Z45 INDUSTRIAL CONTROLLERS

The complete SCADA system in a box with sophisticated PLC-like automation control on the same platform that provides communications

This single, rugged, compact box combines the capabilities of programmable logic controllers (PLCs) and SCADA systems into one integrated toolset that allows rapid, end-to-end deployment for all industrial monitoring and control requirements. Coupled with an on-board, web-based Automation Control Application, the Z45 brings alarms, reports and control to your web browser, mobile device, or existing SCADA infrastructure without the need for custom software development.

Automation Control is a software PLC type application based on an intuitive development environment. Monitoring and control applications are quickly deployed with a no-code, menu driven toolset that gets maintainable solutions to market faster and at a lower cost than legacy PLC approaches.

Z45 Industrial Controllers interface with a wide range of sensors to bring data seamlessly and quickly into the system for processing. Standard support includes current and voltage for analog data, wet and dry contacts, Modbus RTU and TCP, and other vendor specific protocols.

The Z45 controller securely and efficiently moves data over the network. The controllers are provisioned for use on domestic and international carriers, with cellular, Ethernet and Wi-Fi communication options available. Whether the Z45 is operating as a communications device or as an application controller, Digi Axess is available to provide a detailed visualization of network, platform, and application operations. For specialized applications requiring custom coding the Z45 supports a downloadable cross compile development environment, a tested source distribution, and a fully documented tool chain.

FEATURES AND BENEFITS

– Integrated interfaces for analog, digital, hex and pulse information processing

– Modbus client and server configurations

– Built-in digital and analog input, digital output

– Network connectivity over USB, Ethernet and serial interfaces

– On-board dashboard display: gauges, indicators and charts

– Self-provisioning devices report to Digi Axess for complete visibility of assets

– LTE coverage on all bands for North American carriers with 3G HSPA fallback

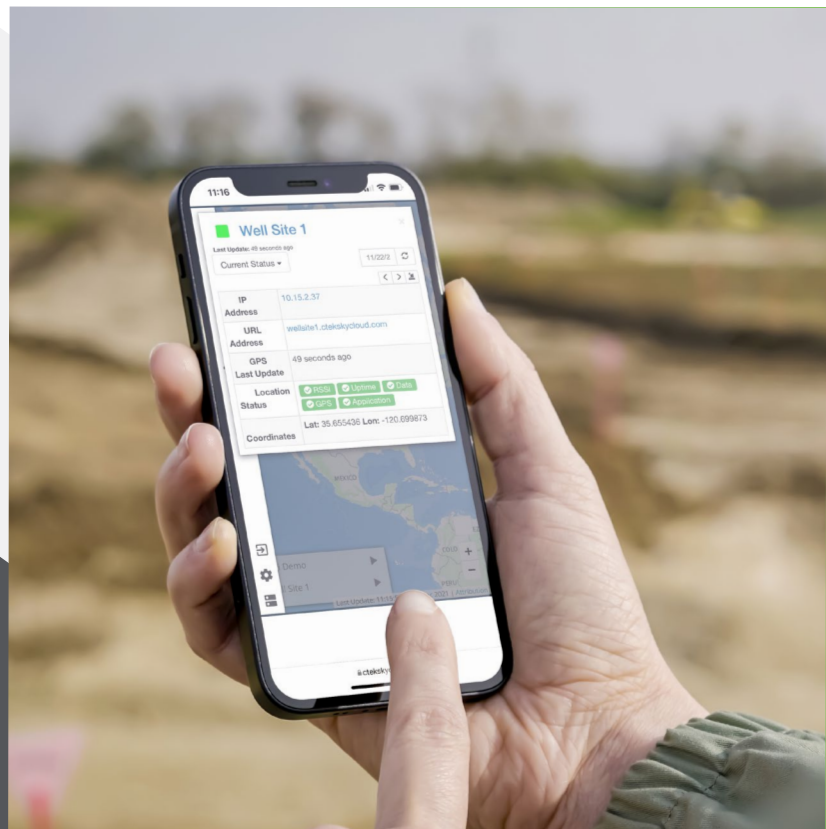– Automatic carrier provisioning and dual-SIM failover support

RELATED PRODUCTS
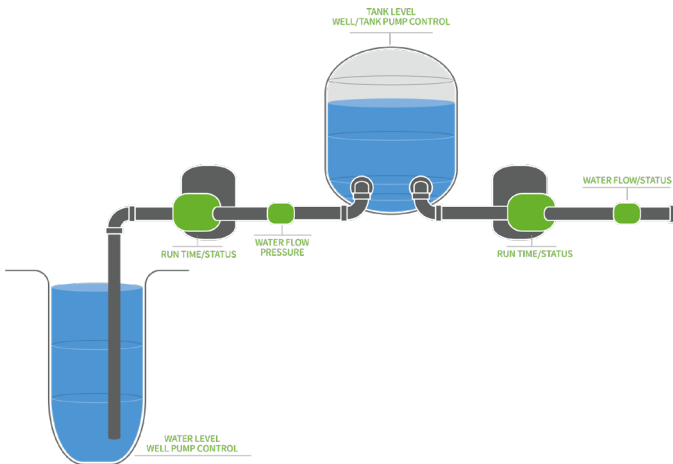
Z1201 I/O Module

Digi Axess

Connect Sensor+

AUTOMATION CONTROL — NO CODE, WEB-BASED LOGIC CONFIGURATION

The Z45 Automation Control Application offers the first platform where you can develop custom solutions to address complex problems without low level programming. Web-based configuration and solutions are developed on the controller, and automatically deploy from the controller to the cloud.

