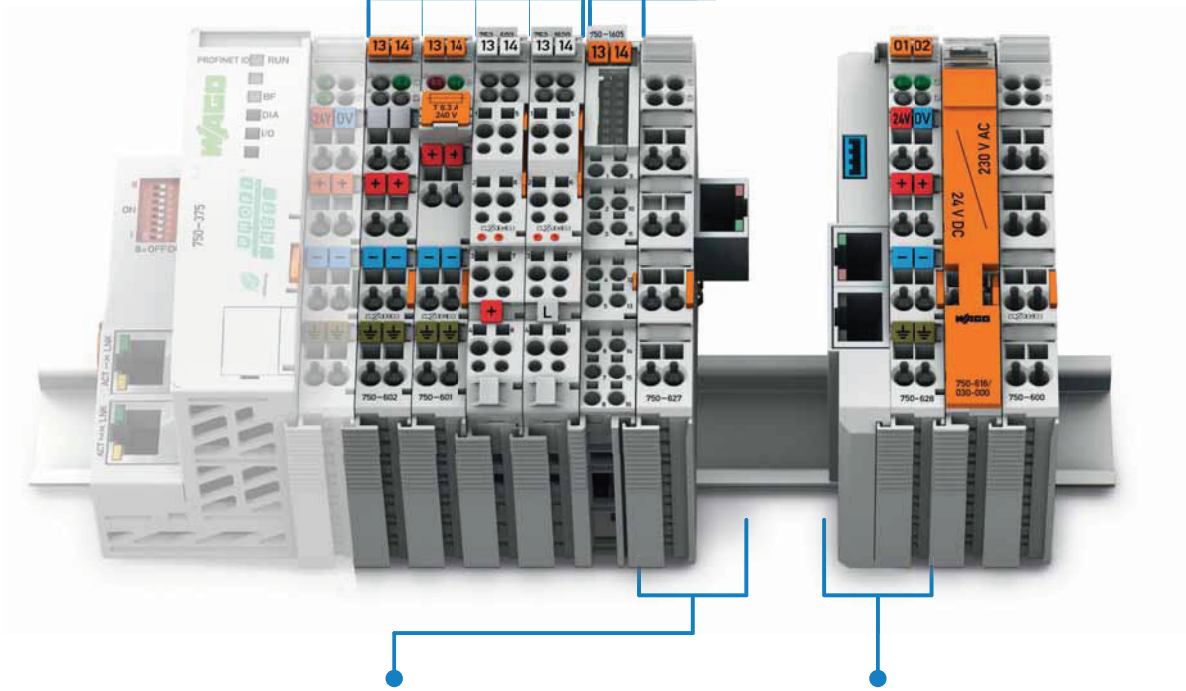
Supply and Segment Modules

Housing Design 750/753 Series	
Dimensions (mm) W x H x L	12 x 65 x 100 (Height from upper edge of the DIN-rail)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / 28 ... 14 AWG
Strip lengths	750 Series: 8 ... 9 mm / 0.33 in. 753 Series: 9 ... 10 mm / 0.37 in.

Housing Design 750 Series with CAGE CLAMPS®S Connection (16 Connection Terminals)	
Wire connection	CAGE CLAMP® S
Cross sections	solid: 0.08 mm² ... 2.5 mm² / 28 ... 16 AWG fine-stranded: 0.25 mm² ... 1.5 mm² / 22 ... 16 AWG
Strip lengths	8 ... 9 mm / 0.33 in.



Special Housing Design, Internal Data Bus Extension, End Module	
Dimensions (mm) W x H x L	24 x 65 x 100 (Height from upper edge of the DIN-rail)

Special Housing Design, Internal Data Bus Extension, Coupler Module	
Dimensions (mm) W x H x L	25 x 65 x 100 (Height from upper edge of the DIN-rail)

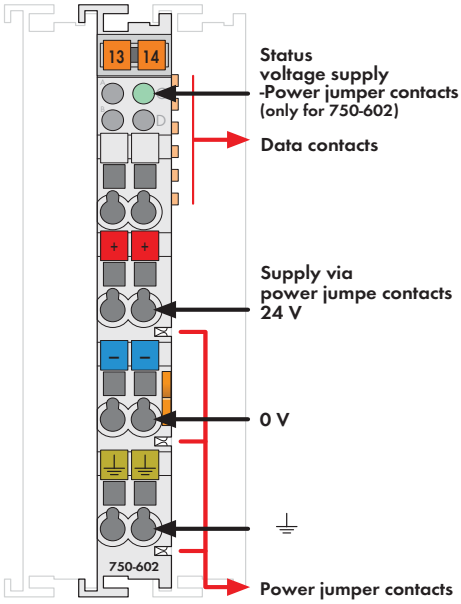
Modular I/O System Overview

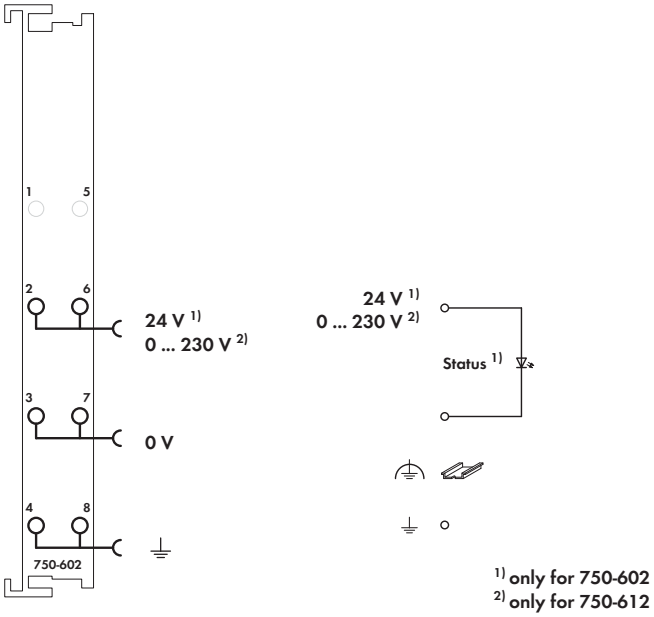
Supply and Segment Modules

Function	Description	Item No.			Page
		Standard	/T Extended operating temperature range: -20 °C ... +60 °C	Pluggable	
Power Supply Modules	24 VDC, passiv	750-602	750-602/025-000	753-602	370
24 VDC	24 VDC, max. 6.3 A, without diagnostics, with fuse carrier	750-601			371
	24 VDC, max. 6.3 A, with diagnostics, with fuse carrier	750-610			372
	24 VDC, 5 ... 15 V	750-623			373
24 VDC with Bus Power Supply	24 VDC	750-613			374
24 VAC	24 VAC, with fuse carrier	750-617			371
120 VAC	120 VAC, max. 6.3 A, without diagnostics, with fuse carrier	750-615			371
230 VAC	0 ... 230 V AC/DC, without diagnostics, passiv	750-612		753-612	370
	230 VAC, max. 6.3 A, without diagnostics, with fuse carrier	750-609			371
	230 VAC, max. 6.3 A, with diagnostics, with fuse carrier	750-611			372
DALI Multi-Master DC/DC Converter	DALI Multi-Master DC/DC Converter			753-620	375
Field Side Connection Modules	24 VDC	750-603		753-603	377
	0 VDC	750-604		753-604	378
	0 ... 230 V AC/DC	750-614		753-614	376
	16+, 24 VDC	750-1605			379
	16-, 0 VDC	750-1606			380
	8+/8-, 24 VDC / 0 VDC	750-1607			381
Filter Modules	Field Side Power Supply Filter with Overvoltage (Surge) Protection, high isolation	750-624/020-000			382
	Field Side Power Supply Filter with Overvoltage (Surge) Protection, high isolation / without power jumper contacts	750-624/020-001			382
	Field Side Power Supply Filter with Overvoltage (Surge) Protection	750-624			382
	Field Side Power Supply Filter with Overvoltage (Surge) Protection / without power jumper contacts	750-624/000-001			382
	Power Supply Filter with Overvoltage (Surge) Protection, high isolation	750-626/020-000	750-626/025-001		383
	Power Supply Filter with Overvoltage (Surge) Protection	750-626	750-626/025-000		383
Internal Data Bus Extension	End Module	750-627			384
	Coupler Module	750-628			385
Binary Spacer Modules	Binary Spacer Module	750-622			386
	Binary Spacer Module, activ			753-1629	387
	Binary Spacer Module, activ, without power jumper contacts			753-1629/000-001	387
	Binary Spacer Module, passiv			753-629/020-000	388
Separation Modules	Separation Module	750-616			389
	Separation Module with printing	750-616/030-000			389
	Separation Module with contacts	750-621			389
End Module	End Module	750-600	750-600/025-000		390
Ex i		see Section 4.9			

Supply Module 24 V DC / 230 V AC/DC

passive





Delivered without miniature WSB markers

The supply module provides field side power through the power jumper contacts.

