

### Item description

The counter is used for frequency measurement here, with the pulse period of the 24V signal being measured at the CLOCK input and then converted to a frequency value.

Measurement is enabled and inhibited via the GATE input.

Digital outputs DO 1 and DO 2 can be set using the control byte.

### Data

#### Technical Data

Number of digital outputs	2
No. of counters	1
Type of signal	Voltage
Type of signal voltage	DC 24 V
Counter depth	32 Bit
Input current typ.	5 mA
Output current per channel	0.5 A
Output current	short-circuit-protected
Switching frequency max.	100kHz



Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	15 ... 30 VDC
Switching frequency (max.)	100000 Hz
Bit width	32 bits data 8 bits control/status
Field supply voltage	DC 24 V (-15 ... 20 %); über Leistungskontakte; zur Weiterleitung getunnelt
System supply voltage	DC 5 V; via data contacts
Current consumption, system supply (5 V)	70 mA
Isolation	500 V system/supply
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2

### Connection data

Connection technology: inputs/outputs	8 x CAGE CLAMP®
Connection type (1)	Inputs/Outputs
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 Inch

### Geometrical Data

Width	12 mm / 0.472 inch
Height	69.8 mm / 2.748 inch
Height from upper-edge of DIN-35 rail	62.6 mm / 2.465 inch
Depth	100 mm / 3.937 inch

### Mechanical data

Type of mounting	DIN-35 rail
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### Material Data

Color	light gray
Housing material	Polycarbonate, polyamide 6.6
Fire load	1.516 MJ
Weight	50.049 g
Conformity marking	CE

### Environmental Requirements

Surrounding air (operating) temperature	0 ... 55 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Degree of protection	IP20
Degree of pollution (5)	2 per IEC 61131-2



Operating altitude	0 ... 2000 m
Mounting position	horizontal (standing/lying) or vertical
Relative air humidity (no condensation)	95 %
Vibration resistance	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible H <sub>2</sub> S contaminant concentration at a relative humidity < 75 %	10 ppm
Permissible SO <sub>2</sub> contaminant concentration at a relative humidity < 75 %	25 ppm

### Commercial data

Country of origin	DE
GTIN	4045454429775
Customs Tariff No.	85389099990
Product Group	15 (Remote I/O)




### Approvals / Certificates

















#### Ship Approvals


















Logo	Approval	Certificate name
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	TAA0000194
	<b>GL</b> Germanischer Lloyd	26 898 - 05 HH

### Compatible products


#### system box
















	<b>Item no.: 850-804</b> IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip	<a href="http://www.wago.com/850-804">www.wago.com/850-804</a>
	<b>Item no.: 850-804/000-001</b> IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip	<a href="http://www.wago.com/850-804/000-001">www.wago.com/850-804/000-001</a>
	<b>Item no.: 850-805</b> IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip	<a href="http://www.wago.com/850-805">www.wago.com/850-805</a>

	<b>Item no.: 850-814/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	<a href="http://www.wago.com/850-814/002-000">www.wago.com/850-814/002-000</a>
	<b>Item no.: 850-815/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	<a href="http://www.wago.com/850-815/002-000">www.wago.com/850-815/002-000</a>
	<b>Item no.: 850-816/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	<a href="http://www.wago.com/850-816/002-000">www.wago.com/850-816/002-000</a>
	<b>Item no.: 850-817/002-000</b> IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	<a href="http://www.wago.com/850-817/002-000">www.wago.com/850-817/002-000</a>
	<b>Item no.: 850-825</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	<a href="http://www.wago.com/850-825">www.wago.com/850-825</a>
	<b>Item no.: 850-826</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-826">www.wago.com/850-826</a>
	<b>Item no.: 850-826/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-826/002-000">www.wago.com/850-826/002-000</a>
	<b>Item no.: 850-827</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-827">www.wago.com/850-827</a>
	<b>Item no.: 850-827/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-827/002-000">www.wago.com/850-827/002-000</a>
	<b>Item no.: 850-828</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	<a href="http://www.wago.com/850-828">www.wago.com/850-828</a>
	<b>Item no.: 850-828/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	<a href="http://www.wago.com/850-828/002-000">www.wago.com/850-828/002-000</a>
	<b>Item no.: 850-834</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20	<a href="http://www.wago.com/850-834">www.wago.com/850-834</a>
	<b>Item no.: 850-835</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-835">www.wago.com/850-835</a>
	<b>Item no.: 850-836</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-836">www.wago.com/850-836</a>
<b>shield connection</b>		
	<b>Item no.: 790-108</b> Shield clamping saddle; 11 mm wide; diameter of compatible conductor	<a href="http://www.wago.com/790-108">www.wago.com/790-108</a>
	<b>Item no.: 790-116</b> Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm	<a href="http://www.wago.com/790-116">www.wago.com/790-116</a>

