ComAp
The heart of smart control

InteliMains NTC BaseBox

Order code: IM-NTC-BB

Comprehensive switchgear controller

Datasheet

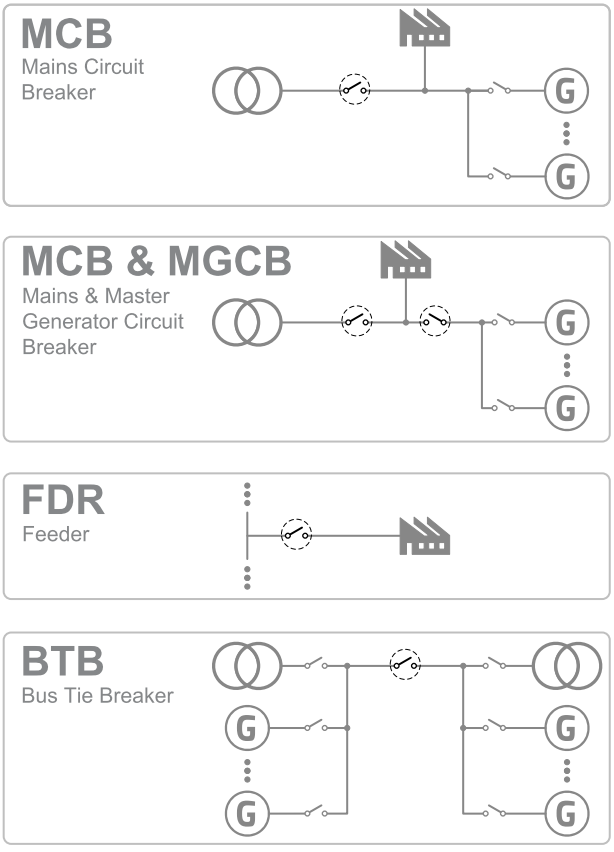
Product description

- Comprehensive switchgear controller
- Built-in control for up to 32 logic groups divided by Bus Tie Breakers
- High level control for complex systems

Key features

- Built-in breaker control
- Genset group synchronization, Loadsharring and VArsharring via CAN2
- Customizable load control in parallel to mains
- Extended communication capabilities
  - Airgate support and more
- Highly configurable
  - Timers, internal PLC, Force value and more
- Compatible with ComAp's InteliVision displays
- Monitoring and configuration with ComAp's PC tools
- Extensive built-in protection functions
  - Undervoltage, overvoltage
  - Underfrequency, overfrequency and more
- Full Modbus slave support (RS232)
- Extendable with ComAp's extension modules
- True RMS (TRMS) is used with Voltage, Current and Power measurement

Application overview



Technical data

Power supply

Power supply range	8-36 V DC
Power consumption	0.4 A / 8 VDC 0.15 A / 24 VDC 0.1 A / 36 VDC
RTC battery	10 years (replacable by official service)
Fusing	2 A (without BOUT consumption)
Max. Power Dissipation	16 W

Operating conditions

Operating temperature	-30 ˚C to +70 ˚C
Storage temperature	-40 ˚C to +80 ˚C
Max. operating altitude	2000 m above sea level for max 480 V 4000 m above sea level for max 400 V
Operating humidity	95 % non-condensing (EN 60068-2-30)
Vibration	5-25 Hz, ± 1.6 mm 25-100 Hz, a = 4 g
Shocks	a=200m/s^2
Heat radiation	16 W

Voltage measurement

Measurement inputs	3 ph-n Mains voltage 3ph-n Bus voltage
Measurement range	110 V / 277 V
Max allowed voltage	125 % ph-n
Accuracy	1 % of 110 V / 277 V
Frequency range	40-70 Hz (at accuracy 0.1 Hz)
Input impedance	0.6 MΩ ph-ph, 0.3 MΩ ph-n

Current measurement

Measurement inputs	3 ph-n Mains voltage 1ph Bus current galvanically isolated
Measurement range	1 A / 5 A
Max allowed current	200 % / 200 %
Accuracy	2 % of 1 A / 5 A
Input impedance	< 0.1 Ω

Binary inputs

Number	12, non-isolated
Input resistance	4.7 kΩ
Close/Open indication	0-2 V DC close contact >4 V DC open contact

Binary outputs

Number	12, non-isolated
Max current	0.5 A (2 A per group) group1: BO1-8; group2: BO9-12
Switching to	Negative/positive supply terminal

Analog inputs

Number	3, non-isolated
Type	Switchable (Voltage, Resistance, Current)
Resolution	10 bits, max 4 decimals
Range	0-5 V DC / 0-2500 Ω / 0-20 mA
Input impedance	>100 kΩ / >100 kΩ / 180 Ω
Accuracy	±1 % of meas. value ±5 mV ±2 % of meas value ±2 Ω ±1 % of meas value ±0.5 mA

