

DATA SHEET

T 6151 EN

Type 6151 u/i Module



Application

Conversion of a standardized voltage signal into a standardized current signal

The u/i module can be used with the following SAMSON devices:

Table 1: Application

SAMSON device	Device connector according to DIN EN ...	
	Replaces the M20x1.5 cable gland	Already exists
Positioner		
Type 3725	• ³⁾	
Types 3730-0/-1/-2	• ³⁾	
Type 3760	• ³⁾	
Type 3761	• ³⁾	
Type 3767	• ³⁾	
Type 4763	• ³⁾	
Series V2001 Valves with Type 3372 Electropneumatic Actuators		
Type 3321-IP		• ²⁾
Type 3323-IP		• ²⁾
Type 3531-IP		• ²⁾
Type 3535-IP		• ²⁾
i/p converters		
Type 6111		• ¹⁾
Type 6116	• ³⁾	

- 1) Type 6111 i/p Converter in version with male angle connector
- 2) Series V2001 Valves in version with integrated positioner and plug connector
- 3) 6151-03x version of u/i module required

Special features

The device converts a DC voltage of 0 or 2 V to 10 V into a current signal of 0 or 4 mA to 20 mA. The supply voltage is 24 V DC.



Fig. 1: Type 3372 Electropneumatic Actuator with Type 6151 u/i Module

Design and principle of operation

The Type 6151 u/i Module is suitable for attachment to devices with an electrical connection according to DIN EN 175301-803. The standard housing connector, as shown in Fig. 1 or a special device connector for different versions can be used.

Installation

For attachment to devices with a device connector and cable socket according to DIN EN 175301-803 (e.g. Type 3372 Pneumatic Actuator or Type 6111 i/p Converter in the version with male angle connector), simply plug on the Type 6151 u/i Module. The connector is connected to the cable socket.

For devices without device connector and cable socket according to DIN EN 175301-803, the M20x1.5 cable gland is replaced by a device connector to install the u/i module.

