- PID Temperature Controller
- Up to 3 Control Loop
- Load monitoring and alarms
- Integrated power switch SSR
- Integrate current up to 90A per channel
- Extra rapid fuses
- Data always available via fieldbus
- Cable wiring and space reduction

CD AUTOMATION

POWERED BY INNOVATION

REVO RT

MULTIZONE TEMPERATURE CONTROLLER



Compact MultiZone Temperature and Power Controller

www.cdautomation.com

REVO RT Catalog 2021

REVO RT

REVO RT is a three independent PID loop controller

This series is suitable for industrial applications in the following sectors:

- Packaging machines
- Plastics machines (extruders and extrusion lines, extrusion heads and hot runner mold control units)
- Multi-zone owens
- Long and medium wave IR lamp ovens
- IR drying process



One, Two and Three channels modules

- Up to 3 PID temperature controller heating or heating and cooling
- Solid State relay (SSR) up to 90A at 600V
- Extra rapid fuses
- Current transducer
- Load monitoring
- 5 alarm relay output
- Serial communication port
- Frontal USB programming port



Each loop

- Universal input - Current - Voltage - Thermocouple
- PID loop controller - Heating only - Heating & cooling - Configurable temperature alarm
- Frontal Led for easy diagnostic

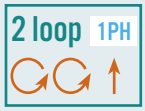
Single Phase Load



Why 3 loops modularity?
because loads are better balanced

But, if the load cannot be balanced, a 2 loops unit can be added

Choosing this solution you will have:

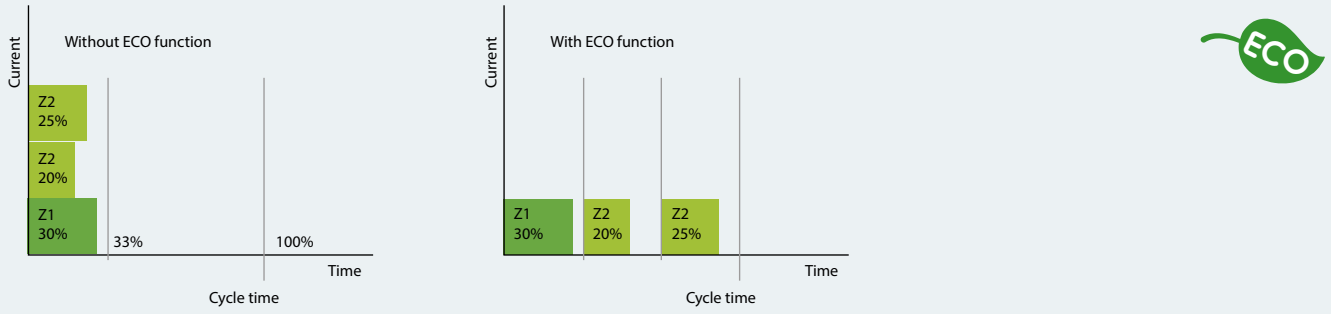


n° 2 control inputs
n° 1 inputs for measure

Special functions

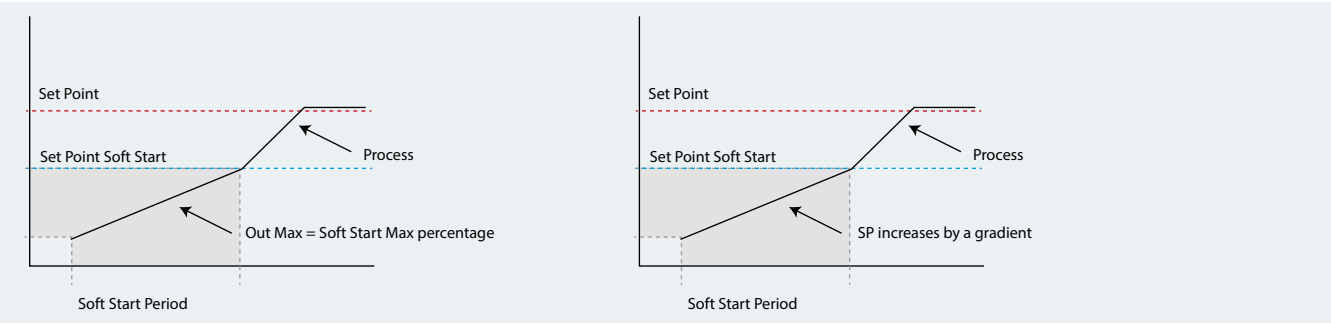
ECO Function for RT2 & RT3

The ECO function distributes the power during regulation (<33%) in the set cycle time.



