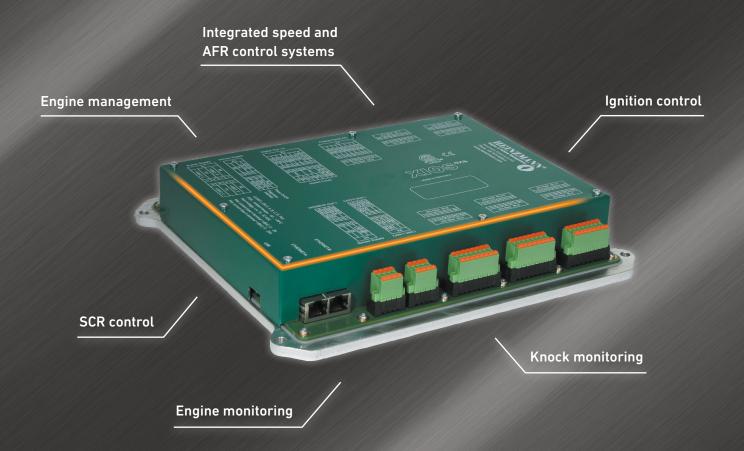


Complete system for controlling & monitoring gas engines

XIOSGAS ENGINE CONTROL

Efficient - Stable - Clean



XIOSGAS

EFFICIENT - STABLE - CLEAN

HEINZMANN is an established system supplier of engine management solutions for combustion engines. We offer a variety of reliable control units for the industrial sector. From power generation to direct drives in ships our products are used successfully in a wide range of applications. The newly developed and extensively tested engine control system for gas engines combines all the advantages of HEINZMANN control systems.

Speed and air-fuel ratio control, ignition control, knock monitoring and SCR control, as well as extensive monitoring functions, are combined in a central XIOS^{GAS} Control Unit. This enables reliable production and utilisation of heat and electrical energy, either in grid-parallel or island operation.

With extensive inputs and outputs, various communication protocols and user-friendly HMI touch screens, XIOSGAS offers its users full control over their CHP plant with minimal effort.

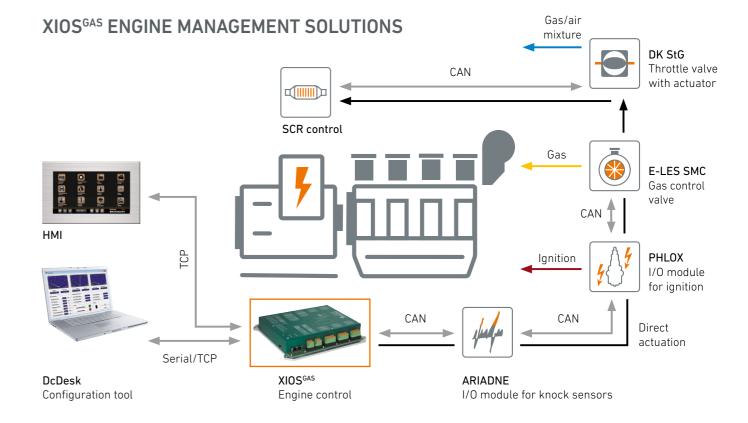
FEATURES

- Integrated speed and load control for optimum system response
- Integrated air-fuel ratio control
- Control of PHLOX II & III Ignition Systems
- Control of ARIADNE Knock Control
- Extensive engine monitoring functions
- Data logger (incl. real time clock) for NO_x daily average value, for fault analysis and system overview
- Service access via touch screen, HEINZMANN DcDesk or the dongle-free HEINZMANN Configuration Suite service tool

XIOS GAS VERSIONS

In order to meet individual customer requirements, various versions of XIOS^{GAS} are available. In addition to speed and air-fuel ratio control, the basic features of XIOS^{GAS} include a range of monitoring functions. Integration of the PHLOX II or PHLOX III and ARIADNE I/O modules enables ignition control and knock monitoring to be implemented.

As an option, the system can be expanded to include SCR control and/or monitoring of the NO_{x} daily average value. Various user-friendly HMI touch screens guarantee ease of operation, display all relevant operating conditions and enable system settings using password-protected access areas.



