODE (MAC ID)
   – COMMUNICATION ERRORS (RATE, CUMULATIVE #)
   – BANDWIDTH (% OF FULL USAGE)
   – POWER SUPPLY AND SHIELD VOLTAGES
   – DATA BIT QUALITY (DOMINANT, RECESSIVE, +, -, DIFFERENTIAL VOLTAGE, CMV)

2. CHECK VALUES (BOTH NUMERIC AND ICONS)

   – HAPPY FACE = WITHIN SPEC

   – NEUTRAL FACE = VERY CLOSE TO LIMIT

   – SAD FACE = OUT OF LIMIT

3. REFER TO USER MANUAL TO LINK THESE FAULTS TO MOST LIKELY NETWORK PROBLEMS

MODES

	PRESENT VALUE	MAXIMUM	MINIMUM	PEAK-TO-PEAK
BUS ERROR	X	X	X	
BUS TRAFFIC	X	X	X	
BUS PWR VOLTAGE	X	X	X	X
SHIELD VOLTAGE	X	X	X	
COMMON MODE VOLTAGE		X		
CAN_H/L DIFFERENTIAL	X	X	X	
CAN_H VOLTAGE	X	X	X	
CAN_L VOLTAGE	X	X	X	