



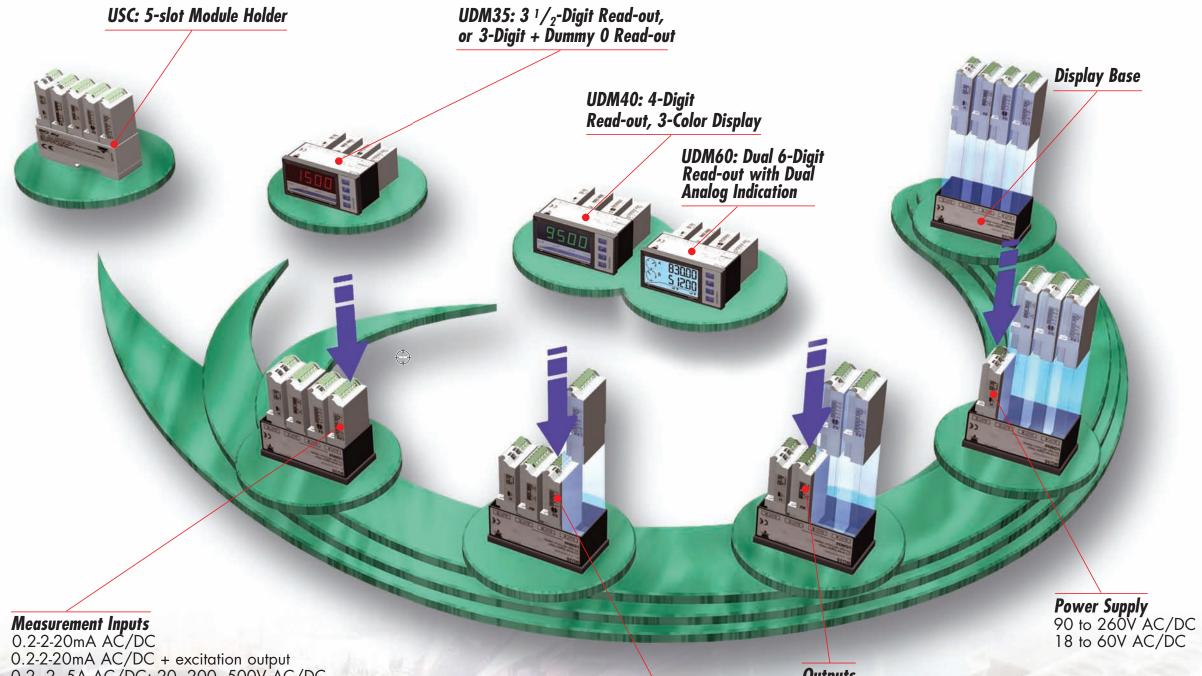




# A New Concept of Modularity

- Maximum In-field Flexibility
- Quick Assembly and Configuration
- Easy Future Expansion





0.2-2-20MA AC/DC 0.2-2-20MA AC/DC + excitation output 0.2, 2, 5A AC/DC; 20, 200, 500V AC/DC TC: J-K-S-T-E, Pt100-250-500-1000, Ni100 : 0.02, 0.2, 2, 20k Tachometer: 0.001Hz to 50kHz

**Communication Port** RS485 and RS232 ports

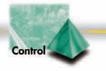
Outputs
Analog outputs:
Max 1 analog output:
0 to 20mA or 0 to 10VDC

Alarm outputs: 1 relay output

2 relay + 2 open collector outputs
4 relay outputs

Specifications are subject to change without notice.





