





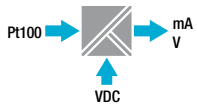
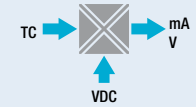
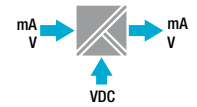
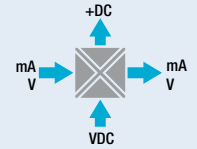




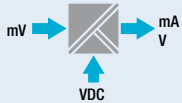
	DSCP55	DSCP61	DSCP62	DSCP63	DSCP64
					
Function	Pt100, Ni100/loop-powered converter	Pt100-to-DC current/voltage converter	Thermocouple-to-DC current/voltage converter with relay output	DC voltage/current converter	DC voltage/current converter with transducer power supply
Functional diagram					
General data					
Channels	1 input, 1 output	1 input, 1 output	1 input, 2 outputs	1 input, 1 output	1 input, 1 output
Accuracy (max)	±0.1%	±0.1%	±0.1%	±0.1%	±0.1%
Thermal drift	<100ppm/°K	<100ppm/°K	<120ppm/°K	<120ppm/°K	<120ppm/°K
LED	<ul style="list-style-type: none"> Internal fault Dip-switch error Connection error 	<ul style="list-style-type: none"> Internal fault Dip-switch error Connection error 	<ul style="list-style-type: none"> Internal fault Dip-switch error Connection error 	<ul style="list-style-type: none"> Internal fault Input/output out of range 	<ul style="list-style-type: none"> Internal fault Dip-switch error Input/output out of range
Power supply	Loop powered (5 to 30VDC)	19.2 to 30VDC	19.2 to 30VDC	19.2 to 30VDC	19.2 to 30VDC
Isolation	—	1.5kV (50 or 60Hz, 1 min)	1.5kV (50 or 60Hz, 1 min)	1.5kV (50 or 60Hz, 1 min)	1.5kV (50 or 60Hz, 1 min)
Special functions	<ul style="list-style-type: none"> RTD type/connection Programmable fault and cut-off Filter Signal inversion 	<ul style="list-style-type: none"> Programmable fault and cut-off Filter 	<ul style="list-style-type: none"> Programmable fault and cut-off Filter Settable rejection 50-60Hz 	<ul style="list-style-type: none"> Square root extraction Standard tank linearization Signal inversion Programmable cut-off 	<ul style="list-style-type: none"> Square root extraction Standard tank linearization Signal inversion Programmable cut-off Transducer power supply 17 to 21V, current 25mA (max)
Input data					
Type	Pt100 <ul style="list-style-type: none"> EN 60751 Range: -200°C to +650°C Minimum span: 20°C Connection technique: 2-, 3-, 4-wire Ni100 <ul style="list-style-type: none"> Range: -60°C to +250°C Minimum span: 20°C Connection: 2-, 3-, 4-wire 	Pt100 <ul style="list-style-type: none"> EN 60751 Range: -150°C to +650°C Minimum span: 50°C Power on transmitter: 900µA Connection: 2-, 3-, 4-wire Conductor resistance: 20Ω (max) 	Thermocouple <ul style="list-style-type: none"> Type: J, K, E, N, S, R, B, T (ITS-90 standard) Minimum span: 100°C Impedance: 10MΩ Cold junction 	Voltage <ul style="list-style-type: none"> Range: 0 to 10, 2 to 10, 0 to 5, 1 to 5, 0 to 15, 0 to 30V Impedance: 110kΩ (10V), 325kΩ (30V) Current <ul style="list-style-type: none"> Range: 0 to 20, 4 to 20mA Impedance: 35Ω 	Voltage <ul style="list-style-type: none"> Range: 0 to 10, 2 to 10, 0 to 5, 1 to 5V Impedance: 110kΩ Current <ul style="list-style-type: none"> Range: 0 to 20, 4 to 20mA Impedance: 35Ω
Input (max)		32V (max)		30V or 50V (max)	32V (max)
Output data					
Type	Current <ul style="list-style-type: none"> Range: 4 to 20, 20 to 4mA (2-wire) Load resistance: 1kΩ (nominal), 1.2kΩ (max) Current: 30mA (max) 	Voltage <ul style="list-style-type: none"> Range: 0 to 10, 10 to 0, 0 to 5, 1 to 5V Voltage: over-range 10.25 V, or 10.5V (max) Load resistance: 2kΩ (min) Current <ul style="list-style-type: none"> Range: 4 to 20, 20 to 4, 0 to 20, 20 to 0mA Current: over-range 20.5mA, or 21mA (max) Load resistance: 500Ω (max) 	Voltage <ul style="list-style-type: none"> Range: 0 to 10, 10 to 0, 0 to 5, 1 to 5V Load resistance: 2kΩ (min) Current <ul style="list-style-type: none"> Range: 4 to 20, 20 to 4, 0 to 20, 20 to 0mA Load resistance: 500Ω (max) 	Voltage <ul style="list-style-type: none"> Range: 0 to 10, 2 to 10, 0 to 5, 1 to 5V Load resistance: 2kΩ (min) Current <ul style="list-style-type: none"> Range: 4 to 20, 20 to 4, 0 to 20, 20 to 0mA Load resistance: 500Ω (max) Current: 25mA (max) 	Voltage <ul style="list-style-type: none"> Range: 0 to 10, 2 to 10, 0 to 5, 1 to 5V Load resistance: 2kΩ (min) Current <ul style="list-style-type: none"> Range: 4 to 20, 20 to 4, 0 to 20, 20 to 0mA Load resistance: 500Ω (max) Current: 25mA (max)
Static relay auxiliary output			<ul style="list-style-type: none"> Nominal voltage: 24V AC/DC Current: 60mA Overvoltage protection: 50V Settable alarm trip/hysteresis 		
Response time (10-90%)	<220ms (without filter) <620ms (with filter)	<50ms (without filter) <200ms (with filter)	<25ms (without filter) <55ms (with filter)	<35ms (without filter) <74ms (with filter)	<35ms (without filter) <74ms (with filter)
D/A conversion Resolution	1µA (>14-bits)	14-bit	14-bit	14-bit	14-bit

