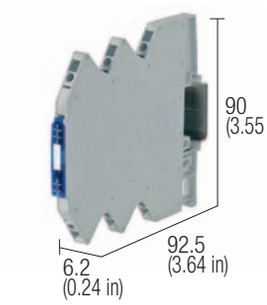
Programmable analogue signal converters

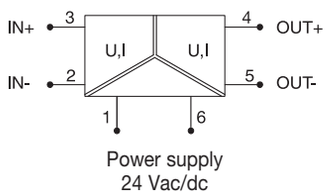
- 1.5 kV, 3 ways, IN/OUT/supply voltage isolation
- 3 programmable input range
- 3 programmable output range
- Simple programming and self calibrating



NOTES

The dimensions includes the DIN clamp.
(1) range 16.8…30 Vdc / 19.2…28.8 Vac
(2) range 16.8…264 Vdc / 19.2…264 Vac
(3) 3-way isolation: IN/OUT/power supply

BLOCK DIAGRAM



VERSIONS	Cod. X756539	—
24 Vac/dc supply voltage	**CWNAA-7-0539**	
24-240 Vac/dc supply voltage		—
INPUT TECHNICAL DATA		
Input signal	**0…10 V** **0…20 / 4…20 mA**	
Input resistance	330 kΩ with input voltage 100 Ω with input current	
OUTPUT TECHNICAL DATA		
Output signal	**0…10 V** **0…20 / 4…20 mA**	
Applicable load	>1 kΩ with output voltage <400 Ω with output current	
GENERAL TECHNICAL DATA		
Supply voltage	**24 Vac/dc** (1)	
Rated current	≤ 35 mA ± 10% @ 24 Vdc	
Accuracy	0.1% @ 23°C FS	
Trasmission frequency	< 30 Hz	
Temperature coefficient	0.02% / K FS	
Isolation	1.5 kVac / 60 s (3)	
ECM standards	EN 61000-6-2, EN 61000-6-4	
Reference Standard	IEC 664-1, DIN VDE	
Overvoltage category/Pollution degree	III / 2	
Protection degree	IP 20 IEC 529, EN60529	
Operating temperature range	-25…+60°C	
Connection terminal	2.5 mm² fixed screw type	
Housing material	Noryl UL94V-0	
Approx. weight	40 g	
Mounting information	vertical on rail adjacent without gap	

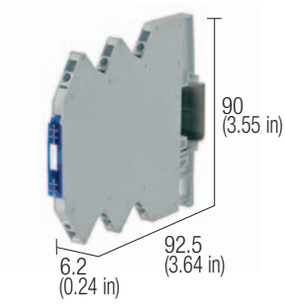
MOUNTING ACCESSORIES			
Mounting rail type according to IEC60715/TH35-7.5		**PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB**	
Mounting rail type according to IEC60715/G32		—	
Plug-in jumper	red	CWBK 7-0802 cod. X766802	—
(16 poles, 16 A)	white	CWBK 7-0803 cod. X766803	—
	blue	CWBK 7-0804 cod. X766804	—

APPLICATIONS

Multi-function converters can be used to convert and isolate the most common standard analogue signals; the input and the output can be set up into 3 different signal ranges. The set up is possible by simply switching the position of a dip switch on the side of the module.
The input / output combinations offered by these modules provide the most common input/output configurations more economically when compared to 14 input / 3 output modules and reduces inventory.
If a single signal must provide several output channels it is possible to use many modules connecting their inputs in parallel as long as the signal is voltage, or in series when signal is current.

Analogue signal converters

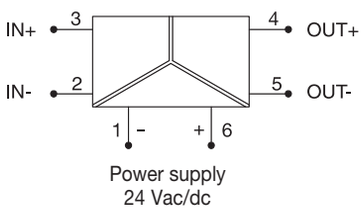
- 1.5 kV, 3 ways, IN/OUT/supply voltage isolation
- Fixed value
- Compact dimension, 6.2 mm pitch



NOTES

The dimensions includes the DIN clamp.
(1) range 16.8…30 Vdc / 19.2…28.8 Vac
(2) 3-way isolation: IN/OUT/power supply

