

Controllers, Power Units and System Technology



Know-how is needed - Services



Hands-on training: Learning the theory ...



... and putting it to the test.



Close to the customer: Repair and service



Download facilities

On our website www.jumo.net, under "Support", you can find a wealth of topical information on and around JUMO instruments, ready for down-loading or ordering such as:

- technical data sheets and operating instructions
- specialist literature and brochures
- the latest software packages
- seminar programs and information about courses

Engineering

JUMO also offers project design for complete systems as a service package. This includes:

- listing the requirements
- drawing up a specification
- configuring the equipment and the visualization software
- professional commissioning and training of the operating personnel

Seminars and training

Know-how is not just needed to create JUMO products, but also for their later application. That's why we offer practical courses and seminars for users in our modern training center, as well as our own publications on aspects of measurement and control engineering:

- Control engineering
- Digital interfaces and bus systems for communication
- Electronic power units

Repair and service

We guarantee prompt service around the globe. Precise fault diagnosis enables us to ensure fast turn-round times for repairs. The telephone support service at our Fulda head office provides information and advice to our customers.

Remote maintenance

In addition to the classical range of services, JUMO also provides remote maintenance concepts.

As a supplement to the decentralized JUMO mTRON automation system and the SVS-2000N visualization software, we offer software packages for the latest instrument generation, that will enable plant manufacturers to service the plant at the end user via the worldwide telecommunications network:

- viewing current operational states
- carrying out system adaptations

JUMD ecoTRON – Digital thermostats and electronic Microstats economical – cost-effective – simply perfect





Туре	ecoTRON M 701060	ecoTRON T 701050
Dimensions	bezel 76mm x 36mm x 56mm	90mm x 22.5mm x 60mm
Mounting	in panel	DIN rail
Connections	screw terminals	
Enclosure protection	front IP65, back IP20	IP 20
Measurement inputs	Pt100, Pt1000 or KTY2x-6 in 2-wire circuit, co thermocouples Fe-Con J, L, and NiCr-Ni K, co current 0(4) – 20mA, configurable, voltage 0 –	onfigurable,
Display	3-digit backlit LC display with 13mm digit height and special characters for °C, °F, h, min, s, active defrosting or heating phase	3-digit LC display with special characters for °C, °F
Output	1 changeover contact 10A/250V or 2 make contacts 10A/250V	1 changeover contact 10A/250V
Alarms	messages in display or via the 2nd relay output: low/high alarm limit temperature, service interval, timer message	messages in display: low/high alarm limit temperature
Supply	230V AC +10/-15 %, 48 - 63 Hz 115V AC +10/-15 %, 48 - 63 Hz 12 - 24 V DC, 48 - 63 Hz/24 V AC +10/-15 %,	48 – 63 Hz
Features/extra functions	integrated defrosting function operating hours counter setup program	setup program
Approvals	CUL applied for	
Additional information	Data Sheet 70.1060	Data Sheet 70.1050

Controllers of distinction

16. 	5.2 • • •	165.3		
Туре	 itron 04 702044 	 iTRON 08, horizontal iTRON 08, vertical 702043/702042 	 iTRON 32/702040 iTRON 16/702041 	G iTRON DR 100
Dimensions	96 mm x 96 mm x 70 mm	96 mm x 48 mm x 70 mm	48 mm x 48 mm x 100 mm 48 mm x 48 mm x 100 mm	22,5mm x 109mm x 124,8
Housing	plastic housing for panel mo	unting to DIN 43700	•	DIN rail mounting
Connections	at the back, via pluggable so	crew terminals		screw terminals
Enclosure protection	front IP66 back IP20			IP 20
Controller type	2-state controller with limit c	•		
Measurement inputs	Pt100, Pt1000, KTY11-6 resistance thermometers type L, U, T, K, N, S, R, B, thermocouples, DC current, DC voltage			
Display	7-segment display, 4 digits (green), digit height 10 or 20 mm, 2-line alphanumeric LC display span –1999 to +9999 digit, display in °C or °F display for indicating process value and setpoin display in °C or °F			
Output	2 relays 3A/250V AC (make), 1 relay 3A/250V AC (make)1 relay 3A/250V AC (make contact) 1 logic output 0/5V, 1 logic output 0/5V (as an alternative to logic input) 2 relays 5A/250V AC (optionally 0/12V); 2 relays 5A/250V AC (make) and 1 logic output 0/5V, (optionally 0/12V); 2 relays 5A/250V AC			
Alarms	1 limit comparator (max.) wit	h 8 functions		
Logic inputs	1 logic input for floating con-	tacts (on iTRON 16/32: as an	alternative to the logic output)	
Feedback	P, PD, PI, PID			
Supply	110 - 240 V AC +10/-15 %, 48 - 63 Hz, 110 - 240 AC +10/-15 % or 20 - 53 V AC/DC, 48 - 63 Hz, 48 - 63 Hz, or 10 - 18 V DC, 48 - 63 Hz 20 - 53 V AC/DC, 48 - 63			
Interface	programming interface for setup			
Features/ extra functions	self-optimization, ramp function, digital input filter with programmable filter time constant setup program, timer function			
Approvals	UL, FM 3545			CUL is applied for
Additional information	Data Sheet 70.2040	Data Sheet 70.2040	Data Sheet 70.2040	Data Sheet 70.2060