# Features and Benefits of the Digital Panel Meters

- **DI3 DIN, DI3 72, LDI3, LDM 30** Indicators for DIN-rail and panel mounting
- Various input capabilities
- Easy product configuration via dip switches

## LDI35, LDM35H

- Multi range and multi signal indicator and controller
- Powerful scaling capability
- Universal power supply (LDM35H only)

### LDM40

- Multi range and multi signal indicator and controller
- Universal power supply
- 4-digit display

#### UDM35

- Powerful performance
- Plug and play modules
- Maximum in-field flexibility
- Possibility to expand the inputs/outputs only when really needed by the application

#### UDM40

- State of the art performances
- Maximum in-field flexibility
- Input signal linearization capability
- 3-color display

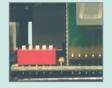
#### UDM60

- Advanced tachometer features
- Two independent instruments in one housing
- Dual pulse metering and totalizing in one instrument
- Dual 6-digit display with analog indicators

- Universal signal conditioner
- Maximum in-field flexibility
- Input signal linearization capability
- Programming and network software

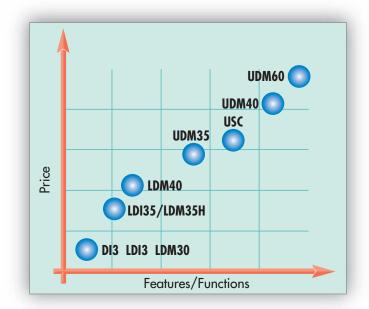
# DI3 DIN, DI3 72, LDI3, LDM30

These value-priced panel meters are easily configurable by dip-switches, this provides a means to set the position of the decimal point and the primary of the current transformer or to connect a potential transformer.











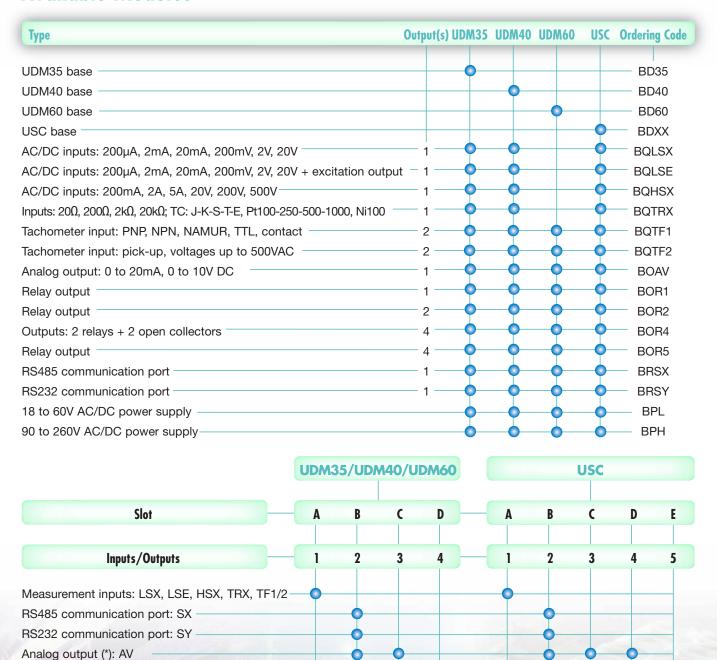
# UDM60, Two Variables Available at a Glance

The 6-digit format provides very accurate measurements while the analog indicators show where the variable is compared to its full-scale.