XIOSGAS SYSTEM SOLUTIONS

The HEINZMANN XIOSGAS system provides easy-to-use, user-friendly HMI touch screens that enable intuitive and convenient operation. For advanced system access, HEINZMANN's DcDesk Service and Parametrisation Software and the dongle-free HEINZMANN Configuration Suite can be used.

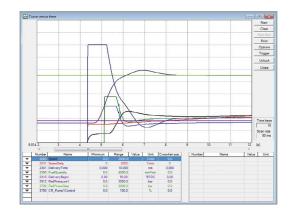
te Greetine Opene the Stee								
Promoting D D D	© © 7				Factors In 1			
	T San	Value Sain	Sunan	Tent 4	T San	Value State	Tonas .	lend.
	J Take	Thiles David	Sange	3690 4	\$200 SHARDHALDINGTONES	TADAS DAZA	Dange 0 = 1	i de la constantina
SI 👸 Connon-Ral	2 Teestallusides	45	50 x 255	- 1	400 PicificileDeficOntrols	Creek	0.1	- ;
(g) Rail Pressure Control			0.0 + 200			CHEEK	0 + 1	- 1
(f) Rel Pesser Notions Senor 1 (f) Rel Pesser Notions Senor 2	3 Sesectiologicality	0,0 "8000 0.0 "8000	0,0 = 720,0	-	4002 75680p20s	Crank	0+1	
in the Pennsy Resurbets	1 Secretarions	1.0 7600	0.0 - 100.0		4505 Printigationorcius	CIAIS	0 - 1	- 1
S Comunication			1,10 - 1,10		4006 CanCodesdon 4006 CanCodesdocrelic/Seco			
(g) Robus	6 Septenzo			-		Deesh		
8 to Cored the	9 EngineConExpurvation	4	1-9		4007 CheckSepTsCssSexCLass	30	0 - 1	4
- C Sept Super	1) Speeditin1	700 S/866	0 = 4000	- 2	4000 Stady-Engineds	On The	0 + 1	- 6
Times Codel	12 Speedback	2000 S/MSA	0 = 4000		4001 SesenDontsSchille		0 + 1	ŧ
S Coreo ure Configuration	H fremfertife		0 - 500	4	4055 theoldsollyboemsm	10		4
- in bardoon	97 300058wC30	23,0 8	0,0 = 100,0	6	4014 CheckCodekCodection	30	0 + 1	4
- in the ta	90 ToequescyStep	2000 Ma	0 = 10000	6	4040 SpeedDcStode	Strebled	0 + 3	4
-in Print Davie	99 PresiencyfilmCentr	2000 Ba	0 = 13000		4300 DeliveryCiseOrderind	Period	0 - 1	- 6
in Server	255 StartSpeetS	30 S/MSs	5 + 4500	3	4414 Cantifeguentinhesi	Best		4
Seth fusion (segments)	200 Distribused2	227 5/966	0 - 4000	3	HE? Deadlegreat/Edward	Dead	0 - 1	4
8 Designat 8 Disputat	311 Delinechedrouch	10,00 78000	-220,00 * 220,00	4	4425 Cab/Degress/200405	best		4
	319 DeliverySeriod	15,00 "counk	-200,00 + 100,00	- 6	4801 DigChannel1FMBCc00	201	0 + 1	- 6
	520 DeliverySize	2,000 mg	-2,000 + 8,000	6	4502 DigChemoel29WbDc50	00		- 6
	321 StellreStjettlegts	45,55 "955C	-555,65 + 555,65	4	4913 DigChannel SPBIOr50	55	6 + 1	- 4
Specification	382 hieliebegistise	5,000 mm	-2,000 = 0,000	- 6	4004 DigDhasseL4PMBQcD0	00	0 = 1	4
- in Distantes	TIT INSTRUMENTATIONS	n on freezy			gent management tagement			
- it Great the	-			emenon.				
- in Dept Copy Sees	Hoovenerb							
i) fundanal Bros	J Sate	Thise Dail	Sange	Serei ^	S Sate	Value Data	Suspe	Sevel
ing heavy function	2000 Speed	2000,0 1/min	0,0 = 4000,0	1 5	8801 DigitalDistinAmeign	4300	-29999 + 29999	6
- it item#floor	2001 Speedfuoldys	2000,0 S/MSA	0,0 - 4000,0		BBDD DisplaceDotDistantigs	4111	-2000 - 2000	4
- il Sener Iron	2002 SpenifickSp2	IUI Sittin	0,0 = 4005,0	1	0000 Diginalibush-Ameigs	4112	-23331 - 23331	- 6
3 Speed Ressuring	2000 SpeedFootSpt/Nove	2000,0 3/888	0,0 + 4000,0	4	esse oppositionerantes	4113	-2000 + 2000	
R to Following	2004 SpeedFuolOp2TkQue	0,0 3/905	0,0 = 4000,0	4	8805 Digits/Distrikerigs	4004	-29999 × 29999	
R to readon	2005 ActivePoists		0 + 2		BECK DESCRIPTION GARGES	4115	-29999 • 29999	- 6
- (i) Delver dept	2004 DBETTTOTOR	COTT Bex	0000 - FFFF	4	8807 Digita/Obs7cAssign	4116	-29999 × 29999	6
2 Develop Ferod	2001 ZyndamDiby	269	0 = 1	1	8808 DagacusDoot-Average	4007	-23335 - 23335	6
8 to recon (fre-fre)	2000 Dependendeds	Dea	0 * 1		8809 Digith/JOHN-Resign	4111	-23333 + 23333	
R to Special Control R to Special Control	2009 SpeedCartEndes	0,0 5/805	0,0 + 4000,0	1	BEDD Dogorochbertifrikeeign	4319	-29999 + 29999	6
E O Noting	2010 TreasuscyCenCodes	0.86	0 = 10000	1	8811 Diecos/Dox11-Ameien	4290	-29999 + 29999	
D to Server	2011 Septisted sees	5,0 Seesk	6,6 = 725,6		8812 Digith/Dist2-Savigs	4165	-29999 - 29999	- 6
	202 Begts Contrated Nove	5.0 Dennik	0,0 = 720,0	- 6	8513 DigineDon13-Gerign	4110	-2000 - 2000	
Greet Value	2013 2002 ApplieClass		0 = 63535		BISA Disconsideria Senion	4292	-29999 + 29999	- 6
Light Speed Squarer	2014 2012 TerrolPalm		-3208 × 32067	2	8815 DigitaDMIS-Geeign	4114	-29999 + 29999	
King Specificing	2020 Rostonowkiedtel	Ser	1+1	1	BELG Discondourie Sasten	4255	-2000 + 2000	- 6
Sign Stating East Squareset	2021 DisDistrationDistrat	To .	0 + 1	1				
R 2 Sebh fundors	2001 Euchsourbedates	- 5	1-1	1				
	2020 Posttatustreolog	50	1+1	1				
	2024 Pistraturitesisi	- 10						

