

FOR SMART TRANSMITTERS

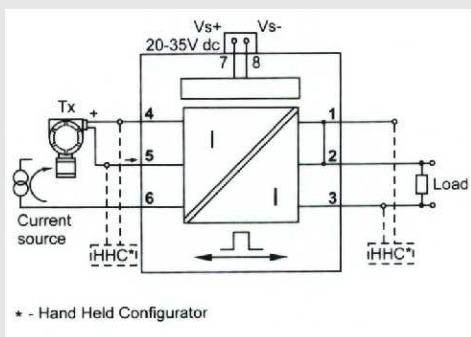


- 0~20 mA IN/OUT
- Hart compatible
- 1500 V AC/DC Galvanic isolation between supply, input & output
- Transfer accuracy better than 20 A
- Din rail mount, 25 mm wide enclosure
- 20~35 V DC supply

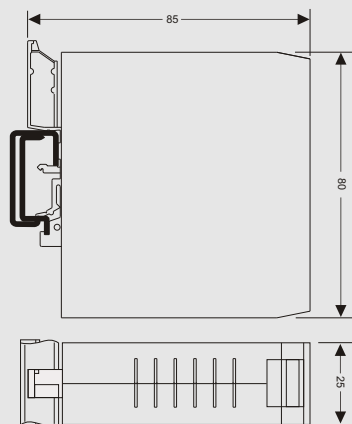
GENERAL

SC301 is a dual purpose, current-to-current converter with 3-port isolation. It provides a fully floating, isolated DC supply for energising a conventional 2 or 3-wire 4~20 mA transmitter/smart transmitter and repeats the current in another isolated circuit or accepts a 4~20 mA signal from a controller/source to drive loads up to 750 . A 20~35 V DC power supply is required for operation. The power supply terminations are at the top of the unit to enable this model to be used either as a repeater power supply or driver. For a 2-wire smart transmitter the unit also allows bi-directional transmission of digital communication signals superimposed on the 4~20 mA signal so that the transmitter can be interrogated either from the operator station or by a handheld configurator.

CONNECTION DIAGRAM



ENCLOSURE



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SPECIFICATIONS All specifications at ambient of 25 °C, unless specified otherwise

Number of channels	One	Power requirement (supplying a transmitter)	135mA max at 20V with a 20mA signal 95mA max at 35 V with a 20mA signal
Input and output signal	0~20 mA for normal operation 4~20 mA for operations with digital communication	Power requirement (current source input)	90mA max at 20V with a 20mA signal 65mA max at 35 V with a 20mA signal
Isolation (mutual, between power supply, input and output)	1700 V AC/DC	Common mode rejection ratio	Better than 160dB
Power supply	20~35 V DC	List of compatible devices for digital communication	All HART compatible devices
LED indicator	1 red LED indicating POWER ON	ENCLOSURE	
Voltage available to transmitter	20 V minimum at 20 mA	Material	ABS plastic
Digital signal bandwidth	100 Hz ~ 10 KHz	Dimensions	80(H) x 25(W) x 85(D) mm
Maximum load resistance	Conventional transmitters/drivers : 750 Smart transmitters : 220 to 650	Mounting	Snap on for 35 mm DIN rail to DIN 46277
Voltage drop across input from current source (terminal 5 & 6)	<0.5V	Connection, single/stranded wires	2.5 mm ² , AWG 14
Transfer accuracy at 25 °C (including non-linearity and hysteresis)	Better than 20 A	Weight	< 200 grams
Temperature effect on accuracy	<1 A / °C	Protection	IP 20
Response time	10 ms (to reach 90% of span)	Temperature, Humidity	
		Ambient, storage	-40 ~ +80 °C
		Ambient, operation	-20 ~ +55 °C
		Relative humidity	5 ~ 95%



AN ISO 9001:2000 COMPANY

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