Maximum available supply current to all connected modules is 10A.

Should higher currents be necessary, intermediate supply modules must be added to the assembly. Supply modules may also be used to change the supply voltage to certain I/O modules within the assembly - on one fieldbus node.

Description	Item No.	Pack. Unit
24V DC Power Supply	**750-602**	1
24V DC Power Supply/T	**750-602/025-000**	1
Extended temperature range: -20 °C ... +60 °C		
0-230V AC/DC Power Supply	**750-612**	1
24V DC Power Supply (without connector)	**753-602**	1
0-230V AC/DC Power Supply (without connector)	**753-612**	1

Accessories	Item No.	Pack. Unit
753 Series Connectors	**753-110**	25
Coding elements	**753-150**	100
Miniature WSB Quick marking system		
plain	**248-501**	5
with marking	see Section 11	

Approvals

Conformity marking	CE
Korea Certification	
Marine applications (versions upon request)	ABS, BV[1], DNV, GL, KR, LR[1], NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

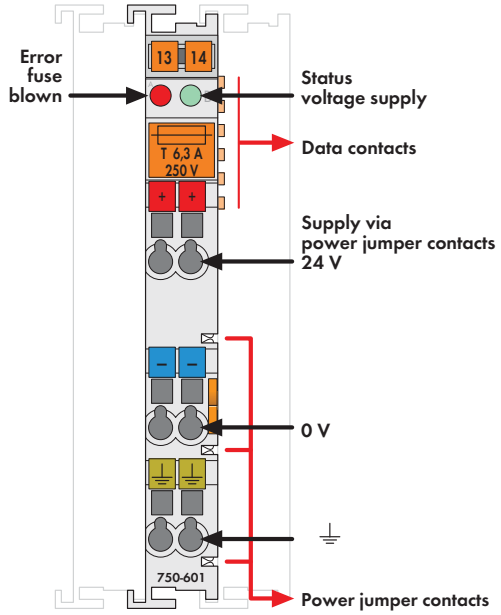
[1] Does not apply to 753-602, -612

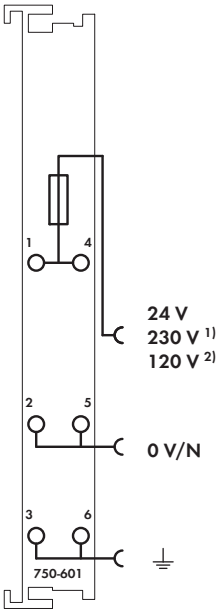
Technical Data

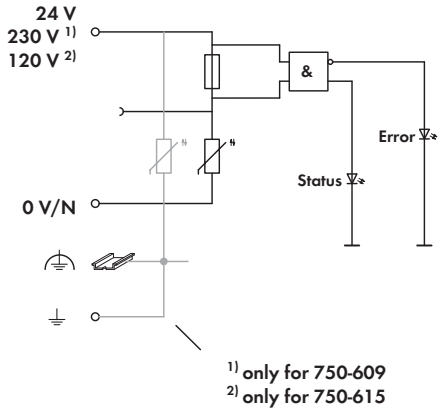
Voltage via power jumper contacts (max.)	24 V DC (750-602 / 753-602)
	0 V ... 230 V AC/DC
	(750-612 / 753-612)
Current via power jumper contacts (max.)	10 A DC
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
	9 ... 10 mm / 0.37 in
Width	12 mm
Weight	44.2 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

Supply Module 24 V DC / 24 V AC / 230 V AC / 120 V AC

with fuse carrier







1) only for 750-609
2) only for 750-615

Delivered without miniature WSB markers

The supply module provides field side power through the power jumper contacts.

Maximum available supply current to all connected modules is 6.3A. Should higher currents be necessary, intermediate supply modules must be added to the assembly. Supply modules may also be used to change the supply voltage to certain I/O modules within the assembly - on one fieldbus.

This module is fuse-protected (size 5 x 20mm). The fuse can be changed quickly, with ease, from the retractable fuse carrier.

A blown fuse is indicated by an LED.

Description	Item No.	Pack. Unit
24V DC Power Supply/Fuse	**750-601**	1
230V AC Power Supply/Fuse	**750-609**	1
120V AC Power Supply/Fuse	**750-615**	1
24V AC Power Supply/Fuse	**750-617**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

Approvals

Conformity marking	CE
Korea Certification	(750-609, -615, -617)
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA (750-601, -609)
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4[1]
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135°C Dc[1]
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135°C Dc[1]
Permissible ambient temperature	0 °C ... +60 °C

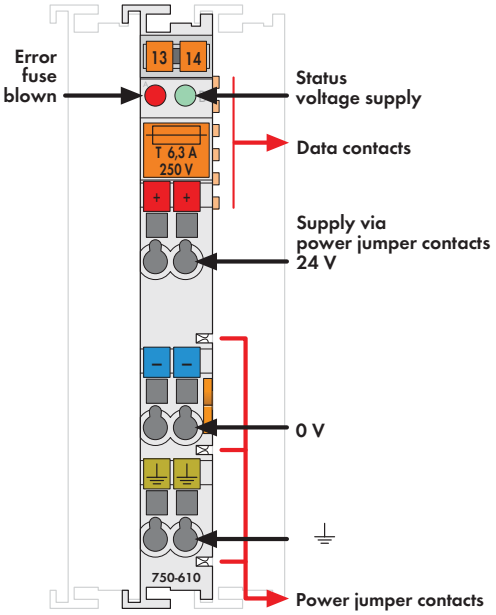
[1] Does not apply to 750-617

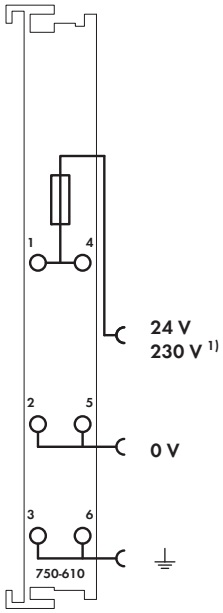
Technical Data

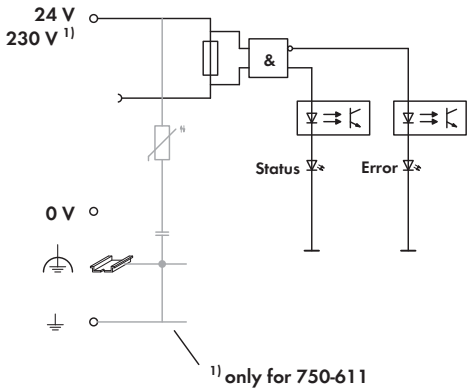
Voltage via power jumper contacts (max.)	24 V DC (750-601) 230 V AC (750-609) 120 V AC (750-615) 24 VAC (750-617)
Current via power jumper contacts (max.)	6.3 A DC
Fuse	5 x 20; T 6.3 A (Fuse not included. Use UL recognized fuses only!)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	56 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

Supply Module 24 V DC / 230 V AC

with fuse carrier / diagnostics







Delivered without miniature WSB markers

The supply module provides field side power through the power jumper contacts.

Maximum available supply current to all connected modules is 6.3A. Should higher currents be necessary, intermediate supply modules must be added in the assembly. Supply modules may also be used to change the supply voltage to certain I/O modules within the assembly - on one fieldbus.

This module is fuse-protected (size 5 x 20mm). The fuse can be changed quickly, with ease, from the retractable fuse carrier.

A blown fuse and the status of the supply voltage are indicated via LEDs.

The module sends information about the status of the supply module to the fieldbus coupler through two input bits. One bit is for the status of the fuse. The other bit is for the status of the supply voltage.

