

IntegraBus
PCR-AAL-xxx
Double USB type-A Charger

Datasheet
Rev. 02

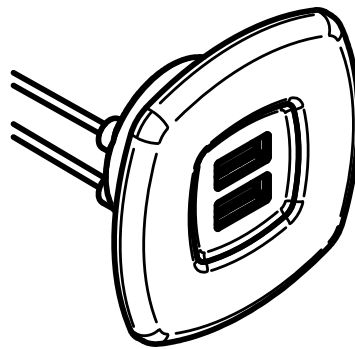


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1. Product Overview

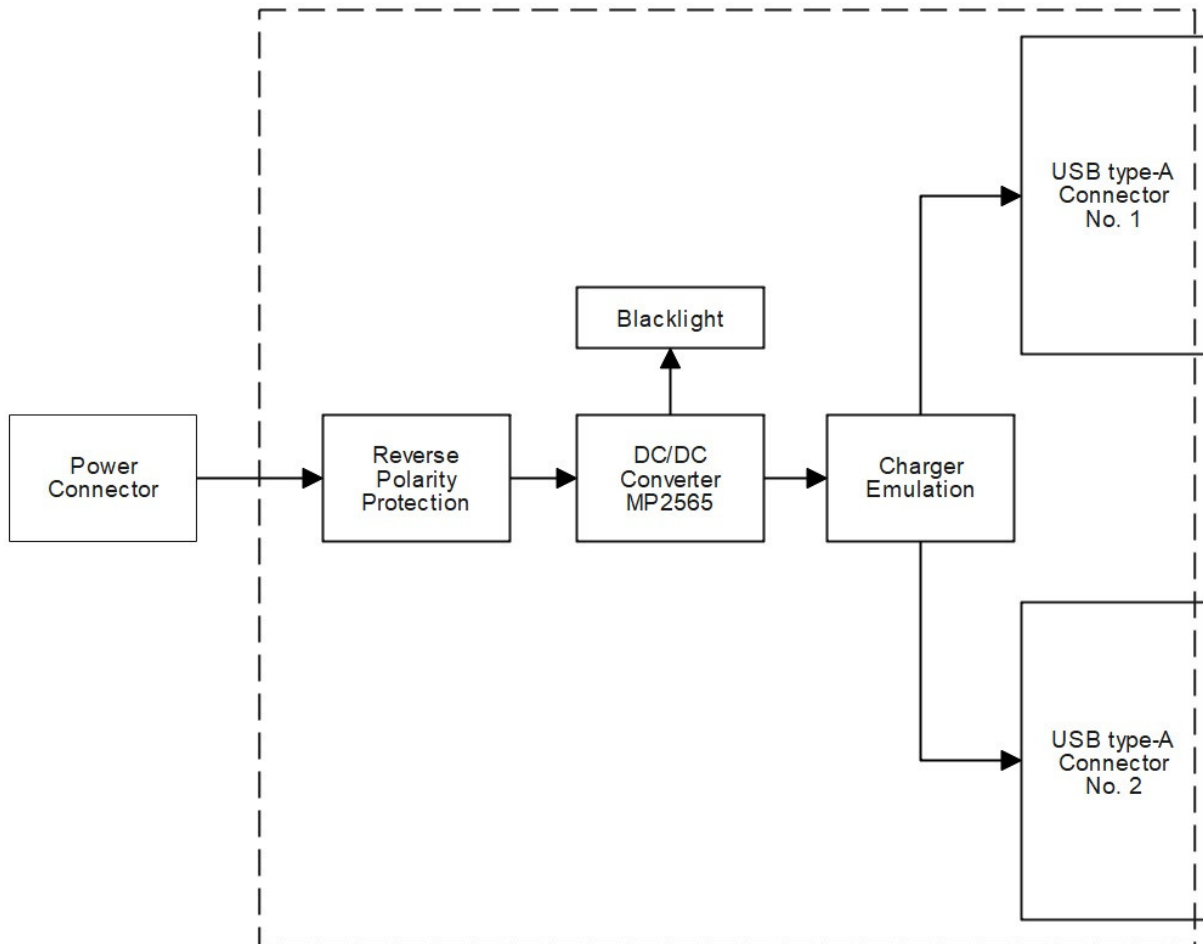
The PCR-AAL-xxx double USB type-A charger module intended for use in buses/coaches. It allows two connected and charged device in same time.

PCR-AAL charger has two low-power USB type-A port. These ports can be used with most of the popular mobile devices.