# **Available Modules**



(\*) Note: A maximum of one analog output module

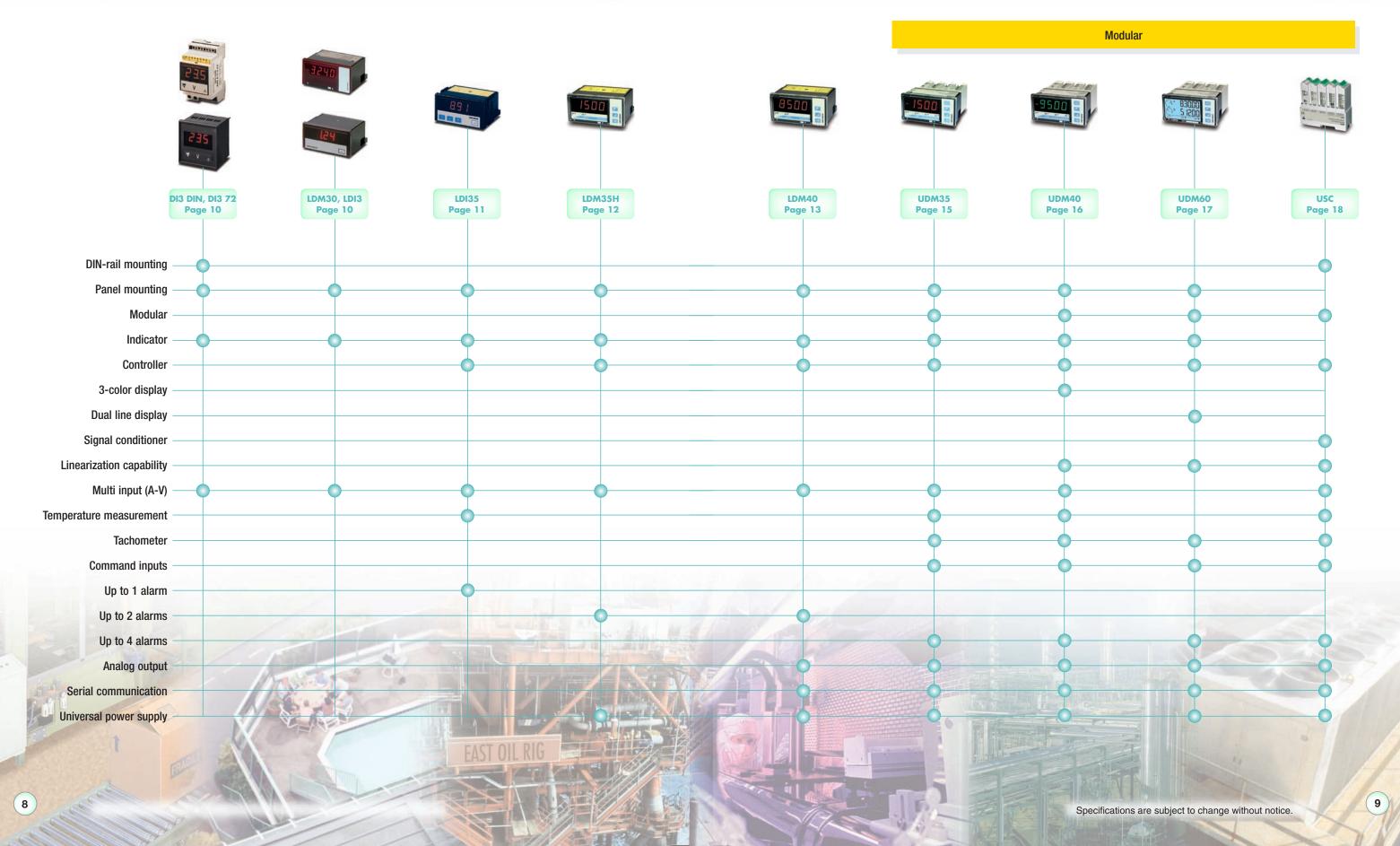
Power supply: H, L

Relay and open collector outputs: R1, R2, R4, R5















# DI3 DIN DI3 72 LDI3 LDM30

With just four basic models, this product family is the ideal solution for people with value in mind.

The product philosophy meets the user's requirements in terms of features and flexibility.