Compact microprocessor controller

Boiler controller LKR-96

Clock-wise

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Туре	iTRON 04 B with timer 702050/1	iTRON 04 B 702050/0	iTRON 04 B with process value and setpoint 702050/2	LKR-96 700201/
Dimensions	96 mm x 96 mm x 68.5 mm			96mm x 96mm x 90.3mm
Housing	plastic housing for panel mounting to DIN 43700			conductive plastic (ABS)
Connections	at the back, via pluggable screw terminals			at the back, via pluggable screw terminals, conductor cross-section up to 2,5 mm ² and ferrule (length 10 mm)
Enclosure protection	front IP65, back IP20			front IP65, back IP20
Controller type	2-state controller with limit comparator and timer	2-state controller	2-state controller with limit comparator	2- or 3-state controller, continuous controller (configurable)
Measurement inputs	Pt100 resistance thermometer, type L, K, J thermocouples			2 analog inputs, configurable input 1: resistance thermometer, Fe-Con J thermocouples, standard signals input 2: potentiometer
Display	Display 1: 7-segment display, red, 20mm high, display in °C or °F, display span –99 to +999 °C Display 2: 7-segment display, green, 14mm high, for time indication	7-segment display, red, 20 mm high, display in °C or °F, display span –99 to +999 °C	Display 1: 7-segment display, red, height 20 mm, display in °C or °F, display span -99 to +999°C Display 2: 7-segment display, green, height 14 mm for setpoint	4-digit display of process value and setpoint, parameter display, display of boiler and core temperatures
Setpoint adjustment	membrane keypad (Up and Dow	vn keys)		
Output	1 relay 5A/250V AC (changeover) 2 relays 5A/250V AC (make)	1 relay 5A/250V AC (changeover)	1 relay 5A/250V AC (changeover) 2 relays 5A/250V AC (make)	as standard: 2 relays, 3A/230V (make), 2 x make, 1 x changeover, F _V /∆cooking
Alarms	1 limit comparator with 8 functions	-	1 limit comparator with 8 functions	2 limit comparators with 8 functions, combination alarm
Logic inputs	-			1 logic input via floating contact
Feedback	P, PD, PI, PID			P, I, PD, PI, PID
Supply	110 – 240V AC +10/-15%, 48 - or 20 – 53V AC/DC, 48 – 63Hz			110 – 240V AC +10 / –15%, 48 – 63Hz
Interface	programming interface for setup			LON interface FTT10A, 78kbaud
Features / extra functions	timer function: with adjustable time 1s to 9 hours and 59 min and separate display for ambient temperatures up to 60 °C, setup program	setup program, for ambient temperatures up to 60°C	setup program, for ambient temperatures up to 60 °C, separate display for setpoint	real-time clock: for starting at any time, combination alarm function, delta cooking and F-value cooking, 1 analog output, interval spray, available with 1 or 10 process steps, 2 make/changeover contacts
Approvals	UL, CSA in preparation			UL, FM 3545
Additional information	Data Sheet 70.2050			Data Sheet 70.0201

