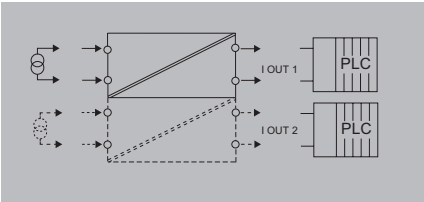


Passive isolators

Passive isolators, input loop powered

- Power supply via the input circuit (input loop powered)
- 1 or 2 channels in one module
- 2-way isolation

ACT20P-CI-CO-ILP



Technical data

Input
Input current
Voltage drop, current input
Sensor
Number of inputs
Output
Load impedance current
Output current
Number of outputs
General data
Accuracy
Temperature coefficient
Voltage supply
Insulation coordination
EMC standards
Galvanic isolation
Impulse withstand voltage
Insulation voltage
Rated voltage
Overvoltage category
Pollution degree

0(4)...20 mA current loop
3.8 V
4- wire sensor (with own power supply), Current source
1
≤ 600 Ω
0...20 mA (if input: 0...20 mA), 4...20 mA (if input: 4...20 mA)
1
<0.1 % of end value
≤ 100 ppm/K
Loop powered, via 4...20 mA input
EN 61326-1, EN 61000-6-2, EN 61000-6-4
2-way isolator
3 kV (1.2/50µs)
2.5 kV (input / output)
300 V
III
2

Dimensions	
Clamping range (nominal / min. / max.)	mm²
Depth / Width / Height	mm
Note	

Screw connection	PUSH IN
2.5 / 0.5 / 2.5	2.5 / 0.5 / 2.5
114 / 12.5 / 117.2	114 / 12.5 / 127.1

Ordering data

Channel	
	Screw connection, 1 channel
	PUSH IN connection, 1 channel
	Screw connection, 2 channel
	PUSH IN connection, 2 channel

Type	Qty.	Order No.
ACT20P-CI-CO-ILP-S	1	7760054123
ACT20P-CI-CO-ILP-P	1	7760054357
ACT20P-2CI-2CO-ILP-S	1	7760054124
ACT20P-2CI-2CO-ILP-P	1	7760054358

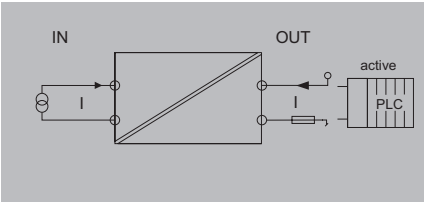
Note

Note

Passive isolators, output loop powered

- Removable terminals
- Power supply via the output circuit (output loop powered)
- 2-way isolation

ACT20P-CI-CO-OLP



Technical data

Input
Sensor
Number of inputs
Input current
Output
Load impedance current
Output current
Number of outputs
General data
Accuracy
Configuration
Step response time
Temperature coefficient
Voltage supply
Insulation coordination
EMC standards
Galvanic isolation
Impulse withstand voltage
Insulation voltage
Rated voltage
Overvoltage category
Pollution degree

Current source, 4- wire sensor (with own power supply)
1
7760054118: 0...20 mA;
7760054353: 0...20 mA;
7760054119: 4...20mA;
7760054354: 4...20 mA
≤ 600 Ω
4...20 mA, loop-powered
1
<0.1 % of end value
none
≤ 1 ms
≤ 100 ppm/K
via output current loop, min. 12 V DC/ max. 30 V DC
EN 61326-1, EN 61000-6-2, EN 61000-6-4
2-way isolator
4 kV (1.2/50 µs)
2 kV inputs / outputs
300 V
III
2

Dimensions	
Clamping range (nominal / min. / max.)	mm²
Depth / Width / Height	mm
Note	

Screw connection	PUSH IN
2.5 / 0.5 / 2.5	2.5 / 0.5 / 2.5
114 / 12.5 / 117.2	114 / 12.5 / 127.1

Ordering data

Input current	
Screw connection, 0...20 mA	
Screw connection, 4...20 mA	
PUSH IN connection, 0...20 mA	
PUSH IN connection, 4...20 mA	

Type	Qty.	Order No.
ACT20P-CI1-CO-OLP-S	1	7760054118
ACT20P-CI2-CO-OLP-S	1	7760054119
ACT20P-CI1-CO-OLP-P	1	7760054353
ACT20P-CI2-CO-OLP-P	1	7760054354

