

CM5, CMP51 and CMP52

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 CM5, CMP51 and CMP52 Laser rangefinders

The family of CM5 sensors represents the next generation for the famous CM3 sensors' family. The enhanced operation and interfacing together with the high speed processor and large memory capacity makes the unit very attractive to the traffic control and industrial applications. The unit is available in three different models and with two different lasers.



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	CM5	CMP51	CMP52
Measurement range (natural surface 28%) [m]	4 – 100	1 – 60	1 – 50
Measurement range (ER natural surface 28%) [m]	4 – 150	1 – 90	1 – 75
Measurement range (white paper) [m]	4 – 180	1 – 100	1 – 90
Measurement range (reflective target) [m]	4 – 380	1 – 380	1 – 380
Operating temperature range	-20 - + 50 °C	-20 - + 50 °C	-20 - + 50 °C
Beam divergence [mrad]	1.9	6	16
Precision, single shot [mm]	5-20	5-20	5-20
Precision, averaged shots [mm]	1-5	1-5	1-5
Supply voltage [V]	10 - 30 V	10 - 30 V	10 - 30 V
Power consumption (measurement) [W]	2.4	2.4	2.4
Max. Measurement rate [kHz]	5	5 (ER: 2)	5 (ER: 2)
Max. Measurement rate (HS) [kHz]	24		
Interface, serial	RS-232, RS-422	RS-232, RS-422	RS-232, RS-422
Interface, network (option)	Lan, Wlan	Lan, Wlan	Lan, Wlan
Interface, other	analogue output (option) digital IO	analogue output (option) digital IO	analogue output (option) digital IO
Weight [g]	364	333	320
Size (L/W/H) [mm]	36 / 135 / 87	36 / 93 / 78	36 / 79 / 78
Laser class	1 (pointer 3R)	1 (pointer 3R)	1 (pointer 3R)

Pictures are referential. All specifications are subject to change without notice. Ref. M42927AE ©Noptel 2016.