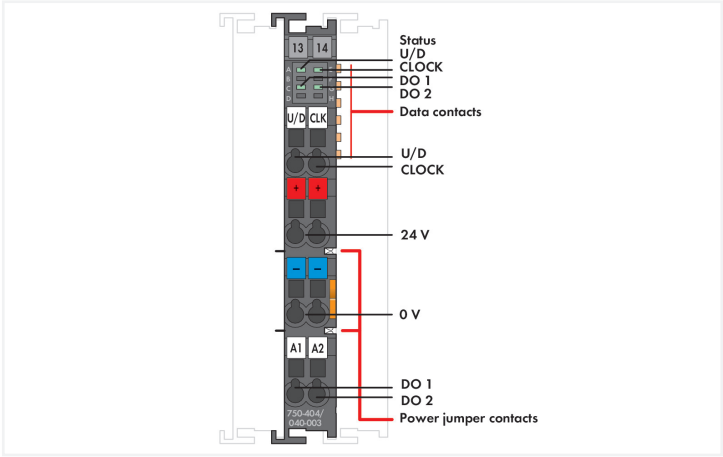
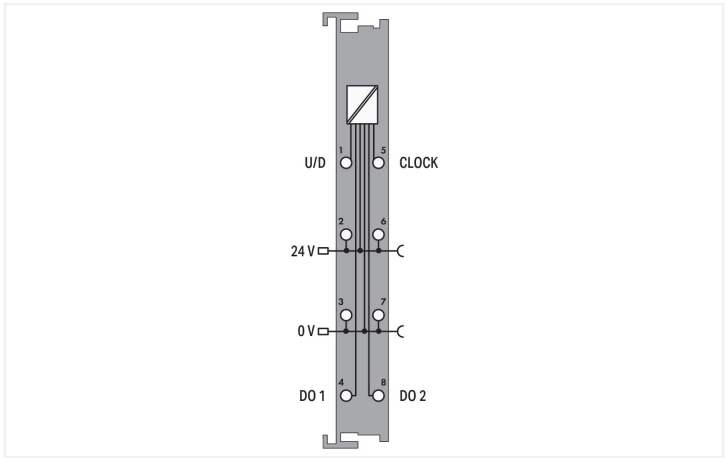
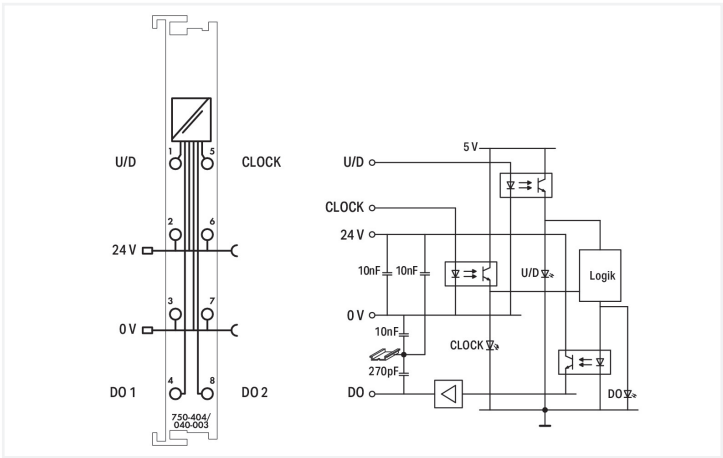




Color: ■ dark gray





This counter module can be parameterized. Different operating modes can be set:

- Up/down counter / 100 kHz
- Up counter / enable input
- Peak-time counter
- Frequency measurement: 0.1 Hz ... 100 kHz (default setting)
- Up/down counter / signal outputs (DO)
- Two up counters / 16 bits / 5 kHz

The module's counter records 24 V binary pulses and transmits the counter status to the fieldbus system.

The control byte sets or resets the counter.

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

The outputs are short-circuit-protected.

Four green LEDs indicate the status of both U/D and CLOCK inputs and digital outputs.