The no-code, rapid development software package allows for deployment of monitoring and control applications faster, and at a lower cost than legacy PLC toolsets.

"LANGUAGE-LESS PLATFORM"

No programming required. Our Automation Control platform allows you to address complex problems without low level programming.

COMPLEX FORMULAS AND LOGIC

Built-in function and logical operators give you PLC-like control at the edge with:

–   Level thresholds with hysteresis

–   Control and monitoring at set thresholds

–   Custom alarms and messages

RAW DATA INTERFACES

"Plug and Play" functionality for standard data types including Pulse, Digital, Analog, Modbus and more.

MANAGE FROM DIGI AXESS — LET DIGI STAND WATCH

Digi Axess provides a complete snapshot of your network and the equipment behind it. Know as much as you want, or as little as necessary, in order to make informed decisions. Sensor data is processed at the edge and passed to Digi Axess to offer a central point from which to manage all of your assets. See real-time actionable data with the ability to customize reports and alarms.

Digi eliminates the dependency on a server to perform network-wide control. Each endpoint is an autonomous endpoint capable of local monitoring and control. You are in control of the data and how it is used.

TAKE ACTION

on real-time data with phone and cloud reporting

DEFINE

and monitor critical points of the system

CUSTOMIZE

reports and alarms

RECEIVE ALERTS

by text message and email during critical events

GAIN INSIGHTS

with access to historical data and automated reporting

Z45 INDUSTRIAL CONTROLLERS SPECIFICATIONS

CELLULAR TECHNOLOGY (available on applicable models)	LTE bands: B1, B2, B3, B4, B5, B7, B8, B12, B13, B20, B25, B26, B29, B30, B41; 3G: B1, B2, B3, B4, B5, B8
	Multi-carrier, auto-configuration
	Dual-SIM (2FF)
	DL MIMO/Rx diversity support
	(1) 50 Ω SMA (center pin: male)
WI-FI TECHNOLOGY (available on applicable models)	802.11b/g/n (2.4 GHz)
	64/128-bit WEP, WPA/WPA2, WPA-PSK, WPA2-PSK
APPROVALS	FCC, IC, CE, PTCRB
	Verizon, AT&T, T-Mobile, Sprint, US Cellular, Bell, Rogers, Telus; visit **digi.com/resources/certifications** for latest cellular certifications
POSITION LOCATION	GPS, GLONASS
HOST INTERFACES	10/100 Ethernet (RJ-45)
	(1) RS-232 (terminal block)
	(1) RS-485 (terminal block)
	(1) Full-speed USB (Type A)
	(1) High-speed micro-USB OTG
INPUT / OUTPUT	(4) User configurable, digital/analog Inputs (0 - 5 V / 4 - 20 mA)
	(2) Digital outputs (expandable with **Z1201 I/O Module**)
MEMORY	128 MB DDR2 RAM
	256 MB SLC NAND flash
	(1) MicroSD Slot (externally accessible)
PLATFORM	Linux 4.xx operating system
	Atmel ARM9 processor
	Web Manager 2.0
	Digi Axess
	Automation application
POWER	Input: 9 – 24 VDC
	Power: 190 mA (typical – Ethernet not connected, varies with signal level)
ENVIRONMENTAL	Operating temperature: −30° to 70° C (−22° to 158° F)
	Humidity: 90% non-condensing
DIMENSIONS	13.92 x 11.99 x 3.68 cm (5.48 x 4.72 x 1.45 in)
WEIGHT	0.29 kg (0.65 lb)
WARRANTY	3-year standard warranty

PART NUMBERS	Z45 INDUSTRIAL CONTROLLERS
Z45 INDUSTRIAL CONTROLLER MODELS	
CTK-Z4500A2X	Industrial Controller — Ethernet, Digi Axess + Automation Licenses
CTK-Z4550A2M	Industrial Controller — Cellular, Digi Axess + Automation Licenses
CTK-Z4550A2M-1	Industrial Controller — Cellular, Digi Axess + Automation Licenses with antennas
CTK-Z4550A2M-2	Industrial Controller — Cellular, Digi Axess + Automation Licenses with antennas and 12 VDC wall plug power supply
CTK-Z4550A2M-3	Industrial Controller — Cellular, Digi Axess + Automation Licenses with antennas and 24 VDC DIN rail power supply
CTK-Z4550A2W	Industrial Controller -— Wi-Fi, Digi Axess + Automation Licenses

PART NUMBERS	AVAILABLE ACCESSORIES*
CTK-Z1201	Multifunction I/O Controller
76002123	Antenna — external, MIMO 2 x 4G LTE / 3G / 2G, GPS, 1 m cable, low-profile, SMA
76002125	Antenna — pentaband, monopole 4G / 3G / 2G, GPS, swivel base SMA, hinged
76002126	Antenna — multiband, 4G / 3G / 2G, GPS, flex/strip, SMA
76002127	Power supply — wall; US 100 - 240 VAC / 50 - 60 Hz, 12 VDC, 1 A 0.25 in S/T
76002128	Power supply — DIN mount; out: 40 W, 24 VDC 1.7 A; in: 85 ~ 264 VAC
76002129	Power supply — DIN mount; out: 15 W, 24 VDC 0.6 A; in: 100 - 240 VAC 50/60 hz
76002130	Mount kit — DIN rail

*Accessories not included with Z45 Industrial Controller models unless otherwise noted.