Microprocessor controller series JUMD dTRON 300 ... made for global success

Туре	• JUMO dTRON 316 703041/	 JUMO dTRON 308 vertical JUMO dTRON 308 horizontal 703042/703043 	JUMO dTRON 304 703044/	
Dimensions	48 mm x 48 mm x 90 mm	48mm x 96mm x 90mm vertical or horizontal format	96mm x 96mm x 90mm	
Housing	plastic housing for panel mounting to E with plug-in controller module and gold	d-plated plug contacts		
Connections	at the back via screw terminals, max. c	conductor cross-section: 1,5mm ² wit	h ferrule	
Enclosure protection	to EN60529, front IP65, back IP20			
Controller type	2-state/3-state controller, modulating c program generator or program controlle	er is freely configurable		
Measurement inputs	a maximum of two analog inputs can be freely configured, resistance thermometer/transmitter, thermocouples: current/voltage, customized linearization			
Setpoint adjustment	membrane keypad (up and down keys)	, four internal setpoints, external set	point input	
Display	multicolored LCD display, 4-digit 7-segment display, red, configurable (factory setting: process value) 4-digit 7-segment display, green, configurable (factory setting: setpoint), switching status indication, active setpoint SP1, SP2, SP3, SP4, two-place 16-segment display, green, for the unit °C/°F and characters for h, min and %			
Output	two relays as standard:two relays as standard:3A/230V (changeover contact),3A/230V (make contact),two logic outputs 0-12V (18V),two logic outputs 0-12V (18V)voltage output for transmitter 23V at 30 mA			
	additional outputs can be retrofitted through options: – relay (changeover 8A) – double relay (2x make contact 3A) – analog output – solid-state relay 1A			
Alarms	four limit comparators with 8 functions			
Logic inputs	up to four logic inputs via floating contacts	up to 6 logic inputs via floating c	ontacts	
Feedback	P, I, PD, PI, PID, additionally self-optim	ized step response or oscillation me	thod	
Supply	110 - 240V AC +10/-15 %, 48 - 63Hz 110 - 240V AC +10/-15 %, 48 - 63Hz 20 - 53V AC/DC, 48 - 63Hz 20 - 53V AC/DC, 48 - 63Hz voltage output for transmitter 23V/30 mA			
Interface	RS 422/485 MODbus protocol, MODb	RS 422/485 MODbus protocol, MODbus-integer or PROFIBUS-DP, setup interface as standard		
Features/ extra functions	ratio, difference or humidity control, up to three options can be retrofitted, math and logic functions, ramp and program function, a maximum of eight segments, two timers, setup program			
Approvals	CUL, DIN 3440 (for dTRON 308), Gost, (all in preparation)			
Additional information	Data Sheet 70.3041			

Microprocessor controllers/programmers JUMD DICON 400/500 and 401/501 *The flexible ones*









Trees		DICON 500		
Туре	DICON 400 (ver./hor.)	DICON 500	DICON 401 (ver./hor.)	DICON 501
Dimensions	96 mm x 48 mm x 130 mm vertical or horizontal format	96 mm x 96 mm x 130 mm	96 mm x 48 mm x 130 mm vertical or horizontal format	96 mm x 96mm x 130 mm
Housing	polycarbonate housing with	n plug-in controller module a	ind gold-plated plug contact	S
Connections	at the back via screw termi	nals, conductor cross-section	on up to 2.5 mm ² and ferrule	(10 mm long)
Enclosure protection	front IP65, back IP20, to E	N 60529		
Controller type	freely configurable as 1- or modulating, continuous or		program generator or prog controller functions as for I	
Measurement inputs	two analog inputs	four analog inputs	two analog inputs	four analog inputs
	configurable as resistance	thermometer, resistance tran	nsmitter, thermocouple, stand	dard signals, heater current
Setpoint adjustment			t profile by program editor, p functions, interface or setup	
Display		lays and one 8-character ma ons with two display configu	atrix display for showing diffe irations	erent,
Output	max. 3 outputs – relay – solid-state relay – logic output 5 V/22 V – analog output – voltage output for 2-wire transmitter	max. 6 outputs – relay – solid-state relay – logic output 5 V/22 V – analog output – voltage output for 2-wire transmitter	max. 3 outputs – relay – solid-state relay – logic output 5 V/22 V – analog output – voltage output for 2-wire transmitter	max. 6 outputs – relay – solid-state relay – logic output 5 V/22 V – analog output – voltage output for 2-wire transmitter
Extra contacts	connection of one external relay module with 8 relays			
Alarms	8 limit comparators with 8 functions			
Logic inputs	maximum of 8 logic inputs	maximum of 8 logic inputs via floating contacts		
Feedback		P, I, PD, PI, PID action, individually adjustable for direct or reverse action 2 parameter sets with self-optimization		
Supply	110 – 240V AC +10%/-15%/ 48 – 63Hz, 20 – 53V AC/DC 48 – 63Hz			
Interface	RS422/485 electrically isol	ated, MOD/JBus protocol, F	PROFIBUS-DP	
Features/ extra functions	 ramp and program function, max. 8 segments setup-program - 10 programs with a total of 100 segments - setup software with program editor - real-time clock - 8 control contacts, tolerance band signal - program end signal 			
Approvals	UL	ABS, BV, DIN 3440, DNV,	UL	ABS, BV, DIN 3440, DNV,
		GL, LRS, UL	01	GL, LRS, UL
Additional information	Data Sheet 70.3570	Data Sheet 70.3570	Data Sheet 70.3580	Data Sheet 70.3580

