



XPL Rail 4M - R3A30 Datasheet

XPL Rail 4M - R3A30 is a device that provides three analog 0-10 V outputs and three relay outputs and is able to communicate over the powerline with other devices. As a DIN rail device it is mounted in switchboards and is intended to be used for automation purposes. It can either be directly coupled with a second device of the same kind or can be controlled by any device that is able to use the JSON API via Ethernet / powerline.

Features:

- Mountable to DIN-Rails according to DIN EN 60715
- Controlled via Powerline Communication (PLC)
- Based on HomePlug AV™ / HomePlug Green PHY™ compatible QCA7000 Chip for communication
- Can be used with all HomePlug AV™ compatible Ethernet adapters
- 3 active analog outputs. configurable as 0-10V or 1-10V outputs. **The three analog channels are using the same GND, they are not galvanically isolated.**
- 3 relay outputs, galvanically isolated and capable of switching 230 V mains voltage.
- Supported Standards: Ethernet (IEEE 802.3), ARP, ICMP, IGMPv2, IPv4, DHCPv4, Auto-IP, TCP, UDP, UDP-Multicast, HTTP, SSDP, HTTPU, REST, JSON, HTML+CSS (AJAX-based)

Applications:

- dimming of LED power supplies via Powerline Communication
- additional mains side breaking of dimmable power supplies in off state
- controlling lighting applications
- switching of mains connected loads
- extension of 0-10V standard signals when used with an XPLR4M-IO600

Technical Data

SUPPLY PARAMETERS	MIN	TYP	MAX	UNIT
AC Supply Voltage	85	110 / 230	265	V
AC Supply Frequency	-	50 / 60	-	Hz
AC Supply Power	-	1.3 (idle)	4.5	W

ANALOG OUTPUT PARAMETERS	MIN	TYP	MAX	UNIT
working voltage	0	-	10	V
resolution	-	2.44	-	mV
minimum output voltage	0	-	10	mV
analog output voltage tolerance	-	0.1	0.2	%
settling time	-	-	10	ms
output current	0	-	10	mA
RELAY OUTPUT PARAMETER	MIN	TYP	MAX	EINHEIT
operating voltage	0	-	230	Vac
overvoltage category	-	-	III	
switching current	0	-	3	A
contact durybility (3 A, 250 VAC, resistive)	-	100.000	-	switching cycles

AMBIENT PARAMETERS	
Storage Temperature	-25 - 70 °C
Operating Temperature	0 - 40 °C
Relative air humidity (non condensing)	15 - 85 %



SAFETY PARAMETERS	
Insulation coordination according to	IEC 60950-1:2006
Overtoltage category	II
Pollution degree	2
Altitude	max 2000 m above sea level

Analog outputs are safe against:

- short circuit to GND
- feeding back +24V to -24V
- overcurrent

Electrical Connections

The device has the following connections shown from top view.



Clamp (Printing)	Full Name	Description
N	mains N	Mains Power Input
L	mains L	Mains Power Input
L2	mains L2	Phase coupled connection for second Line
L3	mains L3	Phase coupled connection for third Line
+ (channel 4-6)	analog output positive	analog output clamp, positiv
- (channel 4-6)	Ground/GND	reference potential for all analog output channels
channel 1-3 (both clamps)	Relay	relay contacts

The clamps L,L2,L3,N,+,- are only for use with the following wires for electrical connection: 2,5 mm² / 14AWG, 4,0 mm² / 12AWG, 2 * 1,5 mm² / 16AWG Stripping length is not allowed to be longer than 8.3 mm

The clamps of the relay outputs 1-3 are only for use with the wires for electrical connection between AWG 21 / 0,5 mm² or 2x AWG 22 / 0,34 mm² up to AWG 16 / 1,5 mm² Stripping length must be between 6 and 8.3 mm.



Order Information

Order Code	I2XPLR4-R3A30
Outline dimension	4M DIN Rail (71 mm x 100 mm x 62 mm)
Weight	173 g (net)