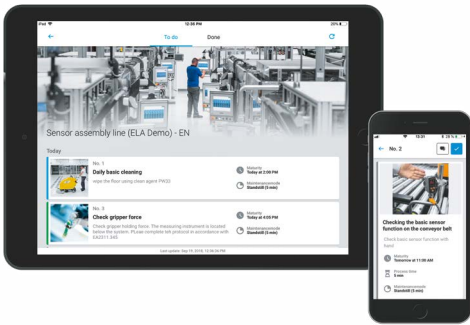# AX Industrial App GASA-DA

FESTO

Key features

At a glance

The IOT gateway software Festo AX Data Access extracts data from Festo components and makes it available via MQTT.

It is the easy way to build data-driven solutions using data from Festo components.

This opens up a wide range of possibilities such as energy or condition monitoring.

Description

Festo AX Data Access provides access to data from Festo components in completely newly designed and created solutions, as well as in existing systems (brownfield or greenfield).

This paves the way for:
- Making the installed base visible
- Implementing process monitoring in existing plants
- Realising integratable data-driven solutions that reduce downtime and energy consumption

Data is retrieved from Festo components and made available to other applications and IT systems via MQTT.

Festo AX Data Access is a protocol converter from OT to IT (Festo-specific protocols to MQTT) for a number of widely used Festo components:
- Electrical terminal CPX with valve terminal MPA-S or VTSA
- Servo drives CMMT-AS and CMMT-ST
- Intelligent service units MSE6-E2M and MSE6-C2M
- Remote I/O system CPX AP I

Advantages

- Access to process, asset and smart data from devices in solutions that are completely newly designed and created, as well as in existing systems

- Transparency about the installed base of Festo components in terms of firmware version, IP address and much more.

- Easy access to sensor data without the need to adjust the PLC

- Basis for the modernisation of data-driven solutions on existing machines

Datasheet

- Software IOT gateway for a data connection to Festo components
- No intervention in PLC programs necessary
- Use of existing cabling
- Querying the data via own protocols and providing the data via MQTT protocol
- Easy commissioning
- Can be used flexibly thanks to Docker technology (edge computers, cloud, etc.)

General technical data	
System requirements	CPU: at least single-core, x86-64bit (Atom, Celeron or higher)
	Hard drive: 2 GB or more
	RAM: 1 GB or more
	1x network interface
	UI optimised for: 1024x768 or higher
Software requirements	Installed Docker runtime (OCI container)
	Docker Compose v2.0
Recommended browser version	Optimised for Webkit-based browsers and Firefox
Language	English
Protocols used	HTTP
	MQTT
	UDP
	TCP

Datasheet

Components of the modular electrical terminal CPX that are supported

Type	Part no.	Description
CPX-CEC-C1-V3	**3473128**	CODESYS controller, CODESYS V3
Bus node		
CPX-FB36	**1912451**	EtherNet/IP
CPX-FB37	**2735960**	EtherCAT®
CPX-FB43	**8110369**	PROFINET, M12 D-coded
CPX-M-FB44	**8110370**	PROFINET, PushPull RJ45
CPX-M-FB45	**8110371**	PROFINET, PushPull SCRJ
Input module		
CPX-8DE	**195750**	8 digital inputs, positive logic (PNP)
CPX-8DE-D	**541480**	8 digital inputs, positive logic (PNP), enhanced diagnostic function
CPX-8NDE	**543813**	8 digital inputs, negative logic (NPN)
CPX-16DE	**543815**	16 digital inputs, internal electronic fuse per module
CPX-M-16DE-D	**550202**	16 digital inputs, internal electronic fuse per channel pair, for CPX in metal
CPX-4AE-I	**541484**	4 analogue current inputs
CPX-2AE-U-I	**526168**	2 analogue current or voltage inputs
CPX-4AE-U-I	**573710**	4 analogue current or voltage inputs
CPX-4AE-T	**541486**	For temperature inputs
CPX-4AE-P-B2	**560361**	4 analogue pressure inputs, pressure range −1 … +1 bar
CPX-4AE-P-D10	**560362**	4 analogue pressure inputs, pressure range 0 … 10 bar
Output module		
CPX-4DA	**195754**	4 digital outputs, power supply 1 A per channel
CPX-8DA	**541482**	8 digital outputs, power supply 0.5 A per channel
CPX-8DA-H	**550204**	8 digital outputs, power supply 2.1 A per channel pair
CPX-2AA-U-I	**526170**	2 analogue current or voltage outputs
Input/output module		
CPX-8DE-8DA	**526257**	8 digital inputs, 8 digital outputs
Proportional pressure regulator		
VPPM-6TA-L-1-F-0L6H-S1	**542218**	Nominal diameter 6 mm, pressure control range 0.006 … 0.6 MPa
VPPM-6TA-L-1-F-0L10H-S1	**542219**	Nominal diameter 6 mm, pressure control range 0.01 … 1 MPa
VPPM-8TA-L-1-F-0L6H-C1	**572411**	Nominal diameter 8 mm, pressure control range 0.006 … 0.6 MPa
Electronic module for MPA-S		
VMPA1-FB-EMS-8	**533360**	Width 10 mm, for fieldbus interface, without separate circuit
VMPA1-FB-EMG-8	**533361**	Width 10 mm, for fieldbus interface, with separate circuit
VMPA1-FB-EMS-D2-8	**543331**	Width 10 mm, for fieldbus interface, with enhanced diagnostic function, without separate circuit
VMPA2-FB-EMS-4	**537983**	Width 20 mm, for fieldbus interface, without separate circuit
VMPA2-FB-EMG-4	**537984**	Width 20 mm, for fieldbus interface, with separate circuit
VMPA2-FB-EMS-D2-4	**543332**	Width 20 mm, for fieldbus interface, with enhanced diagnostic function, without separate circuit

Ordering data

Provision	Licence term [months]	Number of supported components from Festo	Part no.	Type
As software to operate on your own servers, cloud, industrial PCs or other	1	–	**8199717**	**GASA-DA-CTR-L1-1M**
	Unlimited	10	**8199718**	**GASA-DA-CTR-10**
		100	**8199719**	**GASA-DA-CTR-100**
		1000	**8199720**	**GASA-DA-CTR-1000**