

# MODULOC

## Control Systems



### LT2020-XT LASER DISTANCE METER FOR EXPLOSION PROOF APPLICATIONS



- **Visible Class II Laser providing precise distance measurement**
- **Operates off Natural Surfaces up to 25 Meters (82 feet), off a white target at 85 Meters (279 Feet) and off a special reflector target at 125 Meters (410 Feet)**
- **Measuring rate as low as 100msec off of a white surface**
- **Measuring Rate as low as 20 msec off of a white surface or special reflector target**
- **Provides +/- 3mm to +/- 5mm accuracy**
- **RS232 & RS422 Serial Interface**
- **Programmable 4-20 mA Analogue Output**
- **External Trigger Input**
- **Cast Aluminium Housing Rated IP66, NEMA 4X Plus Explosion Proof Class I, Groups B, C, D, Class II, Groups E, F, G, Class III, NEMA 7BCD,**

#### Typical Applications

<b>Product Material</b>	Length, width, thickness, level and position of product.
<b>Material Handling</b>	Automated Storage/Retrieval Systems and positioning of mobile equipment.
<b>Crane Control</b>	Positioning of cranes & crane trolleys.
<b>Collision Avoidance</b>	Distance alarm between vehicles using white target.

#### General Description

The LT2020-XT Laser Distance Meter operates over a substantial range off static or passing product in difficult areas in harsh hazardous and outdoor environments. The LT2020-XT measures distances over a working range up to 25 meters off of natural surfaces, up to 85 meters off of white surfaces and up to 125 meters off of a special reflector. For operation with automated positioning control of material handling transport systems a white reflective target is used or the special reflector is used. The LT2020-XT can provide a measuring rate as low as 20 milliseconds when used with a white target or special reflector target.

Especially suited for precise detection and measurement of cold/hot product at temperatures up to 600 °C.

Straightforward alignment is easily accomplished via the visible red laser measuring beam.

Accuracy is +/- 3mm to +/- 5mm according to ambient temperature and surface reflectivity. Repeatability is +/- 0.5mm and the user scalable resolution is 0.1mm

The zero offset and the span of the 4 - 20 mA analogue output are both user programmable. The distance offset is also user programmable, this allows the user to define a zero point independent of the analogue output zero offset.

The LT2020-XT is provided with a user programmable digital switching output which is triggered by exceeding in the positive or negative direction a user programmable distance threshold. The hysteresis of the digital switching output is also programmable.

The LT2020-XT is a robust Laser Distance Meter and is provided in a Sand Cast Copper Free Aluminium Explosion Proof Housing. The Housing meets Explosion Proof Certifications for Class I, Groups B, C, D; Class II, Groups E, F, G; Class III, NEMA 7BCD, NEMA 9EFG and ATEX IIC. The Housing can also be used in IP66 and NEMA 4X Water Tight Applications. The Housing has a corrosion Resistant, "Safety Blue" Polyester Powder Coating and utilizes Stainless Steel Hardware. Standard operating temperature is 50 °C.

The LT2020-XT laser distance meter provides a highly accurate measurement reading. It is ideal for length, width, thickness, depth, height, position determination.

The LT2020-XT is supplied a standard with either a RS232 or RS422/RS485 serial interface with a 2400 to 38,400 Baud Rate & a programmable 4 - 20 mA 16 BIT analogue output. An optional ProfiBus DP Gateway Interface Box is available. ProfiBus DP, DeviceNet, and Ethernet Interface Options will soon be available.

**MODULOC Technology - The Total Laser Solution**

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