Note

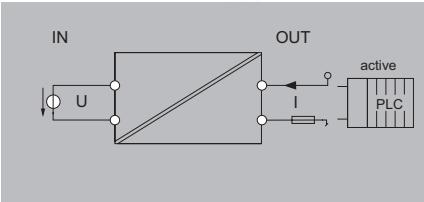
Note

Passive isolators

Passive isolator with voltage input,
output loop powered

- Removable terminals
- Power supply via the output circuit (output loop powered)
- 2-way isolation

ACT20P-VI-CO-OLP



Technical data

Input
Sensor
Input voltage
Output
Output current
General data
Configuration
Accuracy
Voltage supply
Power consumption, typ.
Galvanic isolation
Step response time
Ambient temperature (operational)
Insulation coordination
Insulation voltage
Rated voltage
EMC standards
Pollution degree
Overvoltage category
Approvals
Approvals

Voltage source
0...10 V
4...20 mA, loop-powered
none
<0.2 % of end value
via output current loop, min. 12 V DC/ max. 30 V DC
2 W
2-way isolator
≤ 1 ms
-20 °C...60 °C
2 kV inputs / outputs
300 V
EN 61326-1, EN 61000-6-2, EN 61000-6-4
2
III
CE; cULus; cURusEX; DEMKOATEX; IECEXULD; UKEX

Dimensions	
Clamping range (nominal / min. / max.)	mm²
Depth / Width / Height	mm
Note	

PUSH IN	Screw connection
2.5 / 0.5 / 2.5	2.5 / 0.5 / 2.5
114 / 12.5 / 127.1	114 / 12.5 / 117.2

Ordering data

Input voltage	
Screw connection, 0...10 V	
Screw connection, 0...5 V	
PUSH IN connection, 0...10 V	
PUSH IN connection, 0...5 V	

Type	Qty.	Order No.
ACT20P-VI-CO-OLP-S	1	7760054121
ACT20P-VI1-CO-OLP-S	1	7760054120
ACT20P-VI-CO-OLP-P	1	7760054356
ACT20P-VI1-CO-OLP-P	1	7760054355

Note

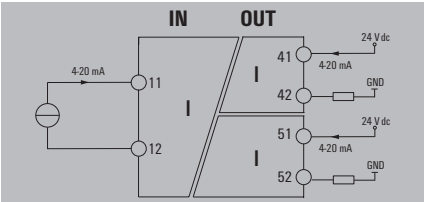
Note

Passive isolators, output loop powered with splitter function

- Removable terminals
- Doubling of the signal
- Power supply via the output circuit (output loop powered)
- 3-way isolation



ACT20P-CI-2CO-OLP



Technical data

Input	
Number of inputs	
Input current	
Sensor	
Output	
Number of outputs	
Output current	
Load impedance current	
General data	
Configuration	
Galvanic isolation	
Accuracy	
Temperature coefficient	
Voltage supply	
Insulation coordination	
EMC standards	
Insulation voltage	
Rated voltage	
Impulse withstand voltage	
Pollution degree	
Overvoltage category	

1
4...20mA
Current source, 4- wire sensor (with own power supply)
2
4...20 mA, loop-powered
$R_L = (U_g - 12 \text{ V}) / 20 \pm 20 \text{ mA}$, e.g. 600 Ω at 24 V
none
3-way isolator
<0.1 % of end value
$\leq 100 \text{ ppm/K}$
via output current loop, min. 12 V DC/ max. 30 V DC
EN 61326-1, EN 61000-6-2, EN 61000-6-4
2 kV (Input /Output), 1 min, 50 Hz
300 V
4 kV (1.2/50 μs)
2
III

Dimensions	
Clamping range (nominal / min. / max.)	mm²
Depth / Width / Height	mm
Note	

Screw connection	PUSH IN
2.5 / 0.5 / 2.5	2.5 / 0.5 / 2.5
114 / 12.5 / 117.2	114 / 12.5 / 127.1

Ordering data

Input current	
Screw connection, 4...20 mA	
PUSH IN connection, 4...20 mA	

Type	Qty.	Order No.
ACT20P-CI-2CO-OLP-S	1	7760054122
ACT20P-CI-2CO-OLP-P	1	2619390000

Note

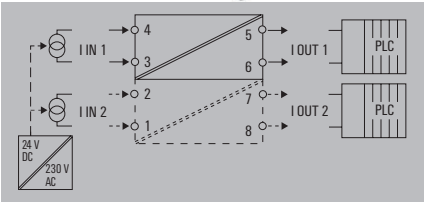
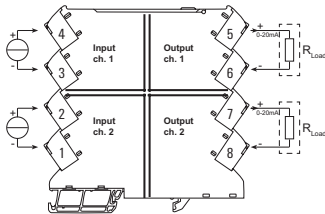
Note