JUMD IMAGO 500 – Multichannel process and program controller *The all-rounder*



Туре	IMAGO 500 703590/
Dimensions	bezel size 144mm x 130mm x 170mm, mounting dimensions 92mm x 92mm
Housing	housing and back panel: metal for panel mounting to DIN 43700 bezel: plastic ULV0
Connections	at the back via pluggable screw terminals, conductor cross-section up to 2.5 mm ² and ferrule (10 mm long)
Enclosure protection	front IP65, back IP20 to EN 60529
Controller type	up to 8 universal control channels: 1- or 2-state controller, modulating controller, continuous controller, continuous controller with integral actuator driver
Measurement inputs	a maximum of 8 universal analog inputs, individually pluggable for resistance thermometer, thermocouple, standard signals, resistance transmitter and heater current
Setpoint adjustment	membrane keypad, external setpoint selection, setpoint profile through program editor of the program controller/generator, 4 internal setpoints for each channel, selectable via logic functions, interface or setup program
Display	5" (12.7 cm) color screen, process-specific texts and pictures, bar graph display with 27 colors, resolution 320 x 240 pixels, instrument texts settable in English, German and French as well as in other languages
Outputs	up to 6 slots for the following plug-in modules: 2 relays (make contact), 1 relay (changeover contact), 2 logic outputs 0/5V, 1 logic output 0/22V, 1 solid-state relay, 1 analog output, 1 supply for a 2-wire transmitter
Extra contacts	up to 2 external relay modules with 8 changeover contacts or 8 logic outputs 0/12V
Alarms	16 limit comparators with time and acknowledgement functions
Logic inputs	6 logic inputs for floating contacts
Feedback	P, I, PD, PI, PID action, individually adjustable for direct or inverse sense of operation 2 parameter sets for each control channel, self-optimization according to oscillation method or step response
Supply	110 – 240V AC +10/-15%, 48 – 63Hz, 20 – 30V AC/DC, 48 - 63Hz
Interfaces	interface I: - Setup and RS422/485 with MODbus/Jbus protocol interface II: - PROFIBUS-DP - RS422/485 with MODbus/Jbus protocol
Features/extra functions	cascade controller/C-level control, 50 programs with 1000 segments, math and logic functions, alarm list, recording function with evaluation software, Teleservice via external modem, cycle time from 50 msec, self-optimization using the oscillatory and step-response methods, commissioning software start-up
Approvals	UL (pending)
Additional information	Data Sheet 70.3590

Safety temperature monitor/limiter

The watchdogs





Туре	(S)TBOw(t)-54	701140/ (TB / TW)
Dimensions (L x W x H)	54 mm x 70 mm x 110 mm	22.5 mm x 109 mm x 124.8 mm
Connections	screw connections	screw terminals
Enclosure protection	IP20 (EN 60529)	IP20
Function	safety temperature monitor, safety temperature limiter	temperature limiter, temperature monitor
Measurement inputs	Pt100 resistance thermometer, thermocouples type K, S, B, L	freely configurable for resistance thermometer, thermocouple, current and voltage signals
Setpoint adjustment	analog rotary knob with lead-sealable cap	-
Output	relay with changeover contact 2A/230V	relay output (changeover contact) logic output (voltage/current 4.5V/20mA)
Supply	24V AC +10/-15%, 48 – 63Hz 115V AC +10/-15%, 48 - 63Hz 230V AC +10/-15%, 48 – 63Hz	20 – 53 V AC/DC, 48 – 63 Hz 110 – 240 V AC +10/-15 %, 48 – 63 Hz
Features/extra functions	internal or external reset button, minimum/maximum function, DIN rail mounting, lead-sealable cover	freely configurable through setup program or keys, only one instrument for TB and TW, alphanumerical LC display, 17 linearization options, pre-alarm can be set as absolute or relative to limit value, differential measurement and monitoring
Approvals	DIN 3440, GL, GL, (S)TB/(S)TW with thermocouples as per IEC 61 508, SIL 3, (S)TB/(S)TW or TB/TW with resistance elements as per IEC 61 508, SIL 2	DIN 3440, UL
Additional information	Data Sheet 70.1130	Data Sheet 70.1140

