hymatik



IQAN CONTROL SYSTEMS

Controllers, Displays, Softwares and Accessories

Parker

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

Table of Contents

Complete Electronic Control Solutions 4

Master Controllers - IQAN-MC4x 6

Master Controllers with Functional Safety 7

Expansion Modules - IQAN-XC4x 8

Expansion Modules - IQAN-XC2x 9

Display Modules - IQAN-MD5 10

Levers and Joysticks 11

IQAN Software Development Tools 12

Bluetooth® communication adapter 14

Accessories 15



For our complete offering and further details, please refer to our Technical Catalogue available for download at parker.com or via the attached QR code on every page of this catalogue.

Every care has been taken in the preparation of this literature, however Parker assumes no responsibility for any inadvertent typographical errors or omissions. Information in this catalogue is accurate as of the date of publication. Please consult our website for current information at parker.com

WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.
This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

SALE CONDITIONS

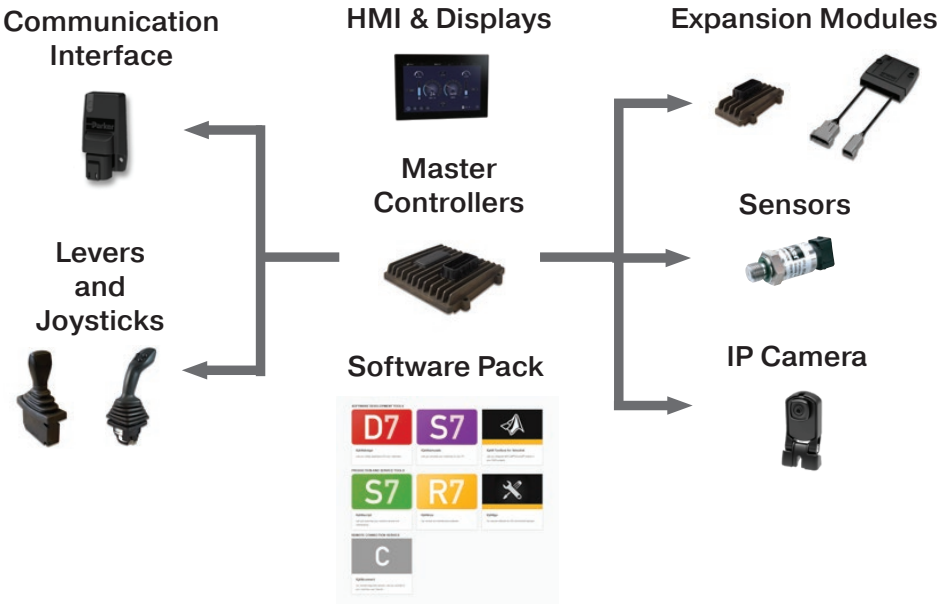
The items described in this document are available for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. Any sale contract entered into by Parker will be governed by the provisions stated in Parker's standard terms and conditions of sale (copy available upon request).

Complete Electronic Control Solutions

What is IQAN?

IQAN is an electronic control system for mobile application with the highest focus on functional safety, precision control of hydraulics and ease of use. The IQAN ecosystem consists of fully integrated solution of controllers and displays that are configured and maintained with the IQAN software toolchain. IQAN makes system integration intuitive and fast along with tools that enable OEMs to create safe and secure machines.

The IQAN toolchain provides a reliable, flexible and efficient solution for controlling mobile machinery. Its robust design, advanced capabilities and comprehensive support features make it an excellent choice for system engineers and manufacturers looking to develop and enhance their mobile control systems.



Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark



Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

Master Controllers - IQAN-MC4x

Parker's IQAN-MC41, -MC42 and -MC43 are rugged master controllers that are designed as the ideal solution for hydraulic control systems in mobile hydraulic vehicles and machinery.
Parker's IQAN-MC4x is a family of master controllers. The 3 sizes are perfectly scaled for: MC41 for cost efficient task oriented control, MC42 mid-size applications and I/O distribution, and MC43 large space-saving centralized control.

