

Impulse C07

Gateway for Seamless Data Extraction and Cloud Connectivity.

Introducing the Impulse C07, a cutting-edge communication gateway designed to provide the fastest and most efficient pathway to the cloud. With its remarkable power and comprehensive remote control capabilities, this device revolutionizes asset communication, making it easier than ever to monitor and manage even the most distant or hard-to-reach devices. By seamlessly connecting your assets and sensors to our user-friendly cloud platform, the Impulse C07 empowers you with unparalleled control and visibility.



Connect

Through LTE / 3G /2G fallback with internal databuffer
Optional private LoRa Network server



Measure

Collect data from your assets, through one of our many interfaces.



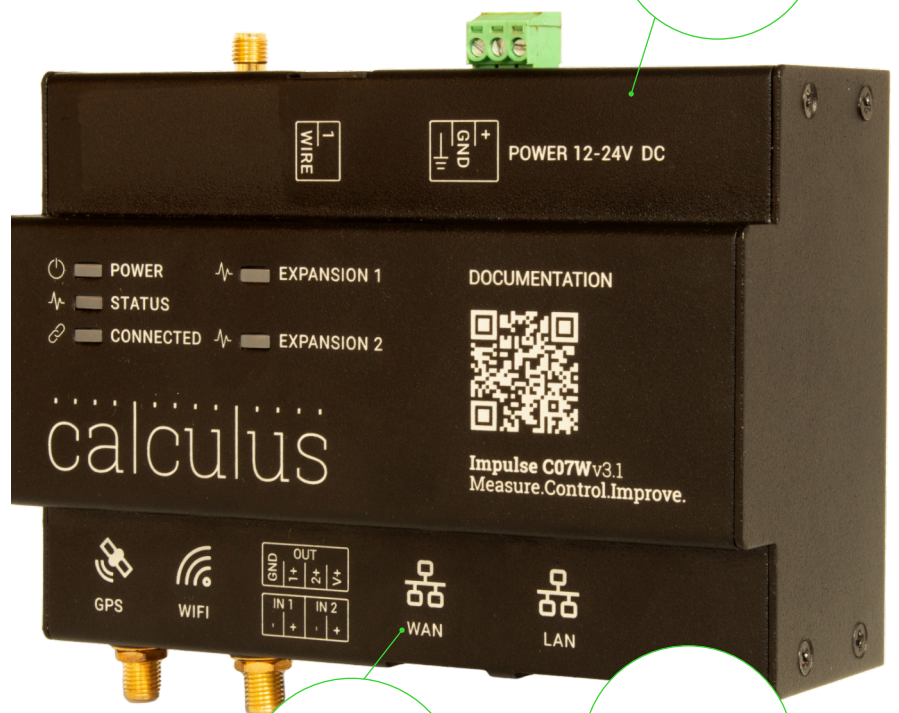
Manage

From a distance and control your assets. From our dashboard or trough VPN



Control

Execute remote actions instantly in the field, maximizing responsiveness.
Leverage edge computing capabilities to run scripts locally, enhancing efficiency.



MULTI
INTERFACE
CUPPORT

INTERNET -
PLC
SEPARATION

EDGE
COMPUTING

Technical aspects

Impulse C07

MECHANICAL		DEFAULT	OPTIONAL
Mounting	35mm DIN-rail mounting module	•	
Enclosure protection degree	IP20		
Weight	275 g		
Operating temperature	-20°C ... +65°C		
Storage temperature	-25°C ... +85°C		
Operational position	Horizontal		
Measurements	128 x 94 x 65mm		

POWER SUPPLY		DEFAULT	OPTIONAL
Nominal voltage	12-24V DC		
Voltage limits	9-36V DC (not recommended for everyday usage)		
Power consumption	4 Watt nominal, 8 Watt peak (in default configuration)		
Max. power consumption	25W (with expansion cards)		
Power connections	Industry standard pluggable connectors		
Reversed polarity protection	Yes		
Internal protection	Yes, by fuse		

Power usage / battery lifetime is dependent on choice in power supply, communication, sensors, measuring intervals,... Please see 'Electrical Characteristics' for estimates in your device configuration.

BASIC PROPERTIES		DEFAULT	OPTIONAL
Internal memory	4 GB user data available	•	
Internal temp. monitoring	Yes	•	
Internal power monitoring	Yes	•	
Internal RTC battery backup	Yes, up to 24 hours	•	
GPS	Yes (SMA female)	•	
Software	Calculus platform	•	
	Over-the-air updates	•	
	Fog computing capabilities	•	
Extreme low power mode	Yes		•
Motion sensor for wake-up	Yes		•

WIRED / WIRELESS

		DEFAULT	OPTIONAL
Ethernet	2 independent 10/100 Mbit/s, RJ45 to secure LAN from WAN	•	
WIFI	802.11 b/g/n 2.4GHz (RP-SMA female)	•	
LoRa (LPWAN)	Yes		•
Sigfox (LPWAN)	Yes		•
Cellular	2G and 4G		•

COMMUNICATION

		DEFAULT	OPTIONAL
Industrial ethernet protocols	Modbus TCP	•	
	Profinet		•
	EtherCat		•
RS-485 / Modbus RTU	Yes		•
Serial port RS-232	Yes		•
1-Wire	Yes, with parasitic power support	•	
Wired M-bus	Yes		•

I/O

		DEFAULT	OPTIONAL
Standard I/O	2 Digital Inputs (5 – 24V DC)	•	
	2 Digital Outputs (5 – 24V DC)	•	
Pulse counter	2 inputs, with battery backup		•
General I/O expansion	4 inputs (Operating range: 5 - 24V DC)		•
	2 relay outputs		•
	Output current (h/p): 50mA/100mA		•
Energy and power quality meter	Multiphase Voltage and Current sensors		•
Custom expansion cards	I/O or communication combination tailored to your needs		•

SOFTWARE

		DEFAULT	OPTIONAL
Calculus portal compliant	Yes	•	
VPN tunneling	Yes, currently supporting DEIF utility tool out of the box	•	

Order Information

C07	P	B ¹	N ²	L ³	G	S	-	NE ⁴
Device with default functionality and add-on possibilities	Wide range power supply	Internal 3,7 V Li-ion battery	Cellular communication	LPWAN	GPS	Sensor package		No enclosure
Contactless on/off switch			NB-IoT	Sigfox		Power supply monitoring		
Battery powered			LTE Cat M1	LoRa		Analog inputs		
Wi-Fi				LoRaWAN		Power supply outputs		
Bluetooth								
Outputs								
Pulse counters								
1-Wire								

1. Only possible in combination with P functionality

2. Not possible in combination with L functionality

3. Not possible in combination with N functionality

4. For bare metal implementations

Add-ons for C07	Specification	Order ID
Modbus RTU	Industrial communications protocol	M
Custom	Call us	C

Limited to two add-on per Impulse C07 unit.

Want to know more?

For more information about pricing, licensing and support, please contact us at hello@calculus.group

Contact

hello@calculus.group

T +32(0)89 69 69 80

www.calculus.group

VAT BE 0670.61.21.71

Visit our office

Kempenseweg 12

BE-3690 Zutendaal

Belgium

EYWA BV

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