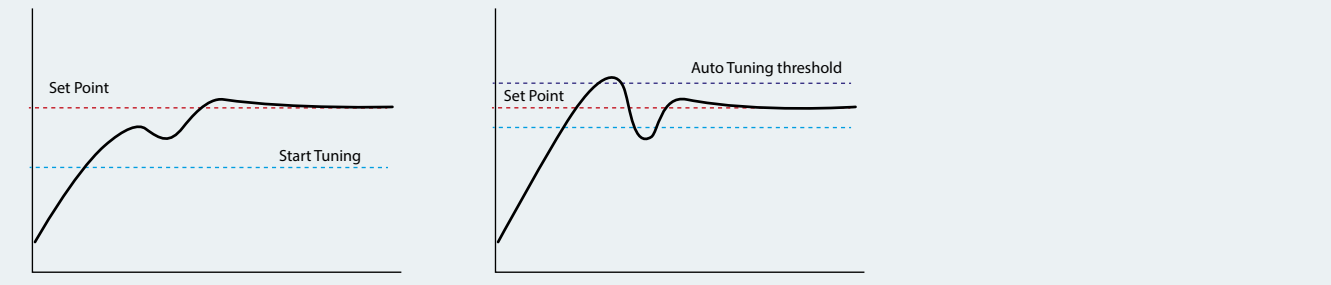
Soft Start

To avoid thermal shocks to the heating parts, limit the output power over a certain period of time, or ramp up to the set point upon activation of the regulation.



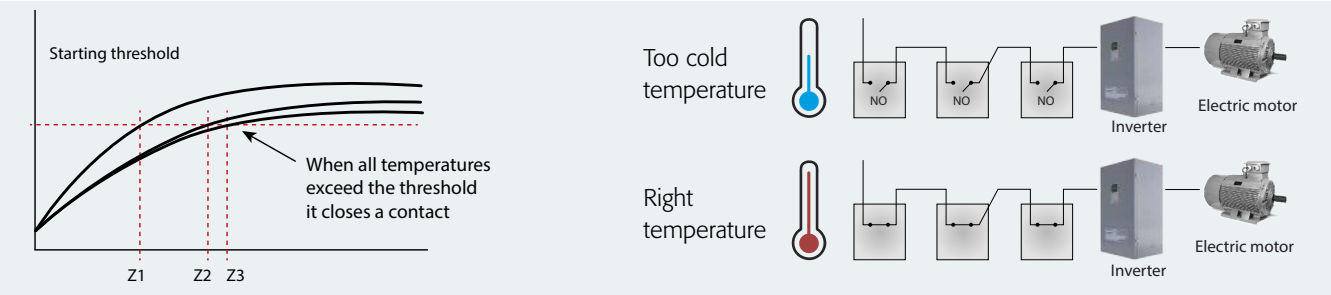
Auto Tuning

Automatic calculation of the Tuning parameters, with adaptive or single mode.