	IQAN-MC41-M24	IQAN-MC42-M24	IQAN-MC43-M24
Order code	**20085211**	**20085212**	**20085213**
			
	Performance master, TriCore 0.3GHz / 2MB Flash / 0.5MB RAM		
Inputs total	18: 8x 5V 2x 24V 2x 0-20mA 6x Freq 50kHz / 6 digital 24V	18: 8x 5V 2x 24V 2x 0-20mA 6x Freq 50kHz / 6 digital 24V	50: 20x 5V 2x 24V 4x 0-20mA 6x Freq 50kHz / 18 digital 24V
Outputs total	8: 2x CAM 2.5A 4x PWM HS 4A 4x PWM LS 2A	16: 6x CAM 2.5A 4x PWM HS 4A 12x PWM LS 2A	36: 10x CAM 2.5A 8x PWM HS 4A 20x PWM LS 2A 8 digital
	CAN: 2	CAN: 3	CAN: 5
	MATLAB Simulink support	MATLAB Simulink support	MATLAB Simulink support

The inputs and outputs can have different functionality depending on software configuration

Common features

Compliance: CE, UKCA, E-mark R10, CRA prepared

Protection: IP65, IP6k9k

Voltage supply: 12/24V

Interface: CAN (2.0B/FD) supports IQAN proprietary (ICP) SAE J1939 and generic CAN

CAM - Current output with a Current Arithmetic Mean measure method.

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

Master Controllers with Functional Safety

They are designed to be either a performance optimized standard controller, or an IEC 61508 SIL2 Functional Safety (FS) variant. When applying EN ISO 13849-1 for safety functions, the FS variant can be used as a PLd subsystem.

	IQAN-MC41FS-M24	IQAN-MC42FS-M24	IQAN-MC43FS-M24
Order code	**20085221**	**20085222**	**20085223**
			
	Functional safety master, TriCore 0.3GHz / 2MB Flash / 0.7MB RAM		
Inputs total	18: 8x 5V 2x 24V 2x 0-20mA 6x Freq 50kHz / 6 digital 24V	18: 8x 5V 2x 24V 2x 0-20mA 6x Freq 50kHz / 6 digital 24V	50: 20x 5V 2x 24V 4x 0-20mA 6x Freq 50kHz / 18 digital 24V
Outputs total	8: 2x CAM 2.5A 4x PWM HS 4A 4x PWM LS 2A	16: 6x CAM 2.5A 4x PWM HS 4A 12x PWM LS 2A	36: 10x CAM 2.5A 8x PWM HS 4A 20x PWM LS 2A 8 digital
	CAN: 2	CAN: 3	CAN: 5

The inputs and outputs can have different functionality depending on software configuration

Common features

Compliance: CE, UKCA, E-mark R10, IEC 61508 SIL2 (EN 13849-1 Pld), CRA prepared

Protection: IP65, IP6k9k

Voltage supply: 12/24V

Interface: CAN (2.0B/FD) supports IQAN proprietary (ICP), SAE J1939 and generic CAN

CAM - Current output with an Current Arithmetic Mean measure method.

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

Expansion Modules - IQAN-XC4x

Parker's IQAN-XC4x expansion modules are perfect for increasing I/O in an IQAN system. They have voltage, current, digital and timer inputs. The outputs are proportional and digital. The modules communicate with an IQAN master module over a CAN bus.

