

APPLICATION NOTES

Lumel N30U: Pressure Measurement Solutions for Ships and Submarines



Introduction:

A pressure gauge is a measuring instrument used to measure the level of pressure in a liquid or gas, across industries. It is a crucial instrument as it also helps control the levels of pressure in liquids and gases and keeps them within the required limit. If certain pressure is reached then the pressure relief valve responds and feeds the excess flow from the system back to the tank. This helps the system and machines' workflow in healthy and safe conditions.

The Problem:

Pressure gauge used in the ship where stationary type devices and to monitor them maintenance person has to visit each room to monitor these pressures. Nectar instruments were in need of a device that can take the universal input (4 to 20mA or 10V output generated from pressure sensors or any other devices) and display the same on the screen. Also, the device is capable to transmit the 4 to 20 analog output depending on the pressure value and communicating the device with the PLC system.

Our Solution:

For the above problem, Rishabh offers Lumel N30U. A universal input programmable Digital panel meter can be programmed for Temperature (with Thermocouple and RTD as temperature sensor input), Analog single (4-20mA, 0-10V), Resistance input. The inputs mentioned above can be converted to equivalent 4-20mA or 0-10V DC singles which are further given to either PLC devices or to Display units. Also, the input given to the DPM is scaled on the screen to show the exact value.

The input of 4 to 20mA from the pressure gauge is given to the N30U meter. N30U rescales the 4 to 20mA to the respective range. Also, N30U regenerates the 4 to 20mA analog output of the same pressure and transmits the same through RS 485 to the PLC system.

The below image shows the picture of Lumel N30U along with the application:

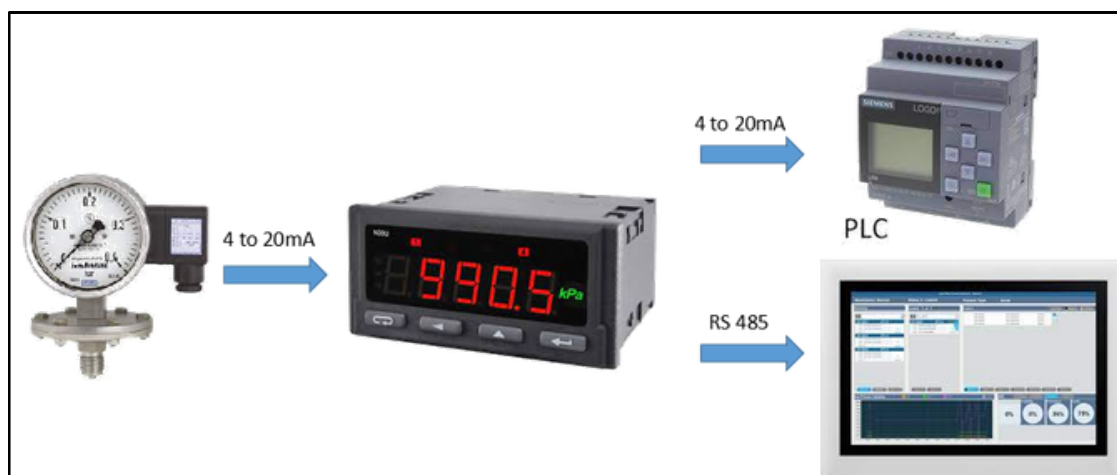


Fig:- Pressure flow measurement using N30U

The Benefits:

- Measurement: temperature, resistance, standard signals
- 3-colour display (14 mm high), programmable in 3 ranges of the measured value
- Meter programming from the keyboard or through the RS-485 interface by means of the free LPConfig program
- 4 alarm outputs with signaling on LED diodes, working in 6 different modes
- Conversion of any measured value into an analog signal 0/4...20 mA or 0...10 V
- Storage of minimal and maximal values for all measured quantities
- Supply of object transducers (option)
- 21-point individual characteristic for the measured value

Contact:

For feedback, partnerships, or further information, please feel free to contact us at:

- **Domestic (India):** +91 253 2202029/026/099 | Email ID: marketing@rishabh.co.in
- **International:** +91 253 2202004/006/008/099 | Email ID: global@rishabh.co.in



RISHABH

**“SUSTAINABLE BY DESIGN.
PROVEN BY PERFORMANCE.”**

COPYRIGHT © 2016

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations embodied in critical reviews and certain other noncommercial uses permitted by copyright law.