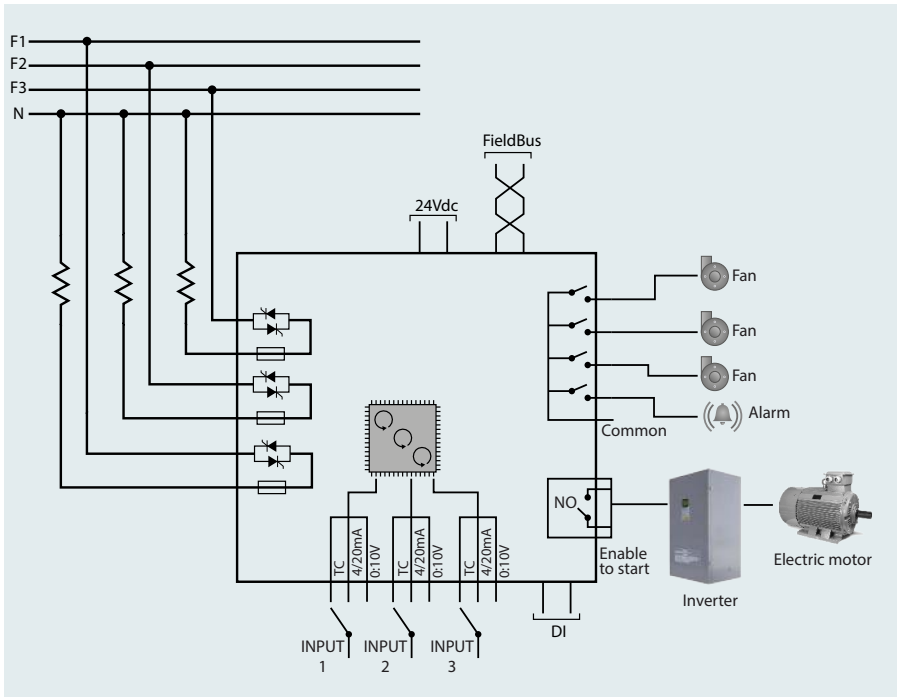


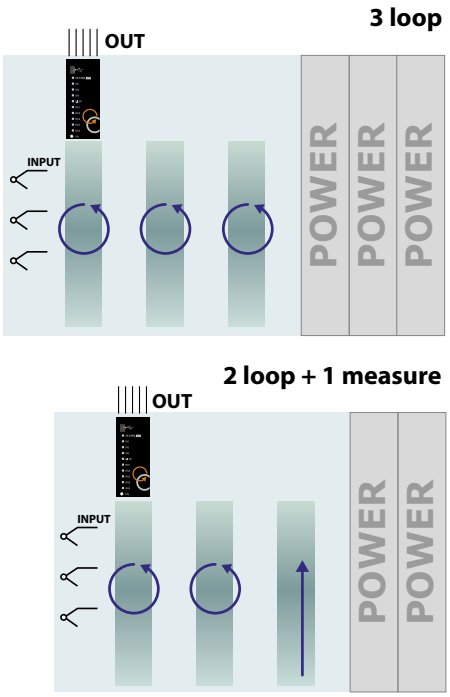
Enable to start

When all temperatures reach a predefined absolute threshold, a contact is closed to enable the extruder to start.



REVO RT multiloop 3 zones or 2 zones + measurement





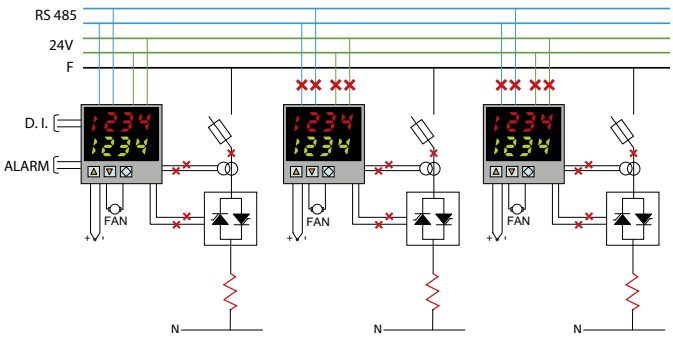
Dramatic reduction in cable wiring

How many Zones/loops do you sell in one year?

Make a calculation of what you can save and you only have one decision to take.

How much it costs you each wire?

With REVO RT you save 6 wires for each zone and the related wiring accessories, significantly reducing the space used. Try to calculate the actual savings.