DSCP65

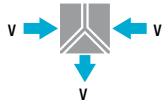
DSCP70



DC low voltage converter



Power supply connection module for DIN rail power bus



1 input, 1 output	2 inputs, 1 output
±0.1%	
<120ppm/°K	
<ul style="list-style-type: none"> Internal fault Input over-range 	<ul style="list-style-type: none"> Input 1 correct input V Input 2 correct input V Reversed inputs or AC
19.2 to 30VDC	
1.5kV (50 or 60Hz, 1 min)	
<ul style="list-style-type: none"> Programmable fault and cut-off Filter Settable rejection 50-60Hz 	<ul style="list-style-type: none"> Differential mode filter Integrated protection against overvoltages Connection with redundant power supplies

Voltage Programmable ranges: from ±25 to ±2000mV	Power supply <ul style="list-style-type: none"> Provides connection of single or redundant external power supplies Positive inputs need protection by an external fuse of recommended sizing
50V (max)	

Voltage <ul style="list-style-type: none"> Range: 0 to 10, 2 to 10, 0 to 5, 1 to 5V Load resistance: 2kΩ (min) 	Power supply Max voltage drop: 300mV
Current <ul style="list-style-type: none"> Range: 4 to 20, 20 to 4, 0 to 20, 20 to 0mA Load resistance: 500Ω (max) Protection: 25mA 	

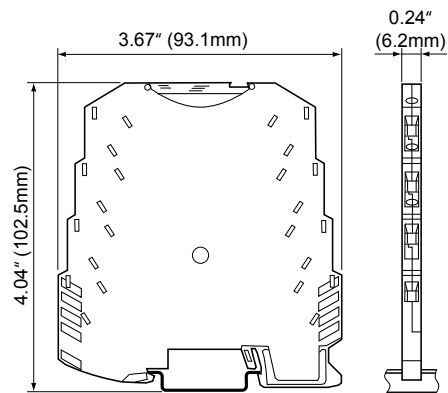
<23ms (without filter)	
<51ms (with filter)	
14-bit	

General technical data

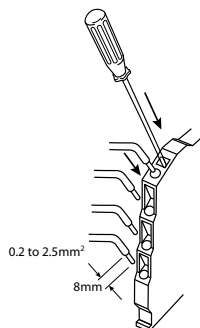
Power supply range*	19.2 to 30VDC
Bridge voltage supply	Bus connectors (Power-Bus) can be snapped onto 35mm DIN rail guide according to EN 60715
Wire section	0.2 to 2.5mm ²
Wire stripping	0.3 in (8mm)
Hot swapping	Yes
Max current consumption	21 to 25mA (24VDC)
Consumption without load at 25°C	7.5mA
Max power consumption	500mW
A/D conversion	14-bit
Rejection	50 or 60Hz (programmable)
Settings	Dip-switch
Filter	Settable
Dimensions	3.67 x 0.24 x 4.04 in (93.1 x 6.2 x 102.5mm)
Isolation	1.5kV (50 or 60Hz, 1 min)
Isolation technique	Digital (optocoupler)
Processing	Floating point 32-bit
Color	Black
Case material	PBT
Weight	1.6 oz (45g)
Operating temperature	-20°C to +65°C
Storage temperature	-40°C to +85°C
Humidity	10 to 90% noncondensing
Connection	Clamp terminals and/or bus
Protection degree	IP20

* Except for DSCP55 and DSCP70

Dimensions

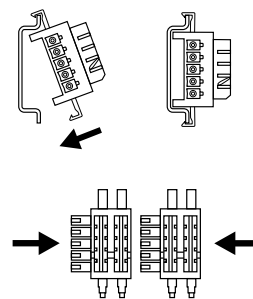


Cage clamp connection



Connection sequence requires stripping of cables, opening block spring with a screwdriver, and inserting the cable into the hole.

