Standard Specifications Type: MS3728 MS3700

Slim-shaped Plug-in Tacho-generator Signal Converter with Isolated Single/Dual Output

Overview

MS3728 is a slim-shaped plug-in tacho-generator signal converter with isolated single/dual output to convert voltage signals from a tacho-generator into standard measurement signals. (RoHS-conformed)

Ordering Format

MS3728 -□-□□□

Type

Power Supply

A: AC 85 ～ 264V
D: DC 24V
P: DC 85 ～ 264V

Input Signal

1: 0 ～ 50mV AC
2: 0 ～ 1V AC
3: 0 ～ 10V AC
4: 0 ～ 100V AC
5: 0 ～ 200V AC
0: Designated VDC

Output-1

A: 4 ～ 20mA DC
D: 0 ～ 20mA DC
Z: Designated DC
1 : 0 ～ 10mV DC
2 : 0 ～ 100mV DC
3 : 0 ～ 1V DC
4 : 0 ～ 10V DC
5 : 0 ～ 5V DC
6 : 1 ～ 5V DC
3W: ± 1V DC
4W: ±10V DC
5W: ± 5V DC
0 : Designated VDC

Output-2

No entry: None.
Similar to Output-1.

☞When Out-1 is set for Voltage, Out-2 cannot be designated for Current.
☞When both outputs are set for 4～20mA, the Output Load of Out-1 will be less than 550Ω, and that of Out-2 will be 350Ω.

Option

No entry: None.
／X : Custom Order. ····Additional cost required.
*Contact us for custom-order requirement.

Please specify upon ordering

・Product Model Number
(Example) MS3728-A-2A6
***Factory default measurement: The product will be shipped after being measured with 0～500Hz.**

Other items to be specified:
・For input "0": MS3728-A-0AA(Input AC0～250V)
・For output"0": MS3728-A-260(Output 2～5V)
・To specify frequency: MS3728-A-2A6(0～100Hz)
(When frequency is specified, the product will be shipped with the label indicating the result of measurement conducted with the specified frequency.)
・For option "X": MS3728-A-26/X(Response frequency 50Hz)
・For more than one option: Enter Option Codes in succession. (/LX)

Specifications

●Power Supply Section

Power Supply	AC85～264V(Rating 100～240V)47～63Hz DC24V±10% DC85～264V(Rating 100～240V)
Power Sensitivity	Within ±0.1% of Span for each power supply voltage.
Power Supply Fuse	160mA Fuse

Maximum Power Consumption

Power Supply	AC85～	DC24V	DC85～264V
Single Output	4.5VA max.	1.2W max.	4.8W max.
Dual Output	5.0VA max.	1.6W max.	6.0W max.

●Input Section

Input Resistance
Input Span≦500mV: 100kΩ min. with/without excitation
Input Span＞500mV: 1MΩ min. with/without excitation

Input Voltage Allowable	Continuous 120% of rated input value
Input Frequency	15Hz～1kHz (100% input)
Range of Products Available	Within range between AC0～50mV and AC0～300V

●Output Section

Maximum Output Load

Voltage Output (DC)	1V Span min.	2mA max.
	10mV	10kΩ min.
	100mV	100kΩ min.
Current Output (DC)	4～20mA Single output	750Ω max.
	4～20mA Dual output	Out-1 550Ω max.
		Out-2 350Ω max.

Zero Adjustment Range	Approx. ±5% of Span (Adjustable by Trimmer on front panel)
Span Adjustment Range	Approx. ±5% of Span (Adjustable by Trimmer on front panel)

Range of Products Available

	Current Signal	Voltage Signal
Output Range (DC)	0～20mA	-10～10V
Output Span(DC)	4～20mA	10mV～20V
Output Bias	0～100%	-100～100%

*For current output smaller than 0.1mA, the accuracy is not guaranteed.
(e.g.1) 4～20mA⇒ Output span 16mA, Bias 25%
(例 2)-1～4V⇒出力スパン 5V、バイアス-20%

Standard Specifications Type: MS3728 Slim-shaped Plug-in Tacho-generator Signal Converter with Isolated Single/Dual Output

●Standard Performance

Conversion Accuracy	Within ±0.4%/F.S. (25℃±5℃ with input 10% or more)
Output Ripple	Within 0.2%/F.S.@2.5Hz≦
Temp. Characteristics	Within ±0.2% of Span with every 10℃ variation
Response Time	450msec max.(0～90%)@100% step input
CMRR	100dB min.(500V AC, 50/60Hz)
Signal Isolation	Between Input - Out1-Out2-Power Supply-Ground
Isolation Resistance	100MΩ min.(@500V DC) Between Input-Out1-Out2-Power Supply-Ground
Dielectric Strength	Between Input—[Out1,Out2]—[Power Supply, Ground] :2000V AC, Shut Down Current 0.5mA for 1 minute Between Power Supply - Ground :2000V AC, Shut Down Current 5mA for 1 minute Between Out1 — Out2 :500V AC, Shut Down Current 0.5mA for 1 minute
Measures against SWC	Conform to ANSI/IEEE C37.90.1-1989
Operating Environment	Temperature: -5～55℃ Humidity : 5～90%RH(Non-Condensing)
Storage Temp.	-10～60℃

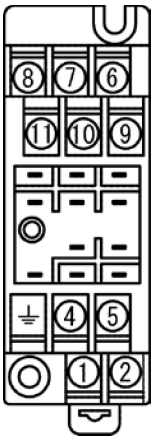
●Installation / Physical Specifications

Installation	Wall mounting &/or DIN-rail mounting
Wiring	M3.5 screw terminal connection (with P.S. terminal cover & screw drop-protection)
Screw Tightening Torque	0.8～1[N・m] Recommendable
Outer Dimension	W29×H86×D125mm (incl. set screws & terminal block)
Mass	Main body 120g max., Terminal Block 80g max.

●Materials

Housing	ABS Resin (UL-94V-0)
Terminal Block	ABS Resin (UL-94V-0)
Terminal Screws	Iron/Nickel-plated
Terminal Surface Treatment	0.2μm / Gold plated
P.C. Board	Glass-Epoxy (FR-4:UL-94V-0)
Moisture-proof Coating	HumiSeal Coating :HumiSeal 1A27NS(Polyurethane Resin)

Terminal Arrangement / Signal Assignment



①	P(+)	POWER
②	N(−)	
⏚	GND	
④	+ OUTPUT 1	
⑤	− OUTPUT 1	
⑥	N.C	
⑦	+ OUTPUT 2	
⑧	− OUTPUT 2	
⑨	N.C	
⑩	INPUT V	
⑪	INPUT ±	

Block Diagram