REVO C 1PH





SIZE SR15



SIZE S12

Technical Specification

Dimensions: See size and dimensions page 8-9

Load type: Normal Resistance, Infrared Short, Medium and Long,

Transformer Primary, Cold resistance and SiC elements

Inputs: 4:20mA, 0:10V, SSR and ModBus as std and different Field Bus

Listed in the Product Coding

Firing mode: Half Cycle, Single Cycle, Burst Firing, Delayed Triggering, Phase Angle

with or without Soft Start

Control Mode: Voltage, Current and Power or V2 and I2 with additional Transfer to VXI

Communication: RS485 port. RTU Modbus® Protocol and other Field Bus available

USB: port integrated for configuration in safety mode

(No Load and Auxiliary Voltage needed) Unit Powered Through USB

100 KA: Short Circuit Current rating (SCCR) up to 600V
Approvals: Comply with EMC, cUL us* 508 listed and cUL* listed

Dual Current Limit: for peak and RMS value

Option

- See below the types of options and their combination for Code generation
- Energy Totalizer
- Data Logging
- WiFi
- HB Alarm to diagnose partial or Total Load Failure and Thyristor Short Circuit

Tools

- A very easy and Powerful Configurator Software is available Free of Charge on www.cdautomation.com
- CD Automation APP is also available free of charge to communicate via Wi-Fi

LIMIT	НВ	WIFI	LOGGING	TOTALIZER	CODE	NOTES
LIIVIII	пь	WIFI	LUGGING	TOTALIZER		NOTES
					Ø	
					1	
					3	I LIMIT (CURRENT LIMIT) This option is used to keep the
					4	overcurrent inside set limit. It's necessary to drive primary transform
					5	and cold resistance. It's dual limit for peak and RMS value.
					6	
					7	
					8	HB Alarm for partial or total load failure and Short Circuit on SCR
					9	(relay output).
					А	
					В	
					С	WiFi Option that allows communication with a smart phone. From
					D	your smart phone via the CD Automation App, direct to your thyri-
					Е	unit in the cabinet to read current, voltage, power and energy
					F	totalization as well as the ability to change parameters to improve
					G	process and product quality without opening the cabinet door.
					Н	process and product quality without opening the cubinet door.
					l I	
					J	APP Free of charge download it from Google Play or Apple Store.
					K	
					L	
					M N	DATA LOGGER This feature is important to see the historical data
					0	of parameter like Current, Voltage and Power and can be useful to
					P	diagnose a fault.
					Q	
					R	
					S	,
					S T	 ENERGY TOTALIZER This function totalize the energy consumption of the load allowing the calculation of heating treatment.

CONNECTIVITY



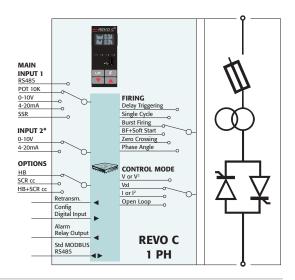












ORDER CODE:

	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
REVO C 1PH	R	С	1	_	-	_	-	-	_	-	_	_	_	_	_	_	_

CURRENT	FUSES	4	5	6	
description	description		code		note
30A	Fuse + Fuse Holder Included	0	3	0	- 1
35A	Fuse + Fuse Holder Included	0	3	5	
40A	Fuse + Fuse Holder Included	0	4	0	
60A	Fixed Fuses Included	0	6	0	
90A	Fixed Fuses Included	0	9	0	
120A	Fixed Fuses Included	1	2	0	
150A	Fixed Fuses Included	1	5	0	
180A	Fixed Fuses Included	1	8	0	
210A	Fixed Fuses Included	2	1	0	
300A	Fixed Fuses Included	3	0	0	5
400A	Fixed Fuses Included	4	0	0	
500A	Fixed Fuses Included	5	0	0	
600A	Fixed Fuses Included	6	0	0	
700A	Fixed Fuses Included	7	0	0	
800A	Fixed Fuses Included	8	0	0	1

For Extended version (from 1100A to 2100A) see page 18

MAX VOLTAGE	7	
description	code	note
480V	4	
600V	6	
690V	7	1, 2

MAIN SUPPLY VOLTAGE	AUX VOLTAGE RANGE	8	
	V range	code	note
100/120Vac	90 to 135Vac	1	3
200/208/230/240Vac	180 to 265Vac	2	3
277Vac	238 to 330Vac	3	3
380/415/480Vac	342 to 528Vac	5	3
600Vac	540 to 759Vac	6	3
690Vac	540 to 759Vac	7	3