JUMD IMAGO F3000 – Processs control for the meat industry *The specialist*

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Туре	700101
Dimensions	307mm x 165mm (vertical or horizontal), depth behind panel 107.6mm
Housing	plastic housing for panel mounting to DIN 43700
Connections	at the back via pluggable screw terminals, conductor cross-section up to 2.5 mm ² and ferrule (10mm long)
Enclosure protection	front IP67/back IP20 to EN 60529
Controller type	4 universal controller channels, 1- or 2-state controller, modulating controller, continuous controller, continuous controller with integral actuator driver
Measurement inputs	8, optionally as Pt100 resistance thermometer, type L, J, K thermocouples, DC voltage, DC current
Setpoint adjustment	membrane keypad, setpoint profile through program generator, interface
Display	5" (12.7 cm) color screen, 27 colors, resolution 320 x 240 pixels and four 4-digit, 12 mm-high 7-segment displays, instrument texts in English, German, French, other languages are available, process-specific text and pictures
Outputs	max. 35 relays max. 4 analog outputs
Alarms	8 limit comparators with timer functions
Feedback	P, I, PD, PI, PID action, individually selectable for direct or reverse action 8 parameter sets with self-optimization
Supply	110 – 240V AC +10/-15 %, 48 – 63Hz 20 – 30V AC/DC, 48 – 63Hz
Interfaces	MOD-Bus, PROFIBUS-DP and setup
Features/extra functions	menus are freely editable in basic status and automatic mode, freely assignable function keypad, up to 99 programs with 99 segments each, Plug & Play memory for saving the configuration data and transfer of programs, 16 freely editable logic combinations, four freely editable math functions, recording function with evaluation software, Teleservice via modem
Approvals	UL
Additional information	Data Sheet 70.0101

Thyristor power switches

The tough guys

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		<u>10</u>		
Туре	 TYA 432-45/25, 265 TYA 432-45/50, 530 	 TYA 432-100/30, 265 TYA 432-100/30, 660 	 TYA 432-100/45, 660 TYA 432-100/3, 20, 660 	
Dimensions (W x H x D)	45 mm x 58.2 mm x 29 mm	© 22.5 mm x 81.7 mm x 102.6 mm © 45 mm x 81.7 mm x 102.6 mm	● 45mmx81.7mmx102.6mm ● 45mmx81.7mmx102.6mm	
Load voltage	● 24 – 265 V _{rms} ● 48 – 530 V _{rms}	 € 24 - 265 V_{rms} € 48 - 660 V_{rms} 	42 – 660 V _{rms}	
Load current (max.)	0 25 A _{rms} 6 50 A _{rmsf}	 Ø 30 A_{ms} (T_a = 25 °C) Ø 45 A_{ms} (T_a = 25 °C) 	● 45A _{rms} (T _u = 25°C) ● 20A _{rms} (T _u = 25°C)	
Load current (min.)	150 mA _{ms}			
Control voltage	3 – 32 V DC	4 – 32 V DC	3 – 32 V DC	
Peak off-state voltage	650 V _{pk}	● 600 V _{pk} ④ 1200 V _{pk}	1200 V _{pk}	
Operating mode	thyristor zero-crossing switching			
Electrical isolation	by optocouplers between the control and power sections, insulation voltage 4 kV			
Permissible ambient temperature	-20 to +70°C (taking the the derating curve into account)			
Electrical connection	via screw terminals			
Housing	Noryl GFN1	PBT FR		
Enclosure protection	IP20			
Weight	60 g	200g	9 360 g9 380 g	
Features / extra functions	overvoltage protection through integrated varistor, LED display for control input	with integrated heatsink for mounting on DIN rail or screw fixing, can also be supplied as a 3-phase model, LED display for control input	 with integrated heatsink for mounting on DIN rail or screw fixing, can also be supplied as a 3-phase model, LED display for control input 3-phase version is standard 	
Approvals	UL/CSA			
Additional				
information	Data Sheet 70.9010	Data Sheet 70.9020		

