

**산업용 고정밀
GPS-Distance-Meter**

**GDM-500D
GDM-1000R**



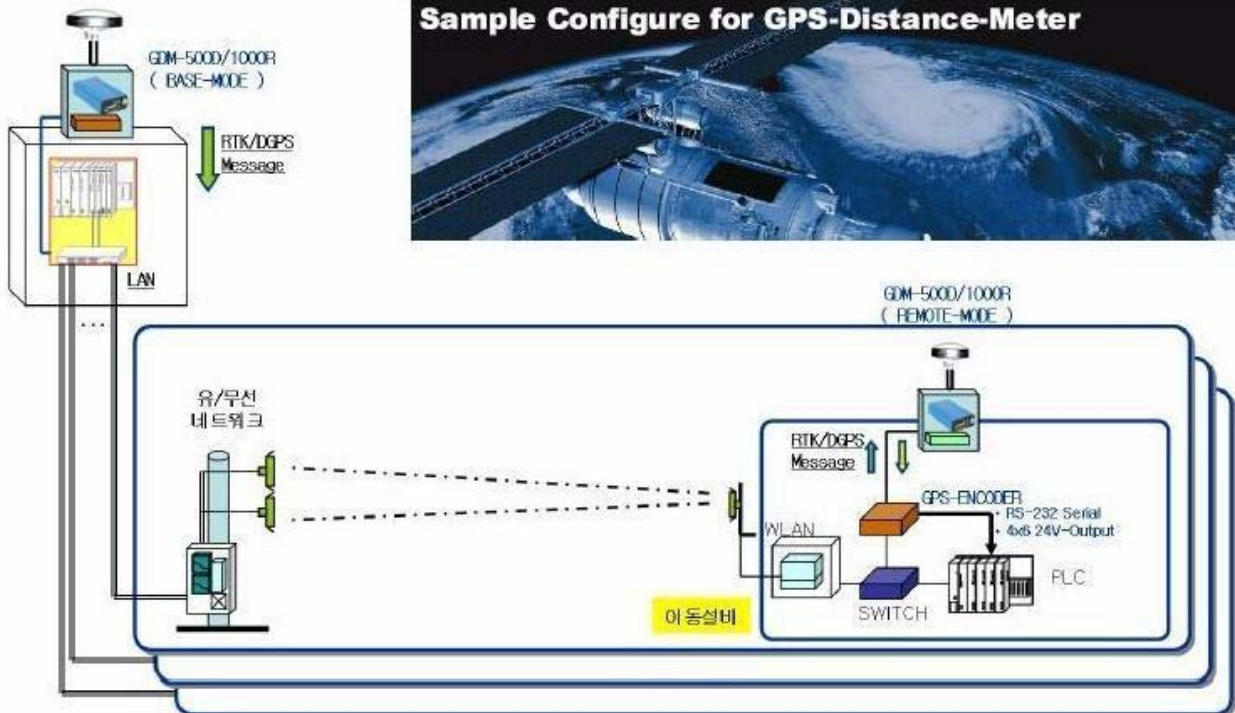
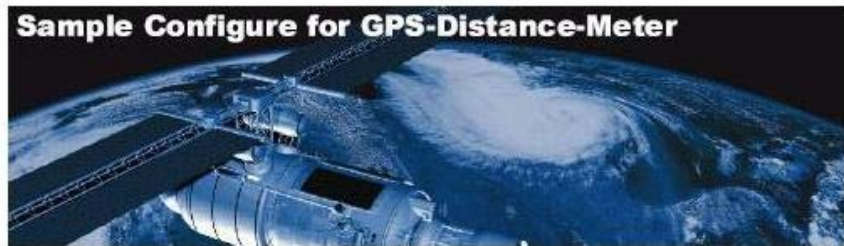
Key features

- GPS 방식의 절대위치 거리 센서
- 1cm급/50cm급 고정밀 GPS 탑재
- 기계적/물리적 편차 ZERO
- Encoder와 교체 가능한 거리 감출력(4~20mA/Serial/24V-I0)
- 한 개의 고정(기준국) GPS로 100개 이상의 이동설비-GPS 구성
- 손쉬운 설치 및 관리
- 유/무선 네트워크 지원 (보유설비 통신망 이용가능)

고정밀 RTK방식의 GPS/GNSS를 이용한 “거리측정” “위치추적” 시스템

Specification	GDM-500D	GDM-1000R
GPS Engine Type	DGPS	RTK-DGPS
Real-Time Position Accuracy (정밀도/편차)	CEP: 50cm 95%: 75cm	CEP: 1cm 95%: 1.5cm
DGPS Interface	Serial: RS-232/422 Ethernet: 10/100Base-T(RJ-45) with TCP/IP Message: RTCM V2.3 (Types 1,2,3,6,9,16,18,19,22) Position Output: NMEA-0183 V3.0	
DGPS CONVERTER Distance Output with GDM-0150EC Unit	Current: 4~20mA Contact: 24-Point 24V/DC (Open-Collector) Serial: RS-232/422	
Power Supply	Auto sensing 100/240VAC 50/60Hz AC/DC Adapter (12/24V,3-5A)	
Temperature	0~60 degrees Celsius Optional: Thermoelectric-Cooler	
Humidity	20% to 80% relative humidity	