2. Electrical Specification

		Min.	Norm.	Max	
1.	Supply Voltage	8	24	48	V
2.	Operating Temperature	-40		+85	°C
	USB type-A Port				
3.	Output Voltage	4.75	5	5.25	V
4.	Output Current (@ 5V output voltage)			1	A
5.	Efficiency of USB-A port	91			%
6.	Output Power			2 x 5	W
7.	Backlight		Blue		

3. System Diagram



4. Functional Description

- Two mobile devices can be charged simultaneously.
- Standard USB type-A connector outputs,
- USB type-A output can supply 1A current maximum at 5V output voltage,
- Easy to install
- Supported mobile devices:
 - o iPod, iPhone, iPad,
 - o Android phones and tabs
- Supported Charge Profiles On USB type-A connector:
 - o Divider 1 DCP, (required to apply 2 V and 2.7 V on D+ Line on the D+ and D- Lines)
 - o Divider 2 DCP, required to apply 2.7 V and 2 V on the D+ and D- Lines
 - o Divider 3 DCP, required to apply 2.7 V and 2.7 V on the D+ and D- Lines

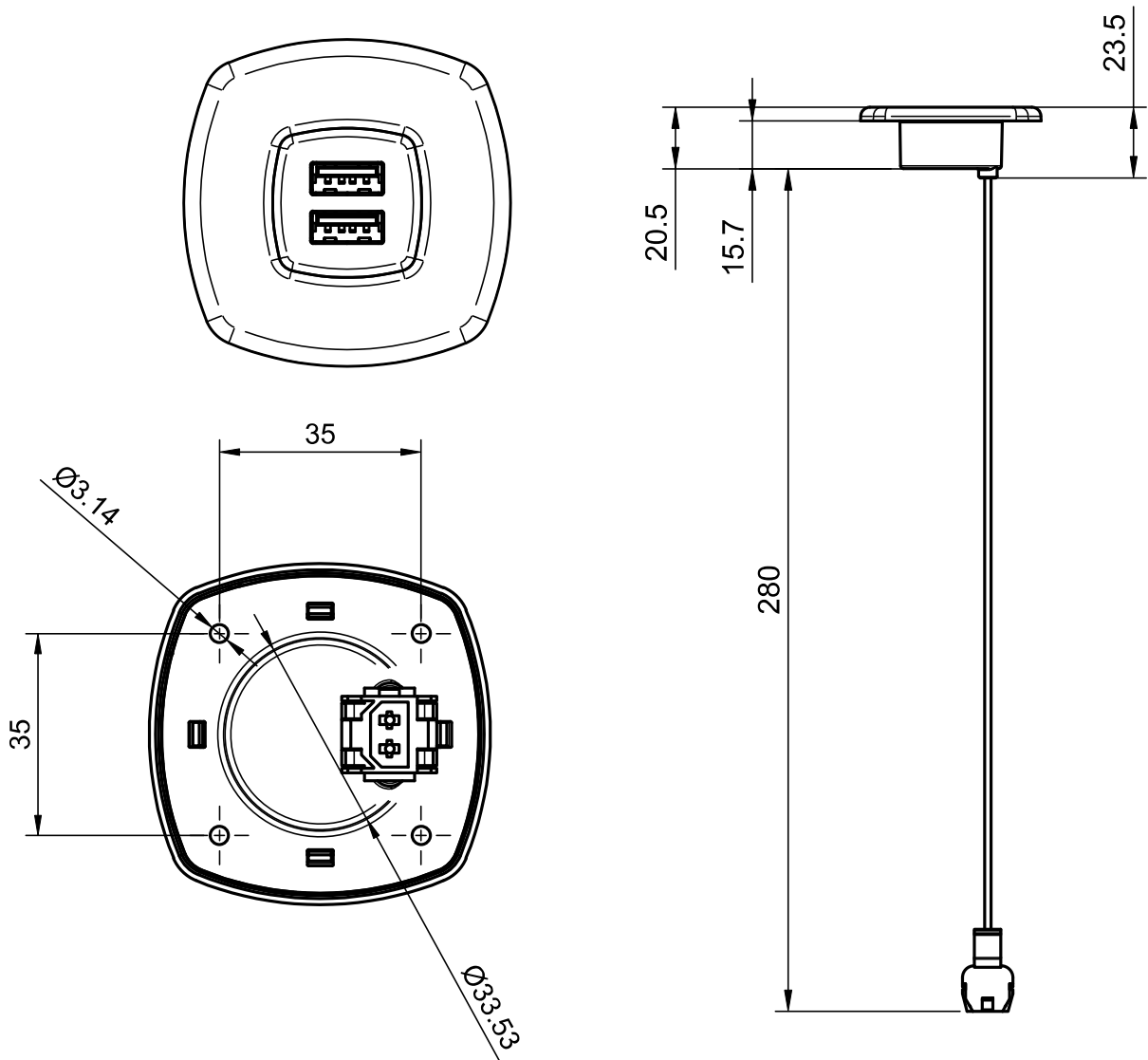
- BC1.2 DCP, required to short the D+ Line to the D– Line
- Chinese Telecom Standard YD/T 1591-2009 Shorted Mode, required to short the + Line to the D– Line
- 1.2 V on both D+ and D– Lines
- Automotive environment compatible design
- Overcurrent protection, overvoltage protection, thermal protection

5. Certifications

ECE R10 certification:	E-24 10R-041054
ECE R118 certification:	Housing weight is less than 15 g, application of R118 is not necessary on housing, Power cable is R118 certified.

