CM3-30 and CMP3-30

Distance sensors

Noptel

- A family of laser distance measurement sensors for indoor and outdoor use
- Based on pulsed time-of-flight technology
- Enable fast measurement of distances to natural surfaces
- Small size and lightweight due to highly integrated technology
- Comprehensive inbuilt operation for many measurement tasks
- Eye safe
- Parameter programmable, automatic operation
- Water tight, nitrogen filled enclosure

Applications

- Industrial measurements
- Scanning
- Traffic control
- Positioning
- Security measurements
- OEM applications
- Portable measurements

Noptel CM3 / CMP3 Laser rangefinders

Noptel's laser distance measurement techniques have their origins in research into the applications of optoelectronics carried out in the Faculty of Technology at the University of Oulu. Continued close co-operation has led to the development of highly integrated distance measurement products for range finding and 2D/3D scanning applications.

Technology

The distance measurement sensors utilize pulsed time-of-flight technology and integrated modules together with our own ASICs for time calculation and signal processing. This technology allows high-speed measurement of distances to poorly reflecting surfaces with high dynamic variations and it has excellent resolution. The units are small in size, light in weight and have low power consumption. The technological solutions make the sensors compact and reliable. The units are nitrogen filled to ensure reliable operation under varying temperature and environmental conditions.

Applications

Typical applications for such sensors are e.g. traffic control, industrial measurements, forest measurements, portable systems and OEM applications, wherever measurement at high speed and with poorly reflecting targets is required. The most rapidly growing application area is traffic control, where many automatic control systems need reliable measurement in demanding environments. Noptel's sensors are utilized e.g. in intelligent traffic camera triggering systems, in vehicle profile measurement and vehicle classification systems as well as in speed measurement devices.

Typical specifications	CM3-30	CMP3-30
Measurement range (natural surface 28%) [m]	3 – 50	1 – 50
Measurement range (ER natural surface 28%) [m]	3 – 75	1 – 75
Measurement range (reflective target) [m]	3 – 380	1 – 380
Beam divergence [mrad]	1.9	16
Precision, single shot [mm]	5-20	5-20
Precision, averaged shots [mm]	1-5	1-5
Supply voltage [V]	8-30	8-30
Power consumption (measurement) [W]	2.1 - 2.9	2.1 - 2.9
Operating temperature range	-20 - + 50 °C	-20 - + 50 °C
Max. Measurement rate [kHz]	3.2	3.2
Interface, serial	RS-232 or RS-422	RS-232 or RS-422
Interface, other	analogue output digital IO	analogue output digital IO
Weight [g]	375	300
Size (L/W/H) [mm]	36 / 132 / 78	36 / 82 / 78
Laser class	1 (pointer 3R)	1 (pointer 3R)

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