Description	Item No.	Pack. Unit
24V DC Power Supply/Fuse/Diagn.	**750-610**	1
230V AC Power Supply/Fuse/Diagn.	**750-611**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

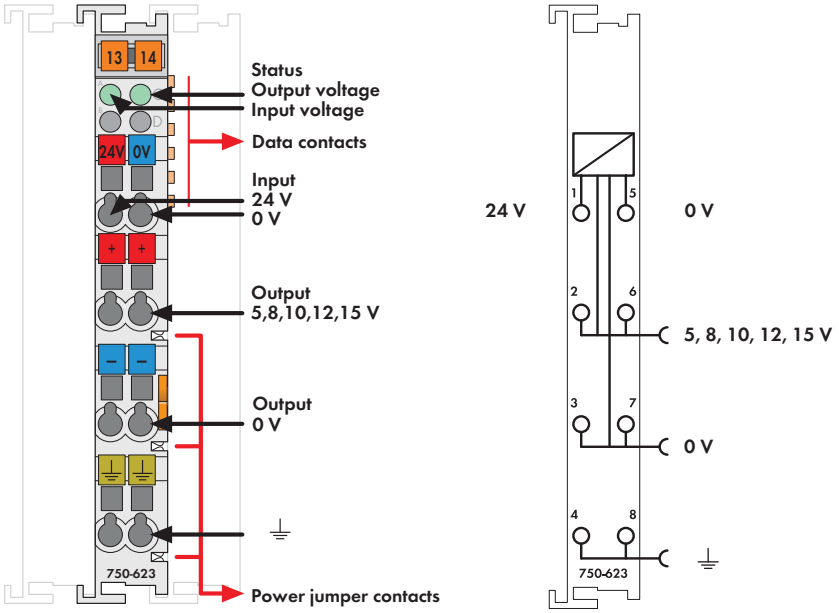
Approvals

Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

Technical Data

Voltage via power jumper contacts (max.)	24 V DC (750-610)
	230 V AC (750-611)
Current via power jumper contacts (max.)	6.3 A DC
Current consumption (internal)	5 mA
Supply voltage detection level on	> 15 V DC (750-610)
	> 164 V AC (750-611)
Supply voltage detection level off	< 5 V DC (750-610)
	< 40 V AC (750-611)
Fuse	5 x 20; T 6.3 A (Fuse not included.
	Use UL recognized fuses only!)
Internal bit width	2 bits
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	51.5 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

Supply Module 24 V DC / 5 V - 15 V



Delivered without miniature WSB markers

The 750-623 Series Power Supply Module generates 5V, 8V, 10V, 12V and 15VDC output voltages from the 24VDC input voltage. The output voltage is selected by a DIP switch located on the side of the module and can be accessed at the CAGE CLAMP® terminals. Downstream modules are supplied with the selected voltage via the power jumper contacts. LEDs indicate the module's operating state. The input voltage and the output voltage are not electrically isolated.

Description	Item No.	Pack. Unit
Supply Module DC 24V / 5-15V	**750-623**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

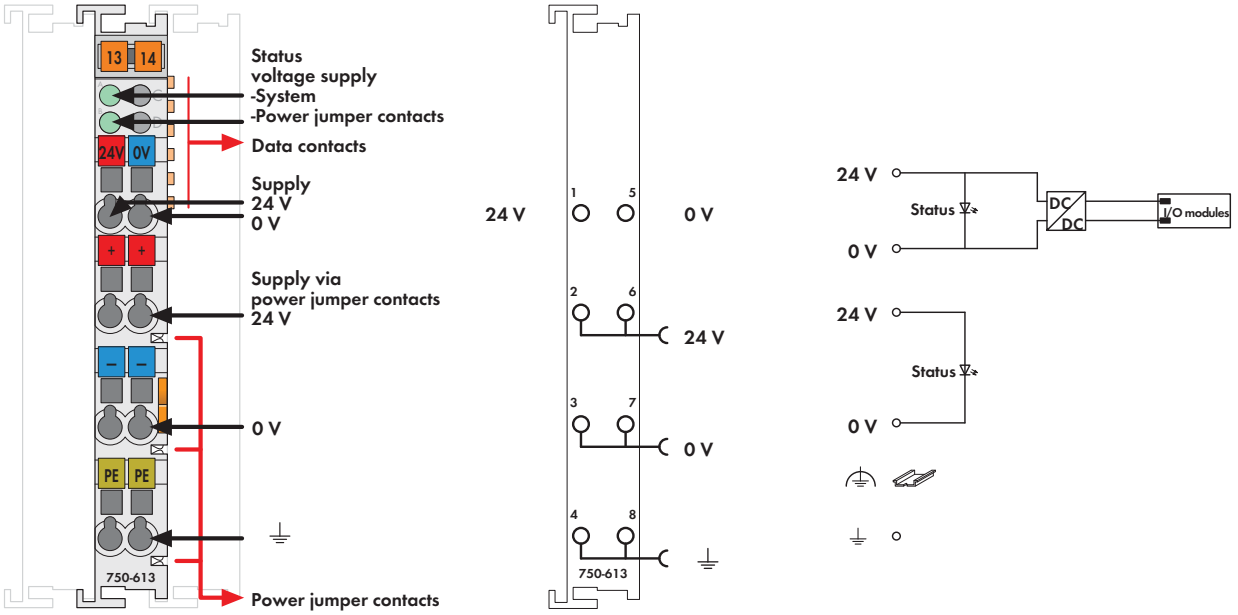
Approvals

Conformity marking	CE
Korea Certification	
Marine applications	BV, GL, LR, NKK, PRS, RINA
cULus UL 508	
cULus ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

Technical Data

Power supply	24 V DC (-15 % ... +20 %)
Output voltage	5 V, 8 V, 10 V, 12 V, 15 V DC
Output current	0.5 A (1 A at 5 V)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	53.7 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

Internal System Supply Module 24 V DC



The internal system supply module increases the current supply for the internal 5VDC system by 2A.

If the the internal current consumption of all modules is higher than 2A, an additional supply module must be added.

The supply module also supplies field side power to the adjoining modules via the power jumper contacts.

Description	Item No.	Pack. Unit
24V DC Bus Power Supply	**750-613**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

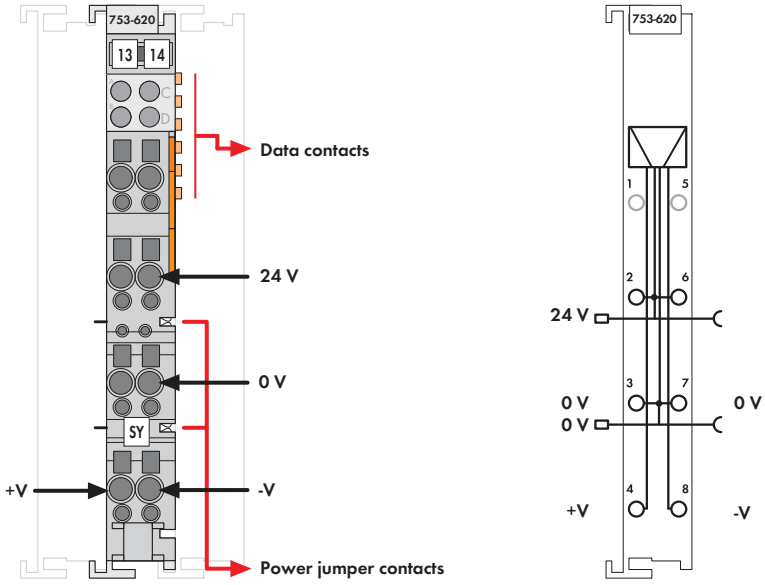
Approvals

Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

Technical Data

Power supply	24 V DC (-15 % ... +20 %)
Input current max.	500 mA
Total current for I/O modules	2000 mA
Voltage via power jumper contacts (max.)	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	58.5 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

DALI Multi-Master DC/DC Converter



The 753-620 DALI Multi-Master DC/DC Converter is a system module within the WAGO-I/O-SYSTEM 750. The 1/2 inch (12mm) wide module is designed to supply a 753-647 DALI Multi-Master Module and delivers maximum 200mA current to operate a single DALI line (the maximum number of slaves depends on the total power consumption of the single DALI devices).
The 753-620 DC/DC Converter is supplied via 24V power jumper contacts. Cable bridges connect the DC/DC Converter to the DALI Multi-Master Module.

Description	Item No.	Pack. Unit
DALI Multi-Master DC/DC Converter	**753-620**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	
753 Series Connectors		**753-110**	25
Coding elements		**753-150**	100
753 Series pluggable connector and coding accessories are part of the delivery.			

Approvals

UL 508

Technical Data	
Voltage via power jumper contacts (max.)	24 VDC
Input voltage range	18 ... 31.2 VDC
Current via power jumper contacts (max.)	10 A DC
Output voltage	18 VDC (at +V and -V)
Nominal output current	200 mA
Short circuit protection	permanent
Test voltage input / output	1.5 kV eff.
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	9 ... 10 mm / 0.37 in
Width	12 mm
Weight	55 g

Field Side Connection Module

0 ... 230 V AC/DC

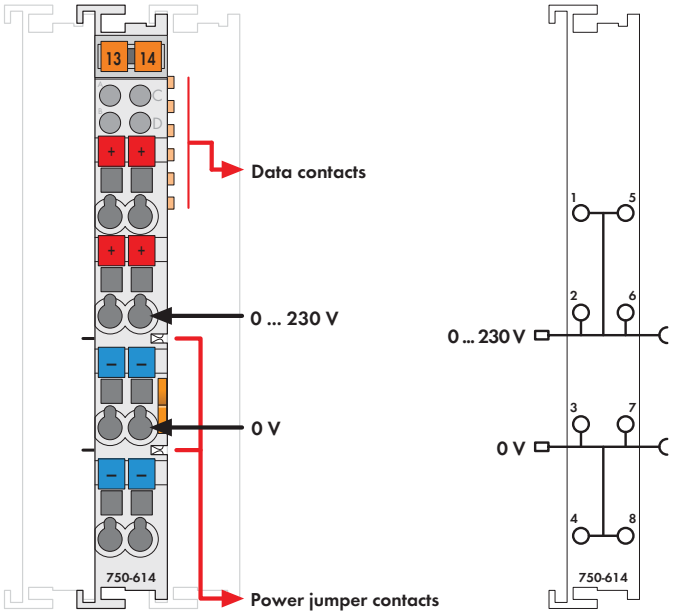


Fig. 750 Series
Delivered without miniature WSB markers

This module allows additional + and - voltage connection points (up to 4 additional), eliminating external terminal blocks.