Power converter

Thyristor power unit

The tough guys





Туре	709050 (JUMO IPC)	TYA-110/3, 25100150250
Dimensions (L x W x H)	272 mm x 260 mm x 175 mm (70A) 344 mm x 300 mm x 204.5 mm (100/200A)	195mm x 110mm x 152mm (25/50A) 195mm x 125mm x 170mm (75/100A) 220mm x 150mm x 280mm (150/250A)
Load voltage	20, 60, 90, 120, 150, 210, 380V DC others on request	24, 42, 115, 230, 265, 400, 460, 500 V AC
Load current	70A 🗠 DC/100 A 🗠 DC/200A DC	25, 50, 75, 100, 150, 250A
Supply for power section	115, 230, 400 V AC	same as load voltage
Supply for control section	115, 230V AC	same as load voltage
Operating mode	amplitude control	burst-firing or phase-angle operation
Circuit variation	single-phase operation	
Load type	resistive load	resistive and resistive-inductive load (BS 1,2T)
Control signal	0(4) - 20 mA 0(2) - 10 V 0(1) - 5 V external 5 k Ω potentiometer	0(4) – 20mA, 0(2) – 10V 0(1) – 5V, 0/10V, 0/5V, 0/20mA 5 kΩ potentiometer floating contact
Control accuracy	supply variations from -20% / +15% are stab	ilized with an accuracy of \pm 0.5 %
Permissible ambient temperature	0 to 45°C, max. 60°	5 to 40 °C to EN 60721-3-3
Enclosure protection	IP 00 to EN 60529	IP00 to EN 60529, heatsink is grounded
Protection Class	Class 1, with isolation of the control circuits for	r connection to SELV circuits
Weight	approx. 9kg: 70A, approx. 17kg: 100A/200A	depending on load current: 2.8kg or 9kg
Ventilation	forced ventilation	natural convection
Features / extra functions	low-voltage heater elements can be operated directly off the mains supply without requiring a reduction transformer, minimum harmonics in the supply network of the plant, light weight, low control reactive power, subordinate control loop comes as standard, partial-load failure, current limiting, load output	two single-phase units can be wired up as an economy circuit for burst-firing operation, free-running economy circuit for resistive loads, master-slave economy circuit for resistive or transformer loads, firing pulse inhibit, set basic load, subordinate control loop, supply voltage monitoring, partial-load failure, current limiting, load output
Accessories	supply filter and storage inductor are required	mounting plate for wall fixing
Additional information	Data Sheet 70.9050	Data Sheet 70.9040

Decentralized automation system JUMO mTRON – *The system components*

Process visualization software SVS-2000N – *The control center*



Group diagram



Operating unit

mTRON iTOOL

- savings in installation and cabling
- different modules can easily be combined
- no need to familiarize yourself with complex network structures
- simple and transparent project design and commissioning
- PROFIBUS networking via gateway
- operating unit
- analog input module
- controller module
- relay module and analog output module
- communication module
- logic module
- JUMO mTRON iTOOL project design software

Additional information: Brochure 70035 GB



Flow diagram

- for networking of JUMO interfaceable process equipment with a PC
- simple and fast creation of applications
- extensive library with predefined graphic elements
- transparent operation
- extensive documentation function with continuous and batch evaluation
- alarm and event list
- fast and simple start-up through installation menu
- password protection
- historical and real-time trend
- network-capable
- connection of bar code scanners
- remote alarm (option)

Additional information: Brochure 70052 GB

Fax reply

(for fax number see address below)

PR 70040 GB "Controllers, Power Units and System Technology"

Please send me the following data sheets:

- □ Data Sheet 70.0101 □ Data Sheet 70.3041 □ Data Sheet 70.0201 □ Data Sheet 70.3570 □ Data Sheet 70.1050 □ Data Sheet 70.3580 □ Data Sheet 70.1060 □ Data Sheet 70.3590 □ Data Sheet 70.1130 □ Data Sheet 70.9010 □ Data Sheet 70.1140 □ Data Sheet 70.9020 □ Data Sheet 70.2040 □ Data Sheet 70.9025 □ Data Sheet 70.2050 □ Data Sheet 70.9040 □ Data Sheet 70.2060
- □ Data Sheet 70.3011 □ Data Sheet 70.9050
- □ Send me a quotation

Please send me brochures on:

- □ "JUMOmTRON" (PR 70035 GB)
- □ "SVS-2000N" (PR 70052 GB)
- "Thyristor power units, thyristor power switches" (PR 70044 GB)

Please send me the following information:

- □ Product Guide (PR 00046 GB)
- sectional catalog:
 "Controllers, Power Units and System Technology"
- ☐ the book: "Control Engineering A practical guide" (nominal charge 14,– EUR)
- □ CD-ROM "Products"

Sender:	
Name	
Company	
Industry	
Address	
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e-mail	
Date	stamp and signature

Please arrange a personal discussion

with

Phone

Date/time



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