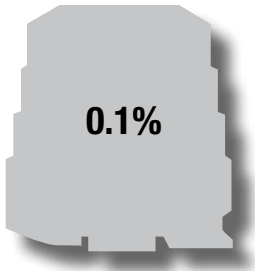
Power-Bus



Each expandable Power-Bus connector allows insertion of two modules. Insert Power-Bus connectors into DIN rail by attaching to upperside and rotating downward.

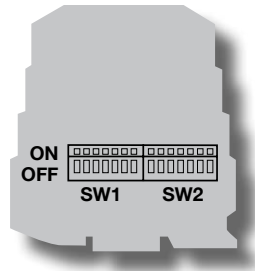
Feature/highlights

Accuracy



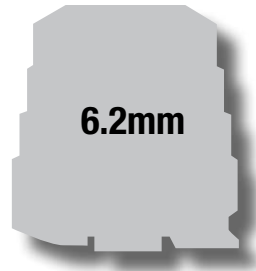
- 0.1% precision class
- Resolution 14-bit

Configuration



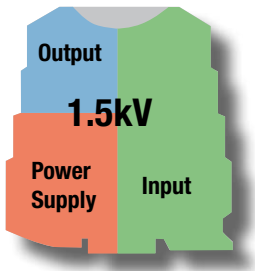
- Setup via Dip-switches

Dimensions



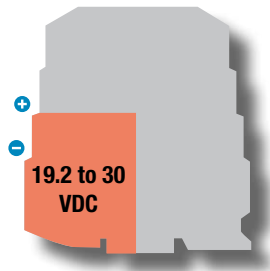
- Small dimensions
- 6.2mm width

Isolation



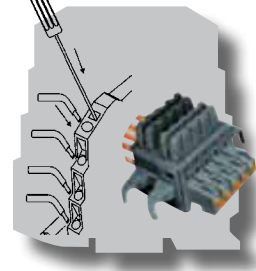
- Digital optocoupler
- 3-way isolation 1.5kVAC (50 or 60Hz, 1 min)
- Digital decoupling of input signal
- Protection circuit against output overcurrent

Power supply



- Connect to the spring cage terminal block or use expandable Power-Bus connectors and DSCP70

Connections



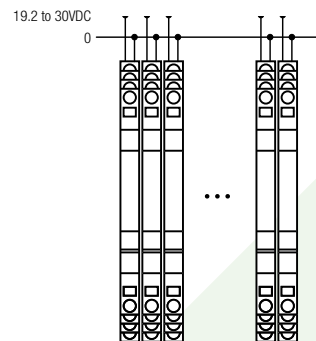
- Cage clamp connectors
- Expandable Power-Bus connector on DIN rail guide

Power supply techniques

The DSCP6x series of signal conditioners can be powered in three different ways. First, the 24VDC power supply can be connected directly to each signal conditioner. Second, power can be connected to one signal conditioner and, using the expandable Power-Bus connector, be distributed to a maximum of 16 adjacent modules. Third, using the DSCP70 Power Supply Connection Module and the expandable Power-Bus connector, power is distributed to a maximum of 75 modules. See diagrams to the right.

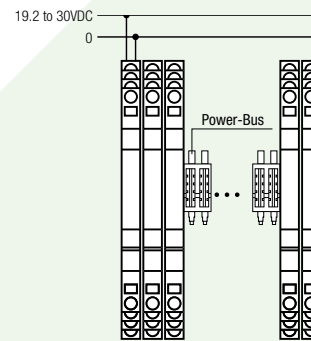
Conventional supply

Power supply on spring cage terminals

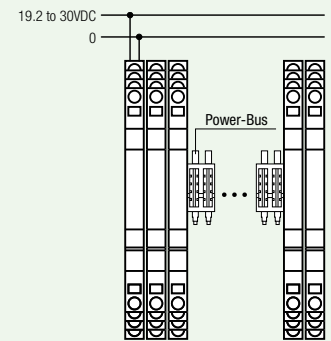


Expandable Power-Bus system

Distributed supply with two-slot Power-Bus connector (up to 16 modules)



Distributed supply with DSCP70 module and Power-Bus system (up to 75 modules)



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