Note: Ground (earth) or shield (screen) connection is discontinued at this point.

Description	Item No.	Pack. Unit
Field Side Connection	**750-614**	1
Field Side Connection (without connector)	**753-614**	1

Accessories	Item No.	Pack. Unit
753 Series Connectors	**753-110**	25
Coding elements	**753-150**	100
Miniature WSB Quick marking system		
plain	**248-501**	5
with marking	see Section 11	

Approvals

Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

Technical Data

Voltage via power jumper contacts (max.)	0 V ... 230 V AC/DC
Current via power jumper contacts (max.)	10 A DC
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths, 750/753 Series	8 ... 9 mm / 0.33 in
	9 ... 10 mm / 0.37 in
Width	12 mm
Weight	45.5 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

Field Side Connection Module

24 V DC

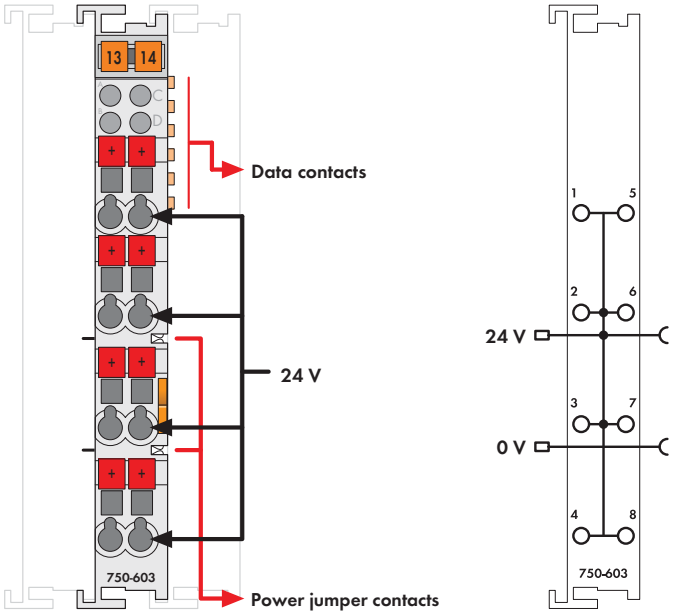


Fig. 750 Series
Delivered without miniature WSB markers

The field side connection module provides 24V power for the inputs of the 8-channel input module 750-430/-431,eliminating external terminal blocks.

The 24V supply and 0V potential are derived from the internal power jumper contacts of an adjacent upstream I/O module. A connection of the potentials to the downstream I/O modules is made automatically via the power jumper contacts when snapping the I/O modules together. The 24V power is available to all eight field side CAGE CLAMP® connections and the 0V potential is passed through without being used by the module.

Description	Item No.	Pack. Unit
Field Side Connection	**750-603**	1
Field Side Connection (without connector)	**753-603**	1

Accessories		Item No.	Pack. Unit
	**753 Series Connectors**	**753-110**	25
	Coding elements	**753-150**	100
	**Miniature WSB Quick marking system**		
	plain	**248-501**	5
	with marking	see Section 11	

Approvals

Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, PRS, RINA
cULus UL 508	
cULus ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

Technical Data

Voltage via power jumper contacts (max.)	24 V DC
Current via power jumper contacts (max.)	10 A DC
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths, 750/753 Series	8 ... 9 mm / 0.33 in
	9 ... 10 mm / 0.37 in
Width	12 mm
Weight	46.3 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

Field Side Connection Module

0 V DC

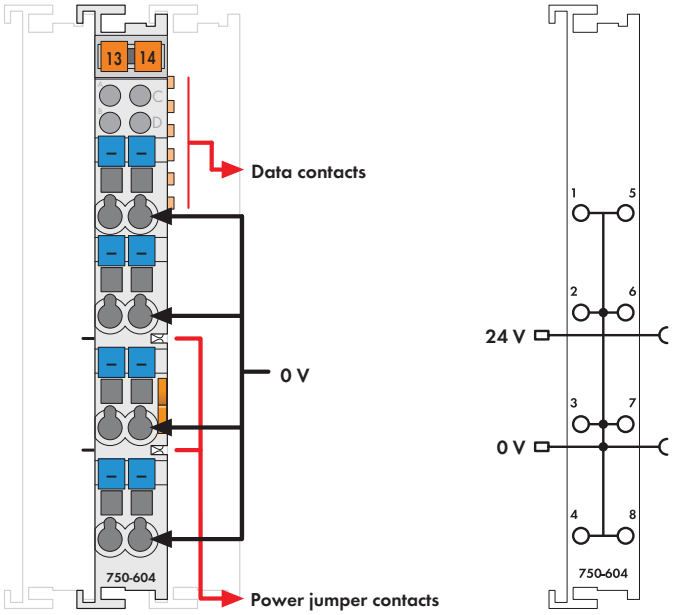


Fig. 750 Series
Delivered without miniature WSB markers

The field side connection module provides 0V potential for the outputs of the 8-channel output module 750-530, eliminating external terminal blocks.

The 24V supply and 0V potential are derived from the internal power jumper contacts of an adjacent upstream I/O module. A connection of the potentials to the downstream I/O modules is made automatically via the power jumper contacts when snapping the I/O modules together. The 0V potential is available to all eight field side CAGE CLAMP® connections and the 24V power is passed through without being used by the module.

Description	Item No.	Pack. Unit
Field Side Connection	**750-604**	1
Field Side Connection (without connector)	**753-604**	1

Accessories		Item No.	Pack. Unit
	**753 Series Connectors**	**753-110**	25
	Coding elements	**753-150**	100
	**Miniature WSB Quick marking system**		
	plain	**248-501**	5
	with marking	see Section 11	

Approvals

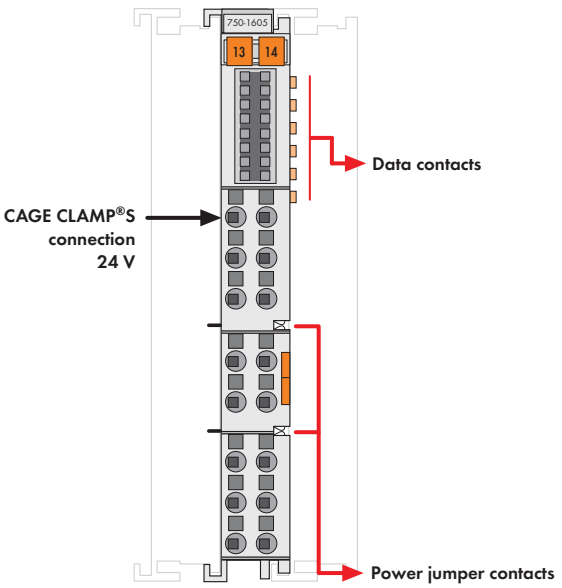
Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

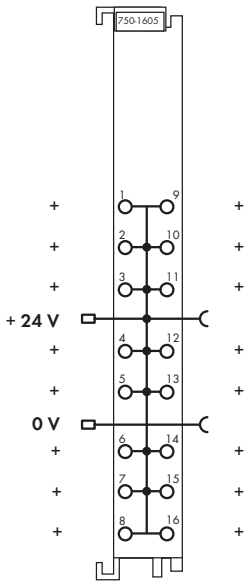
Technical Data

Voltage via power jumper contacts (max.)	24 V DC
Current via power jumper contacts (max.)	10 A DC
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths, 750/753 Series	8 ... 9 mm / 0.33 in
	9 ... 10 mm / 0.37 in
Width	12 mm
Weight	46.3 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

Field Side Connection Module 16+

24 V DC





The field side connection module provides 24V power for the inputs of the 16-channel input modules 750-1405 and 750-1406 (also suitable for 8 channel input modules in 1-wire connection), eliminating external terminal blocks.

The 24V supply and 0V potential are derived from the internal power jumper contacts of an adjacent upstream I/O module. A connection of the potentials to the downstream I/O modules is made automatically via the power jumper contacts when snapping the I/O modules together. The 24V power is available to all 16 field side CAGE CLAMP®S connections and the 0V potential is passed through without being used by the module.