Parametrisation of digital HEINZMANN systems

DCDESK SOFTWARE

- Windows-based software
- Convenient configuration, parametrisation and programming of digital control units

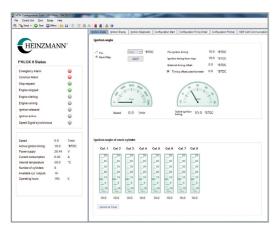
- Various display and recording functions
- Perfect for factory default settings, comissioning and service



Display of measurement values over time. Up to 20 measurements can be displayed simultaneously.

CONFIGURATION SUITE

- Dongle-free service tool
- Allows creation of customer and system-specific user interfaces
- Based on a graphical interface
- Access to digital HEINZMANN control units
- Easy and comprehensible presentation of complex issues



New dongle-free service tool that allows creation of customer and system-specific user interfaces.

HEINZMANN HMI TOUCH SCREEN

- 7" to 15" screen, resistive or capacitive
- Intuitive symbol-based menu system
- Navigation bar with date, time and main control elements
- Password protected access areas
- Customer-specific system overview/ main screen possible
- Robust design for industrial applications







XIOSGAS FUNCTIONS AT A GLANCE

Central control of all system functionalities of gas engines with the modular, multifunctional XIOS^{GAS} controller. This can be combined with a wide range of system components and is therefore suitable for any type of application.



