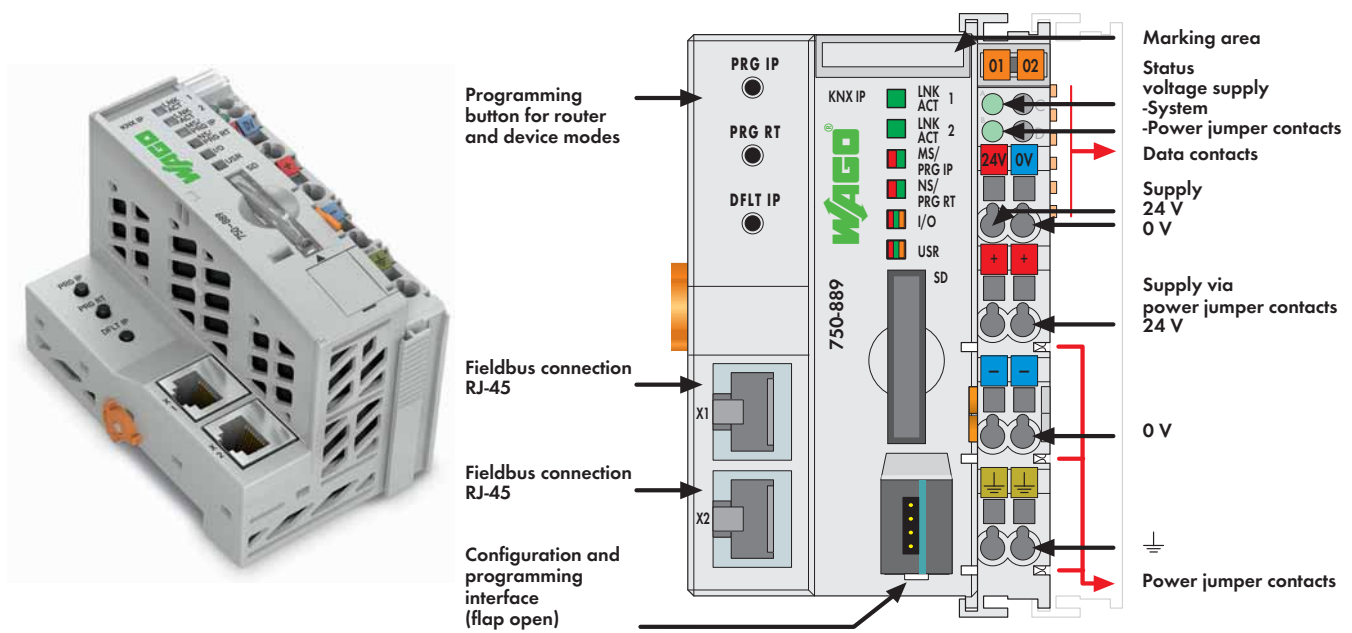


# KNX IP Programmable Fieldbus Controller

32-bit CPU, multitasking



This controller can accommodate up to two KNX logic devices at the same time.

- 1. In conjunction with the WAGO-I/O-SYSTEM, the KNX IP Controller is used as a user-programmable application controller within KNX IP networks. The controller supports all digital, analog and specialty modules found within the 750/753 Series. The IEC 61131-3 programmable controller is capable of 10/100 Mbit/s data rates. KNX objects of any type (EIS/DPT) can be created using the programming tool. Libraries including pre-made function blocks are readily available on the WAGO Web site for programming. The controller supports a maximum of 253 communication objects, as well as 254 group addresses and associations.
- 2. Combined with the KNX/EIB/TP1 Module, the 750-889 KNX IP Controller can operate as a router on an IP backbone (ETHERNET). No IEC application is required for router functionality.

Both devices are commissioned and configured within the ETS software using the WAGO product database. The software includes a plug-in that automatically installs and opens for configuration.