	IQAN-XC41-M24	IQAN-XC42-M24	IQAN-XC43-M24	IQAN-XC44
Order code	**20085231**	**20085232**	**20085233**	**20085184**
				
	Expansion controller with functional safety	Expansion controller with functional safety	Expansion controller with functional safety	Expansion controller
Inputs total	18: 8x 5V 2x 24V 2x 0-20mA 6x Freq 50kHz / 6 digital 24V	18: 8x 5V 2x 24V 2x 0-20mA 6x Freq 50kHz / 6 digital 24V	50: 20x 5V 2x 24V 4x 0-20mA 6x Freq 50kHz 18 digital 24V	50: 20x 5V 2x 24V 4x 0-20mA 6x Freq 50kHz 18 digital 24V
Outputs total	8: 2x CAM 2.5A 4x PWM HS 4A 4x PWM LS 2A	16: 6x CAM 2.5A 4x PWM HS 4A 12x PWM LS 2A	36: 10x CAM 2.5A 8x PWM HS 4A 20x PWM LS 2A 8 digital LS 0.2A	36: 8x PWM HS 4A 20x digital LS 2.5A 5 digital HS 4A 8 digital LS 0.2A

The inputs and outputs can have different functionality depending on software configuration

Common features

Compliance: CE, UKCA, E-mark R10, CRA prepared

Protection: IP65, IP6k9k

Voltage supply: 12/24V

Interface: CAN x1 (2.0B/FD) supports IQAN proprietary (ICP)

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

Expansion Modules - IQAN-XC2x

Parker's IQAN-XC21/XC22/XC23 expansion modules are a subset of the collection of expansion/slave controllers that can be added to an IQAN system. The housing is designed for stacking multiple modules, to provide a high density of I/O in a small footprint.
The IQAN-XC21 is designed for in-cab use on mobile machinery. The small size makes it perfect for use in armrest controls. It uses four Molex Micro-fit connectors of varying pin density to prevent wiring mix-ups.
The IQAN-XC22 and IQAN-XC23 are designed for outdoor use on mobile machinery. The sealed housing uses 2 or 3 keyed Deutsch DTM connectors to prevent wiring mix-ups.

	IQAN-XC21	IQAN-XC22	IQAN-XC23
Order code	**20077775**	**20077784**	**20077792**





Expansion controller

Inputs total	20: 8x 5V / 10x Freq 20kHz / 20x digital 24V / 1 Encoder	12: 10x Freq 20kHz / 12x digital 24V / 1 Encoder	20: 8x 5V / 10x Freq 20kHz / 20x digital 24V / 1 Encoder
Outputs total	8: 8x digital LS 0.3A	8: 8x digital LS 0.3A	8: 8x digital LS 0.3A
Protection	IP32	IP65, IP6k9k	IP65, IP6k9k

The inputs and outputs can have different functionality depending on software configuration

Common features

Compliance: CE, UKCA

Voltage supply: 12/24V

Interface: CAN x1 (2.0B) supports IQAN proprietary (ICP)

Stackable mounting

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

Display Modules - IQAN-MD5

Parker's IQAN-MD5 is a family of display units with touchscreen capability and video inputs. These fully customizable displays reduce engineering expenses and costs with its easy-to-use IQAN software system and are ideal for use in any machine application as a HMI. The IQAN-MD5 displays have a rugged mechanical design with no moving parts and are completely sealed. The use of optical bonded display glass improves the readability, avoids light refraction, and eliminates possible condensation, since there is no air between the glass and LCD.

The IQAN-MD5 includes native IP camera support (SOME/IP and RTSP), eliminating the need for separate dedicated camera monitors. Mounting is easy. Well-integrated, flush mount in cabin panels, or as a stand-alone mount compatible with RAM™ mount components. The displays may be mounted in landscape or portrait orientation for easy integration of HMI or mechanics.