Our staff is at your disposal for further information

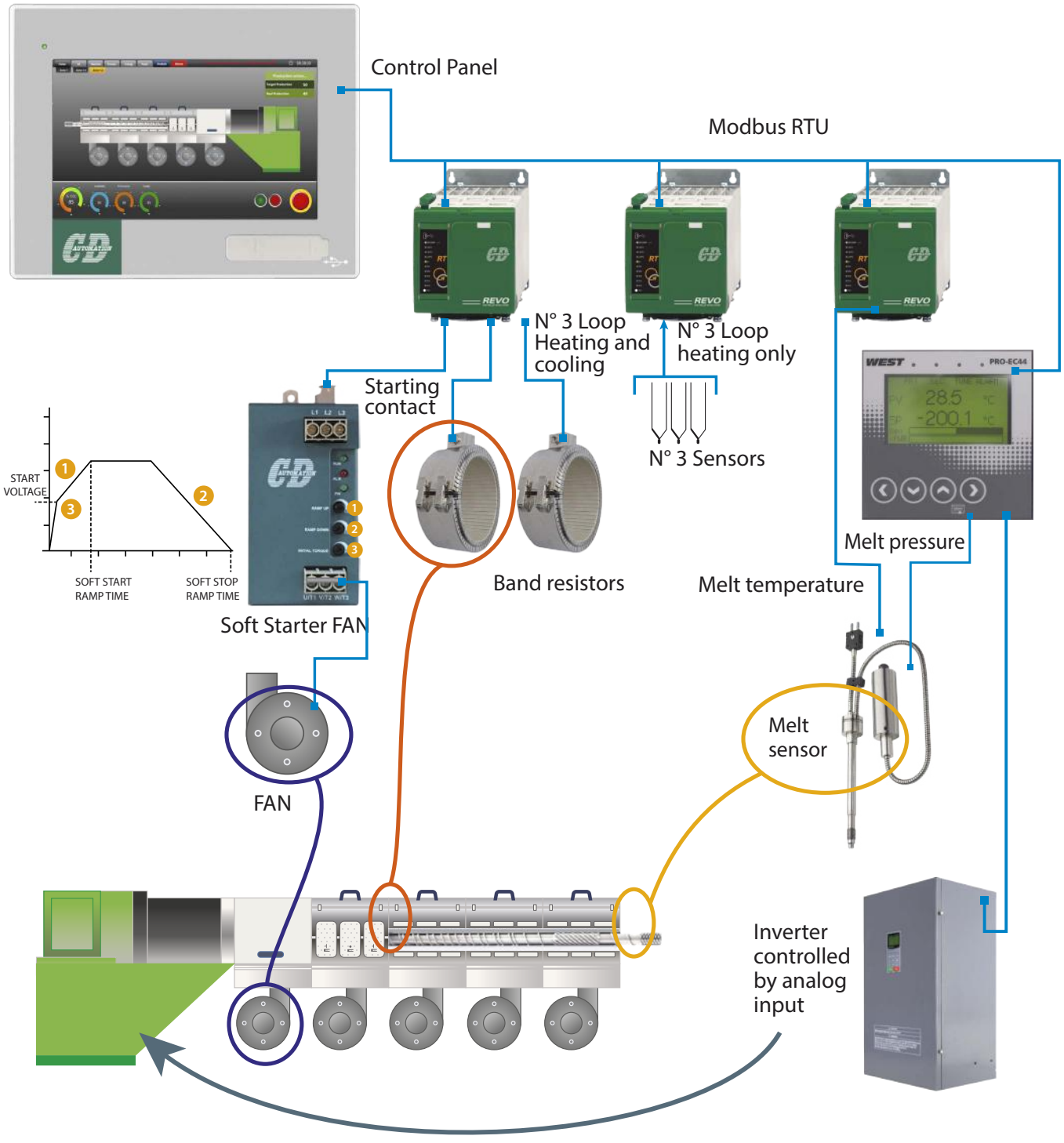
Traditional system



REVO RT system



Plastic extrusion, temperature and pressure



REVO RT 2 Loop + 1 Measure



Technical Specification

Size: SR25

Dimensions: H180 x W116 x D183 – 2,35Kg

Approvals: Comply with EMC

Zones

- 2 zones 35A each
- 2 zones 50A each
- 2 zones 75A each
- 2 zones 90A each

	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDER CODE	**R**	**T**	**2**	_	_	_	**-**	_	_	_	_	_	_	_	_	_	_

N° ZONES X CURRENT RATING	4	5	6	
description	code			note
2 Zones 35 A each + 1 Measurement	0	3	5	
2 Zones 50 A each + 1 Measurement	0	5	0	
2 Zones 75 A each + 1 Measurement	0	7	5	
2 Zones 90 A each + 1 Measurement	0	9	0	

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

AUXILIARY VOLTAGE	8	
description	code	note
24Vdc	4	

INPUT	9	
description	code	note
N° 3 configurable inputs Tc, J, K, S or Analog Inputs 4:20mA or 0:10V	0	

FIRING	10	
description	code	note
Zero Crossing	Z	

CONTROL MODE	11	
description	code	note
N° 2 Loop Heating and Cooling or Heating Only to be configured by the customer + N° 1 measurement	0	

FUSES & OPTION	12	
description	code	note
Fixed Fuse - No Option	F	
Fixed Fuse - Heater Break Alarm	H	

FAN VOLTAGE	13	
description	code	note
Standard - 24Vdc Fan	3	

APPROVALS	14	
description	code	note
CE EMC For European Market	0	

MANUAL	15	
description	code	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

VERSION	16	
description	code	note
Version 1	1	

REVO RT 3 Loop



Technical Specification

Size: SR25

Dimensions: H180 x W116 x D183 – 2,35Kg

Approvals: Comply with EMC

Zones

- 3 zones 35A each
- 3 zones 50A each
- 3 zones 75A each
- 3 zones 90A each

	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16
ORDER CODE	R	T	3	_	_	_	-	_	_	_	_	_	_	_	_	_	_

N° ZONES X CURRENT RATING	4	5	6	
description	code			note
3 Zones 35 A each	0	3	5	
3 Zones 50 A each	0	5	0	
3 Zones 75 A each	0	7	5	
3 Zones 90 A each	0	9	0	

