

Synchro-analog Converter

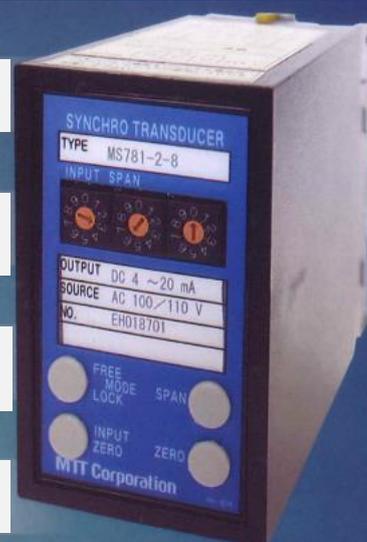
This converter can convert the signal from Synchro transmitter into various types of direct current signals.

Tool does not need to be set; just input SPAN.

Enter zero adjustment; you can set it as automatic adjustment.

Set ZERO/SPAN adjustment for the output setting; you can set it as manual adjustment.

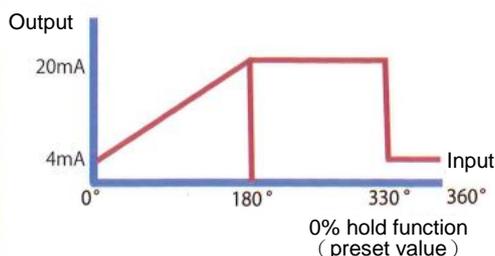
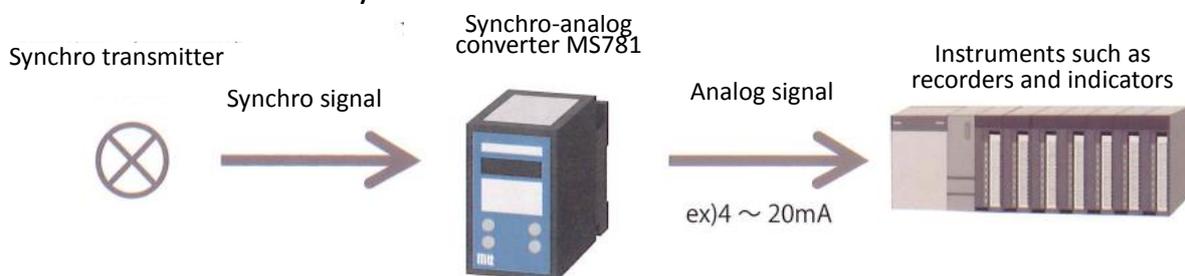
Input-output-power-operational circuit are fully insulated.



MS781

Example

It is widely and mainly used for gate and valve control of dams and rivers, remote measurement system.

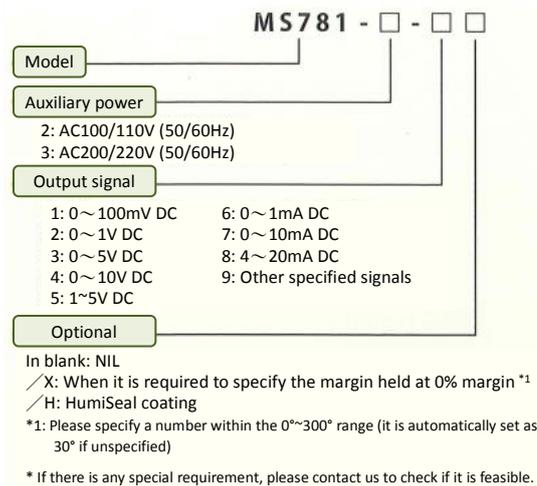


★0% hold function: When the Synchro transmitter is tuned to a more negative position lower than zero, it helps to suppress the abnormal large output value.

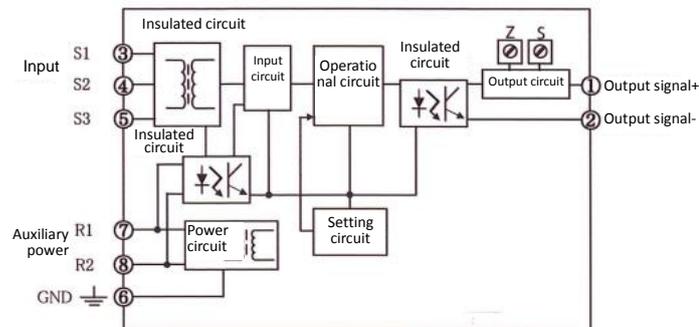
In addition, the peak hold function can be used to set the maximum output value.