MAIN INPUT	9	
description	code	note
SSR	S	
0:20mA	В	
4:20mA	Α	
0:10V	V	
10KPot	K	

FIRING	START OPTION	10	
description	description	code	note
Single Cycle	No Soft Start	С	
Single Cycle	Linear Soft Starter	S	
	No Soft Start	Н	
Half Cycle	Linear Soft Starter	L	
	Soft Start for short Infr. Lamp	I	
December 51.1.	No Soft Start	В	
Burst Firing	Linear Soft Starter	J	
Dhasa Angla	No Soft Start	P	
Phase Angle	Linear Soft Starter	E	
Delayed Triggering	No Soft Start	D	
Delayed Higgering	Linear Soft Starter	T	
Zoro Crossing	No Soft Start	Z	
Zero Crossing	Linear Soft Starter	R	

*Secondary Input can be configured for external current limit reference, external feedback or secondary input reference. See the manual for more informations.

CONTROL MODE	11	
description	cod	e note
Open Loop	0	
Voltage	U	
Voltage Square	Q	
Current	1	
Current Square	A	
Power VxI	W	
External Feedback	Х	

OPTION	12	
description	code	note
No Option	0	
Option code - see previous page table		

FAN VOLTAGE	13	
description	code	note
No Fan < 90A	0	
Fan 115Vac ≥ 90A	1	
Fan 230Vac ≥ 90A Std Version	2	
Fan 24Vdc ≥ 90A	3	

APPROVALS	14	
description	code	note
CE EMC For European Market	0	
CUL us® + CE EMC For American & European Market	L	

LOAD TYPE	15	
description	code	note
1 PH Normal Resistance	0	
1 PH IRSW Infrared Short Wave	1	
1 PH MoSi2 Heaters	2	
1 PH SiC Heaters	3	
1 PH Transformer Coupled with Normal Resistance	4	
1 PH Transformer Coupled with MoSi2 Heaters	5	
1 PH Transformer Coupled with SiC Resistance	6	
1 PH Transformer Coupled with UV Lamp	7	

COMMUNICATION AND RETRANSMISSION		16	
description	description	code	note
	No Retransmission	0	
N°1 Modbus* RTU	Retransmission 4:20mA	1	
	Retransmission 0:10V	2	
	No Retransmission	3	4
N°2 Modbus® RTU	Retransmission 4:20mA	4	4
	Retransmission 0:10V	5	4
	No Retransmission	6	4
N°1 Profibus® DP + N°1 Modbus® RTU	Retransmission 4:20mA	7	4
	Retransmission 0:10V	8	4
	No Retransmission	9	4
N°1 Profinet® IO + N°1 Modbus® RTU	Retransmission 4:20mA	Α	4
	Retransmission 0:10V	В	4
N°1 Modbus® TCP + N°1 Modbus® RTU	No Retransmission	С	4
	Retransmission 4:20mA	D	4
	Retransmission 0:10V	Е	4

Note (1): No cUL approved Note (2): Available on unit ≥60A Note (3): Main Supply Voltage has to be included in Auxiliary Voltage range Note (4): 24Vdc Backup Power for User Interface and Communications included

Note (5): 690V not available

REVO C 2PH





SIZE SR16



SIZE S14

Technical Specification

Dimensions: See size and dimensions page 8-9

Load type: Normal Resistance, Infrared Short, Medium and Long waveform Inputs: 4:20mA, 0:10V, SSR and Modbus® as std and different Field Bus

Listed in the Product Coding

Firing mode: Burst Firing, Zero Crossing.

Control Mode: Voltage, Current and Power or V2 and I2 with additional Transfer to Vxl **Communication:** RS485 port. RTU Modbus® Protocol and other Field Bus available

USB: port integrated for configuration in safety mode

(No Load and Auxiliary Voltage needed) Unit Powered Through USB

Approvals: Comply with EMC, cUL us® 508 listed and cUL® listed

100 KA: Short Circuit Current rating (SCCR) up to 600V

Option

- See below the types of options and their combination for Code generation
- Energy Totalizer
- Data Logging
- WiFi
- HB Alarm to diagnose partial or Total Load Failure and Thyristor Short Circuit

Tools

- A very easy and Powerful Configurator Software is available Free of Charge on www.cdautomation.com
- CD Automation APP is also available free of charge to communicate via Wi-Fi