Knock monitoring

- ARIADNE Knock monitoring control
- Monitoring of knocking combustion
- Ignition timing correction and power reduction



Ignition control

- Control of PHLOX II & III Ignition Systems
- Speed and load dependent ignition timing
- AutoSpark or FlexSpark function for optimising the ignition process





- Integrated speed control
- Rapid response to changes in speed and load

Engine management

(with power, lambda or NO as

■ Control of PHLOX II & III Ignition

Integrated speed controlIntegrated air-fuel ratio control

feedback signal)

ARIADNE Knock Control

Systems

■ Can be combined with any HEINZMANN actuator



SCR control

- No compressed air required
- Scalable for engine sizes up to 2 MW
- Excellent safety based on numerous monitoring functions
- Rapid response to load steps
- AdBlue tank management



□ Engine monitoring

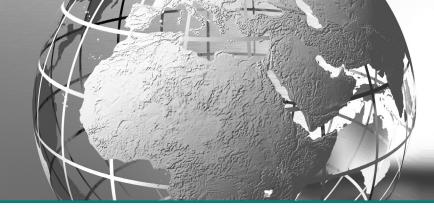
- Overspeed protection
- Oil pressure, 2-stage
- Oil level, 2-stage
- Oil temperature
- Cooling water pressure, 2-stage
- Cooling water temperature, 2-stage
- Intake manifold temperature, 2-stage
- Exhaust temperature, 2-stage
- Knocking combustion (optional)
- NO, daily average value
- Data logger with different recording rates;High resolution data recording

before, during and after events; Long term data recording for general overview



Air-fulel ratio control

- Integrated air-fuel ratio control
- Power, lambda or NO_x as feedback signal
- Tailored system solutions for different gas qualities





HEINZMANN GROUP - THINKING IN DRIVE AND CONROL

HEINZMANN is a globally active family business founded in 1897 with its headquarters in Schönau (Germany), in the Black Forest.

Today, in the field of engine management HEINZMANN is one of the leading suppliers of components and systems for industrial combustion engines, generators and turbines. As a specialist and development partner, HEINZMANN is committed to developing exactly the right solution for increasing efficiency and reducing emissions.

In the Electric Drives division, HEINZMANN also demonstrates innovative strength and development expertise in engine technologies of the future. The company has established itself as a reliable partner and system provider for electric drive systems.

Our collaborative interaction with more than 40 globally active subsidiaries and sales companies characterizes the spirit within the HEINZMANN group of companies and makes us a reliable partner.

HEINZMANN SUBSIDIARIES

Headquarters HEINZMANN Group Germany

Germany **Heinzmann**

GmbH & Co. KG

Schönau
Phono +//9 7673

Phone +49 7673 8208-0 info@heinzmann.de www.heinzmann.com

Australia

Heinzmann Australia Pty Ltd

Geebung QLD Phone +61 7 3868 3333 info.au@heinzmann.com www.heinzmann.com.au

China

Heinzmann Power Control (Jiaxing) Co. Ltd.

Jiashan Phone +86 573 8466 1358 hzm-sh@heinzmann.com www.heinzmann.cn CPK Automotive GmbH & Co. KG

Münster

Phone +49 251 777 969-0 info@cpk-automotive.com www.cpk-automotive.com

United Kingdom

Heinzmann UK Ltd.

Middlesbrough Phone +44 1 642 467 484 info@heinzmannuk.com www.heinzmann-turbinecontrols.com

Regulateurs Europa Ltd.

Colchester Phone +44 1206 799 556 sales@regulateurseuropa.com www.regulateurseuropa.com

Giro Engineering Ltd.

Southampton, Hampshire Phone +44 1489 885 288 giro@giroeng.com www.giroeng.com Korea

Heinzmann / Regulateurs Europa Korea Pte. Ltd.

Ulsan

Phone +82 52 227 7673 heinzmann@korea.com

The Netherlands

Regulateurs Europa B.V.

Roden

Phone +31 5050 19888 sales@regulateurs-europa.com www.regulateurseuropa.com

Norway

Heinzmann Automation AS

larvik

Phone +47 76 96 10 80 post@heinzmann.no www.heinzmann.no

South Africa

Heinzmann Südafrika

Stellenbosch

Phone +27 82 6898100 diemont@worldonline.co.za

Ukraine

Heinzmann /

Regulateurs Europa

Kiev

Phone +38 44 331 96 75 hzm-kiev@hzm.com.ua

USA

Heinzmann / Regulateurs Europa

America Inc.

Glendale Heights, IL Phone +1 970 484 1863 info.usa@heinzmann.com



