

Relay

DESCRIPTION

- The PRO-2REL-1PM-12V-...-TNC is a relay box that can be used in simplex systems to avoid a simultaneous transmission on two channels.
- When transmitting on one channel, the other channel changes to the LOAD port to make sure that the system is secured against a simultaneous transmission on two channels.
- PRO-2RE-1PM-12V-...-TNC units can be interconnected via a data cable for mutual control (1 unit pr. channel).
- PRO-2RE-1PM-12V-...-TNC has one terminal for LED that goes high (12 V) when Tx is transmitting.



ORDERING

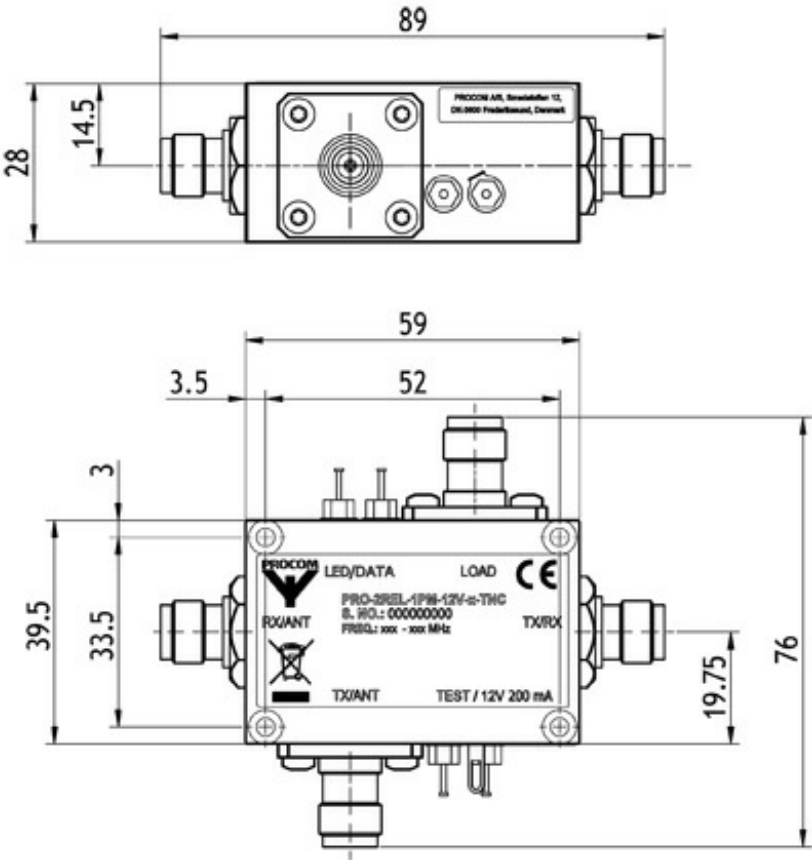
Model	Product No.	Frequency
PRO-2REL-1PM-12V-L-TNC	210001814	68 - 175 MHz
PRO-2REL-1PM-12V-H-TNC	210001448	300 - 470 MHz
PRO-2REL-1PM-12V-L-TNC/N	210002378	68 - 175 MHz

SPECIFICATIONS

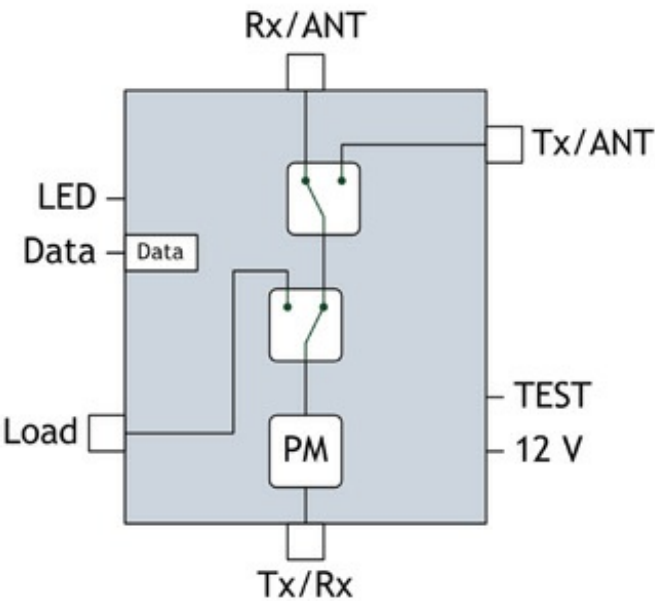
Electrical	
Model	PRO-2REL-1PM-12V-...-TNC
Frequency	68 - 175 MHz or 300 - 470 MHz
Type	Relay
Max. Input Power	Min. 2 W Max. 40 W
Insertion Loss	< 0.5 dB
Isolation	>50 dB
VSWR	< 1.5:1
Power Supply	11.5 V to 15 V
Current Consumption	200 mA
Shift Time	< 5 ms
Mechanical	
Connection(s)	TNC
Dimensions	90 x 77 x 28 mm/ 3.54 x 3.03 x 1.10" (incl. connectors)
Weight	0.15 kg / 0.33 lb
Mounting	3.2mm dia. (4 holes)
Environmental	
Lifetime	10 ⁷ OPERATIONS

ADDITIONAL DATA

MOUNTING DETAILS



FUNCTIONAL DIAGRAM



APPLICATION NOTE:

The PRO-2REL-1PM-12V-...-TNC can be used to make a Simplex Relay Combiner, for switching between the TX and RX. The simplex combiner gives the possibility to combine two or more simplex radios to one antenna. In the RX path a bandpass filter, an isolator and LNA is included.

The simplex combiner safeguards so that both radio transmitters do not have access to the antenna at the same time, but the two radios are still able to listen on the RX channel simultaneously. The first radio that enables the transmitter will be able to transmit while the output of the other transmitter will switch to an internal load.

When the first radio that enabled the transmitter stops transmitting, the other transmitter is switched to the antenna and allowed to transmit.

If no radio is transmitting, the system is in listening mode and both radios are able to receive the signal from the antenna.

APPLICATION EXAMPLE:

2 CHANNEL SIMPLEX COMBINER WITH ONE ANTENNA.