BLOCK DIAGRAM



VERSIONS	Cat. No. X756530	Cat. No. X756531	Cat. No. X756532
IN: 0...10 V / OUT: 0...10 V	**CWAA 7-0530**		
IN: 0...10 V / OUT: 0...20 mA		**CWAA 7-0531**	
IN: 0...10 V / OUT: 4...20 mA			**CWAA 7-0532**
INPUT TECHNICAL DATA			
Input signal	**0…10 V**	**0…10 V**	**0…10 V**
Input resistance	330 kΩ	330 kΩ	330 kΩ
OUTPUT TECHNICAL DATA			
Output signal	**0...10 V**	**0...20 mA**	**4...20 mA**
Applicable load	>1 kΩ	<400 Ω	<400 Ω
GENERAL TECHNICAL DATA			
Supply voltage	24 Vac/dc (1)	24 Vac/dc (1)	24 Vac/dc (1)
Rated current	≤ 13 mA ± 10%	≤ 13 mA ± 10%	≤ 13 mA ± 10%
Accuracy	0.1% @ 23°C FS	0.1% @ 23°C FS	0.1% @ 23°C FS
Trasmission frequency	< 30 Hz	< 30 Hz	< 30 Hz
Temperature coefficient	0.02% / K FS	0.02% / K FS	0.02% / K FS
Isolation	1.5 kVac / 60 s (2)	1.5 kVac / 60 s (2)	1.5 kVac / 60 s (2)
ECM standards	EN 61000-6-2, EN 61000-6-4	EN 61000-6-2, EN 61000-6-4	EN 61000-6-2, EN 61000-6-4
Reference Standard	IEC 664-1, DIN VDE	IEC 664-1, DIN VDE	IEC 664-1, DIN VDE
Overvoltage category/Pollution degree	III / 2	III / 2	III / 2
Protection degree	IP 20 IEC 529, EN60529	IP 20 IEC 529, EN60529	IP 20 IEC 529, EN60529
Operating temperature range	-25…+60°C	-25…+60°C	-25…+60°C
Connection terminal	2.5 mm² fixed screw type	2.5 mm² fixed screw type	2.5 mm² fixed screw type
Housing material	PPE	PPE	PPE
Approx. weight	40 g (1.41 oz)	40 g (1.41 oz)	40 g (1.41 oz)
Mounting information	vertical on rail adjacent without gap	vertical on rail adjacent without gap	vertical on rail adjacent without gap

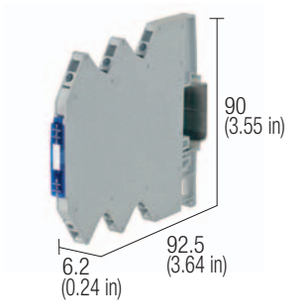
MOUNTING ACCESSORIES	
Mounting rail type according to IEC60715/TH35-7.5	**PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB**
Mounting rail type according to IEC60715/G32	—
Plug-in jumper red	CWBK 7-0802 Cat. No. X766802
(16 poles, 16 A) white	CWBK 7-0803 Cat. No. X766803
blue	CWBK 7-0804 Cat. No. X766804

APPLICATIONS

These converters can be used to convert and isolate the most common standard analogue signals; each model is designed for a single input output signal function, and they are the right solution in applications where many modules handling the same signal are used, where they allow a large cost reduction compared with multi function modules. These modules are provided with 3 ways galvanic isolation between input output and supply voltage. If a single signal must provide several output channels it is possible to use many modules connecting their inputs in parallel as long as the signal is voltage, or in series when the signal is current.