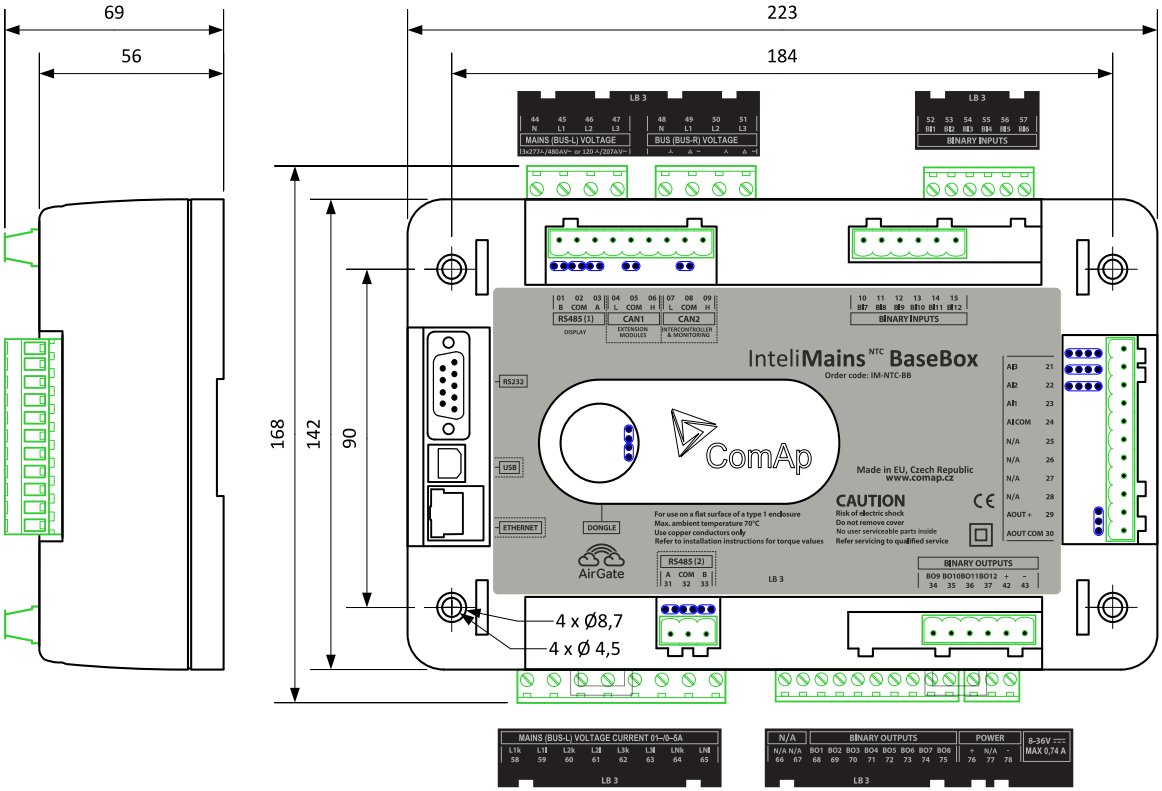
Analog outputs

Number	1
Type	Switchable (Voltage, Current)
Range	0-10 V DC / 0-20 mA
Max current/load	5 mA / 500 Ω
Accuracy	±0.5 % of output value ±20 mV ±0.5 % of output value ±100 µA

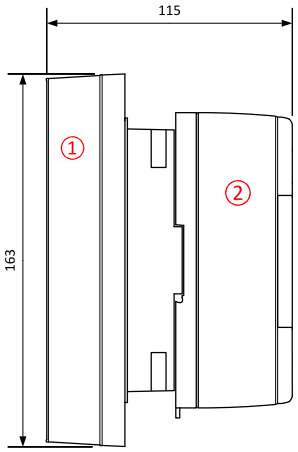
Communications

RS232	Direct / Modbus, non-isolated
RS485	Direct / Modbus, isolated
Display port	Non-isolated RS485, direct/modbus/terminal connection
USB port	Direct, Isolated
Ethernet port	galvanically isolated LAN / Internet, Modbus TCP, Airgate
CAN1	External modules, 250kbps, max 200 m, Isolated
CAN2	Intercontroller and comm extensions 250 / 50 kbps, max 200 / 1000 m, Isolated