Passive isolator

Passive isolator, input loop powered

- Isolation of DC signals without additional voltage supply
- Supply from the input measuring circuit
- Optionally available as a 1-channel / 2-channel version
- 2-way isolation

ACT20M-CI-CO-ILP



Technical data

Input
Sensor
Voltage drop, current input
Input current
Output
Output current
Load impedance current
General data
Configuration
Ambient temperature
Accuracy
Temperature coefficient
Cut-off frequency (-3 dB)
Power consumption
Voltage supply
Step response time
Insulation coordination
Insulation voltage
Rated voltage
EMC standards
Pollution degree
Overvoltage category
Approvals

Input
Current source
1.25 V + 0.015 V _{ref} @25°C
0...20 mA, 4...20mA
Output
0...20 mA, 4...20 mA
≤ 600 Ω, @ max 23mA
General data
none
-25 °C...70 °C
<0.1 % of measuring range
≤ 0.01 % / °C
100 Hz
30 mW
Loop powered, via 4...20 mA input
≤ 5 ms
Insulation coordination
2.5 kV _{ref} /1 min.
300 V _{ref}
IEC 61326-1, NE 21
2
II
CCCEX; cULus; DETNORVER; FMEX; IECExKEM; KEMAATEX; UKEX

Electrical connections

Terminal	ACT20M-CI-2CO-S			
	Input 1	Output 1	Input 2	Output 2
	mA	mA	mA	mA
1			□	
2			■	
3	□			
4	■			
5		■		
6		□		
7				■
8				□

Electrical connections

Terminal	ACT20M-CI-CO-ILP-S	
	Input 1	Output 1
	mA	mA
1		
2		
3	□	
4	■	
5		■
6		□
7		
8		

■ = +
□ = -

Dimensions	
Clamping range (nominal / min. / max.)	mm²
Depth x width x height	mm
Note	

Screw connection	PUSH IN
2.5 / 0.5 / 2.5	2.5 / 0.5 / 2.5
114.3 / 6.1 / 112.5	114.3 / 6.1 / 112.5
Power supply optionally over the DIN mounting rail CH20M	

Ordering data

	Screw connection, 1 channel
	PUSH IN connection, 1 channel
	Screw connection, 2 channel
	PUSH IN connection, 2 channel

Type	Qty.	Order No.
ACT20M-CI-CO-ILP-S	1	1176070000
ACT20M-CI-CO-ILP-P	1	2825220000
ACT20M-2CI-2CO-ILP-S	1	1176080000
ACT20M-2CI-2CO-ILP-P	1	2825140000

Note

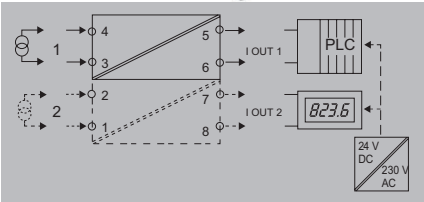
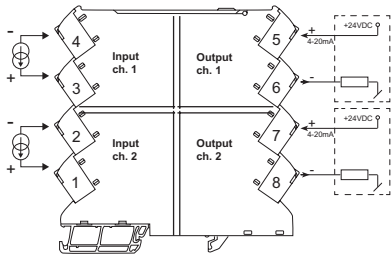
Note

Passive isolator

Passive isolator, output loop powered

- Disconnection of DC signals without additional power supply
- Supply from the output measuring circuit
- Optionally available as 1-channel / 2-channel version
- 2-way isolation
- For sensors with own power supply

ACT20M-CI-CO-OLP2



Technical data

Input
Sensor
Input current
Output
Output current
General data
Configuration
Accuracy
Voltage supply
Power consumption, typ.
Galvanic isolation
Step response time
Insulation coordination
Insulation voltage
Rated voltage
EMC standards
Pollution degree
Overvoltage category
Approvals
Approvals

4-wire sensor (with own power supply)
4...20 mA
4...20 mA
none
<0.05 % of measuring range
Output loop powered
50 mW
2-way isolator
≤ 5 ms
2.5 kV _{eff} / 1 min.
300 V _{eff}
IEC 61326-1, NE 21
2
II

Dimensions	
Clamping range (nominal / min. / max.)	mm²
Depth / Width / Height	mm
Note	