Analogue signal converters

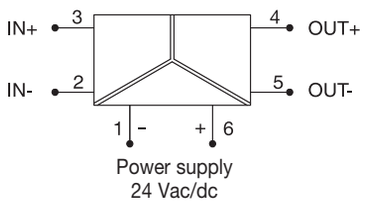
- 1.5 kV, 3 ways, IN/OUT/supply voltage isolation
- Fixed value
- Compact dimension, 6.2 mm pitch



NOTES

The dimensions includes the DIN clamp.
(1) range 16.8…30 Vdc / 19.2…28.8 Vac
(2) 3-way isolation: IN/OUT/power supply

BLOCK DIAGRAM



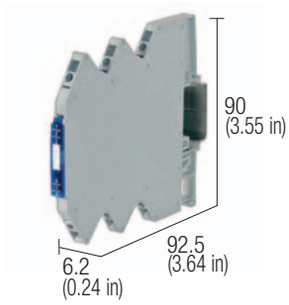
VERSIONS	Cat. No. X756533	Cat. No. X756534	Cat. No. X756535
IN: 0...20 mA / OUT: 0...10 V	**CWAA 7-0533**		
IN: 0...20 mA / OUT: 0...20 mA		**CWAA 7-0534**	
IN: 0...20 mA / OUT: 4...20 mA			**CWAA 7-0535**
INPUT TECHNICAL DATA			
Input signal	**0...20 mA**	**0...20 mA**	**0...20 mA**
Input resistance	100 Ω	100 Ω	100 Ω
OUTPUT TECHNICAL DATA			
Output signal	**0...10 V**	**0...20 mA**	**4...20 mA**
Applicable load	>1 kΩ	<400 Ω	<400 Ω
GENERAL TECHNICAL DATA			
Supply voltage	**24 Vac/dc** (1)	**24 Vac/dc** (1)	**24 Vac/dc** (1)
Rated current	≤ 13 mA ± 10%	≤ 13 mA ± 10%	≤ 13 mA ± 10%
Accuracy	0.1% @ 23°C FS	0.1% @ 23°C FS	0.1% @ 23°C FS
Trasmission frequency	< 30 Hz	< 30 Hz	< 30 Hz
Temperature coefficient	0.02% / K FS	0.02% / K FS	0.02% / K FS
Isolation	1.5 kVac / 60 s (2)	1.5 kVac / 60 s (2)	1.5 kVac / 60 s (2)
ECM standards	EN 61000-6-2, EN 61000-6-4	EN 61000-6-2, EN 61000-6-4	EN 61000-6-2, EN 61000-6-4
Reference Standard	IEC 664-1, DIN VDE	IEC 664-1, DIN VDE	IEC 664-1, DIN VDE
Overvoltage category/Pollution degree	III / 2	III / 2	III / 2
Protection degree	IP 20 IEC 529, EN60529	IP 20 IEC 529, EN60529	IP 20 IEC 529, EN60529
Operating temperature range	-25…+60°C	-25…+60°C	-25…+60°C
Connection terminal	2.5 mm² fixed screw type	2.5 mm² fixed screw type	2.5 mm² fixed screw type
Housing material	PPE	PPE	PPE
Approx. weight	40 g (1.41 oz)	40 g (1.41 oz)	40 g (1.41 oz)
Mounting information	vertical on rail adjacent without gap	vertical on rail adjacent without gap	vertical on rail adjacent without gap
MOUNTING ACCESSORIES			
Mounting rail type according to IEC60715/TH35-7.5	**PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB**		
Mounting rail type according to IEC60715/G32	—		
Plug-in jumper (16 poles, 16 A) red	CWBK 7-0802 Cat. No. X766802		
Plug-in jumper (16 poles, 16 A) white	CWBK 7-0803 Cat. No. X766803		
Plug-in jumper (16 poles, 16 A) blue	CWBK 7-0804 Cat. No. X766804		

APPLICATIONS

These converters can be used to convert and isolate the most common standard analogue signals; each model is designed for a single input output signal function, and they are the right solution in applications where many modules handling the same signal are used, where they allow a large cost reduction compared with multi function modules. These modules are provided with 3 ways galvanic isolation between input output and supply voltage. If a single signal must provide several output channels it is possible to use many modules connecting their inputs in parallel as long as the signal is voltage, or in series when the signal is current.

