



### NMS80 Proservo

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The Proservo NMS80 performs high precision measurement of liquid level, interface and density. The NMS80 is designed for high accuracy liquid level measurement in custody transfer and inventory control applications with NMI- and PTB-approvals, with accuracies ranging from +/- 0.4 mm to +/- 2.5 mm. It meets the relevant requirements according to OIML R85 and API 3.1B. It fulfills the exact demands of tank inventory management and loss control and is optimized in regards of total cost saving and safe operation.

#### Features & Options

<b>Level Accuracy</b>	<ul style="list-style-type: none"> <li>±0.4 mm (±0.016 in)</li> <li>±0.5 mm (±0.020 in)</li> <li>±1.0 mm (±0.039 in)</li> </ul>	
<b>Level Accuracy</b>	<ul style="list-style-type: none"> <li>±2 mm ( ±0.08)</li> <li>(Difference of product densities 0.100 g/cm<sup>3</sup> (6.25lb/ft<sup>3</sup>))</li> </ul>	
<b>Spot &amp; Profile Density Accuracy</b>	<ul style="list-style-type: none"> <li>±0.003 g/cm<sup>3</sup></li> </ul>	
<b>Standard Level Measurement Range</b>	<ul style="list-style-type: none"> <li>28m (93.33 ft) with 316L measuring wire</li> </ul>	
<b>Optional Level Measurement Ranges</b>	<ul style="list-style-type: none"> <li>16 m (53.33 ft) with PFA &gt; 316L measuring wire</li> <li>22 m (73.33 ft) with AlloyC276 measuring wire</li> <li>36 m (118.11 ft) with 316L measuring wire</li> </ul>	<ul style="list-style-type: none"> <li>16 m (53.33 ft) with PFA &gt; 316L measuring wire</li> <li>22 m (73.33 ft) with AlloyC276 measuring wire</li> <li>36 m (118.11 ft) with 316L measuring wire</li> <li>47 m (154.20 ft) with 316L measuring wire</li> <li>55 m (180.45 ft) with 316L measuring wire</li> </ul>
<b>Enclosed Materials</b>	<ul style="list-style-type: none"> <li>Electrical compartment: aluminum</li> <li>Drum chamber: aluminum</li> <li>Rated IP66/68, NEMA Type 4x/6P enclosure</li> </ul>	<ul style="list-style-type: none"> <li>Electrical compartment: aluminum</li> <li>Drum chamber: 316/316L</li> <li>Rated IP66/68, NEMA Type 4x/6P enclosure</li> </ul>
<b>Pressure Rating</b>	<ul style="list-style-type: none"> <li>Suitable for atmospheric and high pressure applications up to:</li> <li>0 to 0.2 bar/20 KPa/2.9 psi</li> <li>0 to 6 bar/0.6 MPa/87 psi</li> </ul>	<ul style="list-style-type: none"> <li>Suitable for atmospheric and high pressure applications up to:</li> <li>0 to 0.2 bar/20 KPa/2.9 psi</li> <li>0 to 6 bar/0.6 MPa/87 psi</li> <li>0 to 25 bar/2.5 MPa/362 psi</li> </ul>
<b>Operating Liquid Temperature</b>	<ul style="list-style-type: none"> <li>-200 to +200°C (-328 to 392°F)</li> </ul>	
<b>Ambient Temperature</b>	<ul style="list-style-type: none"> <li>Device: -40 to +60°C (-40 to +140°F)</li> <li>Display Module: -20 to +70°C (-4 to +158°F)</li> </ul>	
<b>Approvals</b>	<ul style="list-style-type: none"> <li>FM, ATEX and IEC Ex, NEPSI, WHG</li> </ul>	
<b>Primary Outputs</b>	<ul style="list-style-type: none"> <li>MODBUS RS485</li> <li>V1</li> <li>WM550</li> <li>4-20mA HART Ex d/XP</li> <li>4-20mA HART Ex i/IS</li> </ul>	<ul style="list-style-type: none"> <li>Modbus RS485</li> <li>V1</li> <li>WM550</li> <li>4-20mA HART Ex d/XP, RTD input</li> <li>4-20mA HART Ex i/IS, RTD input</li> </ul>
<b>Secondary I/O Analog</b>	<ul style="list-style-type: none"> <li>Ex d/XP, 1x 4-20mA HART, 1x RTD input</li> <li>Ex d/XP, 2x 4-20mA HART, 2x RTD input</li> <li>Ex i/IS, 1x 4-20mA HART, 1x RTD input</li> <li>Ex i/IS, 2x 4-20mA HART, 2x RTD input</li> <li>1x Ex i/IS 4-20mA HART, 2x RTD input + 1x Ex d/XP 4-20mA HART</li> <li>None</li> </ul>	



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<b>Secondary I/O Digital Ex D/XP</b>	<ul style="list-style-type: none"> <li>• 2x relay / 2x module discrete</li> <li>• 4x relay / 4x module discrete</li> <li>• 6x relay / 6x module discrete</li> <li>• Modbus RS485</li> <li>• Modbus RS485 + 2x relay / 2x module discrete</li> <li>• Modbus RS485 + 4x relay / 4x module discrete</li> <li>• WM550</li> <li>• WM550 + 2x relay / 2x module discrete</li> <li>• WM550 + 4x relay / 4x module discrete</li> <li>• None</li> </ul>	
<b>Power</b>	<ul style="list-style-type: none"> <li>• High voltage AC power supply: 85 to 264 VAC, 50/60 Hz, 28.8 VA</li> <li>• Low voltage AC power supply: 52 to 75 VAC, 50/60 Hz, 21.6 VA</li> <li>• Low voltage DC power supply: 19 to 64 VDC, 13.4 W</li> </ul>	
<b>SIL</b>	<ul style="list-style-type: none"> <li>• SIL 2/3 according to IEC 61508</li> </ul>	

### Applications

Application	NMS80 Proservo	NMS81 Proservo
<b>Custody Transfer</b>	X	X
<b>Stilling Well</b>	X	X
<b>Free Space</b>	X	X
<b>Caverns</b>	X	X
<b>LPG</b>	X	X
<b>LNG</b>	X	X
<b>Jet Fuel</b>	X	X
<b>Chemical Storage</b>		X