	IQAN-MD5-5	IQAN-MD5-8	IQAN-MD5-10	IQAN-MD5-12
Part number	**20085201**	**20085202**	**20085203**	**20085204**
				
Enclosure Size [mm]	102x141x45	141x215x45	173x252x45	147x329x45
Aspect ratio	16:9	16:9	16:10	21:8
Resolution [pixel]	800x480	1280x720	1280x800	1920x720
Monitor arm mount	RAM 49	RAM 30x38	RAM 30x38	RAM 30x38
Digital in, encoder	8/2	8/2	8/2	8/2
Digital out	1 x HS (5V), 2 x LS (300 mA)	1 x HS (5V), 2 x LS (300 mA)	1 x HS (5V), 2 x LS (300 mA)	1 x HS (5V), 2 x LS (300 mA)
Ethernet 100 Base-TX	1	2	2	2
Wake	Yes (LWU, CAN, RTC)	Yes (LWU, CAN, RTC)	Yes (LWU, CAN, RTC)	Yes (LWU, CAN, RTC)
RTC	Yes	Yes	Yes	Yes

Common features

Compliance: CE, UKCA, E-mark R10, CRA prepared
Protection: IP65, IP6k9k
Voltage supply: 12/24V
Screen: TCapacitive touch glove use / 16M colors / LED Backlight / 85° viewing angle / Ambient light sensor
Interface: CAN x3 (2.0B/FD) supports IQAN proprietary (ICP), SAE J1939 and generic CAN
Molex MX123 (56pol) connector
CPU 4 x ARM 1.25 GHz
Memory Flash 8 GB / RAM 512 MB

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

Levers and Joysticks

Parker's diverse selection of levers and joysticks includes mini and paddle-style, single-axis and two-axis analog joysticks designed for use in demanding mobile applications. They are available in a variety of formats and mounting and installation configurations as well as with deployment/actuation options such as buttons, thumb wheels, and triggers.

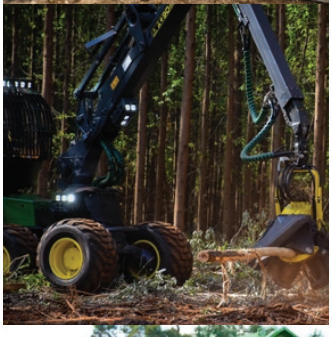
	IQAN-LSL	IQAN-LST	IQAN-LC6-X05	IQAN-LC5-X05
				
	Single axis hall effect	Single axis hall effect	4 Proportional	4 Proportional
	5 VDC	5 VDC	5 VDC	5 VDC
Connector	AMP/Tyco, Deutsch DT, Molex Microfit 3.0	AMP/Tyco, Deutsch DT	Molex MicroFit 3.0	Deutsch DTM
	IP65/IP44	IP66	IP67	IP65
Cycles	5 Million / 2 Million	5 Million	5 Million	5 Million
Options	Switch, detent	Detent	Rocker, ring	1-8 buttons, 1-2 thumbwheels, trigger
Deflection angle	20 degrees	30 degrees	20 degrees	20 degrees
Dimensions [mm]	111 (57) x 112 x 42	53 (8)x 48 x 32	109 (38) x 65 x 65	240 (49) x 105 x105

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

IQAN Software Development Tools









Best-in-class software

We believe that superior machine functionality is the number one priority and that the way to get there shall be simple, fast and intuitive.

On all devices

IQAN tools are available for PCs, tablets and smartphones. Advanced engineering and service tools are available for PC installation.

Secure and reliable

IQAN lets you protect your Intellectual Property with multiple encrypted access levels. With a well-defined structure for access levels you can make sure that all parts of your organization have access to service and maintain your machines for maximum uptime

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

IQANdesign

IQANdesign is a high-level graphical design tool that simplifies application development for your mobile machine and reduces development time. This tool is mainly used for system layout and machine function design. A wide range of predefined building blocks is available, such as closed-loop control, signal processing, math calculations, communication protocols (e.g., SAE J1939), and system diagnostics.



IQANsimulate

IQANsimulate is a simulation tool, which simplifies function test, validation and reduces development time. It simulates all of the hardware modules in an IQAN application. Software simulation is a safer way to test new applications than on an actual machine.



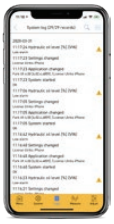
IQANrun

IQANrun is a user-friendly service, production and machine owner tool which lets you diagnose, measure, configure, adjust and update your machine. Future software updates are included with the IQANrun purchase.