Analogue signal converters

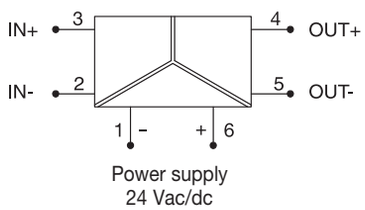
- 1.5 kV, 3 ways, IN/OUT/supply voltage isolation
- Fixed value
- Compact dimension, 6.2 mm pitch



NOTES

The dimensions includes the DIN clamp.
(1) range 16.8…30 Vdc / 19.2…28.8 Vac
(2) 3-way isolation: IN/OUT/power supply

BLOCK DIAGRAM



VERSIONS	Cat. No. X756536	Cat. No. X756537	Cat. No. X756538
IN: 4...20 mA / OUT: 0...10 V	**CWAA 7-0536**		
IN: 4...20 mA / OUT: 0...20 mA		**CWAA 7-0537**	
IN: 4...20 mA / OUT: 4...20 mA			**CWAA 7-0538**
INPUT TECHNICAL DATA			
Input signal	**4...20 mA**	**4...20 mA**	**4...20 mA**
Input resistance	100 Ω	100 Ω	100 Ω
OUTPUT TECHNICAL DATA			
Output signal	**0...10 V**	**0...20 mA**	**4...20 mA**
Applicable load	>1 kΩ	<400 Ω	<400 Ω
GENERAL TECHNICAL DATA			
Supply voltage	24 Vac/dc (1)	24 Vac/dc (1)	24 Vac/dc (1)
Rated current	≤ 13 mA ± 10%	≤ 13 mA ± 10%	≤ 13 mA ± 10%
Accuracy	0.1% @ 23°C FS	0.1% @ 23°C FS	0.1% @ 23°C FS
Trasmission frequency	< 30 Hz	< 30 Hz	< 30 Hz
Temperature coefficient	0.02% / K FS	0.02% / K FS	0.02% / K FS
Isolation	1.5 kVac / 60 s (2)	1.5 kVac / 60 s (2)	1.5 kVac / 60 s (2)
ECM standards	EN 61000-6-2, EN 61000-6-4	EN 61000-6-2, EN 61000-6-4	EN 61000-6-2, EN 61000-6-4
Reference Standard	IEC 664-1, DIN VDE	IEC 664-1, DIN VDE	IEC 664-1, DIN VDE
Overvoltage category/Pollution degree	III / 2	III / 2	III / 2
Protection degree	IP 20 IEC 529, EN60529	IP 20 IEC 529, EN60529	IP 20 IEC 529, EN60529
Operating temperature range	-25…+60°C	-25…+60°C	-25…+60°C
Connection terminal	2.5 mm² fixed screw type	2.5 mm² fixed screw type	2.5 mm² fixed screw type
Housing material	PPE	PPE	PPE
Approx. weight	40 g (1.41 oz)	40 g (1.41 oz)	40 g (1.41 oz)
Mounting information	vertical on rail adjacent without gap	vertical on rail adjacent without gap	vertical on rail adjacent without gap

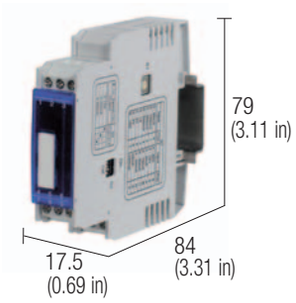
MOUNTING ACCESSORIES	
Mounting rail type according to IEC60715/TH35-7.5	**PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB**
Mounting rail type according to IEC60715/G32	—
Plug-in jumper red	CWBK 7-0802 Cat. No. X766802
(16 poles, 16 A) white	CWBK 7-0803 Cat. No. X766803
blue	CWBK 7-0804 Cat. No. X766804

APPLICATIONS

These converters can be used to convert and isolate the most common standard analog signals; each model is designed for a single input output signal function, and they are the right solution in applications where many modules handling the same signal are used, where they allow a large cost reduction compared with multi function modules. These modules are provided with 3 ways galvanic isolation between input output and supply voltage. If a single signal must provide several output channels it is possible to use many modules connecting their inputs in parallel as long as the signal is voltage, or in series when the signal is current

Programmable analogue signal converters

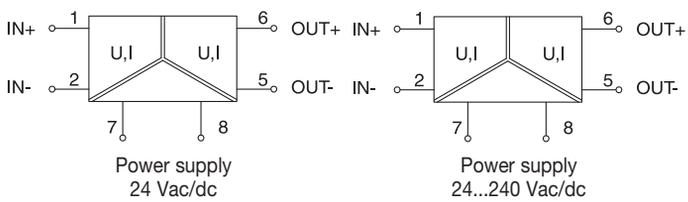
- 3 ways galvanic isolation
- 14 programmable input range
- 3 programmable output range
- Simple programming
- Available version with 24-240 Vac/dc supply voltage



