

## Promonitor NRF 560

### Tank side monitoring and controlling of Proservo NMS 53x



#### Applications

The Promonitor NRF 560 is a monitoring unit for use with the Proservo series of tank gauges. Mounted at the tank side or up to 1200 m (4000 ft) away, the Promonitor provides indication of measured level temperature data and operating status and can send operating commands to the Proservo NMS 53x from a convenient location.

#### Features

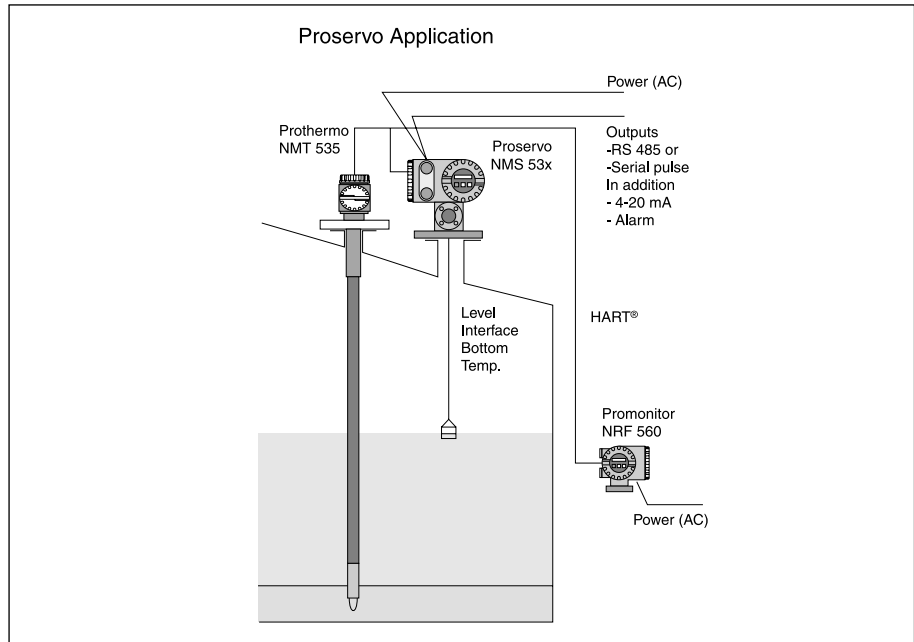
- Remote monitoring and control for Proservo tank gauge
- Indication via two line illuminated display
- Operation via three optical keys (touch control) and Endress+Hauser user friendly programming matrix
- Multi-language text (English, German, Italian, French or Japanese)
- Robust IP 67 housing
- Explosion proof for hazardous area mounting

## System Configuration

Promonitor NRF 560 is a simple, low cost tank side monitor for displaying and operating the Proservo NMS 53x series tank gauge. The Proservo NMS 53x operation is performed by three optical keys (touch control).

Local HART® Protocol (two wire) is used for data transmission between Proservo NMS 53x and Promonitor NRF 560.

Typical Promonitor measuring system



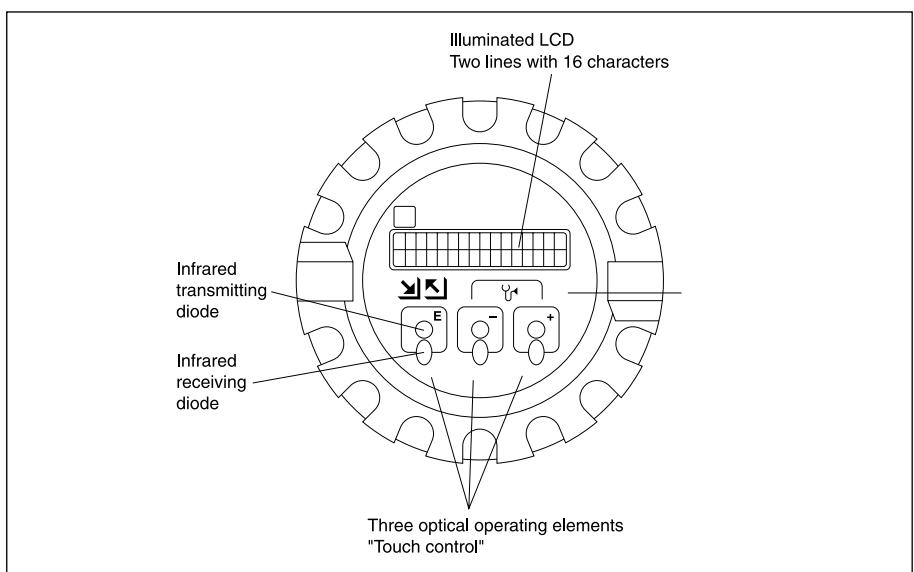
## Display/Operation

Promonitor NRF 560 has a two line illuminated Liquid Crystal Display (LCD) and utilises touch control to help initiate operation and select indication of the Proservo. Mounted within a flameproof enclosure, touch control ensures safe operation in hazardous areas.