210-719 operating tool (2.5mm blade) is required to open the CAGE CLAMP®S.

Description	Item No.	Pack. Unit
Field Side Connection 16+	**750-1605**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	
Operating tool, with partially insulated shaft, type 1, blade (2.5 x 0.4) mm		**210-719**	50

Approvals

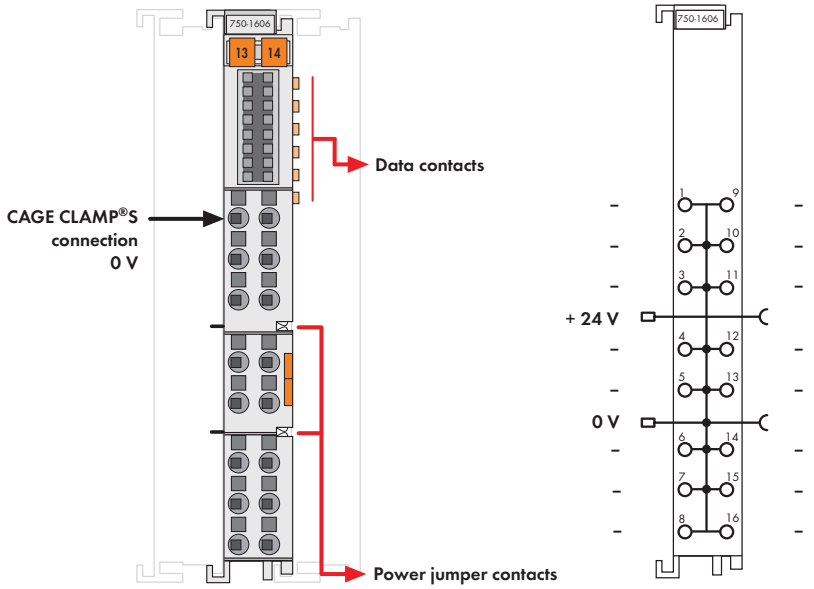
Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
cULus UL 508	
cULus ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

Technical Data

Voltage via power jumper contacts (max.)	24 V DC
Current via power jumper contacts (max.)	10 A DC
Wire connection	CAGE CLAMP® S
Cross sections	solid:
	0.08 mm² ... 1.5 mm² / AWG 28 ... 16
	fine-stranded:
	0.25 mm² ... 1.5 mm² / AWG 22 ... 16
Strip lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	48 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

Field Side Connection Module 16-

0 V DC



The field side connection module provides 0V potential for the outputs of the 16-channel output module 750-1504 (also suitable for 8 channel output modules in 1-wire connection), eliminating external terminal blocks.

The 24V supply and 0V potential are derived from the internal power jumper contacts of an adjacent upstream I/O module. A connection of the potentials to the downstream I/O modules is made automatically via the power jumper contacts when snapping the I/O modules together. The 0V potential is available to all 16 field side CAGE CLAMP®S connections and the 24V power is passed through without being used by the module.

210-719 operating tool (2.5mm blade) is required to open the CAGE CLAMP®S.

Description	Item No.	Pack. Unit
Field Side Connection 16-	**750-1606**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	
Operating tool, with partially insulated shaft, type 1, blade (2.5 x 0.4) mm		**210-719**	50

Approvals

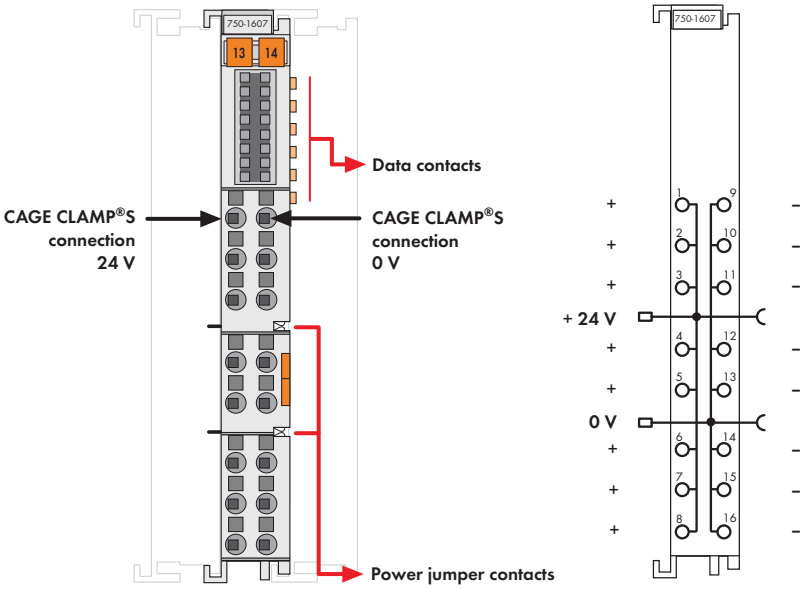
Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

Technical Data

Voltage via power jumper contacts (max.)	24 V DC
Current via power jumper contacts (max.)	10 A DC
Wire connection	CAGE CLAMP® S
Cross sections	solid: 0.08 mm² ... 1.5 mm² / AWG 28 ... 16 fine-stranded: 0.25 mm² ... 1.5 mm² / AWG 22 ... 16
Strip lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	45 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

Field Side Connection Module 8+/8-

24 V / 0 V DC



The field side connection module provides 24 V and 0 V power for the inputs and outputs of the 8-channel input/output module 750-1506 (also suitable for 8-channel I/O modules, 1-wire connection) eliminating external terminal blocks.
The 24V supply and 0V potential are derived from the internal power jumper contacts of an adjacent upstream I/O module. A connection of the potentials to the downstream I/O modules is made automatically via the power jumper contacts when snapping the I/O modules together.
The 24 V and 0 V power is available to all eight filed side CAGE CLAMP®S connections.

210-719 operating tool (2.5mm blade) is required to open the CAGE CLAMP®S.

Description	Item No.	Pack. Unit
Field Side Connection 8+/8-	**750-1607**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	
Operating tool, with partially insulated shaft, type 1, blade (2.5 x 0.4) mm		**210-719**	50

Approvals

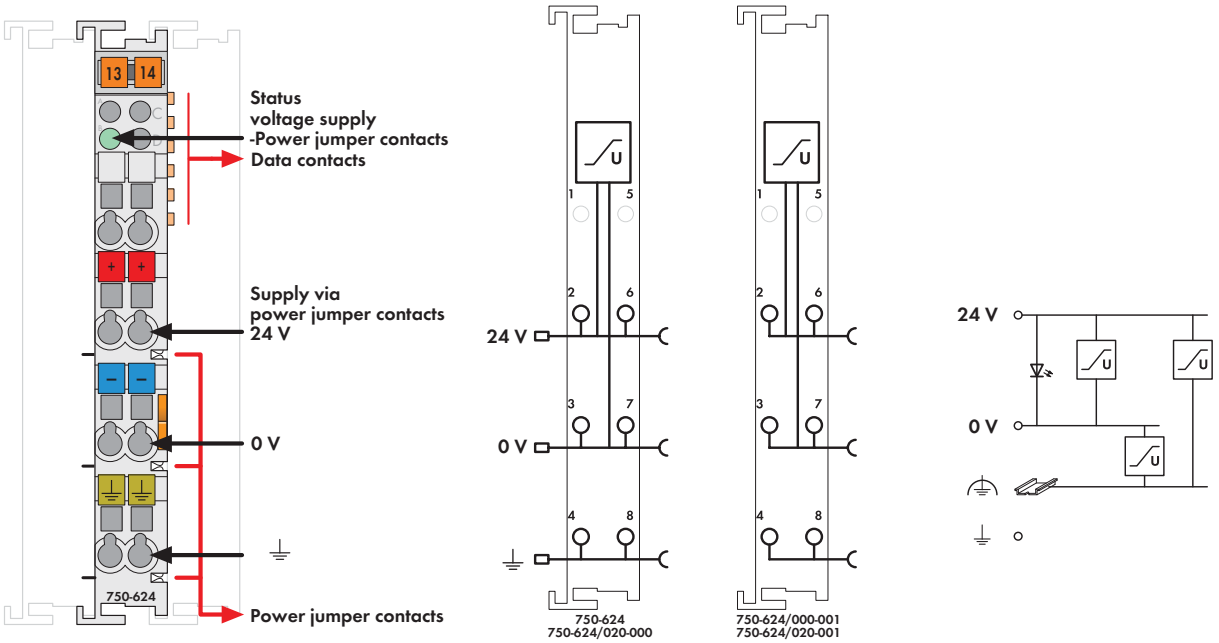
Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
cULus UL 508	
cULus ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

Technical Data

Voltage via power jumper contacts (max.)	24 V DC
Current via power jumper contacts (max.)	10 A DC
Wire connection	CAGE CLAMP® S
Cross sections	solid: 0.08 mm² ... 1.5 mm² / AWG 28 ... 16 fine-stranded: 0.25 mm² ... 1.5 mm² / AWG 22 ... 16
Strip lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	48 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

Filtermodul

for field side power supply



Delivered without miniature WSB markers

The WAGO-I/O-SYSTEM 750 can also be used in shipbuilding applications and onshore/offshore installations (e.g., platforms, loading facilities). This is possible via certification under the standards of leading agencies such as Germanischer Lloyd and Lloyds Register. This module ensures proper (certified) system operation and is equipped with surge suppression for 24VDC field side power supply.
High-insulation versions are optimized for use in systems with insulation monitoring.