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

AUXILIARY VOLTAGE	8	
description	code	note
24Vdc	4	

INPUT	9	
description	code	note
N° 3 configurable input as Tc, J, K, S or Analog Inputs 4:20mA or 0:10V	0	

FIRING	10	
description	code	note
Zero Crossing	Z	

CONTROL MODE	11	
description	code	note
N° 3 Loop Heating and Cooling or Heating Only to be configured by the customer	0	

FUSES & OPTION	12	
description	code	note
Fixed Fuse - No Option	F	
Fixed Fuse - Heater Break Alarm	H	

FAN VOLTAGE	13	
description	code	note
Standard - 24Vdc Fan	3	

APPROVALS	14	
description	code	note
CE EMC For European Market	0	

MANUAL	15	
description	code	note
None	0	
Italian	1	
English	2	
German	3	
French	4	

VERSION	16	
description	code	note
Version 1	1	

REVO HMI

Several REVO RT can be connected to a REVO HMI series panel, equipped with a color display and software for the management up to 30 regulation zones.
The system is flexible and scalable, with few steps you can add groups of zones, view trends and rename zones.



FIELD BUS & COMMUNICATION

Terminal Unit Modules

Technical Specification

- Up to n° 8 **REVO RT** can be connected for each terminal module
- Main process variable available
- 24Vdc Power Supply
- Simplified configuration



TU-RS485-TCP-3580MB



TU-RS485-PNT-067602

TU-RS485-EIP-067591

	1	2		3	4	5	6	7		8	9	10		11	12	13	14	15	16
ORDER CODE	**T**	**U**	-	R	S	4	8	5	-	_	_	_	-	_	_	_	_	_	_

COMMUNICATION				**3**	**4**	**5**	**6**	**7**
Modbus RTU				R	S	4	8	5

FIELDBUS, COMMUNICATION OR OTHER FUNCTIONS		**8**	**9**	**10**		**11**	**12**	**13**	**14**	**15**	**16**
Modbus TCP Protocol Converter	-	T	C	P	-	3	5	8	0	M	B
Modbus TCP, Modbus Slave, IO, Data Logger, Logic	-	E	T	H	-	I	O	D	L	0	0
Profinet	-	P	N	T	-	0	6	7	6	0	2
Ethernet IP	-	E	I	P	-	0	6	7	5	9	1
RS232	-	2	3	2	-	3	5	8	0	2	W

GENERAL FEATURES

Display Software		
0.1	LED Diagnostic	LED diagnostics provides clear alarm notification
0.2	Fully Software Configurable	REVO RT is fully Software configurable
Electrical Features		
1.1	Current rating	35 to 90A
1.2	Voltage	Up to 600V
1.3	Integrated Fuse	Reduces labour time and cabinet space compared to external fusing whilst benefiting from internal fan cooling helping to reduce fuse temperature
1.4	Quick and easy access to Fuses	Fuses and thyristors are mounted directly behind the front panel door.
Firing & Input		
2.1	Firing mode	Zero Crossing
2.2	Cod. Input	The std analog inputs 0-1V, 0-5V, 0-10V, 0-20mA, 4-20mA, 0-60mV and thermocouple K, S, R, J, T, E, N, B Configurable via Software
Digital Output		
3.1	Modbus® RTU	Standard
3.2	USB device on front unit for configuration	Allows the user to easily and safely configure the REVO RT unit by powering through the USB connection only, without connecting a standard voltage line supply
Extra Features		
4.1	HB and Sc Alarm	Alarm for Partial or Total Load Failure and Short Circuit on SCR with Electromechanical Relay output 5A at 30Vdc
4.2	Free configuration Software	Easy to use and powerful Configurator Software, available free of charge from www.cdautomation.com
General Features and Approvals		
5.1	Industry-leading and Serviceability	Generous sizing of Thyristors and Thermal Parts using high efficency Heatsink
5.2	Approvals	CE-EMC 480-600V versions is available on request



Italy
CD Automation Srl
Via Picasso, 34/36
20025 Legnano MI
Italy
T +39 0331 577479
F +39 0331 579479
sales@cdautomation.com
www.cdautomation.com

United Kingdom
CD Automation UK Ltd
Unit 9 Harvington Business Park
Brampton Road, Eastbourne
East Sussex, BN22 9BN
England
T +44 1323 811100
info@cdautomation.co.uk
www.cdautomation.co.uk

India
M/s Toshcon CD Automation Pvt. Ltd.
H1 - 75 Gegal Industrial Area
Ajmer - 305023 (Raj.)
India
T +91 145 2791112
T +91 145 6450601/2/3
sales.cd@toshcon.com
www.cdautomation.in