	<b>Item no.: 790-124</b> Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 mm to 24 mm	<a href="http://www.wago.com/790-124">www.wago.com/790-124</a>
	<b>Item no.: 790-140</b> Shield clamping saddle; 43 mm wide; diameter of compatible conductor; 22 mm to 40 mm	<a href="http://www.wago.com/790-140">www.wago.com/790-140</a>
	<b>Item no.: 790-208</b> Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm	<a href="http://www.wago.com/790-208">www.wago.com/790-208</a>
	<b>Item no.: 790-216</b> Shield clamping saddle; 6–16 mm diameter; 21.8 mm wide	<a href="http://www.wago.com/790-216">www.wago.com/790-216</a>
	<b>Item no.: 790-220</b> Shield clamping saddle; 30 mm wide; 6 ... 20 mm	<a href="http://www.wago.com/790-220">www.wago.com/790-220</a>
<b>Carrier rail</b>		
	<b>Item no.: 210-112</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm	<a href="http://www.wago.com/210-112">www.wago.com/210-112</a>
	<b>Item no.: 210-113</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715	<a href="http://www.wago.com/210-113">www.wago.com/210-113</a>
	<b>Item no.: 210-114</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715	<a href="http://www.wago.com/210-114">www.wago.com/210-114</a>
	<b>Item no.: 210-115</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm	<a href="http://www.wago.com/210-115">www.wago.com/210-115</a>
	<b>Item no.: 210-118</b> Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715	<a href="http://www.wago.com/210-118">www.wago.com/210-118</a>
	<b>Item no.: 210-196</b> Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715	<a href="http://www.wago.com/210-196">www.wago.com/210-196</a>
	<b>Item no.: 210-197</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715	<a href="http://www.wago.com/210-197">www.wago.com/210-197</a>
	<b>Item no.: 210-198</b> Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715	<a href="http://www.wago.com/210-198">www.wago.com/210-198</a>
	<b>Item no.: 210-504</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715	<a href="http://www.wago.com/210-504">www.wago.com/210-504</a>
	<b>Item no.: 210-505</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715	<a href="http://www.wago.com/210-505">www.wago.com/210-505</a>
	<b>Item no.: 210-506</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715	<a href="http://www.wago.com/210-506">www.wago.com/210-506</a>
	<b>Item no.: 210-508</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715	<a href="http://www.wago.com/210-508">www.wago.com/210-508</a>