6. Mechanical Specification

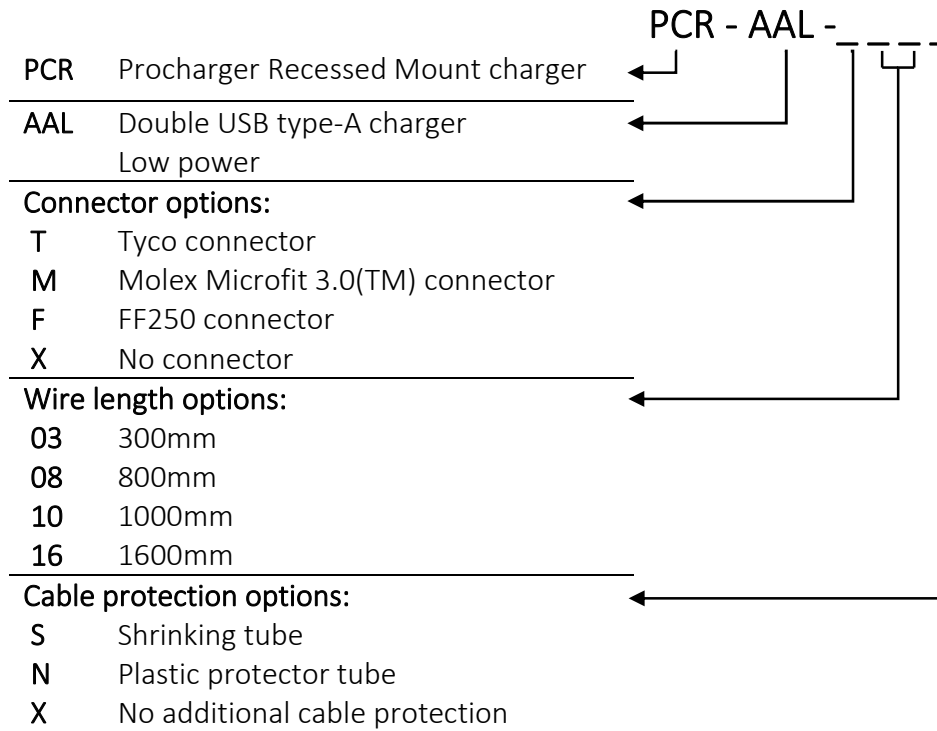
- Plastic housing for recessed mounting on surface
- 35 mm hole diameter for snap in installation
- >36 mm hole diameter for normal installation
- Material: PC ABS
- Type of connector can be defined individual
- 4 mounting screw hole, mounting diameter 43 mm, screw diameter up to 3,1 mm
- Black housing with an opal middle part for best light opacity. more colours are available upon request.



7. Installation

The installation requires a round hole of 35 mm (1.38") diameter.

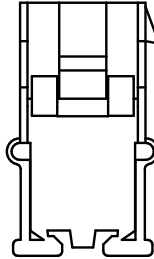
8. Ordering Codes



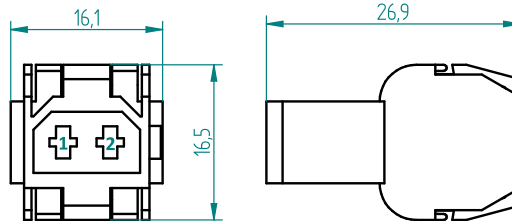
9. Connector Pinouts

Connector option “ - T”:

Housing: Tyco 964586
 Terminal: Tyco 964273-2

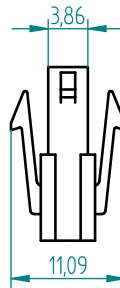


Pin	Wire	Function
1	RED	+12 – 24V Input
2	BLACK	GND Input

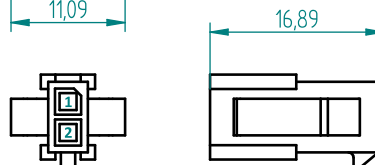


Connector option “ - M”:

Housing: Molex 430200208
 Terminal: Molex 43031

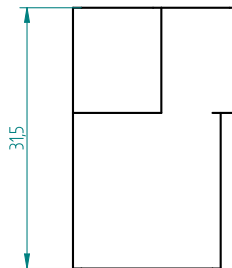


Pin	Wire	Function
1	RED	+12 – 24V Input
2	BLACK	GND Input

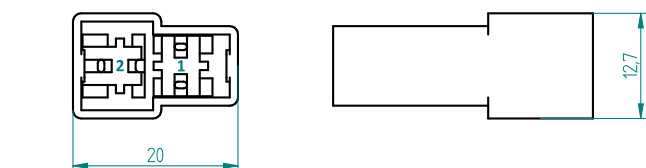


Connector option “ - F”:

Housing: Tyco 180908
 Terminal: Tyco 293041



Pin	Wire	Function
1	RED	+12 – 24V Input
2	BLACK	GND Input





10.Document History

rev	History	Date	Author
R02	Updated drawings Bandaged tape cable option has been removed	2023.09.20.	epapp
R01	First release	2020.12.03.	epapp