Two display modes are available for indication of level and temperature. Operating commands to the Proservo are available as below:

- Level measurement
- Displacer hoist
- Interface level measurement (two interfaces can be measured)
- Specific gravity measurement of each product layer
- Tank bottom

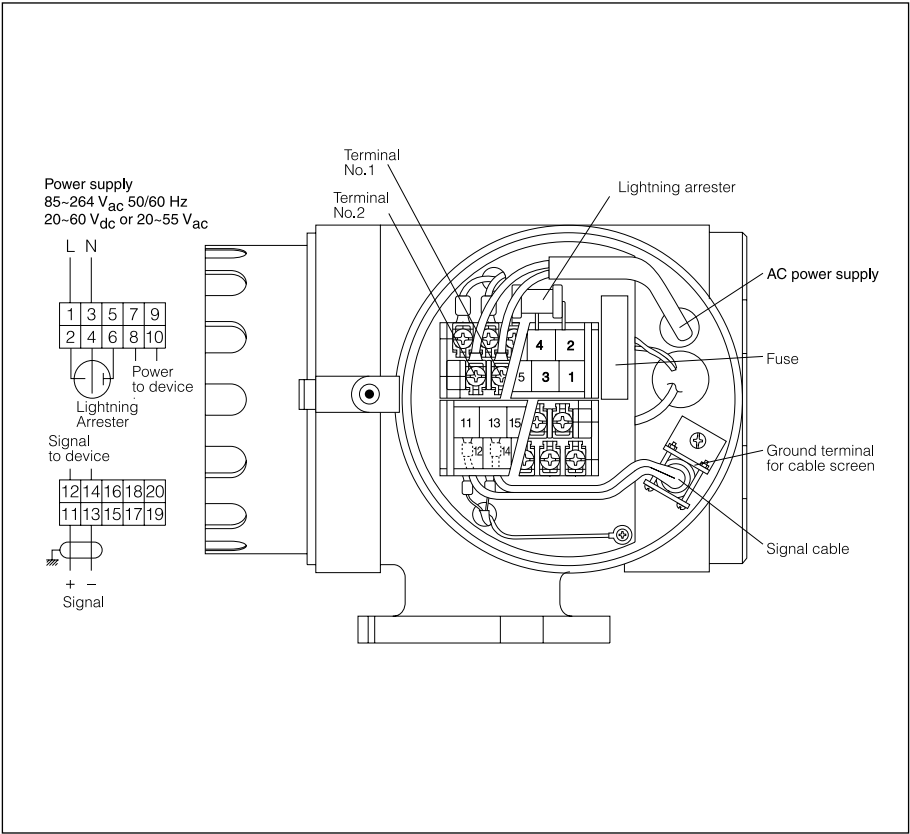
Promonitor display



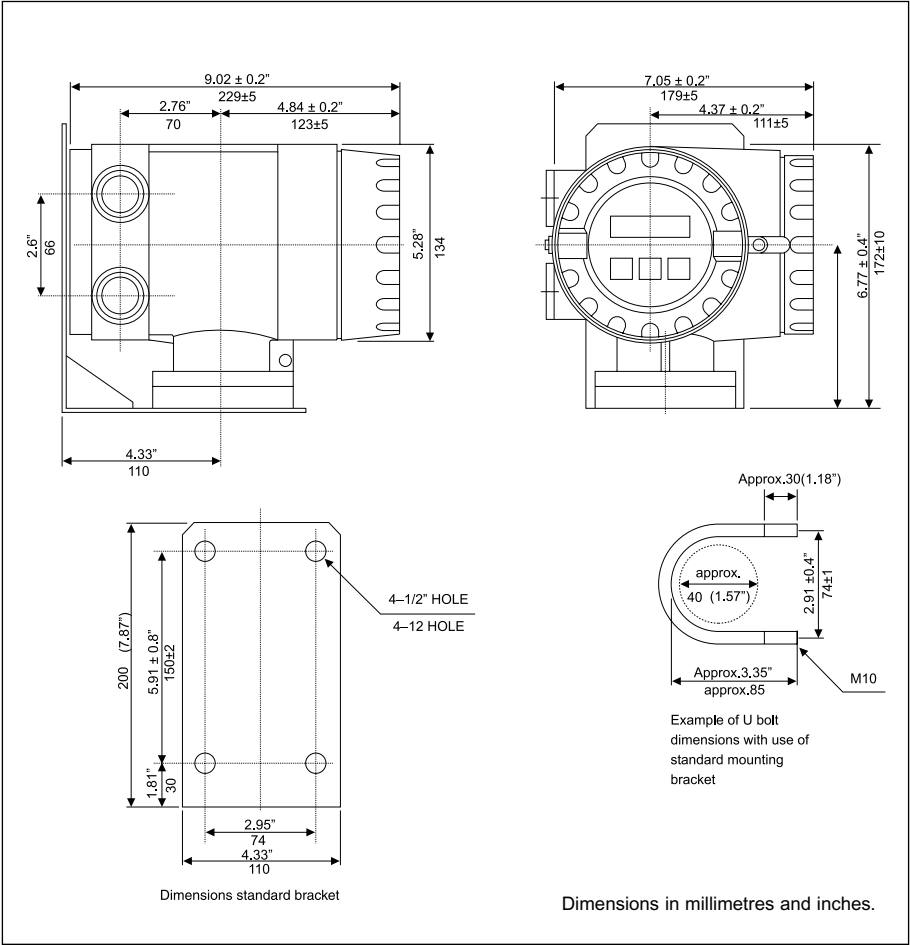
### Note!