750-624/020-000, 750-624/020-001

- Required for shipbuilding certified operation with 750 Series I/O modules.
- 750-624/020-001 may also be used as a supply module.

750-624, 750-624/000-001

- Required for shipbuilding certified operation with 750-625 Ex i supply module.
- Required for the use of 750 Series PROFIsafe modules.
- 750-624/000-001 may also be used as a supply module.

Description	Item No.	Pack. Unit
24V DC Field Side Power Supply Filter with Overvoltage (Surge) Protection, High Isolation	**750-624/020-000**	1
24V DC Field Side Power Supply Filter with Overvoltage (Surge) Protection, High Isolation / without Power Jumper Contacts	**750-624/020-001**	1
24V DC Field Side Power Supply Filter with Overvoltage (Surge) Protection	**750-624**	1
24V DC Field Side Power Supply Filter with Overvoltage (Surge) Protection / without Power Jumper Contacts	**750-624/000-001**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

Approvals

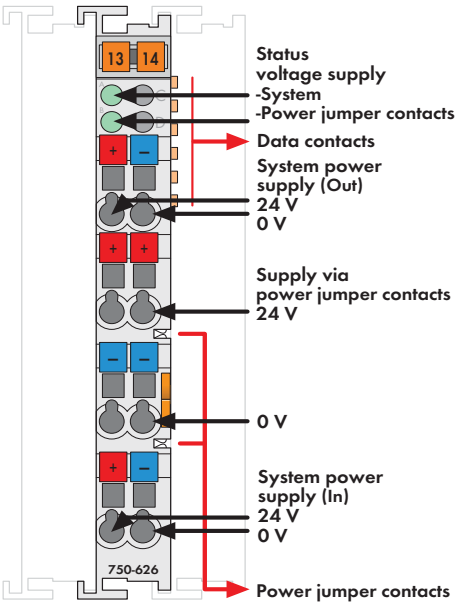
Conformity marking	CE
Korea Certification	
Marine applications (versions upon request)	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

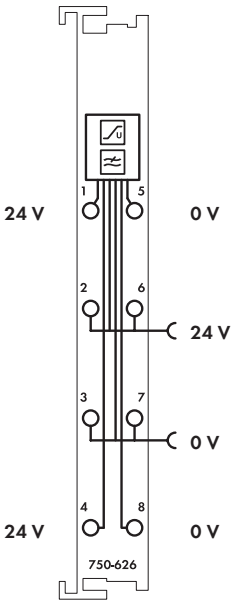
Technical Data

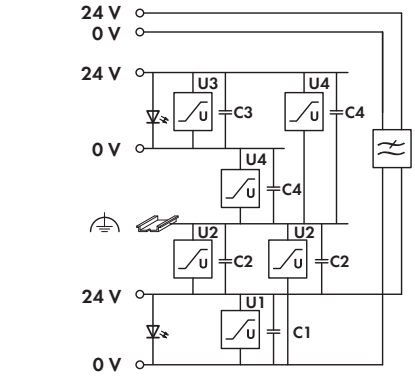
Voltage via power jumper contacts (max.)	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	51 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

Filter Module

for system and field side power supply







750-626, 750-626/025-000:
U1= U2=U3=U4= 39V, C1=C2=20µF, C3=C4=10µF
750-626/020-000, 750-626/025-001:
U1=U3=39V, U2=U4=150V, C1=20µF, C2=C4=10nF, C3=10µF

Delivered without miniature WSB markers

The WAGO-I/O-SYSTEM 750 can also be used in shipbuilding applications and onshore/offshore installations (e.g., platforms, loading facilities). This is possible via certification under the standards of leading agencies such as Germanischer Lloyd and Lloyds Register. Proper system operation is ensured (certified) by using this overvoltage protection module. The module filters the 24V system power supply and is equipped with surge suppression. High-insulation versions are optimized for use in systems with insulation monitoring.

750-626/020-000
- Required for shipbuilding certified operation with both 750 Series couplers and programmable controllers.

750-626
- Required for shipbuilding certified operation with both 758 Series IPCs and 750-625 Ex-i supply module.
- Required for the use of 750 Series PROFIsafe modules.

Description	Item No.	Pack. Unit
24V DC Power Supply Filter with Overvoltage (Surge) Protection, High Isolation	**750-626/020-000**	1
24V DC Power Supply Filter with Overvoltage (Surge) Protection /HI /T	**750-626/025-001**	1
Extended temperature range: -20 °C ... +60 °C		
24V DC Power Supply Filter with Overvoltage (Surge) Protection	**750-626**	1
24V DC Power Supply Filter with Overvoltage (Surge) Protection /T	**750-626/025-000**	1
Extended temperature range: -20 °C ... +60 °C		

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

Approvals

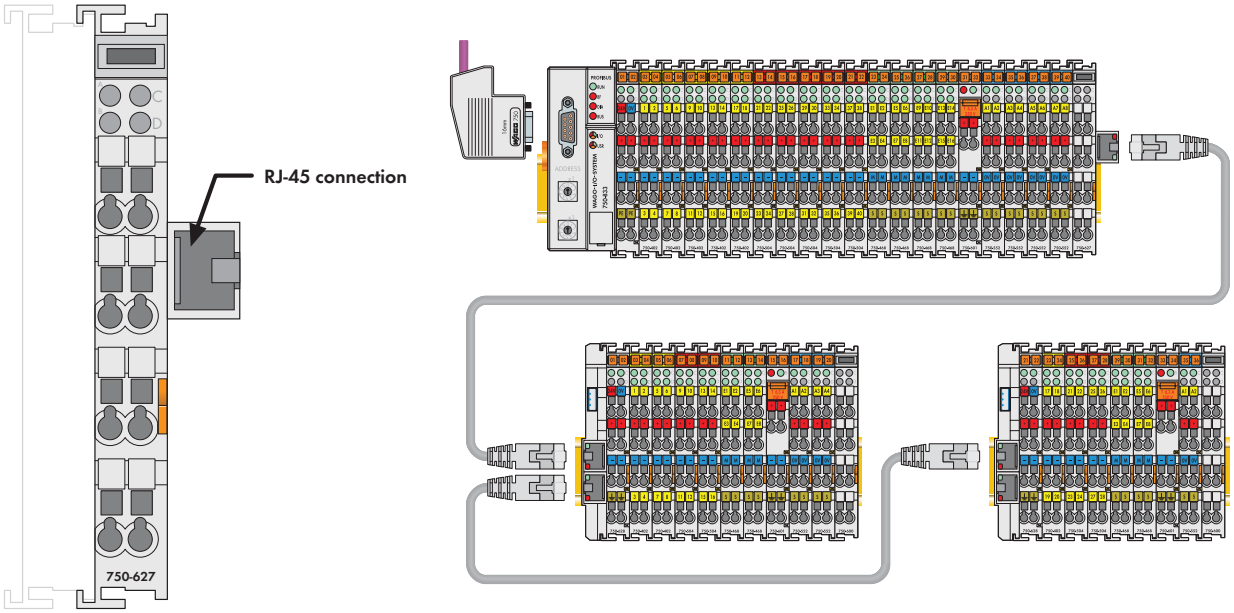
Conformity marking	CE
Korea Certification	[1]
Marine applications (versions upon request)	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
cULus UL 508	
cULus ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

[1] Does not apply to 750-626/025-001

Technical Data

Voltage via power jumper contacts (max.)	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC
Current via system voltage (max.)	1.5 A (1 A up to hardware 04)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	51 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

Internal Data Bus Extension End Module



Delivered without miniature WSB markers

The end module for the internal data bus extension 750-627 is attached to the end of the I/O terminal block like the standard end module 750-600. The block is terminated with the module, to which a connecting cable can be attached with an RJ-45 connector.
Power to the internal electronics is supplied via the internal bus. Together with at least one coupler module for the internal data bus extension 750-628 the module forms a functional unit. The fieldbus coupler/controller carries out all diagnosis and commissioning tasks.

Installation note Attention:
To ensure safe, reliable operating states when using the internal data bus extension 750-627/-628 these states must be registered prior to startup with the following couplers or PLCs (refer to manual for supported couplers/PLCs). You must use the "WAGO Extension Setting" software for this (download: www.wago.com).
Please complete the manufacturing number matrix on the right-hand side of the couplers when updating the firmware and internal operating parameters.