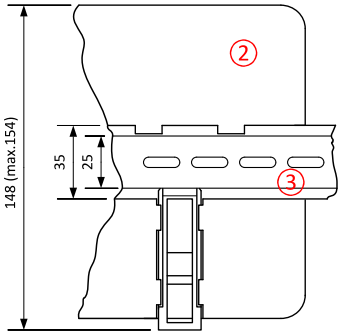
Dimensions, terminals and mounting



Panel door mounting with InteliVision 5



DIN-rail mounting



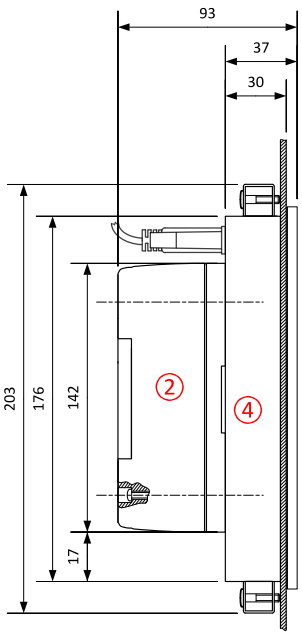
① InteliVision5

② InteliMains^{NTC} BaseBox

③ DIN-rail

④ InteliVision 8

Panel door mounting with InteliVision 8



Note: *InteliMains^{NTC} BaseBox can be mounted on a standard DIN rail or, in combination with InteliVision 5 or InteliVision 8, it can be door mounted. InteliVision 5 features mounting rail for direct mounting. Mounting in combination with InteliVision 8 uses four screws provided in the InteliMains^{NTC} BaseBox package.*

Available extension modules

Product	Description	Order code
Inteli IO8/8	8 Binary inputs and 8 Binary outputs packed in a small unit (HW switchable to IO16/0)	I-IO8/8
Inteli IO16/0	16 Binary inputs packed in a small unit (HW switchable to IO8/8)	I-IO8/8
Inteli AIN8	8 Analog inputs and 1 pulse/frequency input in a small unit	I-AIN8
InteliAIN8TC	8 Thermocouple Analog inputs in a small unit	I-AIN8TC
IS-AIN8	8 Analog inputs packed in a rugged metal unit	IS-AIN8
IGS-PTM	8 Binary inputs, 8 Binary outputs, 4 Analog inputs and 1 Analog output in a unit	IGS-PTM
IGL-RA15	15 Binary LED output (3 colors) packed in a rugged metal unit	IGL-RA15
I-AOUT8	8 Analog outputs packed in a rugged metal unit	I-AOUT8
InternetBridge-NT	Multiple Internet connections (PC and Modbus) to all controllers on CAN2 or RS485	IB-NT
I-LB+	Direct connection (PC) to all controllers on CAN2 or RS485	I-LB+

Related products

Product	Description	Order code
InteliVision 5	Color 5.6" display for monitoring and control	INTELIVISION 5
InteliVision 5 RD	Color 5.6" display for monitoring and control (RS485 isolated and backlit buttons)	INTELIVISION 5 RD
InteliVision 8	Color 8" display for advanced monitoring, control & trending, USB capable	INTELIVISION 8
InteliVision17T	Color 17" display for complete monitoring and control of multiple controllers	INTELIVISION 17T

Functions and protections

Support of functions and protections as defined by ANSI (American National Standards Institute):

Description	ANSI code	Description	ANSI code
Master unit	1	**Overcurrent IDMT**	51
Multi-function device	11	**AC circuit breaker**	52
Synchronizing-check	25	**Overvoltage**	59
Undervoltage	27	**Alarm relay****	74
Annunciator	30	**Vector shift**	78
Overload(real power)	32P	**Reclosing relay**	79
Reverse power	32R	**Overfrequaency**	81O
Current unbalance	46	**Underfrequency**	81U
Voltage unbalance	47	**ROCOF**	81R
Overcurrent	50/50TD	**Auto selective control/transfer**	83
Earth fault*	50G	**Regulating device**	90

*Extension module EM-BIO8-EFCP required

**Extension module IGL-RA15 required

Certificates and standards

- EN 60068-2-6 ed.2:2008
- EN 60068-2-27 ed.2:2010
- EN 60068-2-30:2005
  25/55°C, RH 95%, 48hours
- EN 60068-2-64
- EN 61010-1:2003
- IEC 60255-21-1
- IEC 60255-21-2
- IEC 60255-11
- IEC 60255-22-1
- IEC 60255-22-2
- IEC 60255-22-3
- IEC 60255-22-4
- IEC 60255-22-5
- IEC 60255-22-6
- IEC 60255-25
- IEC 60255-5

CE

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

ComAp
The heart of smart control

Manufacturer:
ComAp a.s.
Czech Republic
Phone: +420 246 012 111
E-mail: info@comap-control.com
Web: www.comap-control.com