	No option	Option selected	(ex code 3: Logg	ging + Totalizer)	
НВ	WIFI	LOGGING	TOTALIZER	CODE	NOTES
				Ø	
				1	HB Alarm for partial or total load failure and Short Circuit on SCR (relay output).
				2	
				3	WiFi Option that allows communication with a smart phone. From your smart phone via
				4	the CD Automation App, direct to your thyristor unit in the cabinet to read current, voltage,
				5	power and energy totalization as well as the ability to change parameters to improve
				6	process and product quality without opening the cabinet door.
				7	
				8	APP Free of charge download it from Google Play or Apple Store.
				9	
				A	DATA LOGGER This feature is important to see the historical data of parameter like Current,
				В	Voltage and Power and can be useful to diagnose a fault.
				С	
				D	ENERGY TOTALIZER This function totalize the energy consumption of the load allowing
				Е	the calculation cost of heating treatment.
				F	

CONNECTIVITY









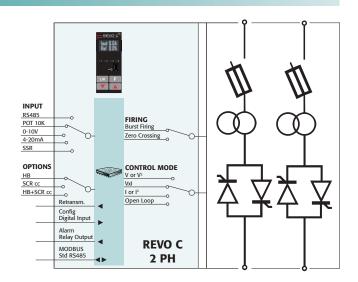












ORDER CODE:

11 12 13 14 **REVO C 2PH**

CURRENT	FUSES	4	5	6	
description	description	code		note	
30A	Fuse + Fuse Holder Included	0	3	0	
35A	Fuse + Fuse Holder Included	0	3	5	
40A	Fuse + Fuse Holder Included	0	4	0	
60A	Fixed Fuses Included	0	6	0	
90A	Fixed Fuses Included	0	9	0	
120A	Fixed Fuses Included	1	2	0	
150A	Fixed Fuses Included	1	5	0	
180A	Fixed Fuses Included	1	8	0	
210A	Fixed Fuses Included	2	1	0	
300A	Fixed Fuses Included	3	0	0	
400A	Fixed Fuses Included	4	0	0	
450A	Fixed Fuses Included	4	5	0	
500A	Fixed Fuses Included	5	0	0	
600A	Fixed Fuses Included	6	0	0	
700A	Fixed Fuses Included	7	0	0	
800A	Fixed Fuses Included	8	0	0	1

For Extended version (from 1100A to 2100A) see page 18

Tot Extended Territor (mem Trees to Ereet) see page 10		
MAX VOLTAGE	7	
description	code	note
480V	4	
600V	6	
690V	7	1,2

MAIN SUPPLY VOLTAGE	AUX VOLTAGE RANGE	8	
	V range	code	note
100/120Vac	90 to 135Vac	1	3
200/208/230/240Vac	180 to 265Vac	2	3
277Vac	238 to 330Vac	3	3
380/415/480Vac	342 to 528Vac	5	3
600Vac	540 to 759Vac	6	3
690Vac	540 to 759Vac	7	3

MAIN INPUT	9	
description	code	note
SSR	S	
0:20mA	В	
4:20mA	Α	
0:10V	V	
10KPot	K	

FIRING	START OPTION	10	
description	description	code	note
Burst Firing	No Soft Start	В	
Zero Crossing	No Soft Start	Z	

Note (1): No cUL approved
Note (2): Available on unit ≥60A
Note (3): Main Supply Voltage has to be included in Auxiliary Voltage range
Note (4): 24Vdc Backup Power for User Interface and Communications included

CONTROL MODE	11	
description	code	note
Open Loop	0	
Voltage	U	
Voltage Square	Q	
Current	1	
Current Square	Α	
Power VxI	W	
External Feedback	Χ	

OPTION	12	
description	code	note
No Option	0	
Option code - see previous page table		

FAN VOLTAGE	13	
description	code	note
No Fan < 90A	0	
Fan 115Vac≥90A	1	
Fan 230Vac ≥ 90A Std Version	2	
Fan 24Vdc ≥ 90A	3	

APPROVALS	14	
description	code	note
CE EMC For European Market	0	
CUL us* + CE EMC For American & European Market	L	1

LOAD TYPE	15	
description	code	note
Normal Resistive Load with 3 Phase Star without neutral Connection	0	
Normal Resistive Load with 3 Phase Delta Connection	1	
IRSW Infrared Short wave with 3 Phase Star Connection	2	
IRSW Infrared Short wave with 3 Phase Delta Connection	3	