When it exceeds the maximum opening, the gate hoister will hold the specified value and output.

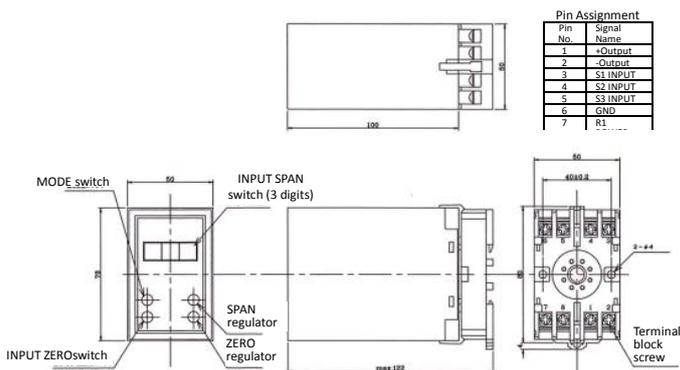
◎ Specifications



◎ Block diagram



◎ Diagram showcasing dimensions



◎ Input

Input signal	Synchro 3 line signal Rated below AC90V 50/60Hz Consumption current below 2 mA
--------------	---

◎ Output

Maximum output load Voltage output (DC) Current output (DC)	Below 600Ω 0~1mA Below 10kΩ 0~10mA Below 1kΩ 4~20mA Below 600kΩ
ZERO point adjustment range	About ±5% of the SPAN (It can be adjusted using the trimmer at the front of the converter)
SPAN adjustment range	About ±5% of the SPAN (It can be adjusted using the trimmer at the front of the converter)
Possible manufacturing range	Current signal Voltage signal Maximum of 20mA Maximum of 10V
Output range (DC)	· Please contact us for specific information regarding bias.

◎ Functions

MODEswitch	It can be set to any of the following mode: FREE: Input zero adjustment, set the input SPAN angle. LOCK: The previous input zero adjustment before switch and input SPAN angle can be saved in E2PROM. The setting cannot be changed.
Input ZERO adjustment Input SPAN angle adjustment	Press INPUT ZERO switch to perform automatic adjustment. INPUT ZPAN digital switch (3 digits) can be used with 1° as the unit to perform setting. Setting range : 60~360° *If the input SPAN angle is not specified, it will be automatically set as 360°
0% hold function	After adding 400 to the set value of INPUT SPAN digital switch, the 0% hold function is activated. The input angle 330~0° is held at output of 0% (0% hold margin = in the case of standard specification 30°)

◎ Standard performance

Conversion accuracy	Within ±0.5% of SPAN (ambient temperature of 23°C)
Temperature performance	Every 10°C change in temperature causes less than ±0.5% changes in SPAN
Tracking speed	Below 20rpm (synchronous transmitter speed)
Response speed	Below 1s (until it reaches the ±1% range of the final stable value)
Influence of output load	Within ±0.1% of SPAN (within the range of the load resistance)
Output ripple	Below ±0.5%p-p of the output SPAN
Overload tolerance	Input Synchro angle of 270°, short circuited output, auxiliary power of 120% and the INPUT SPAN output setting of 100%. A period of 2 hours of the situation mentioned above.
Signal insulation	All areas between all input-output-power have been insulated.
Insulation resistance	Above 100MΩ (@500V DC) Between all input-output-power-casing
Withstand voltage	Between all input-output-power-casing 2000V AC 1 minute
Operation environment	Temperature: -10~55°C Humidity: 30~85%RH (locations without condensation)
Storage temperature	-30~70°C

◎ Battery

Allowable voltage range	AC100/110V: AC90~121V 50/60Hz±10% AC200/220V: AC180~242V 50/60Hz±10%
Power sensitivity	Within ±0.1% of SPAN from various power voltage
Power fuse	1A fuse
Maximum electricity consumption Power	AC100/110 AC200/220 About 4.5VA / About 5.5VA

※The specification, performance and appearance documented above are subjected to changes in the future without prior notice.



MTT Instruments, Inc.

Osaka Branch: Shin-Osaka Grand Bldg., 2-14-14 Miyahara, Yodogawa-ku, Osaka 532-0003, Japan

Phone: +81-6-4866-5880 FAX: +81-6-4807-4550

URL: <https://mtt-ins.co.jp> Email: info@mtt-ins.co.jp