

NivuMaster Transmitter

For contactless level measurement

ELECTRONICS

ACOUSTIC

WEIGHT

OVERLOADING
SAFETY SYSTEMS

VALVES

TEMPERATURE

DETECT
A FIRE®

FLOW

DENSITY

INTERFACE

PRESSURE

LEVEL



For the supply of connected contactless R- and P-Series sensors, processing of signal data and indication of computed readings. Ideal for measurement and control in level and volume applications.

The NivuMaster series transmitters supply connected R-Series and P-Series sensors, process measurement values and indicate readings. NivuMaster transmitters are ideally suitable for simple control tasks in level measurement applications. Flow measurements in open channel using a Venturi flume or Q/h-relations, on any kind of weir or discharge sills are possible without any problems.

NivuMaster is available with wall mount enclosure, as 19"-plugin or with panel mount enclosure.

The few parameters required for measuring can be entered easily on site in dialog mode thanks to the back-lit display and the integrated keypad.

Parameters can be evaluated using the free software "PC Software Suite" and the serial interface of the transmitter.

Benefits

- Measurement of level, distance, volume, difference and flow
- Alarm output in case of flooded sensor possible
- Pump control saves energy and costs thanks to intelligent pump management
- High measurement reliability through intelligent agitator avoidance
- Connection of maintenance-free, Ex-protected radar and ultrasonic sensors
- Up to 6 relays and galvanically isolated mA outputs
- Easy echo analysis and setting of parameters using free PC software
- Integrated emergency power switchover
- Easy operation in dialog mode using back-lit graphic display

Type overview

NivuMaster 5 Relai4s (NM6)

Extended NivuMaster for measurement of level, volume and quantity as well as for control of pumps and elaborated control tasks.

Typical NivuMaster Applications

- **Wastewater:** stormwater overflow tanks and storage sewers, clarifiers, pump stations, screening plants, flow measurements, volume measurements in vessels, container monitoring, irrigation facilities
- **Drinking water:** tank level measurements, water treatment, seawater desalination facilities, level measurements.
- **Flood protection:** stormwater retention tanks, level measurements with remote data transmission, surface waters.
- **Power generation:** cooling water circuits, hydropower plants.

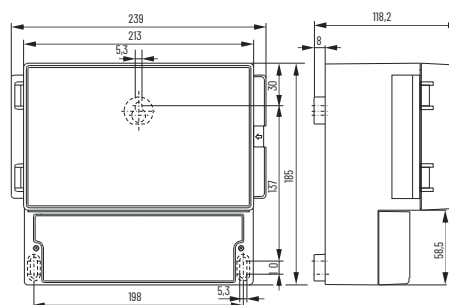
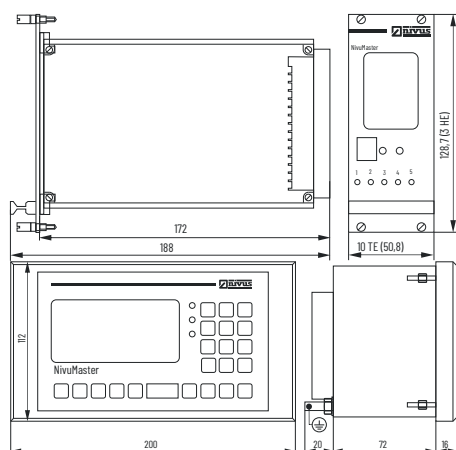
Communication (optional)	Modbus RTU
Menu languages	English, French, German
PC Programming	via RS232
Echo processing	intelligent agitator avoidance
Operation	local operation with key panel
Display	graphic LCD display
Max. humidity	80 % non-condensing
Storage temperature	-30 °C to +60 °C
Operating temperature	-20 °C to +50 °C
Power consumption	max. 10 W (6 W typical)
Protection	Wall mount enclosure: IP 65 / Panel mount: IP 65 (front) / IP 20 (rear) / 19": IP 20
Enclosure material	Polycarbonate, low flammability (UL91)
Power supply	115 V AC +5 % / -10 %; 50/60 Hz; 230 V AC +5 % / 10 %; 50/60 Hz; direct current 18 – 36 V DC

Specifications subject to change

NIVUMASTER 5 RELAIS

Outputs	5 x relay outputs / 1 x mA output
Inputs	1 x sensor input / 1 x 4-20 mA input (optional)
Enclosure	Wall mount / Panel mount / 19" plug-in unit
Description	Extended NivuMaster for measurement of level, volume and quantity as well as for control of pumps and elaborated control tasks
Part-No.	NM6-

Specifications subject to change



Technical Specifications

Echo processing	Automatic and self-learning echo suppression
Cable lengths	5, 10, 20, 30, 50 oder 100 m; further lengths on request
Process connection	1" BSP/NPT Standard
Startup time	4 sec. typical
Configuration	PC software for parameter setting, echo evaluation, linearisation and false echo avoidance
Ex-Approval	II 2 GD Ex m IIC T4 or II 1 GD Ex ia IIC T4
Functions	Level, distance, empty space, volume and linearisation using 16 breakpoints
Outputs	4 - 20 mA (3,8 - 22 mA, 2-wire) HART® (for programming via NIVUS software)
Protection	IP 68 (5 Bar)
Enclosure material	Valox 357 PBT PVDF (optional)
Power supply	10-28 V DC

Specifications subject to change

OPTIONS

Flange type	for all type of flanges DIN DN50 / DN 80 / DN100 / DN150 / DN200, ANSI / 2" / 3" / 4" / 6" / 8" /
Enclosure material	PVDF for aggressive media, max. 70°C (for i-6, i-10 and i-15)
Coating of transmitter surface	PTFE soft foam for dusty bulk solids (for P 06, P 10 and P 15)
Flood protection head	For generation of echo loss and alarm output in case of flood. No dirt on the sensor face in case of flood (for all types without front thread)
Front Thread	• Front thread 1.5" for i-3 and i-6 • Front thread 2" for i-10

Specifications subject to change

SENSOR TYPE I-3

Operating temperature	- 40 °C to + 80°C
Resolution	1 mm
Measurement uncertainty	2 mm
Beam angle	<10°
Transmit frequency	125 KHz
Measurement range	0,125 m - 3 m

Specifications subject to change

SENSOR TYPE I-6

Operating temperature	- 40 °C to + 80°C
Resolution	2 mm
Measurement uncertainty	4 mm
Beam angle	<10°
Transmit frequency	75 KHz
Measurement range	0,3 m - 6 m

Specifications subject to change

Technical Specifications

SENSOR TYPE I-10

Operating temperature	from - 40 °C to + 80°C
Resolution	3 mm
Measurement uncertainty	< 6 m: 3 mm; > 6 m: 6 mm
Beam angle	<10°
Transmit frequency	50 KHz
Measurement range	0,3 m - 10 m

Specifications subject to change

SENSOR TYPE I-15

Operating temperature	from - 40 °C to + 80°C
Resolution	5 mm
Measurement uncertainty	< 10 m: 5 mm; > 10 m: 10 mm
Beam angle	<10°
Transmit frequency	41 KHz
Measurement range	0,5 m - 15 m

Specifications subject to change

