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# InteliLite NT MRS 15


**Order code: IL-NT MRS 15**

## Controller for single gen-set applications

# Datasheet

## Product description

- Compact gen-set controller for single gen-set operating in standby mode
- Meets all requirements for Manual and Remote Start (MRS) applications
- Full gen-set monitoring and protection

## Application overview


## Key features

- Outstanding EFI engine support with diagnostic messages in plain text via J1939
- Detailed RTC event and performance log
- Plug-in and CAN bus extension modules capability
- WebSupervisor, AirGate and LOCATE support with plug-in module
- On-line control and monitoring over web pages with plug-in module
- Fuel theft protection and Total fuel consumption monitoring
- Earth fault current protection with plug-in module
- Alternative switchable configuration
- Automatic GCB control
- Magnetic pickup input
- D+ preexcitation terminal
- True RMS measurement
- 3 phase power measurement of gen-set incl. kWh

# Technical data

## Power supply

| | |
|---|---|
| **Power supply range** | 8-36 V DC |
| **Power supply drop-out immunity** | 100 ms (from min. 10 V) |
| **Power consumption** | approx. 100 mA / 8 V; 40 mA / 36 V |
| **Peak power consumption (LT)** | approx. 0,33 A / 8 V; 0,18 A / 36 V |
| **Backup battery type** | CR 1225 |
| **Estimated backup battery lifetime** | 10 years |

## Operating conditions

| | |
|---|---|
| **Operating temperature** | -20 °C to +70 °C |
| **Operating temperature (LT version)** | -40 °C to +70 °C |
| **Operating humidity** | 95 % non-condensing (EN 60068-2-30) |
| **Protection degree (front panel)** | IP 65 |
| **Vibration** | 5-25 Hz, ± 1.6 mm<br>25-100 Hz, a = 4 g |
| **Shocks** | $a_{max}$ 500 m/s$^2$ |
| **Storage temperature** | -30 °C to +80 °C |

## Voltage measurement

| | |
|---|---|
| **Measurement inputs** | 3 ph-n Gen voltage |
| **Measurement type** | True RMS |
| **Voltage range** | 480 V Ph-Ph (277 V Ph-N) |
| **Max. measured voltage** | 340 V Ph-N |
| **Voltage accuracy** | 2 % from nominal voltage |
| **Frequency range** | 30-70 Hz, measured from L3 |
| **Frequency accuracy** | 0.05 Hz |

## Current measurement

| | |
|---|---|
| **Measurement inputs** | 3 ph generator current |
| **Measurement type** | True RMS |
| **Current range** | 5 A |
| **Max. measured current** | 9 A |
| **Max. allowed current** | 10 A continuous, 50 A/1 s |
| **Current accuracy** | 2 % from nominal current |

## Binary inputs

| | |
|---|---|
| **Number** | 6 non-isolated |
| **Input resistance** | 4.2 kΩ |
| **Common pole** | Positive, $V_s$ = 8-36 V DC |
| **Close/Open indication** | 0-0.8 V close contact<br>2 - 36 V - $V_s$ open contact |

## Binary outputs

| | |
|---|---|
| **Number** | 6 non-isolated |
| **Operating voltage** | 8-36 V DC |
| **Switching to** | Negative supply terminal |
| **Max current** | 0.5 A (2 A per group) |

## Analog inputs

| | |
|---|---|
| **Number** | 3, non-isolated |
| **Electrical range** | 0-2500 Ω |
| **Resolution** | 10 bits, 4 digits |
| **Precision** | 2 % from measured value |
| **Supported sensor types** | Predefined: VDO 10Bar, VDO Temperature, VDO Fuel level<br>User-defined: 10 points non-linear sensors can be defined by the user |

## Communication

| | |
|---|---|
| **CAN1** | External modules, 250 kbps, max 200 m |

## Magnetic pick-up

| | |
|---|---|
| **Voltage input range** | 2–70$V_{pp}$ |
| **Frequency input range** | 4 Hz to 10 kHz<br>(min 2 $V_{pp}$ @ 4 Hz, 6 $V_{pp}$ @ 10 kHz) |
| **Frequency measurement tolerance** | 0.2 % |