Screw connection	PUSH IN
2.5 / 0.5 / 2.5	2.5 / 0.5 / 2.5
114.3 / 61 / 112.5	114.3 / 61 / 112.5

Ordering data

Screw connection, 1 channel
PUSH IN connection, 1 channel
Screw connection, 2 channel
PUSH IN connection, 2 channel

Type	Qty.	Order No.
ACT20M-CI-CO-OLP2-S	1	2825000000
ACT20M-CI-CO-OLP2-P	1	2825320000
ACT20M-2CI-2CO-OLP2-S	1	2825010000
ACT20M-2CI-2CO-OLP2-P	1	2825330000

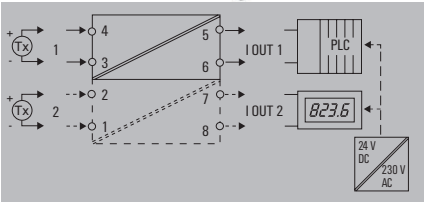
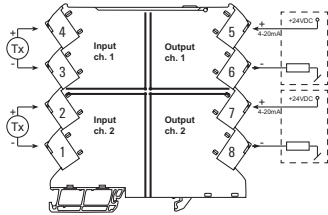
Note

Note

Passive isolator with sensor supply,
output loop powered

- Isolation of DC signals without additional voltage supply
- Supply from the output measurement circuit
- Optionally available as a 1-channel / 2-channel version
- 2-way isolation
- For sensors without own power supply
- 2-way separation

ACT20M-CI-CO-OLP



Technical data

Input
Sensor
Sensor supply
Voltage drop, current input
Input current
Output
Output current
General data
Configuration
Ambient temperature
Accuracy
Temperature coefficient
Cut-off frequency (-3 dB)
Power consumption, max.
Voltage supply
Step response time
Insulation coordination
Insulation voltage
Rated voltage
EMC standards
Pollution degree
Overvoltage category
Approvals

Input
2-wire transmitter (without own power supply)
6...35 V (@ 20 mA)
Typical 2.5 V
Input current
4...20mA
Output
Output current
4...20 mA
General data
Configuration
none
Ambient temperature
-25 °C...70 °C
Accuracy
<0.05 % of measuring range
Temperature coefficient
≤±0.02 µA x (Δ °C x V _{supply}) @ Tamb > 25 °C
Cut-off frequency
100 Hz
Power consumption, max.
50 mW
Voltage supply
Output loop powered
≤ 5 ms
Insulation coordination
Insulation voltage
2.5 kV _{eff} /1 min.
Rated voltage
300 V _{eff}
EMC standards
IEC 61326-1, NE 21
Pollution degree
2
Overvoltage category
II
Approvals
CCCEX; cULus; DETNORVER; FMEX; IECExKEM; KEMAATEX; UKEX

Electrical connections

Terminal	ACT20M-2CI-2CO-OLP-S			
	Input 1	Output 1	Input 2	Output 2
	mA	mA	mA	mA
1				■
2				■
3	■			
4	■			
5		■		
6		■		
7				■
8				■

Electrical connections

Terminal	ACT20M-CI-CO-OLP-S	
	Input 1	Output 1
	mA	mA
1		
2		
3	■	
4	■	
5		■
6		■
7		
8		

■ = +
□ = -

Dimensions	
Clamping range (nominal / min. / max.)	mm²
Depth x width x height	mm
Note	

Screw connection	PUSH IN
2.5 / 0.5 / 2.5	2.5 / 0.5 / 2.5
114.3 / 6.1 / 112.5	114.3 / 6.1 / 112.5
Power supply optionally over the DIN mounting rail CH20M	

Ordering data

Type	Qty.	Order No.
ACT20M-CI-CO-OLP-S	1	1176040000
ACT20M-CI-CO-OLP-P	1	2825230000
ACT20M-2CI-2CO-OLP-S	1	1176050000
ACT20M-2CI-2CO-OLP-P	1	2825150000

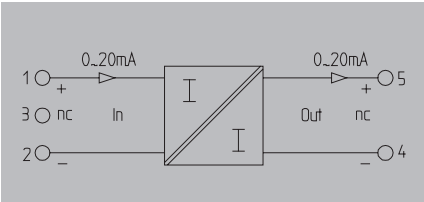
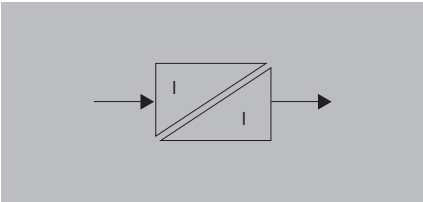
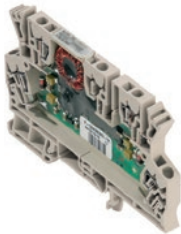
Note