Only level and temperature data are shown on Promonitor display.

# Electrical Connections



# Dimensions



Technical Data

General Specification	Manufacturer Designation Function	Endress+Hauser Systems & Gauging, Inc. Promonitor NRF 560 Tank Side Monitor/Controller
Input Characteristics	Signal	Local HART® protocol
Display / Programming	Display	Two lines, 16 digits illuminated display, language selectable – English, German, French, Italian or Japanese
	Programming	Three optical keys for selection of matrix functions (touch control)
Power Supply	Power Supply	85 - 264 V <sub>ac</sub> 50/60 Hz or 20-60 V <sub>dc</sub> / 20-55 V <sub>ac</sub>
	Power Consumption	For AC power supply: 40 VA For DC power supply: 40 W
Certification	Explosion Proof	EEx d IIC T4 CENELEC EEx d IIB T4 IIIS XP Class I, Div. 1, Gp. ABCD (FM) Class I, Div.1, Gp. ABCD (CSA)
Environmental Conditions	Ambient Temp. Protection	-20 to +60°C (-4 to +140°F) IP 67 with closed housing and cable glands of same protection class
	Housing: Material & Weight	Aluminum coated with anti-acid paint – approx. 6.5 kg (14 lb)
	Electromagnetic Compatibility	Immunity and emission to EN 50082-1,2

Product Structure

Promonitor NRF 560

Protection Class

- 0 IP 67 / NEMA 4X / IP 67 Type 4X
- 1 Ex d IIB T4 IIIS
- 2 EEx d IIC T4 CENELEC
- 3 EEx de IIC T4 CENELEC
- 4 XP Class I, Div. 1, Gp. ABCD (FM)
- 5 Class I, Div. 1, Gp. ABCD (CSA)
- 9 Special version

Cable Entry

- A Two G(PF) 1/2" thread
- B Two NPT 1/2" thread
- C Two PG16 thread  
(only with protection class 0)
- D Two M20 thread
- Y Special version

Power Supply

- 3 High voltage type:85-264 V<sub>ac</sub>,50/60 Hz
- 4 Low voltage type:20-60 V<sub>dc</sub>/20-55V<sub>ac</sub>,50/60 Hz
- 9 Special version

Mounting Bracket

- 0 None
- 1 With mounting bracket
- 9 Special version

Painting

- 1 Standard (Blue)
- 9 Special version

NRF 560

Supplementary Documentation

- ☐ Proservo NMS 53x

Technical information Ti013G/03/en
- ☐ Prothermo NMT 53x

Technical information Ti014G/03/en
- ☐ Proservo NMS 53x

System information Si013G/03/en
- ☐ Tank Computer NRS 57x

Technical information Ti015N/08/e
- ☐ Tank Computer NRM 571

Technical information Ti014N/08/e
- ☐ FuelsManager

Technical information Ti007G/03/en

Locations			Systems & Gauging Headquarters
Endress+Hauser Systems & Gauging Ltd. Heighington Lane Newton Aycliffe Co Durham DL5 6XZ United Kingdom Tel: +44 (0)1325 321111 Fax: +44 (0)1325 300840	Endress+Hauser Systems & Gauging S.A. Rue de Bitche 62100 Calais France Tel: +33 - (0)321-96-49-93 Fax: +33 - (0)321-34-36-12	Sakura Endress Co., Ltd. 862-1 Mitsukunugi Sakaigawa-mura Higashi-Yatsushiro-Gun Yamanashi Prefecture 406-0846 Japan Tel: +81 (0)552-66-4964 Fax: +81 (0)552-66-4969	Endress+Hauser Systems & Gauging, Inc. 5834 Peachtree Corners East Norcross (Atlanta), GA 30092 USA Tel: +1 (770) 447-9202 Fax: +1 (770) 662-8939 <a href="http://www.systems.endress.com">http://www.systems.endress.com</a>
Endress+Hauser Systems & Gauging, Inc 2901 W. Sam Houston Parkway North Houston, TX 77043 USA Tel: +1 (832) 590-6200 Fax: +1 (832) 590-6201	Endress+Hauser Systems & Gauging, Inc. 1800 Diagonal Road Suite 300 Alexandria, VA 22314 USA Tel: +1 (703) 837-9202 Fax: +1 (703) 837-9209		

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