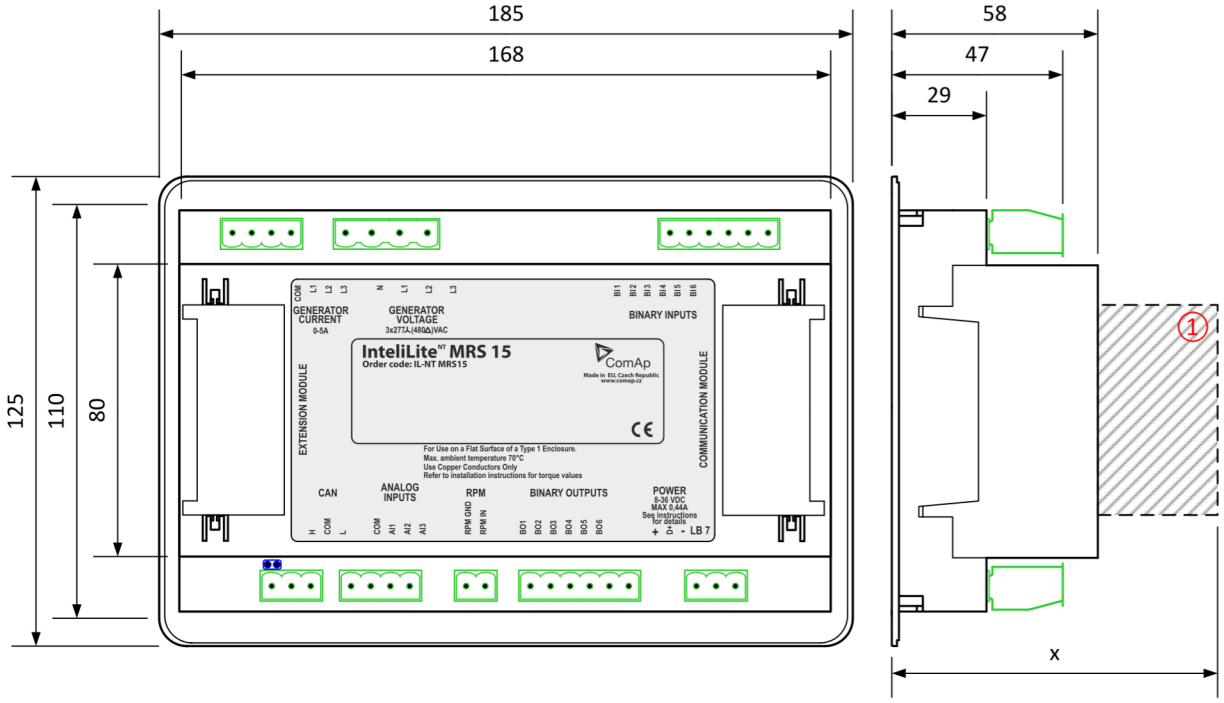
## D+

| | |
|---|---|
| **Excitation current** | 250 mA, during the engine start only |
| **Charging fail threshold** | 80 % of Usupply |

## Display

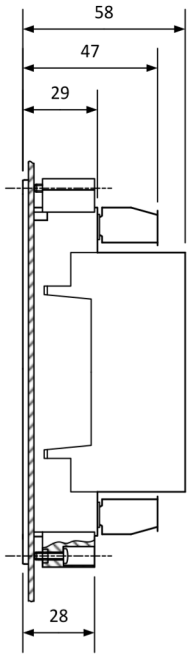
| | |
|---|---|
| **Type** | Build-in monochromatic |
| **Resolution** | 128 × 64 px |

# Dimensions, terminals and mounting




***Note:*** *Dimension x depends on plug-in module.*

## Panel door mounting




## Overview of parameter x

| Plug-in module | Parameter x [mm] |
|---|---|
| IL-NT-AOUT8 | 75 |
| IL-NT-BIO8 | 74 |
| IC-NT-CT-BIO7 | 76 |
| IL-NT-RS232 | 113 |
| IL-NT-RS232-485 | 115 @ RS232 / 74 @ RS485 |
| IL-NT-GPRS | 122 |
| IL-NT-S-USB | 128 |
| IB-Lite | 108 |

***Note:*** *Parameter x includes reserve for connectors of plug-in modules.*

***Note:*** *The controller is to be mounted onto the switchboard door. The requested cut-out size is 175x115 mm. Use the screw holders delivered with the controller to fix the controller into the door.*

# Available extension modules

| Product | Description | Order code |
|---|---|---|
| **IL-NT AOUT8** | 8 analog outputs packed in a unit | IL-NT-AOUT8 |
| **IL-NT BIO8** | 8 binary inputs in a unit (HW switchable to 8 binary outputs) | IL-NT-BIO8 |
| **IC-NT CT-BIO7** | 7 binary inputs (HW switchable to 7 binary outputs) and 1 AC current measuring input | IC-NT-CT-BIO7 |
| **IL-NT RS232** | Communication module which provides additional RS232 interface for controller | IL-NT-RS232 |
| **IL-NT RS232-485** | Communication module which provides additional RS232 and RS485 interface for controller | IL-NT-RS232-485 |
| **IL-NT GPRS** | Communication module with integrated GSM modem with GPRS Internet connection | IL-NT-GPRS |
| **IL-NT S-USB** | Communication module which provides additional USB interface for controller | IL-NT-S-USB |
| **IB-Lite** | Communication module which provides additional Ethernet interface for controller | IB-Lite |
| **IGS-PTM** | 8 binary inputs, 8 binary outputs, 4 analog inputs and 1 analog output in a unit | IGS-PTM |
| **IG-IOM** | 8 binary inputs, 8 binary outputs, 4 analog inputs and 1 analog output in a unit | IG-IOM |
| **IGL-RA15** | 15 binary LED output (3 colors) packed in a rugged metal unit | IGL-RA15 |

# Related products

| Product | Description | Order code |
|---|---|---|
| **IL-NT RD (SW)** | Remote Display Software for InteliLite NT | IL-NT RD |

# Functions and protections

| Description | ANSI code | Descritption | ANSI code |
|---|---|---|---|
| **Overvoltage** | 59 | **Overfrequency** | 81H |
| **Undervoltage** | 27 | **Underfrequency** | 81L |
| **Gas (Fuel) Level** | 71 | **Overload** | 32 |
| **Phase Rotation** | 47 | **Overcurrent** | 50+51 |
| **Current Unbalance** | 46 | **Voltage Asymmetry** | 47 |
| **Earth Fault** | 51N+64 | | |

# Certificates and standards

- EN 61000-6-3:2006
- EN 61000-6-3:2006
- EN 61000-6-1:2005
- EN 61000-6-2:1999

CE

List of standards is available on: https://webstore.iec.ch/

E-mail: info@comap-control.com
Web: www.comap-control.com

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