Passive isolator

Passive isolator, input current loop feed

- Passive isolators for galvanic isolation of 0/4...20 mA standard signals.
- The component draws power from the measurement signal and requires no additional auxiliary power
- Low energy consumption, pick-up current of < 100 µA.
- 2-way isolation

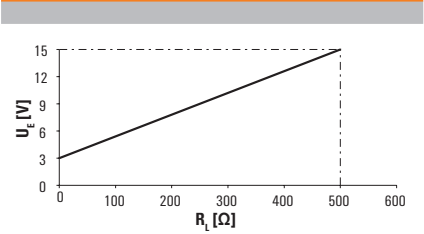
MCZ CCC / ILP



Technical data

Input
Input voltage / Input current
Pick-up current
Voltage drop
Output
Output voltage / Output current
Load impedance, voltage/current
Accuracy
Temperature coefficient
Cut-off frequency (-3 dB)
General data
Configuration
Ambient temperature
Approvals
Insulation coordination
Standards
EMC standards
Insulation voltage

/ 0(4)...20 mA current loop
<100 µA
2.5...3 V at 20 mA
/ 0...20 mA
/ ≤ 500 Ω
<0.1 % of end value
≤ 50 ppm/K of measured value at 0 Ω load resistance
100 Hz
none
-25 °C...60 °C
CE; CSA; cURus
DIN EN 60529, DIN EN 61010-1
EN 61000-6



Dimensions
Clamping range (nominal / min. / max.)
mm²
Depth x width x height
mm
Note

Tension-clamp connection
1.5 / 0.5 / 1.5
63.2 / 6 /

Ordering data

Tension clamp connection

Type	Qty.	Order No.
MCZ CCC 0-20MA/0-20MA	10	8411190000

Note

Note

Accessories

Note

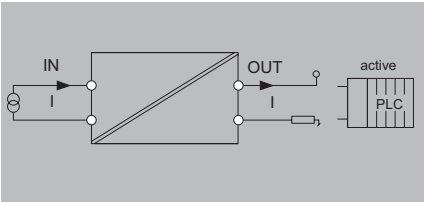
Cross-connectors for power supplies and markers: refer to accessories

Passive isolator

Passive isolator, output loop powered

- Input for current source (active)
- Output current signal (passive)
- 2-way isolation
- Manual zero and span adjustment
- Increased operating temperature range -40 °C ...+70 °C

PICOPAK-CI-CO-LP



Technical data

Input	
Number of inputs	1
Input current	4...20 mA @ 6...35 V DC
Sensor	Current source
Voltage drop, current input	≤3,5 V
Analogue outputs	
Load impedance current	≤ 600 Ω, @ max 23mA
Output current	4...20 mA, loop-powered
Supply voltage (output)	18...32 V
General data	
Accuracy	<0.1 % of measuring range
Configuration	Potentiometer, Zero / Span
Voltage supply	Output loop powered
Step response time	≤ 5 ms
Temperature coefficient	≤ 200 ppm/K
Power consumption, max.	0.8 W
Voltage supply	Output loop powered
Long-term drift	
Insulation coordination	
EMC standards	EN 61326-1
Galvanic isolation	2-way isolator
Overvoltage category	II
Insulation voltage	3.5 kV
Rated voltage	300 V AC _{ms}

1	
4...20 mA @ 6...35 V DC	
Current source	
≤3,5 V	
≤ 600 Ω, @ max 23mA	
4...20 mA, loop-powered	
18...32 V	
<0.1 % of measuring range	
Potentiometer, Zero / Span	
Output loop powered	
≤ 5 ms	
≤ 200 ppm/K	
0.8 W	
Output loop powered	
EN 61326-1	
2-way isolator	
II	
3.5 kV	
300 V AC _{ms}	

Dimensions	
Clamping range (nominal / min. / max.)	mm²
Depth x width x height	mm
Note	

Screw connection	PUSH IN
55 / 6.1 / 79.4	55 / 6.1 / 79.4

Ordering data

	Screw connection
	PUSH IN connection
Note	

Type	Qty.	Order No.
PICOPAK-CI-CO-LP-S	1	2517450000
PICOPAK-CI-CO-LP-P	1	2501110000

Accessories

Note

|--|