Description	Item No.	Pack. Unit
Internal Data Bus Extension End Module	**750-627**	1

Accessories		Item No.	Pack. Unit
Software "WAGO Extension Setting"		Download: www.wago.com	
Communication cable (used to register or remove the end extension module)		**750-920**	10
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

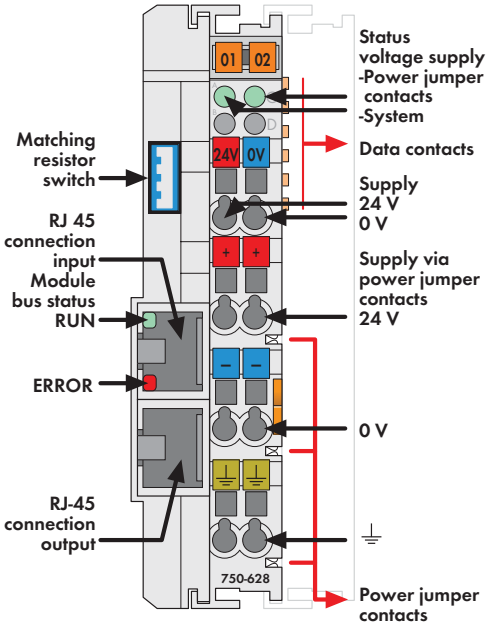
Approvals

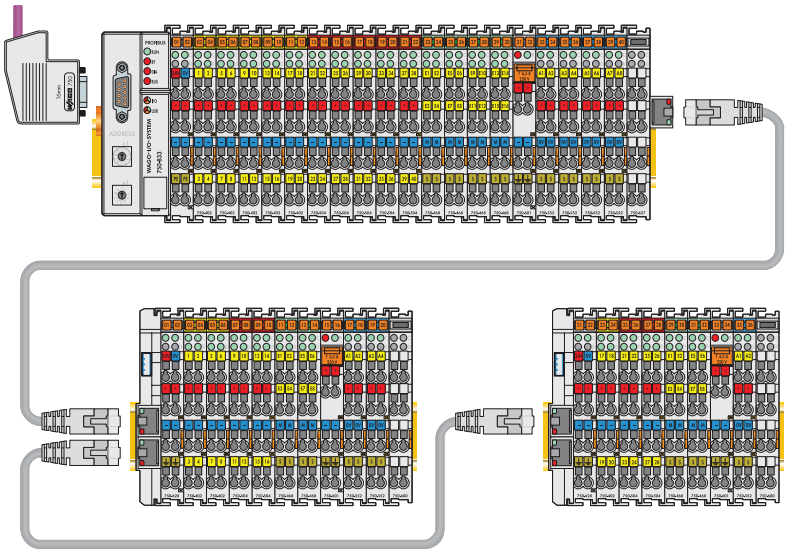
Conformity marking	CE
Korea Certification	
Marine applications	GL
UL 508	
DEKRA 11 ATEX 0203 X	II 3 G Ex nA II T4

Technical Data

Max. no. of coupler modules	up to 10
Max. current consumption (internal)	70 mA
Buscoupler connection	1 x RJ-45 socket
Distance	max. 5 m (end module and coupler module)
Transmission medium	shielded copper wire (ETHERNET patch cable) 4 x 2 x 0.25 mm², twisted pair, double shielding
Isolation	500 V system/supply
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Width	24 mm
Weight	45.1 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

Internal Data Bus Extension Coupler Module





Delivered without miniature WSB markers

The coupler module for the internal data bus extension module 750-628 replaces the fieldbus coupler/controller at an I/O terminal block. It is also the mating piece for the end module 750-627. Plug the connecting cable into the top RJ-45 socket to establish the logical link to the fieldbus coupler/controller via end module 750-627. The extension is completely transparent for the fieldbus coupler/controller. All of the functions of the I/O module system are retained without any changes. A further extension to the system is provided by the bottom RJ-45 socket. This enables the entire system to be extended by 10 stages.
The supply voltage for the field side and the internal electronics can be input separately. Both levels are electrically isolated from each other. Two diagnostic LEDs give information about the supply voltage for both the internal and field side. Two LEDs in the input socket indicate fault-free communication with the bus coupler.
The extension module can be used as the last coupler module in the system (switch on matching resistor) or as a bridge between two I/O module assemblies.

Installation note Attention:
To ensure safe, reliable operating states when using the internal data bus extension 750-627/-628 these states must be registered prior to startup with the following couplers or PLCs (refer to manual for supported couplers/PLCs). You must use the "WAGO Extension Setting" software for this (download: www.wago.com).
Please note that only one terminating resistor may be activated in the whole system.
Please complete the manufacturing number matrix on the right-hand side of the couplers when updating the firmware and internal operating parameters.

Description	Item No.	Pack. Unit
Internal Data Bus Extension Coupler Module	**750-628**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

Approvals

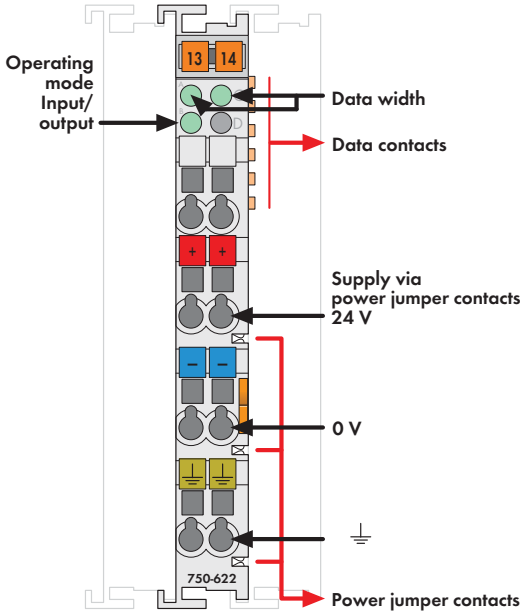
Conformity marking	CE
Korea Certification	KC
Marine applications	GL
cULus UL 508	
DEKRA 11 ATEX 0203 X	II 3 G Ex nA II T4

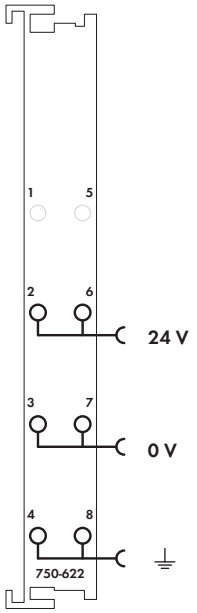
Technical Data

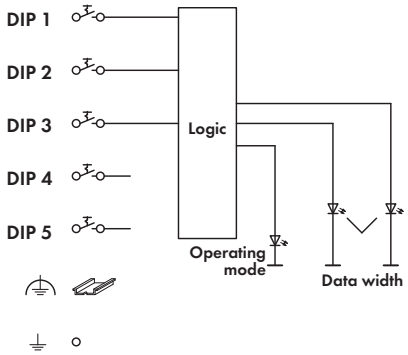
Max. no. of I/O modules	64 (in the whole system)
Buscoupler connection	2 x RJ-45 socket (input + output)
Distance	5 m (10 m see manual), (end module and coupler or coupler and coupler)
Transmission medium	shielded copper wire (ETHERNET patch cable) 4 x 2 x 0.25 mm², twisted pair, double shielding
Power supply	24 V DC (-15 % ... +20 %)
Max. input current (24 V)	200 mA
Power supply efficiency	76 %
Inrush current	2.5 x continuous current
Internal current consumption (5 V)	150 mA
Total current for I/O modules (5 V)	400 mA
Voltage via power jumper contacts	24 V DC (-15 % ... +20 %)
Current via power jumper contacts (max.)	10 A DC
Isolation	500 V system/supply
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Width	25 mm
Weight	75.2 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

Binary Spacer Module

with supply module







Delivered without miniature WSB markers

The binary spacer module reserves bit addresses in the process image of a fieldbus node.

The operating mode as well as the bit width can be adjusted by DIP switches on the side of the module. The operating mode (inputs/outputs) can be chosen by one DIP switch, the number of inputs or outputs (2, 4, 6 or 8) can be chosen by two DIP switches.

The configuration is indicated by means of 3 LEDs.

The binary spacer module can also act as a power supply module, providing a voltage of 24V via the power jumper contacts.