NOTES

The dimensions includes the DIN clamp.
(1) Adjustable via rotary-switch
(2) Adjustable via dip-switch
(3) range 16.8…30 Vdc / 19.2…28.8 Vac
(4) range 16.8…264 Vdc / 19.2…264 Vac
(5) 3-way isolation: IN/OUT/power supply

BLOCK DIAGRAM



VERSIONS	Cat. No. X756516	Cat. No. X756517
24 Vac/dc supply voltage	**CWUAA 6-0516**	
24-240 Vac/dc supply voltage		**CWUAA 6-0517**
INPUT TECHNICAL DATA		
Input signal (1)	**0...60 / 0...100 / 0...300 / 0…500 mV 0…1 / 0…10 / 0…20 / 2…20 V 0…5 / 0…10 / 0…20 / 4…20 / ±5 / ±20 mA**	**0...60 / 0...100 / 0...300 / 0…500 mV 0…1 / 0…10 / 0…20 / 2…20 V 0…5 / 0…10 / 0…20 / 4…20 / ±5 / ±20 mA**
Input resistance	330 kΩ with input voltage 100 Ω with input current	330 kΩ with input voltage 100 Ω with input current
OUTPUT TECHNICAL DATA		
Output signal (2)	**0…10 V 0…20 / 4…20 mA**	**0…10 V 0…20 / 4…20 mA**
Applicable load	>1 kΩ with output voltage <400 Ω with output current	>1 kΩ with output voltage <400 Ω with output current
GENERAL TECHNICAL DATA		
Supply voltage	**24 Vac/dc** (3)	**24-240 Vac/dc** (4)
Rated current	≤ 35 mA ± 10% @ 24 Vdc	≤ 35 mA ± 10% @ 24 Vdc
Accuracy	0.1% @ 23°C FS	0.1% @ 23°C FS
Trasmission frequency	< 30 Hz	< 30 Hz
Temperature coefficient	0.02% / K FS	0.02% / K FS
Isolation	1.5 kVac / 60 s (5)	4 kVac / 60 s (5)
ECM standards	EN 50081-2, EN 50082-2	EN 50081-2, EN 50082-2
Reference Standard	IEC 664-1, DIN VDE	IEC 664-1, DIN VDE
Overvoltage category/Pollution degree	III / 2	III / 2
Protection degree	IP 20 IEC 529, EN60529	IP 20 IEC 529, EN60529
Operating temperature range	-25…+60°C	-25…+60°C
Connection terminal	2.5 mm² fixed screw type	2.5 mm² fixed screw type
Housing material	Noryl UL94V-0	Noryl UL94V-0
Approx. weight	65 g (2.29 oz)	75 g (2.65 oz)
Mounting information	vertical on rail adjacent without gap	vertical on rail adjacent without gap

MOUNTING ACCESSORIES		PR/3/AC, PR/3/AC/ZB, PR/3/AS, PR/3/AS/ZB
Mounting rail type according to IEC60715/TH35-7.5		
Mounting rail type according to IEC60715/G32		—
Plug-in jumper	red	—
(16 poles, 16 A)	white	—
	blue	—

APPLICATIONS

Multifunction converters can be used to convert and isolate the most common standard analogue signals; the input of the modules can be set up into 14 signal ranges and the output can be set for up to 3 most important analogue ranges. The set up is possible by simply switching the position of a dip switch on the side of the module.
The many different input / output combinations offered by multifunctions modules allows to reduce inventory for both new and replacement products and provides many signal conversion solutions.
The “3 ways” galvanic isolation assures total isolation between input, output and supply input; this feature, and the “self calibrating signal circuitry”, gives excellent accuracy without any manual adjustment.
If a single signal must provide several output channels it is possible to use many modules connecting their inputs in parallel as long as the signal is voltage, or in series when signal is current.