IQANgo





IQANgo is a user-friendly service tool for the IQAN series of controllers and displays. It enables service technicians or machine owners to connect wireless to IQAN modules in their machines and perform actions such as check system status, view logs, measure in real-time, change settings and remote assistance.

Available for Android and IoS

IQANtoolbox for simulink

Using the IQAN Toolbox for Simulink makes it easy to export Simulink models from MATLAB®/Simulink® for use with compatible IQAN master modules in IQANdesign. Integrate Simulink models with your IQAN application using IQANdesign, simulate using IQANsimulate and deploy the complete project to master modules with a single send operation.



Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

Bluetooth® communication adapter - IQAN-G12

Parker's IQAN-G12 Bluetooth adapter delivers on-site short range or off-site remote diagnostic access to machines in rugged outdoor environments by wireless communication, using IQAN software tools. The IQAN-G12 is designed to transmit wireless diagnostic data from the IQAN system to a user's smartphone or a tablet with IQANgo app, or to a PC with IQANrun. To communicate with the machine remotely, the phone or tablet can connect to a remote computer via IQANconnect



Model	IQAN-G12
Part Number	20085200
IP rating	IP6k9k
Power rating	12/24V
Connector	DT06-4S
Bluetooth	5.2
Range	Up to 30m
Security	Pairing and encryption

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark

Accessories

Vision System Camera - IQAN-SV

Parker's IQAN-SV is a digital, high resolution IP camera utilizing the SOME/IP protocol over Ethernet for seamless integration with IQAN displays. The vision system supports multiple cameras via an Ethernet switch. IQAN-SV provides a 120° field of view with high image quality, accurate color reproduction, and high light sensitivity. Its high frame rate delivers a low latency video stream with no perceptible delay.



Model	IQAN-SV
Part Number	20085106
IP rating	IP67, IP6K9K
Voltage supply	9 - 32 Vdc
Temperature operating range	-40°C to +85°C
Ethernet	100 base-TX

Pressure Sensors - IQAN-SP

Parker's IQAN-SP has stainless steel construction for strength. Its sensor cells use thin film technology with no internal o-rings or fluid. The high pressure capability makes the sensor very robust and able to withstand vibration.



Model	IQAN-SP035-D	IQAN-SP500-D	IQAN-SP035-B	IQAN-SP500-B
Part Number	2820008	2820009	5020026	5020027
Pressure Range (bar)	0-35	0-500	0-35	0-500
Electrical Connection	AMP/Tyco	AMP/Tyco	Deutsch DT	Deutsch DT
Threaded interface	9/16"-18 UNF, SAE 6	9/16"-18 UNF, SAE 6	G1/4 BSP	G1/4 BSP

Temperature Sensors - IQAN-ST

Parker's IQAN-ST has stainless steel construction for strength. Its PT100 sensor uses thin film technology with internal amplification. All versions of the sensor have high pressure capability. The IQAN-ST is very robust and able to withstand heavy vibrations.



Model	IQAN-ST-G-B	IQAN-ST-U-D	IQAN-ST-M-B
Part Number	20073657	20073658	20073659
Electrical Connection	AMP/Tyco	Deutsch DT04-4P	AMP/Tyco
Threaded interface	G1/4 -19 BSP	M10	9/16"-18 UNF, SAE 6

Other Sensors, Connectors, Cables

Parker's diverse selection of mobile controller accessories includes IQAN address tags and terminating resistors for identifying IQAN CANBus system modules or controllers; Delphi, AMP Superseal, Deutsch and Molex connector kits that contain mating connector housing parts, terminals and seals; and a wide array of other accessories.



www.parker.com

IQAN_Catalogue_MSG33-8420-UK 03/2026

© 2026 Parker Hannifin EMEA Sarl. All Rights Reserved