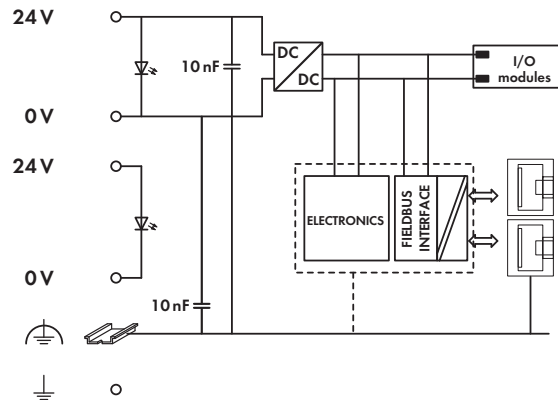
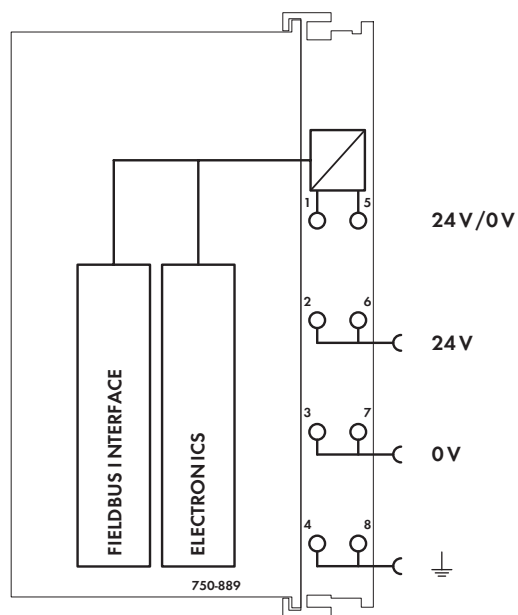
The KNX IP controller features an integrated 2-port 10/100 Mbit/s switch and allows easy line structure creation without additional network components. The maximum number of controllers that can be wired in series is 20.

An internal server is available for Web-based applications.

The controller provides 1024 KB program memory, 1024 KB data memory and 32 KB retain memory. It is capable of multitasking, has a battery-backed, real-time clock and is based on a 32-bit CPU. The controller offers many different application protocols for control tasks (MODBUS, KNXnet/IP) or for system management and diagnostics (HTTP, BootP, DHCP, DNS, AutoIP, SNTP, FTP, SNMP and SMTP). The number of KNX/EIB/TP1 Modules (750-646) supported by the KNX IP Controller does not depend on the application.

Description	Item No.	Pack. Unit
KNX IP Controller	750-889	1
<b>Accessories</b>		
SD memory card, 2 GB	758-879/000-001	1
WAGO-I/O-PRO V2.3, RS-232 kit	759-333	1
WAGO ETS3/4 plug-in (included in WAGO ETS3 product database)	see Section 1	
Miniature WSB Quick marking system		
plain	248-501	5
with marking	see Section 11	
<b>Approvals</b>		
KNX certified	IP controller: 61/8316/08; IP router: 61/8317/08	
Conformity marking	CE	
Marine applications	DNV GL	

System Data	
No. of controllers	limited by network topology
Transmission medium	S-UTP 100 Ω Cat. 5
Max. length of fieldbus segment	100 m limited by IEEE 802.3
Max. length of network	≤ 2000 m; max. 20 controllers in series
Baud rate	10/100 Mbit/s
Buscoupler connection	2 x RJ-45 (linked via 2-port switch)
Protocols	KNXnet/IP, MODBUS/TCP (UDP), HTTP, BootP, DHCP, DNS, AutoIP, SNTP, FTP, SNMP V3, SMTP
Programming	WAGO-I/O-PRO V2.3
IEC 61131-3	IL, LD, FBD (CFC), ST, FC
SD card slot	Push-push mechanism, sealing lid
Type of memory card	SD and SDHC up to 32 GB (All guaranteed properties are only valid in connection with the WAGO 758-879/000-001 memory card.)
<b>KNX-specific</b>	
KNX/TP1 bus specification	1.0
Commissioning (KNX side)	with ETS3/4 plug-in, 2 programming buttons
<b>Device mode:</b>	
Number of communication objects	253
Number of group addresses	254
Max. number of KNX logic devices, simultaneous	2; 1. device, 2. router (with 1. KNX/EIB/TP1 module)



### Technical Data

Number of I/O modules	64
with bus extension	250
Configuration	via PC
Program memory	1024 Kbytes
Data memory	1024 Kbytes
Non-volatile memory (retain)	32 Kbytes
Power supply	24 VDC (-25 % ... +30 %)
Input current typ. at rated load (24 V)	500 mA
Efficiency of the power supply (typ.) at nominal load (24 V)	90 %
Internal current consumption (5 V)	450 mA
Total current for I/O modules (5 V)	1700 mA
Isolation	500 V system/supply
Fieldbus (Modbus/TCP)	
Max. input process image	2 Kbytes
Max. output process image	2 Kbytes
Max. input variables	512 bytes
Max. output variables	512 bytes

### General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP <sup>®</sup>
Cross sections	0.08 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	62 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	193.9 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-3