

## REDUNDANT MODULES 20 A DIMENSION SERIES

### YR2.DIODE

Redundancy Module 2 x 12-48V dc 10A I/P 12-48V dc 20A O/P

- 32 mm wide
- Dual diodes
- Relay indication of power supply status
- Increases operational reliability



### PRODUCT DESCRIPTION

Redundant module used with power supply unit to assure 24 V supply. The redundant module has two separate inputs with diodes that separate the power supply units. In the event of a fault on the secondary side of power supply 1, the diode will prevent power supply 2 from being short circuited. A system protected against internal power supply faults is attained that is especially well-suited in processes where downtime is costly. The redundant module can also be used in systems in which operation of sensitive loads is to be assured. Input 1 is connected to the main power supply that normally supplies loads and, for example, the PLC. Input 2 is connected to a smaller power supply that is only connected to the sensitive load, in this case the PLC. In the event of a fault to the main power supply or short circuit of the loads, the PLC will be supplied by the smaller power supply and incorrect process terminations are avoided. The redundant module is also well-suited when you want to separate the power supply units from the loads so as to avoid returned voltage, such as from motors and batteries. YRM2.diode has 2 relay outputs that indicate if voltage drops/is zero. The relay opens in the event of faults and the LED turns off. YRM2 is especially well-suited for Dimension C, which does not have relay outputs. If more than 10 A is required per channel, two redundant modules are connected, one for each power supply. Both inputs must be connected on each module.

## TECHNICAL DATA

### INPUT DATA

Input voltage dc	12-48 V
Input voltage dc min	9 V DC
Input voltage dc max	60 V DC
Input current per channel max	10 A

### OUTPUT DATA

Output voltage min	12 V DC
Output voltage max	48 V DC
Output current	20 A
Output current max	25 A

## DIMENSIONS

Width	32 mm
Height	124 mm
Depth	102 mm
Weight	0.29 kg

## OTHER

Input / Output Separation	Diode
Approvals	ATEX, CB, CE, CSA, CSA US, GL, UL
IP class	IP20
Material protection	Aluminium
Series	Dimension Y
Voltage drop over semiconductor	850 mV
Temperature min without derating	-40 °C
Temperature max without derating	70 °C

Type Power Supply	Redundancy modules
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Fig. 17.1 Wiring diagram, 1+1 Redundancy, 10A output current

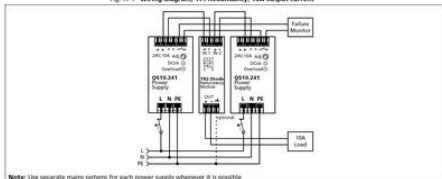


Fig. 17.2 Wiring diagram, n=1 Redundancy, 30A output current

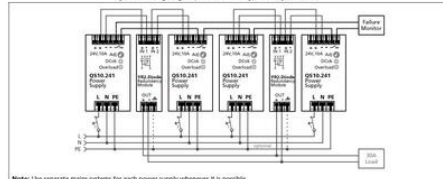


Fig. 17.4 Wiring diagram, redundancy for sensitive loads

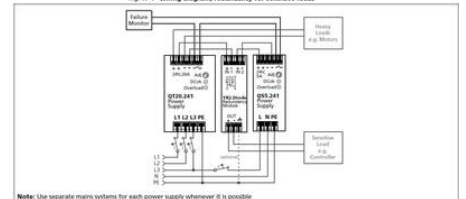


Fig. 17.5 Wiring diagram, decoupling of buffered branches

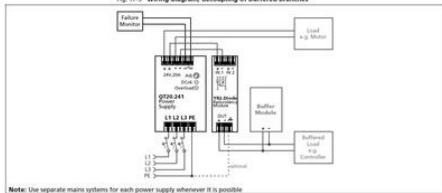


Fig. 17.3 Wiring diagram, 10A Battery backup