Field and system levels are electrically isolated.

The device is ideal for operation in extreme environments thanks to:

- An extended temperature range
- Greater immunity to impulse voltages and electromagnetic interference
- Higher vibration and shock resistance

Technical data	
Number of digital outputs	2
Number of counters	1
Signal type	Voltage
Signal type (voltage)	24 VDC
Counter depth	32 bits
Input current (typ.)	7 mA
Output current per channel	0.5 A
Output current	short-circuit-protected
Switching frequency (max.)	100 kHz
Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	15 ... 30 VDC
Operating mode	Up/down counter/100 kHz; Up counter/enable input; Peak-time counter; Frequency measurement: 0.1 Hz ... 100 kHz (default setting); Up/down counter/signal outputs (DO); Two up counters/16 bits/5 kHz
Data width	32-bit data; 8-bit control/status
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	70 mA
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact); Derating must be observed!
Rated impulse withstand voltage	1 kV
Indicators	LED (A, C, E, G) green: Status U/D, CLOCK, DO 1, DO 2
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	10 A
Derating	Derating (supply voltage): Ambient temperatures under laboratory conditions: (-25 ... +30 %); for -40 ... +55 °C: 24 V (-25 ... +20 %); for +55 ... +70 °C: 24 V (-25 ... +10 %); Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple)

Connection data	
Connection technology: inputs/outputs	8 x CAGE CLAMP®
Connectable conductor materials	Copper
Connection type	Inputs/outputs
Solid conductor	0.25 ... 2.5 mm² / 24 ... 14 AWG
Fine-stranded conductor	0.25 ... 2.5 mm² / 24 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches



Physical data	
Width	12 mm / 0.472 inches
Height	100 mm / 3.937 inches
Depth	67.8 mm / 2.669 inches
Depth from upper-edge of DIN-rail	60.6 mm / 2.386 inches

Mechanical data	
Mounting type	DIN-35 rail

Material data	
Color	dark gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	0.958 MJ
Weight	49.3 g
Conformity marking	CE

Environmental requirements	
Ambient temperature (operation)	-40 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	without temperature derating: 0 ... 2000 m; with temperature derating: 2000 ... 5000 m (0.5 K/100 m); 5000 m (max.)
Mounting position	Horizontal left, horizontal up, vertical top and vertical bottom
Relative humidity (without condensation)	95 %
Relative humidity (with condensation)	Short-term condensation per Class 3K7/IEC EN 60721-3-3 and E-DIN 40046-721-3 (except for wind-driven precipitation, water and ice formation)
Vibration resistance	per IEC 60068-2-6 (acceleration: 5g), EN 60870-2-2, IEC 60721-3-1, -3, EN 50155; EN 61373
Shock resistance	per IEC 60068-2-27 (15g/11 ms/half-sine/1,000 shocks; 25g/6 ms/1,000 shocks), EN 50155, EN 61373
EMC immunity to interference	per EN 61000-6-1, -2; EN 61131-2; marine applications; EN 50121-3-2; EN 50121-4, -5; EN 60255-26; EN 60870-2-1; EN 61850-3; IEC 61000-6-5; IEEE 1613; VDEW: 1994
EMC emission of interference	per EN 61000-6-3, -4, EN 61131-2, EN 60255-26, marine applications, EN 60870-2-1, EN 61850-3, EN 50121-3-2, EN 50121-4, -5
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data	
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143673037
Customs tariff number	85389099990



Product classification	
UNSPSC	39121529
eCl@ss 10.0	27-24-26-05
eCl@ss 9.0	27-24-26-05
ETIM 9.0	EC001601
ETIM 8.0	EC001601
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
CAS-No.	1303-86-2 1317-36-8 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide Perfluorobutane sulfonic acid (PFBS) and its salts
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a) 7(c)-I
SCIP notification number (Austria)	b48addec-bc8c-46a7-9191-6ec635967666
SCIP notification number (Belgium)	e94c9b9c-1d96-49c6-b0d7-cc87e072fa34
SCIP notification number (Bulgaria)	d104b829-bb09-41ad-8152-9461df09bd8c
SCIP notification number (Czech Republic)	e4413c9e-3400-449c-98ff-9edc1e64441a
SCIP notification number (Denmark)	43e965bc-92d7-4081-aa2a-f3eb478aaa2d
SCIP notification number (Finland)	5ce02e09-101a-4a79-b2f7-821e919b5462
SCIP notification number (France)	586a2a63-e89a-470c-abcd-57254fe4c893
SCIP notification number (Germany)	b9fb7588-2413-4c22-86d9-cbd1982a1bbc
SCIP notification number (Hungary)	0d138366-857e-4da6-bcfe-e8059d31c667
SCIP notification number (Italy)	903feb15-ca78-4096-81b6-bb0c9ec3a258
SCIP notification number (Netherlands)	78f9e1cc-8f07-44ee-bc4e-12e642d952f8
SCIP notification number (Poland)	126725d9-a484-4f60-8a6e-4f8c8a168d2e
SCIP notification number (Romania)	b0e5d023-7ee2-4e5b-9ce2-c574d96b2708
SCIP notification number (Sweden)	f424d5c6-ea08-4d48-8e1c-accf57c6ea75

Approvals / Certificates

General approvals		Declarations of conformity and manufacturer's declarations									
											
Approval	Standard	Certificate Name									
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083									
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199									
		<table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>EU-Declaration of Confor- mity WAGO GmbH & Co. KG</td><td>-</td><td>-</td></tr><tr><td>UK-Declaration of Confor- mity WAGO GmbH & Co. KG</td><td>-</td><td>-</td></tr></table>	Approval	Standard	Certificate Name	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
Approval	Standard	Certificate Name									
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-									
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-									



Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	22-2208829-PDA
LR Lloyds Register	-	LR22276776TA
PRS Polski Rejestr Statków	-	TE/1099/880590/23

Approvals for hazardous areas



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV 17 ATEX 193969X (II 3 G Ex ec IIC T4 Gc)
CCC CNEX	CNCA-C23-01	2020312310000214 (Ex ec IIC T4 Gc)
IECEx TUEV Nord Cert GmbH	IEC 60079-0	IECEx TUN 16.0046X (Ex ec IIC T4 Gc)
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX005X_ec

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 750-404/040-003	

Documentation

Manual			
Product Manual Coun- ter Adjust /XTR	V 1.1.0 16.09.2019	pdf 3000.29 KB	
System Manual Series 750/753			

System Description		
Overview on WAGO-I/ O-SYSTEM 750 appro- vals	pdf 770.48 KB	
750 XTR Series I/O- System – General Pro- duct Information	pdf 726.09 KB	

Bid Text			
750-404/040-003	19.02.2019	xml 8.55 KB	
750-404/040-003	12.02.2018	doc 34.00 KB	

Instruction Leaflet		
CCC Ex (Additional in- formation)	26.04.2023	pdf 144.58 KB

CAD/CAE-Data

CAD data
2D/3D Models 750-404/040-003

CAE data
EPLAN Data Portal 750-404/040-003
ZUKEN Portal 750-404/040-003



1 Compatible Products			
1.1 Optional Accessories			
1.1.1 DIN-rail			
1.1.1.1 Mounting accessories			
			
Item No.: 210-196 Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	Item No.: 210-198 Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored	Item No.: 210-508 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	Item No.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored
			
Item No.: 210-506 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored	Item No.: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	Item No.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	Item No.: 210-115 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored
			
Item No.: 210-112 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored	Item No.: 210-504 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored	Item No.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	Item No.: 210-505 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored
1.1.2 Marking			
1.1.2.1 Group marker carrier			
			
Item No.: 750-107 Group marker carrier			
1.1.2.2 Marker			
			
Item No.: 2009-145/000-006 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue	Item No.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	Item No.: 2009-145/000-023 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	Item No.: 2009-145/000-012 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange
			
Item No.: 2009-145/000-005 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red	Item No.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	Item No.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	Item No.: 2009-145/000-002 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow
			
Item No.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue	Item No.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray	Item No.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green	Item No.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green
			
Item No.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange	Item No.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red	Item No.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet	Item No.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white
			
Item No.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow			

1.1.2.3 Marker carrier



Item No.: 750-103
Group marker carrier

1.1.3 Shield termination

1.1.3.1 Shield clamping saddles



Item No.: 790-108
Shield clamping saddle; 11 mm wide; dia-
meter of compatible conductor; 3 ... 8 mm



Item No.: 790-208
Shield clamping saddle; 12.4 mm wide;
3 ... 8 mm



Item No.: 790-116
Shield clamping saddle; 19 mm wide; dia-
meter of compatible conductor; 7 ... 16
mm



Item No.: 790-216
Shield clamping saddle; 21.8 mm wide;
6 ... 16 mm



Item No.: 790-124
Shield clamping saddle; 27 mm wide; dia-
meter of compatible conductor; 6 ... 24
mm



Item No.: 790-220
Shield clamping saddle; 30 mm wide; 6 ...
20 mm



Item No.: 790-140
Shield clamping saddle; diameter of com-
patible conductor

1.1.4 System enclosure

1.1.4.1 System enclosure



Item No.: 850-825
IP65 enclosure; Aluminium (RAL 7032);
WxHxD (160x100x160 mm); 9 x M12, 4 x
M20



Item No.: 850-826
IP65 enclosure; Aluminium (RAL 7032);
WxHxD (240x100x160 mm); 4 x M20, 4 x
M16, 14 x M12 cable grip



Item No.: 850-827
IP65 enclosure; Aluminium (RAL 7032);
WxHxD (320x100x160 mm); 4 x M20, 8 x
M16, 17 x M12 cable grip



Item No.: 850-828
IP65 enclosure; Aluminium (RAL 7032);
WxHxD (480x100x160 mm); 4 x M20, 10 x
M16, 35 x M12 cable grip



Item No.: 850-826/002-000
IP65 enclosure; Aluminium (RAL 7035);
WxHxD (240x100x160 mm); 4 x M20, 4 x
M16, 14 x M12 cable grip



Item No.: 850-827/002-000
IP65 enclosure; Aluminium (RAL 7035);
WxHxD (320x100x160 mm); 4 x M20, 8 x
M16, 17 x M12 cable grip



Item No.: 850-828/002-000
IP65 enclosure; Aluminium (RAL 7035);
WxHxD (480x100x160 mm); 4 x M20, 10 x
M16, 35 x M12 cable grip



Item No.: 850-834
IP65 enclosure; Polyester (RAL 7032); Wx-
HxD (164x100x164 mm); 9 x M12, 4 x M20



Item No.: 850-835
IP65 enclosure; Polyester (RAL 7032); Wx-
HxD (244x100x164 mm); 4 x M20, 4 x
M16, 14 x M12 cable grip



Item No.: 850-836
IP65 enclosure; Polyester (RAL 7032);
WxHxD (324x100x164 mm); 4 x M20, 8 x
M16, 17 x M12 cable grip



Item No.: 850-814/002-000
IP65 enclosure; Sheet steel (RAL 7035);
WxHxD (200x120x200 mm); without flan-
ge plate



Item No.: 850-815/002-000
IP65 enclosure; Sheet steel (RAL 7035);
WxHxD (300x120x200 mm); without flan-
ge plate



Item No.: 850-816/002-000
IP65 enclosure; Sheet steel (RAL 7035);
WxHxD (400x120x200 mm); without flan-
ge plate



Item No.: 850-817/002-000
IP65 enclosure; Sheet steel (RAL 7035);
WxHxD (600x120x200 mm); without flan-
ge plate