Description	Item No.	Pack. Unit
Binary Spacer Module	**750-622**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

Approvals

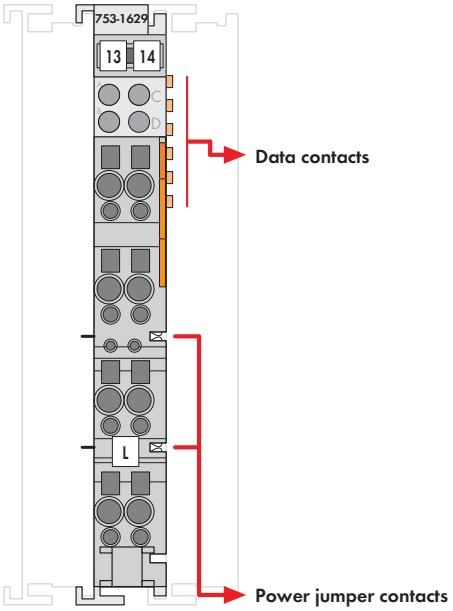
Conformity marking	CE
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

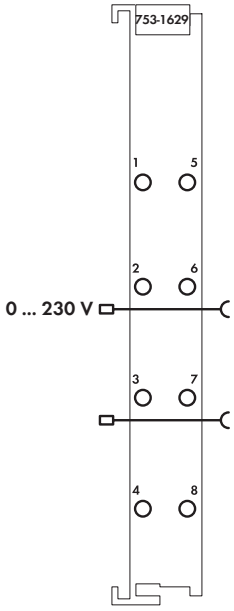
Technical Data

Voltage via power jumper contacts (max.)	24 V DC (-15 % ... +20 %)
Current via power jumper contacts (max.)	10 A DC
Current consumption (internal)	10 mA
Isolation	500 V system/supply
Internal bit width	2, 4, 6 or 8 Bit
Bit width	2 Bit: DIP1: OFF/DIP2: OFF;
	4 Bit: DIP1: ON/DIP2: OFF ;
	6 Bit: DIP1: OFF/DIP2: ON ;
	8 Bit DIP1: ON/DIP2: ON
Operating mode	Inputs DIP 3 OFF ;
	Outputs DIP 3 ON
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	48 g
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-4

Spacer Module

active





Active spacer modules provide both hardware and software space reservation for standard function modules (digital/analog) in PROFIBUS networks (only in connection with 750-333 coupler).

753 Series pluggable connectors enable the use of pre-wired cable assemblies.
WAGO's spacer modules also simulate a function module and are configured accordingly (select module “optionally not plugged”).

Subsequent node expansion is made possible by replacing spacer modules with function modules without disturbing existing wiring or configuration.

These modules are available with and without power jumper contacts for power supply to downstream modules.

Description	Item No.	Pack. Unit
Spacer module, active (without connector)	**753-1629**	1
Spacer module, active/without power jumper contacts (without connector)	**753-1629/000-001**	1

Technical Data	
Voltage via power jumper contacts (max.)	0 ... 230 V AC/DC
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	9 ... 10 mm / 0.37 in
Width	12 mm
Weight	61 g

Accessories

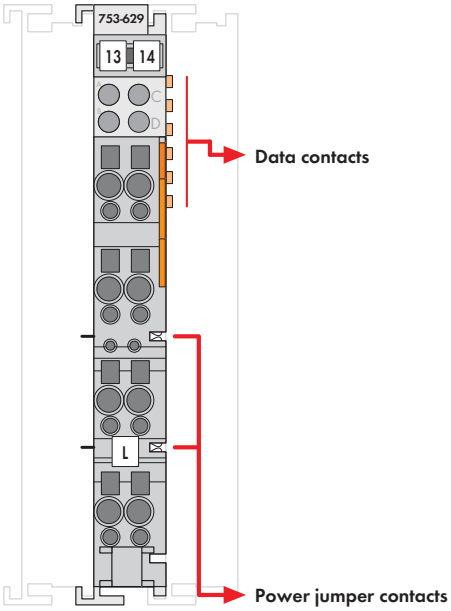
	Item No.	Pack. Unit
753 Series Connectors	**753-110**	25
Coding elements	**753-150**	100
Miniature WSB Quick marking system		
plain	**248-501**	5
with marking	see Section 11	

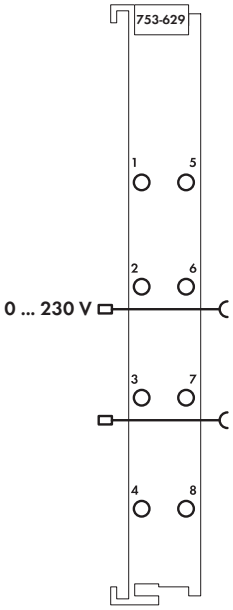
Approvals

Conformity marking CE
cULus UL 508

Spacer Module

passive





WAGO's passive spacer modules provide hardware place reservation for standard function modules (digital/analog).

753 Series pluggable connectors enable the use of pre-wired cable assemblies.
Subsequent node expansion is made possible by replacing spacer modules with corresponding function modules without disturbing existing wiring.
The modules can also accommodate cables that are currently unused.

The passive spacer modules have no electronics.
They do not reserve any bits/bytes in the process image and are therefore not shown in the configuration.

The modules feature two power jumper contacts for power supply to downstream modules.

Description	Item No.	Pack. Unit
Spacer module, passive (without connector)	**753-629/020-000**	1

Accessories		Item No.	Pack. Unit
	**753 Series Connectors**	**753-110**	25
	Coding elements	**753-150**	100
	**Miniature WSB Quick marking system**		
	plain	**248-501**	5
	with marking	see Section 11	

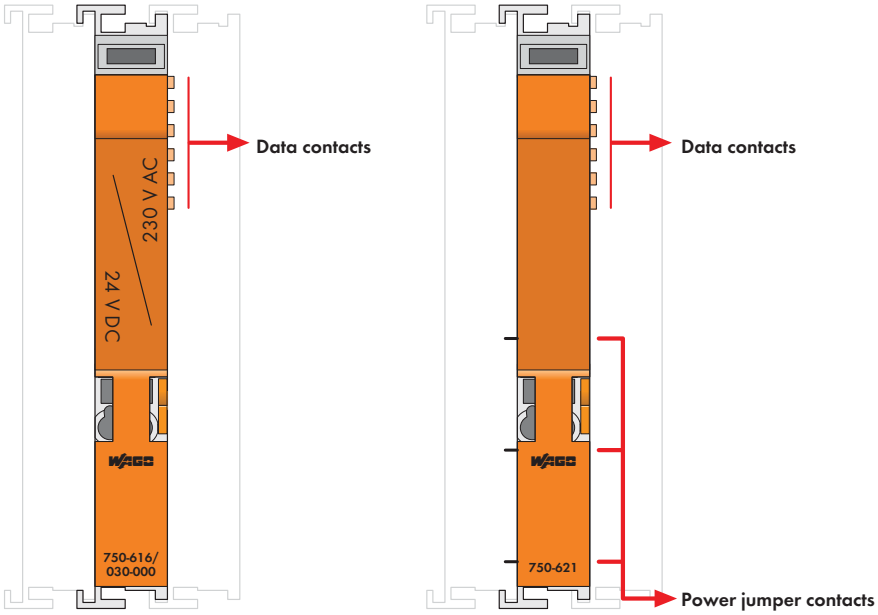
Approvals

Conformity marking	CE
UL 508	

Technical Data

Voltage via power jumper contacts (max.)	0 ... 230 V AC/DC
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	9 ... 10 mm / 0.37 in
Width	12 mm
Weight	29.2 g

Separation Module



A separation module visually divides a fieldbus node into sections.

The 750-616 Separation Module has no power jumper contacts. A separation module with printing on its face has got the item no. 750-616/030-000.

Note:
Operation of the adjacent I/O modules requires a supply module.

The 750-621 Separation Module has power jumper contacts that can supply the power to adjacent bus modules.

Description	Item No.	Pack. Unit
Separation Module	**750-616**	1
Separation Module/ 24V DC/ 230V AC	**750-616/030-000**	1
Separation Module with Contacts	**750-621**	1

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

Approvals

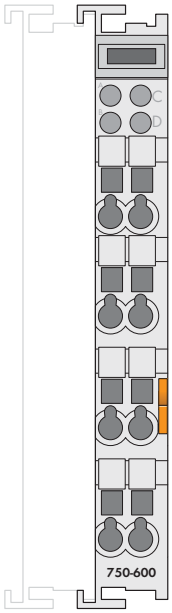
Conformity marking	CE
Korea Certification	
Marine applications (versions upon request)[1]	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
cULus UL 508	
cULus ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

[1] Does not apply to 750-621

Technical Data

Width	12 mm
Weight	38.9 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

End Module



After the fieldbus node is assembled with the correct buscoupler and selected I/O modules, the end module is snapped onto the assembly.

It completes the internal data circuit and ensures correct data flow.

Description	Item No.	Pack. Unit
End Module	**750-600**	1
End Module/T	**750-600/025-000**	1
Extended temperature range: -20 °C ... +60 °C		

Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

Approvals

Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

Technical Data

Width	12 mm
Weight	46.4 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications