



RATIONAL DIVIDER MODULE ENCODER

>> DREX SERIES<<

- » Divides the input frequency by any racional number
- » Optical isolation between input and outputs
- » Push-pull outputs with short circuit protection
- » HTL output power range with investment polarity protection
- » Maximum operating frequency 200KHz
- » TTL or HTL configurable power supply input

MAIN FEATURES

Rational Divider Module (DRE) allows to reduce the number of pulses per encoder revolution. The number by which to divide can be any rational number and is selected through the USB interface with the configuration software. Added to this the DRE removes any invalid input transition, generating only valid transitions at the outputs.

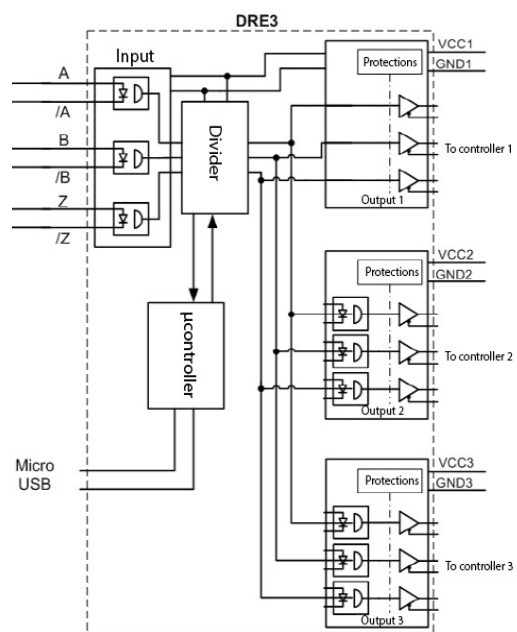
In addition, the DRE allows the change of levels, the outputs multiplication, or signal regeneration when the cable length is very extensive.

The input signals of DRE (A-B-Z) may be single-ended or differential in both 5V and 24V. In either case, the inputs are opto-coupled to isolate the outputs of the DRE of the encoder inputs, avoiding problems of noise and ground. The outputs are push-pull type, have short circuit protection and diagnostics for low power. The power supply range can be 12-30 Vdc output (HTL version).

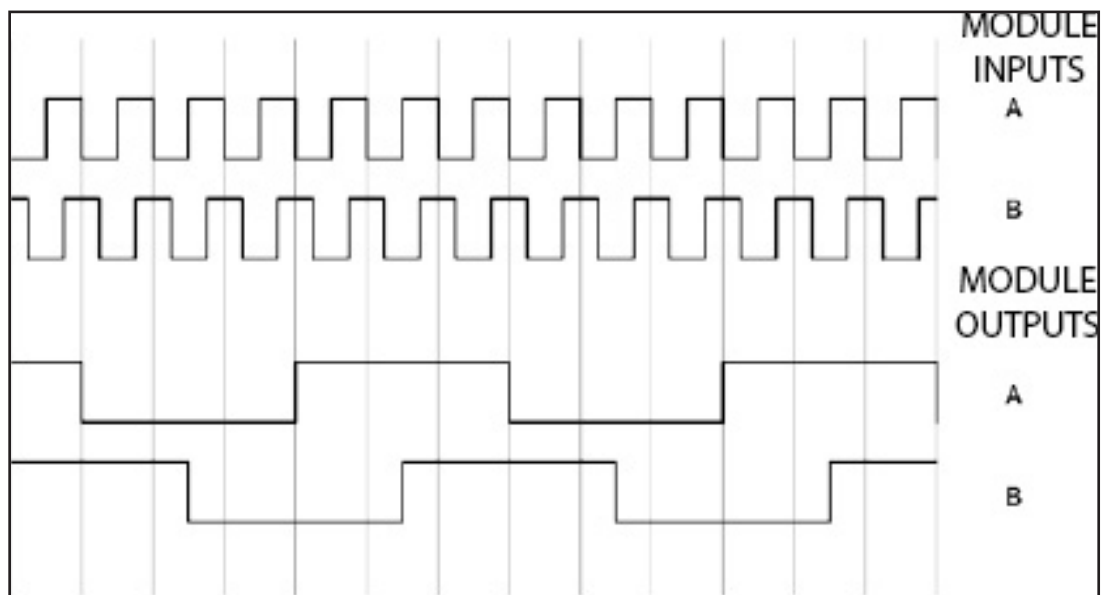
The maximum operating frequency is 200KHz.

TECHNICAL FEATURES

	DESCRIPTION	MIN	TYPE	MAX	UNIT
VCCn	POWER SUPPLY	12	24	30	[V]
	LOW TENSION PROTECTION		10.8		[V]
INPUTS					
	Input Tension ON (24V Version)	10	24	30	[V]
	Input Tension ON (5V Version)	3	5	8	[V]
	Input Tension OFF (24V Version)			4	[V]
	Input Tension OFF (5V Version)			2	[V]
	Impedance (24V Version)		2760		[Ohm]
	Impedance (5V Version)		560		[Ohm]
OUTPUTS					
	Outputs Tension		VCCn-0.5		[V]
	Outputs Electricity			100	[mA]
	Frequency			200	[KHz]
	Input-Output Isolation	1000			[VDC]

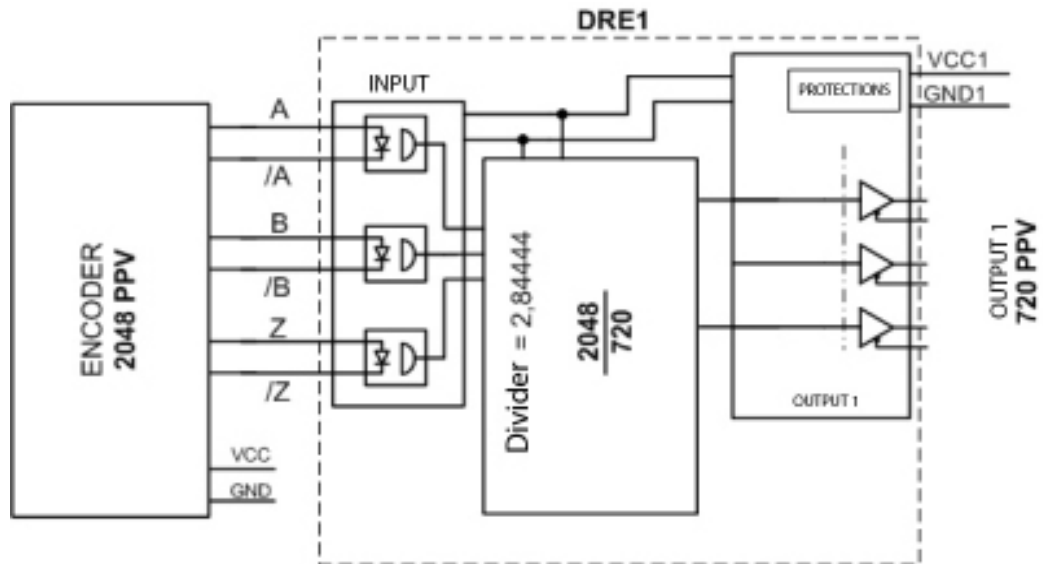


WAVEFORMS

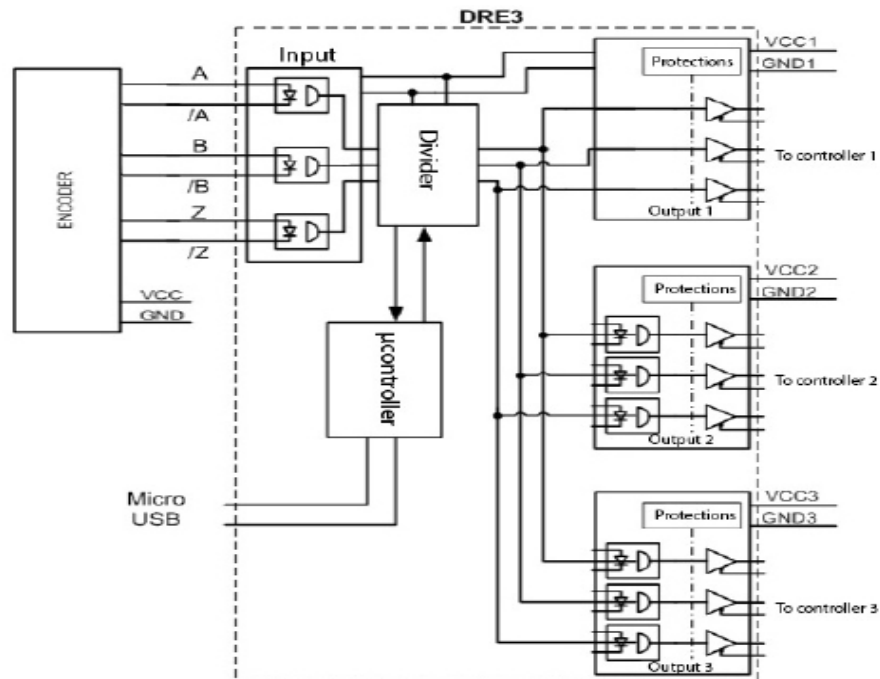


SETTING THE VALUE OF DIVISION

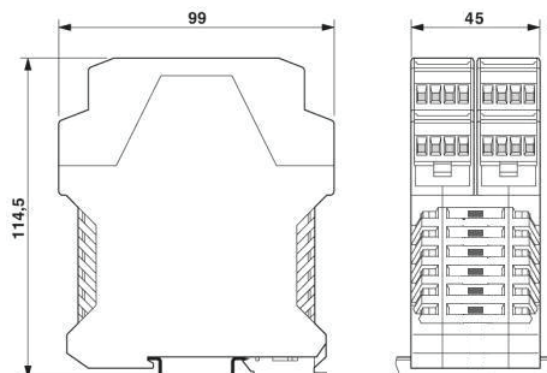
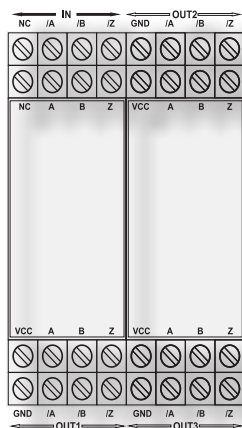
The division value selection is done through software configuration allowing you to enter any rational number. With this it is possible to obtain any number of pulses per revolution at the output as shown in the following figure.



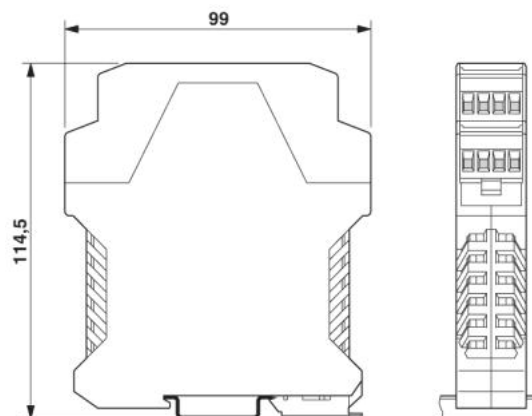
EXAMPLE OF DIFFERENTIAL CONNECTION



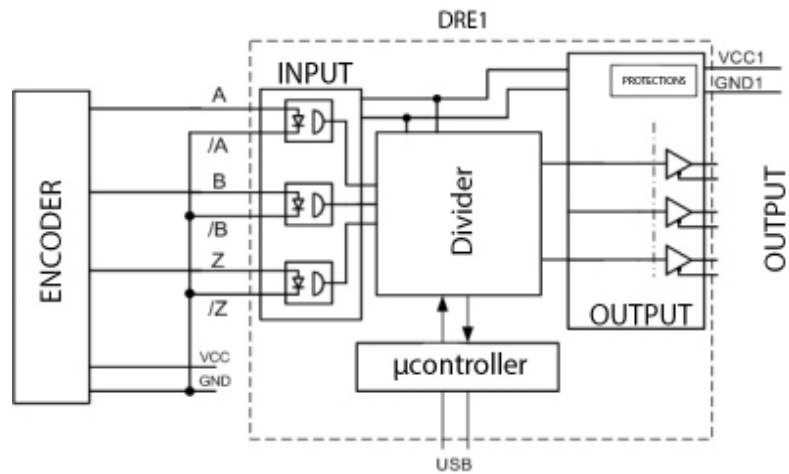
DRE3 CONNECTION DIAGRAM AND DIMENSIONS



DRE1 CONNECTION DIAGRAM AND DIMENSIONS



EXAMPLE OF SINGLE-ENDED CONNECTION



PRODUCT CODE

INPUT TENSION	INPUT #1 TENSION	INPUT #2 TENSION	INPUT #3 TENSION	PRODUCT CODE
5 V	12-30 VDC	12-30 VDC	12-30 VDC	DRE3-0524
24 V	12-30 VDC	12-30 VDC	12-30 VDC	DRE3-2424
5 V	12-30 VDC	5 VDC	5 VDC	DRE3-0505
24 V	12-30 VDC	5 VDC	5 VDC	DRE3-2405
5 V	12-30 VDC	NA	NA	DRE1-0524
24 V	12-30 VDC	NA	NA	DRE1-2424