Electrical connection

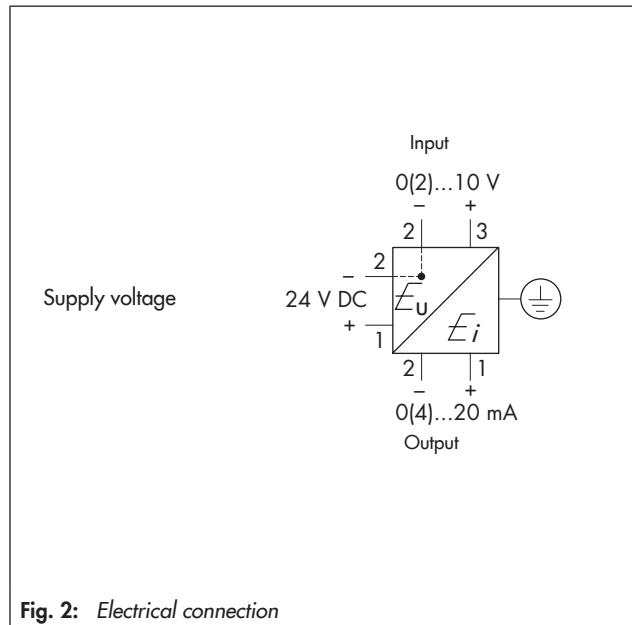


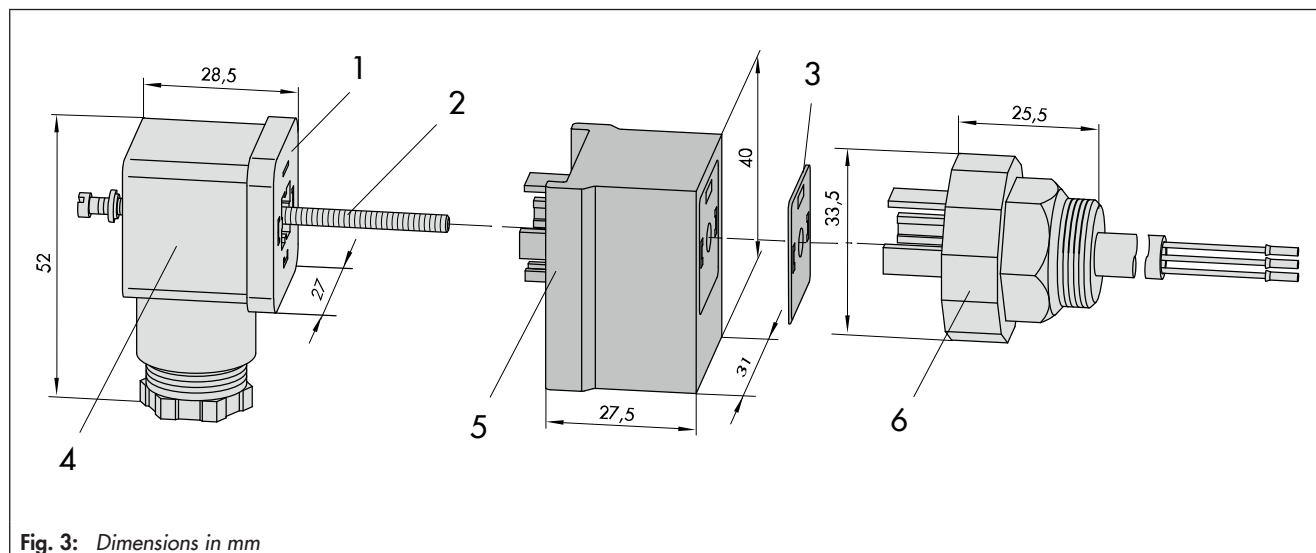
Fig. 2: Electrical connection

Technical data

Table 2: Technical data

Input signal	0/2 to 10 V
Maximum values	-15 V/+27 V
Static destruction limit	-20 V/+32 V (briefly ± 32 V)
Input resistance	50 k Ω at $U_e = 0$ to 10 V · 1 k Ω at $U_e = -0.3$ V or $U_e > +11$ V
Output	0/4 to 20 mA, also available with 0 to 10 V input, 4 to 20 mA output
Maximum load	$R \text{ (k}\Omega\text{)} = \frac{U_H - 10 \text{ V}}{20 \text{ mA}}$ (e.g. 700 Ω with supply voltage $U_H = 24$ V)
Supply voltage	16 to 30 V DC
Permissible ripple	Within the given limits
Static destruction limit	± 32 V DC
Reverse polarity protection	Down to -32 V DC
Supply current	Max. 22 mA, regardless of the power supply
Characteristic	
Characteristic	Linear, deviation from terminal-based linearity 0.2 %
Effect of temperature	
Zero point	<0.1 %/10 K
Measuring span	<0.1 %/10 K
Power supply influence	<0.05 % within the specified limits
Operating temperature range	-25 to +85 °C
Degree of protection	IP 65 when installed
Electromagnetic compatibility	EN 50081 Parts 1 and 2
Housing material	Polyamide

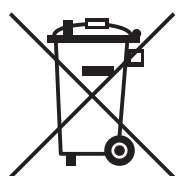
Dimensions



Legend for Fig. 3

- 1 Seal for cable socket
- 2 M3x60 with sealing washer
- 3 Seal for device connector
- 4 Cable socket according to DIN EN 175301-803
- 5 Type 6151 u/i Module
- 6 Device connector according to DIN EN 175301-803 (replacing the M20x1.5 cable gland)

Disposal



SAMSON is a producer registered at the following European institution

► <https://www.ewrn.org/national-registers/national-registers>.

WEEE reg. no.:
DE 62194439/FR 025665

- Observe local, national and international refuse regulations.
- Do not dispose of components, lubricants and hazardous substances together with your other household waste.

i Note

We can provide you with a recycling passport according to PAS 1049 on request. Simply e-mail us at aftersaleservice@samsongroup.com giving details of your company address.

💡 Tip

On request, we can appoint a service provider to dismantle and recycle the product as part of a distributor take-back scheme.

Ordering text

Complete order number as required

Order no.	Type 6151 –
Explosion protection Without	0
Only module with seal and M3x60 screw	1
Module with cable socket, seal and M3x60 screw	2
Design Module with cable socket, M20x1.5 device connector, seal and M3x60 screw	3
Module with cable socket, device connector according to DIN EN 175301-803, seal and M3x60 screw	4
Signal 0/2 to 10 V input, 0/4 to 20 mA output	0
0 to 10 V input, 4 to 20 mA output	1

Associated Information Sheet

System 6000

► T 6000

Electropneumatic Converters (Proportional Valves)

Electronic process controllers

Signal converters