COMMUNICATION AND RETRANSMI	SSION	16	
description	description	code	note
	No Retransmission	0	
N°1 Modbus® RTU	Retransmission 4:20mA	1	
	Retransmission 0:10V	2	
	No Retransmission	3	4
N°2 Modbus® RTU	Retransmission 4:20mA	4	4
	Retransmission 0:10V	5	4
	No Retransmission	6	4
N°1 Profibus* DP + N°1 Modbus* RTU	Retransmission 4:20mA	7	4
	Retransmission 0:10V	8	4
	No Retransmission	9	4
N°1 Profinet* IO + N°1 Modbus* RTU	Retransmission 4:20mA	Α	4
	Retransmission 0:10V	В	4
N°1 Modbus* TCP + N°1 Modbus* RTU	No Retransmission	С	4
	Retransmission 4:20mA	D	4
	Retransmission 0:10V	E	4

REVO C 3PH







SIZE SR11 SIZE SR17 SIZE S14

Technical Specification

Dimensions: See size and dimensions page 8-9

Load type: Normal Resistance, Infrared Short, Medium and Long, Transformer

Primary using Phase Angle, Cold resistance and SiC elements

Inputs: 4:20mA, 0:10V, SSR and Modbus® as std and different

Field Bus Listed in the Product Coding

Firing mode:
Control Mode:
Voltage, Current and Power or V2 and I2 with additional Transfer to Vxl
Communication:
RS485 port. RTU Modbus® Protocol and other Field Bus available

USB: port integrated for configuration in safety mode

(No Load and Auxiliary Voltage needed) Unit Powered Through USB

Approvals: Comply with EMC, cUL us* 508 listed and cUL* listed

100 KA: Short Circuit Current rating (SCCR) up to 600V

Dual Current Limit: for peak and RMS value

Option

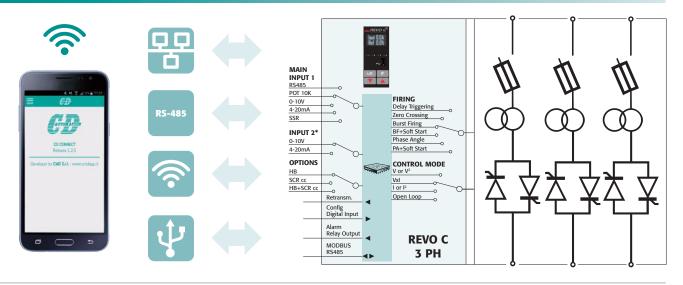
- See below the types of options and their combination for Code generation
- Energy Totalizer
- · Data Logging
- WiFi
- HB Alarm to diagnose partial or Total Load Failure and Thyristor Short Circuit

Tools

- A very easy and Powerful Configurator Software is available Free of Charge on www.cdautomation.com
- CD Automation APP is also available free of charge to communicate via Wi-Fi

No op	tion	Option selected	l (ex code 3: Log	ging + Totalizer)		
I LIMIT	НВ	WIFI	LOGGING	TOTALIZER	CODE	NOTES
					Ø	
					1	
					2	
					3	I LIMIT (CURRENT LIMIT) This option is used to keep the overcurrent
					4	inside setted limit. It's necessary to drive primary transformers and cold
					5	resistance. This option is not available on 30-35-40A units.
					6	resistance. This option is not available on 50-55-40A units.
					7	
					8	HB Alarm for partial or total load failure and Short Circuit on SCR
					9	(relay output).
					A	
					B C	WiFi Option that allows communication with a smart phone. From your
					D	
					E	smart phone via the CD Automation App, direct to your thyristor unit in the
					F	cabinet to read current, voltage, power and energy totalization as well as the
					G	ability to change parameters to improve process and product quality without
					Н	opening the cabinet door.
					1	
					J	APP Free of charge download it from Google Play or Apple Store.
					К	The of charge download it from doogle hay of Apple store.
					L	
					М	DATA LOGGER This feature is important to see the historical data of
					N	parameter like Current, Voltage and Power and can be useful to diagnose a
					0	fault.
					Р	
					Q	ENERGY TOTALIZER This function totalize the energy consumption of the
					R	e, i
					S	load allowing the calculation cost of heating treatment.
					T	
					U	
					V	

CONNECTIVITY



ORDER CODE:

		1	2	3		4	5	6		7	8	9	10	11	12	13	14	15	16
REVO C 3PH		R	С	3		_	_	_	-	_	_	_	_	_	_	_	_	_	_
CURRENT	FUSES			4		6			CONT	OL MOD	F						11		
description	description	on			СО	_	note		description			code		note					
30A	Fuse + Fu		r Include	d o		0	2		Open Loop					0		Hote			
35A	Fuse + Fu						2		Voltag								U		
40A	Fuse + Fu					1 0	2			e Square							Q		
60A	Fixed Fus			0		5 0			Curren								I		
90A	Fixed Fus			0	_					t Square							A		
120A	Fixed Fus			1	_				Power								W		
150A	Fixed Fus			1	_	_				al Feedba	ck						X		
180A	Fixed Fus			1	-				LXICIII	ai i eeub	ick						Λ		
210A	Fixed Fus			2	_	_			OPTIO	M							12		
300A	Fixed Fus			3) 0											code		
400A	Fixed Fus			4	_	_			descri										note
450A	Fixed Fus			4	_	_		_	No Op				. 1. 1 .				0		
500A	Fixed Fus			5	_			-	Option	coae - s	ee previo	us page t	aDIE						
600A	Fixed Fus			6	_		1												
700A	Fixed Fus			7	_	_	1		_	OLTAGE							13		
800A	Fixed Fus			8	_		1		descri								code	2	note
					- () 0	ı			1 < 90A							0		
For Extended version (from 11	00A to 210	oua) se	e page	18						5Vac ≥ 90							1		
MAX VOLTAGE					7				Fan 230Vac ≥ 90A Std Version		2								
description					со		note		Fan 24	Vdc ≥ 90.	Α						3		
480V						ļ.											_		
600V					6				APPR								14		
690V					7	1	1		descri								code	9	note
								_		C For Eur							0		
MAIN SUPPLY VOLTAGE	AUX VOL	TAGE RA	NGE		8				CUL us	s® + CE El	MC For A	merican 8	k Europea	an Marke	t		L		
	V range				СО		note												
100/120Vac	90 to 135				1		3		LOAD								15		
200/208/230/240Vac	180 to 26				2		3		descri								code	2	note
277Vac	238 to 33				3		3					Phase Sta					0		
380/415/480Vac	342 to 52						3					Phase De					1		
600Vac	540 to 75	59Vac			6	5	3								ction with		2		
690Vac	540 to 75	9Vac			7	7	3		IRSW I	nfrared S	hort wav	e with 3 I	Phase De	lta or Sta	r Connec	tion	3		
												ıpled with			e		4		
MAIN INPUT					ç				3 Phas	e Transfo	rmer cou	ıpled witl	n cold res	istance			5		
description					СО	de	note											_	
SSR					9				_		ION ANI	RETRA					16		
0:20mA					E	3			descri	otion				scription			code	2	note
4:20mA					F	١							No	Retransi	mission		0		
0:10V					١	1			N°1 M	odbus® R	TU				sion 4:20		1		
10KPot					ŀ	(Re	transmis	sion 0:10\	V	2		
													No	Retransi	mission		3		4
FIRING	START O	PTION			1	0			N°2 M	odbus® R	TU		Re	transmis	sion 4:20	mA	4		4
description	description	on			со	de	note						Re	transmis	sion 0:10\	V	5		4
Burst Firing	No Soft S	tart			E	3							No	Retransi	mission		6		4
	Linear So	ft Starter							N°1 Pr	ofibus® D	P + N°1 <i>I</i>	/lodbus® l	RTU Re	transmis	sion 4:20	mA	7		4
Dhara Anala	No Soft S	tart			F)	2						Re	transmis	sion 0:10	V	8		4
Phase Angle	Linear So	ft Starter			E		2						No	Retransi	mission		9		4
Delayed Triggering	No Soft S				Ī		2		N°1 Pr	ofinet® IC) + N°1 N	/lodbus® I	RTU Re	transmis	sion 4:20	mA	А		4
, 55 5	No Soft S				7		_						Re	transmis	sion 0:10	V	В		4
Zero Crossing	Linear So				F								No	Retransi	mission		С		4
									1										

^{*}Secondary Input can be configured for external current limit reference, external feedback or secondary input reference. See the manual for more informations.