**Marking accessories**

	<b>Item no.: 2009-145</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145">www.wago.com/2009-145</a>
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	<p><b>Item no.: 2009-145/000-002</b>                  Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	<a href="http://www.wago.com/2009-145/000-002">www.wago.com/2009-145/000-002</a>
	<p><b>Item no.: 2009-145/000-005</b>                  Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	<a href="http://www.wago.com/2009-145/000-005">www.wago.com/2009-145/000-005</a>
	<p><b>Item no.: 2009-145/000-006</b>                  Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	<a href="http://www.wago.com/2009-145/000-006">www.wago.com/2009-145/000-006</a>
	<p><b>Item no.: 2009-145/000-007</b>                  Mini-WSB Inline; plain; 1,700 Mini-WSB markers (5 mm) on roll; stretchable 5 - 5.2 mm</p>	<a href="http://www.wago.com/2009-145/000-007">www.wago.com/2009-145/000-007</a>
	<p><b>Item no.: 2009-145/000-012</b>                  Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	<a href="http://www.wago.com/2009-145/000-012">www.wago.com/2009-145/000-012</a>
	<p><b>Item no.: 2009-145/000-023</b>                  Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	<a href="http://www.wago.com/2009-145/000-023">www.wago.com/2009-145/000-023</a>
	<p><b>Item no.: 2009-145/000-024</b>                  Mini-WSB Inline; on reel; stretchable 5 - 5.2 mm; plain; snap-on type</p>	<a href="http://www.wago.com/2009-145/000-024">www.wago.com/2009-145/000-024</a>
	<p><b>Item no.: 248-501</b>                  Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card</p>	<a href="http://www.wago.com/248-501">www.wago.com/248-501</a>
	<p><b>Item no.: 248-501/000-002</b>                  Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<a href="http://www.wago.com/248-501/000-002">www.wago.com/248-501/000-002</a>
	<p><b>Item no.: 248-501/000-005</b>                  Mini-WSB marking card; as card; plain; snap-on type</p>	<a href="http://www.wago.com/248-501/000-005">www.wago.com/248-501/000-005</a>
	<p><b>Item no.: 248-501/000-006</b>                  Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<a href="http://www.wago.com/248-501/000-006">www.wago.com/248-501/000-006</a>
	<p><b>Item no.: 248-501/000-007</b>                  Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<a href="http://www.wago.com/248-501/000-007">www.wago.com/248-501/000-007</a>
	<p><b>Item no.: 248-501/000-012</b>                  Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<a href="http://www.wago.com/248-501/000-012">www.wago.com/248-501/000-012</a>
	<p><b>Item no.: 248-501/000-017</b>                  Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<a href="http://www.wago.com/248-501/000-017">www.wago.com/248-501/000-017</a>
	<p><b>Item no.: 248-501/000-023</b>                  Mini-WSB marking card; as card; not stretchable; plain; snap-on type</p>	<a href="http://www.wago.com/248-501/000-023">www.wago.com/248-501/000-023</a>



**Item no.: 248-501/000-024**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type

[www.wago.com/248-501/000-024](http://www.wago.com/248-501/000-024)



**Item no.: 750-100**  
Marker card; as a DIN A4 sheet; plain

[www.wago.com/750-100](http://www.wago.com/750-100)



**Item no.: 750-103**  
Group marker carrier

[www.wago.com/750-103](http://www.wago.com/750-103)



**Item no.: 750-106**  
Group marker carrier

[www.wago.com/750-106](http://www.wago.com/750-106)

### Supply module



**Item no.: 750-601**  
Power Supply; 24 VDC

[www.wago.com/750-601](http://www.wago.com/750-601)



**Item no.: 750-602**  
Power Supply; 24 VDC

[www.wago.com/750-602](http://www.wago.com/750-602)



**Item no.: 750-610**  
Power Supply; 24 VDC; fuse holder; Diagnostics

[www.wago.com/750-610](http://www.wago.com/750-610)



**Item no.: 750-612**  
Power Supply; 0 ... 230 V AC/DC

[www.wago.com/750-612](http://www.wago.com/750-612)

### Downloads

#### Documentation

##### Manual

Up/Down counter 24VDC, 100kHz	Oct 24, 2012	380.3 kB	Download
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##### Bid Text

750-404/000-003 IO-Klemmen	Jan 21, 2016	DOC 24.6 kB	Download
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##### Additional Information

Disposal; Electrical and electronic equipment, Packaging	Oct 15, 2018	265.8 kB	Download
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##### System Description

Design Notes Basic conditions and recommendations for higher operational safety	May 3, 2011	1.5 MB	Download
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750/753 Series I/O-System – General Product Information	May 29, 2018	2.0 MB	Download
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Use in Hazardous Environments Term definition, marking and installation regulations	May 8, 2014	1.0 MB	Download
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Overview on WAGO-I/O-SYSTEM 750 approvals	Jun 6, 2017	314.9 kB	Download
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## Device Files

### Device Driver

WAGO USB Service Cable Driver / 750 and 857 Series	6.5.3.0 Sep 10, 2014	ZIP 4.8 MB	Download
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## Product family

**750/753 Series I/O-System**  
[Learn more about the product family.](#)

[Show all products from the family](#)

Subject to changes.