Rack-mounted DCS Signal Conditioners 18-RACK

TACHOGENERATOR CONVERTER

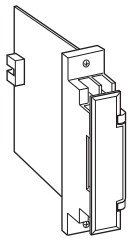
Functions & Features

• Converting an AC voltage from a tachogenerator (tachometer) into two standard process signals

• Second channel output available at the front terminals and at the Standard Rack connector

Typical Applications

• Measuring rotating or moving speed of multispeed motors, belt conveyers, metering pumps



MODEL: 18TG–[1]66–R

ORDERING INFORMATION

• Code number: 18TG-[1]66-R

Specify a code from below for [1].
(e.g. 18TG-166-R)

• Special input range (For code U)

[1] INPUT

Voltage

1: 0 – 35 V AC (Input resistance 200 kΩ min.)

U: Specify voltage (See INPUT SPECIFICATIONS)
(0 % input must be 0 V.)

OUTPUT 1

Voltage

6: 1 – 5 V DC (Load resistance 2000 Ω min.)

OUTPUT 2

Voltage

6: 1 – 5 V DC (Load resistance 2000 Ω min.)

POWER INPUT

DC Power

R: 24 V DC
(Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)

GENERAL SPECIFICATIONS

Construction: Rack-mounted; terminal access via screw terminals on the front and connector on the rear; terminal cover provided

Connection

Input: M3.5 screw terminals (torque 0.8 N·m)
Output 1: Connector
Output 2: M3.5 screw terminals (torque 0.8 N·m) and connector
Power input: Supplied from connector

Screw terminal: Nickel-plated steel
Isolation: Input to output 1 to output 2 to power
Overrange output: 0 to 120 % at 1 – 5 V
Zero adjustment: -5 to +5 % (front)
Span adjustment: 95 to 105 % (front)

INPUT SPECIFICATIONS

Input: 0 – 250 V AC
Minimum span: 50 mV
Input resistance: ≥ 200 kΩ
Frequency: 100 Hz min., 1 kHz max. with 100 % input

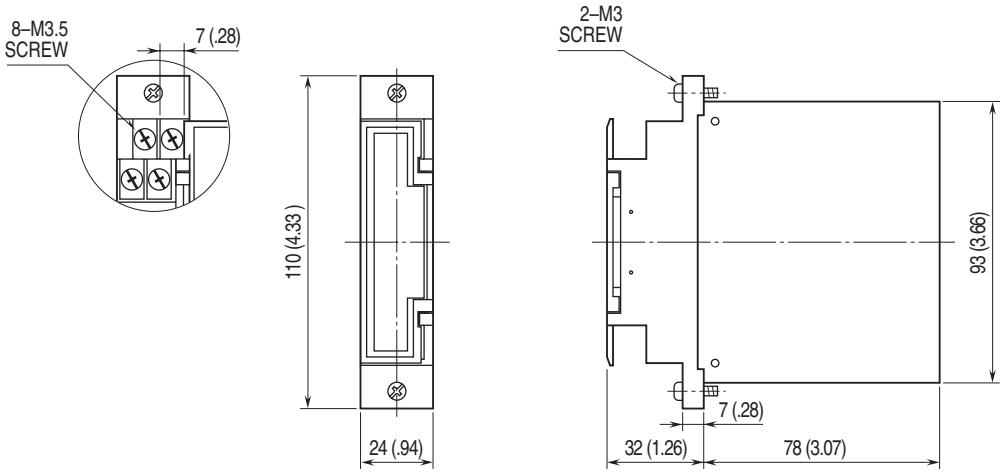
INSTALLATION

Current consumption: Approx. 35 mA
Operating temperature: -5 to +55°C (23 to 131°F)
Operating humidity: 30 to 90 %RH (non-condensing)
Mounting: Standard Rack 18BXx or 18KBXx
Weight: 150 g (0.33 lb)

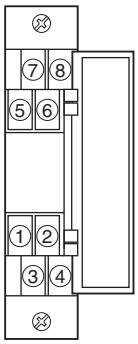
PERFORMANCE in percentage of span

Accuracy: ±0.2 % (excluding ≤ 15 Hz)
Temp. coefficient: ±0.02 %/°C (±0.01 %/°F)
Response time: ≤ 0.5 sec. (0 – 90 %)
Ripple: 0.5 %p-p max. (100/120 Hz)
Line voltage effect: ±0.1 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 1500 V AC @ 1 minute
(input to output 1 or output 2 or power)
500 V AC @ 1 minute
(output 1 to output 2 to power)
1500 V AC @ 1 minute
(input or output or power to ground)

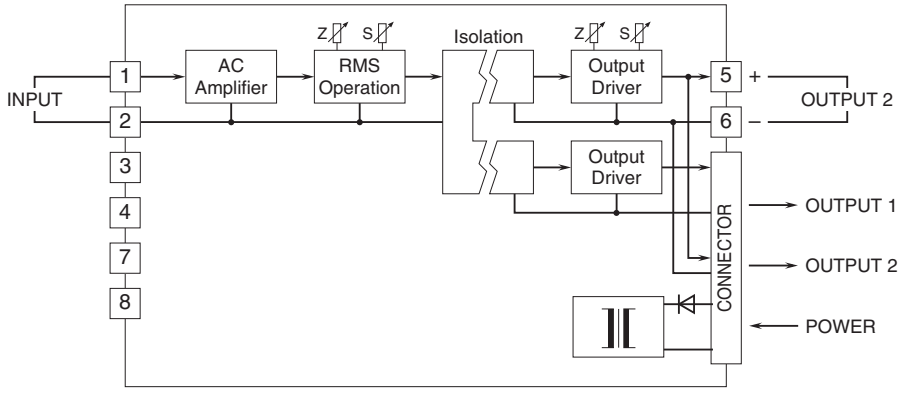
EXTERNAL DIMENSIONS unit: mm (inch)



TERMINAL ASSIGNMENTS



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



⚠ Specifications are subject to change without notice.