Retransmission 0:10V

N°1 Modbus* TCP + N°1 Modbus* RTU Retransmission 4:20mA

Note (1): No cUL approved Note (2): Phase Angle and Delayed Triggering not available on 30-35-40A Note (3): Main Supply Voltage has to be included in Auxiliary Voltage range Note (4): 24Vdc Backup Power for User Interface and Communications included

REVO C EXTENDED VERSION

CURRENT	MAX NOMINAL VOLTAGE	MAX NOMINAL VOLTAGE	MAX NOMINAL VOLTAGE
1100A	480V	600V	690V
1400A	480V	600V	690V
1600A	480V	600V	690V
1800A	480V	600V	690V
2100A	480V	600V	690V

ORDER CODE:

	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
REVO C 1PH	R	C	1	_	_	_	-	_	_	_	_	_	_	_	_	_	_
REVO C 2PH	R	C	2	_	_	_	-	_	_	_	_	_	_	_	_	_	_
REVO C 3PH	R	С	3	_	_	_	-	_	_	_	_	_	_	_	_	_	_

CURRENT	FUSES	4	5	6	
description	description		code		note
1100A	Fixed Fuses Included	1	1	Н	1
1400A	Fixed Fuses Included	1	4	Н	1
1600A	Fixed Fuses Included	1	6	Н	1
1800A	Fixed Fuses Included	1	8	Н	1
2100A	Fixed Fuses Included	2	1	Н	1

MAX VOLTAGE	7	
description	code	note
480V	4	
600V	6	
690V	7	

AUX SUPPLY VOLTAGE	AUX VOLTAGE RANGE	8	
description	description	code	note
100/120Vac	90 to 135Vac	1	
200/208/230/240Vac	180 to 265Vac	2	

MAIN INPUT	9	
description	code	note
SSR	S	
0:20mA	В	
4:20mA	Α	
0:10V	V	
10KPot	K	

FIRING	START OPTION	10	
description	description	code	note
Donat Cirina	No Soft Start	В	
Burst Firing	Linear Soft Starter	J	4
Dhasa Angla	No Soft Start	P	4
Phase Angle	Linear Soft Starter	E	4
Deleved Trianguina	No Soft Start	D	4
Delayed Triggering	Linear Soft Starter	T	3
	No Soft Start	Z	
Zero Crossing	Linear Soft Starter	R	4

CONTROL MODE	11	
description	code	note
Open Loop	0	
Voltage	U	
Voltage Square	Q	
Current	1	
Current Square	Α	
Power VxI	W	
External Feedback	Х	

OPTION 12 description code No Option 0 Option code - see table pag 12 (1PH), pag 14 (2PH), pag 16 (3PH)

FAN VOLTAGE	13	
description	code	note
Fan 115Vac	1	
Fan 230Vac Std Version	2	

APPROVALS	14	
description	code	note
CE EMC For European Market - IP protection rating = 0	0	
CE EMC For European Market - IP protection rating = 20	1	
UL + CE EMC For European Market - IP protection rating = 0	2	5
UL + CE EMC For European Market - IP protection rating = 20	L	5

LOAD TYPE	15	
description	code	note
Normal Resistance	0	
IRSW Infrared Short Wave	1	
MoSi2 Heaters	2	
SiC Heaters	3	
Transformer Coupled with Normal Resistance	4	4
Transformer Coupled with MoSi2 Heaters	5	4
Transformer Coupled with SiC Resistance	6	3
Transformer Coupled with UV Lamp	7	3

COMMUNICATION AND RETRANSMI	SSION	16	
description	description	code	note
N°1 Modbus* RTU	No Retransmission	0	
	Retransmission 4:20mA	1	
	Retransmission 0:10V	2	
N°2 Modbus® RTU	No Retransmission	3	2
	Retransmission 4:20mA	4	2
	Retransmission 0:10V	5	2
N°1 Profibus* DP + N°1 Modbus* RTU	No Retransmission	6	2
	Retransmission 4:20mA	7	2
	Retransmission 0:10V	8	2
N°1 Profinet* IO + N°1 Modbus* RTU	No Retransmission	9	2
	Retransmission 4:20mA	Α	2
	Retransmission 0:10V	В	2
N°1 Modbus* TCP + N°1 Modbus* RTU	No Retransmission	С	2
	Retransmission 4:20mA	D	2
	Retransmission 0:10V	Е	2
N°1 Ethernet IP + N°1 Modbus® RTU	No Retransmission	F	2
	Retransmission 4:20mA	G	2
	Retransmission 0:10V	Н	2

Note (1): CE-EMC Approved - No cUL approved
Note (2): 24Vdc Backup Power for User Interface and Communications included
Note (3): Available on 1PH only
Note (4): Available on 1PH and 3PH only

Note (5): Not yet available

^{*}Secondary Input can be configured for external current limit reference, external feedback or secondary input reference. See the manual for more informations.