Sample Configure for GPS-Distance-Meter



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산업용 고정밀
GPS-Distance-Meter

GDM-0150ANT
GDM-0150EC



GPS-Distance-Meter : Tracking System

ACTIVE GPS ANTENNA
GDM-0150ANT



RF	
3 dB pass band (typical)	L1: 1588.5 ± 23.0 L2: 1236.0 ± 18.3
Out-of-band rejection (typical) ± 100 MHz ± 200 MHz	30 dBc 50 dBc
Gain at zenith ($\theta = 90^\circ$) (min)	L1: +5 dBic L2: +2 dBic
Gain roll-off (zenith to horizon)	L1: 13 dB L2: 11 dB
LNA gain (typical)	27 dB
Polarization	Right-hand circular
Noise figure (typical)	2.5 dB
L1-L2 differential propagation delay (maximum)	5 ns
Nominal impedance	50 Ω
VSWR	≤ 2.0 : 1
POWER	
Input voltage	4.5 - 18.0 VDC
Current (typical)	35 mA

* Low-Loss RF Coaxial Cable-Kit (5M) Included

DGPS CONVERTER
GDM-0150EC



- GPS Signal Converter :
Position to Distance Translation
from BASE-ZERO-Position
- Message Support :
NMEA-0183 V3.0
- Input Signal :
RS-232/422, Ethernet-TCP/IP
- Output Signal :
RS-232/422, 24VDC-24Point(4x6)

Specification	GDM-0150EC
Input Message	NMEA-0183 V3.0
Input Ports (GPS Message)	Ethernet: RJ45 Serial: RS-232C / DB9 RS-422 / DB9
Output Ports (Distance Signal)	Serial: RS-232/422 (ASCII TEXT) 24V-IO: 24-Point / Open Collector (XXX,XX or XXX,XXX) Current: 4-20mA (OPTIONAL)
Encoding Rate	Input: 10Hz / GPS-Position Output: 100-300msec / Distance (3:1 Average Output)
Power Supply	Auto sensing 100/240VAC 50/60Hz AC/DC Adapter (12/24V, 1-2A)
Temperature	0-60 degrees Celsius
Humidity	20% to 80% relative humidity



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EDM (ELECTRONIC DISTANCE METER)

Model : DN1000 / DN3000 / DN5000



- Superior performance and reliable quality.
- Quick distance measurement: tracking measurement time: 0.8s, continuous.
- With the function of single, continuous, average and tracking measurement.
- With illuminating device, Use LC illumination under dark condition.
- After temperature and atmospheric pressure are input, the instrument will make the correction automatically.
- The influence of atmospheric refraction and earth curvature will be compensated automatically in the slope distance and elevation difference measurement.

Hardware Specification

Specification	DN1000	DN3000	DN5000
Distance Measurement Unit	Infrared LED		
Range (slope distance) 1P	1000m	2000m	4000m
Range (slope distance) 3P	1600m	3000m	5000m
Accuracy (standard deviation)	3mm+2ppmxD	3mm+2ppmxD	3mm+2ppmxD
Mnimum Count			
Fine Measurement	0,001m		
Coarse Measurement	0,01		
Mnimum Time			
Fine Measurement	3s		
Coarse Measurement	0.8s		
Mnimum Frequency (three kinds)			
Fine	14835547Hz		
Coarse1	146886Hz		
Coarse2	149854Hz		



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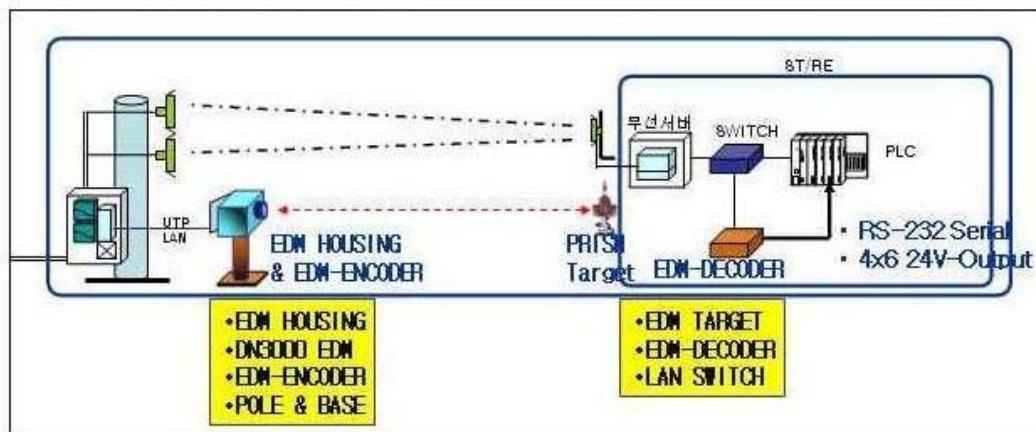
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Coarse1	146886Hz
Coarse2	149854Hz
Length of Emitting Light Wave	0,685mm
Maximum display	9999,999m
Atmospheric Correction Range	
Temperature	-20~50°C
Atmospheric Pressure	533mpa~1332mpa(400mmhg~999mmhg)
Standard Constart Range	-999~999mm
Correction or Stadia Ratio and Stadia Constant	
Stadia ratio	-999~999mm
Stadia ratio	-9,99~9,99mm
Collimator (telescope) Unit	Common Axis of Emitting, receiving and collimating
Focus	Adjustable
Magnification	13x
Image	Erect
Field of View	1° 30'
Display	8-digit LCD
Key Board	13 Plastic Sealed keys
Self-check Function	Code Information Display
Auto Decrease	Yes
Battery information	Display by Coding

EDM CONFIGURE for ST/RE



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