# DI3 DIN DI3 72 LDI3 LDM30

Description		3-DGT µP-based indicator		
Housing (H x W x D)		89 x 53.5 x 58.8 mm (DIN)		
_		72 x 72 x 75 mm (72)		
		48 x 96 x 83 mm (LDI3)		
Mounting		DIN rail, panel mounting (72, LDI3, LDM30)		
Display type		DI3, LDI3: 3 DGT, red LED; LDM30: 3 DGT+		
		dummy zero		
Variables or	ı display	YES		
Measured s	ignals	1A/60mV/100-500VDC		
		1A/100VAC, 5A/500VAC		
		1 to 1000Hz		
Type signals		DC or AC		
Engineering	units	mA, A, V, Hz		
Accuracy		±(0.5%FS, + 1DGT)		
Temperature	e drift	±350ppm/°C		
Sampling ra	te	1 time/second		
Command in	puts	Not available		
Outputs:	Alarm	Not available		
	Analog	Not available		
-	Serial	Not available		
Signal/disp	lay scaling	YES (CT and VT/PT sel. by dip-switch)		
Power supp	ly l	24V, 48V, 115V, 230V AC		
Approvals		DI 3 72: CE, cCSAus; DI3-DIN: CE		
7		LDI3: CE, cCSAus		
	1,00	LDM30: CE, cURus, cCSAus		
Protection d	legree	IP40 (DIN); IP50 (72), IP50		
		(LDI3), IP65 (LDI3 on request; LDM30)		







LDI35

This series is available in two basic models:

- · Offered as an indicator only
- With one alarm relay output

Each model has a specific version for:

- Process applications with 2-20mA and 0.2-20V-200V input
- Higher current/voltage applications with 2-5A and 200-500VAC/DC input

The range includes an ohmmeter and a temperature controller which can accept various types of RTDs and thermocouples.

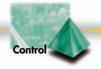


### LDI35

Description	3 1/2-DGT μP-based indicator		
	and controller		
Housing (H x W x D)	48 x 96 x 83 mm		
Mounting	Panel mounting		
Display type	3 1/2-DGT or 3DGT+ dummy 0, red LED		
Variables on display	YES		
Measured signals	(2-20mA, 20-200V); (2-5A, 200-		
_	500V); (TC: J-K-S-T-L, Pt100-1000,		
	Ni100, 200-2000Ω)		
Type signals	DC and AC		
Engineering units	Label set		
Accuracy	DC: ±(0.3%FS + 1DGT)		
	AC: $\pm (0.5\%FS + 1DGT)$		
Temperature drift	±200ppm/°C		
Sampling rate	4 times/second		
Command inputs	Not available		
Outputs: Alarm	Up to 1		
Analog	Not available		
Serial	Not available		
Other available characteristics	Signal/display scaling. Digital		
	filter, Peak and Valley. Burn-out		
	control on temperature input		
Power supply	24, 48, 115, 230VAC, 9 to 32VDC,		
	40 to 150VDC		
Approvals	CE, cCSAus		
Protection degree	IP65 (on request)		









# LDM35H

This series is available in two basic models:

- · LDM35H, offered as an indicator only
- LDM35H, with one or two relay outputs Both versions are provided with a universal power supply.

Each model has a specific version for:

- Process applications with 0.2-2-20mA and 0.2-2-20V DC/AC input
- Higher current/voltage applications with 0.2-2-5A and 20-200-500V AC/DC input

TRMS measurement significantly improves the accuracy of the measurement on both distorted current and voltage signals.





#### LDM35H

Description	3 1/2-DGT µP-based indicator		
	and controller		
Housing (H x W x D)	48 x 96 x 83 mm		
Mounting	Panel mounting		
Display type	3 1/2-DGT or 3-DGT + dummy 0,		
. , ,,	red LED		
Variables on display	YES		
Measured signals	(0.2-2-20mA, 0.2-2-20V); (0.2-2-5A,		
•	20-200-500V)		
Type signals	DC and AC TRMS		
Engineering units	Self adhesive label set		
Accuracy	DC: ±(0.3%RDG + 3DGT)		
•	AC: $\pm (0.5\%RDG + 3DGT)$		
Temperature drift	±150ppm/°C		
Sampling rate	5 times/second		
Command inputs	Not available		
Outputs: Alarm	Up to 2		
Analog	Not available		
Serial	Not available		
Other available characteristics	Signal/display scaling. Digital		
	filter, Peak and Valley.		
Power supply	90 to 260V AC/DC,		
William Co.	18 to 60V AC/DC		
Approvals	CE, cCSAus, cURus		
Protection degree	IP65		





# LDM40

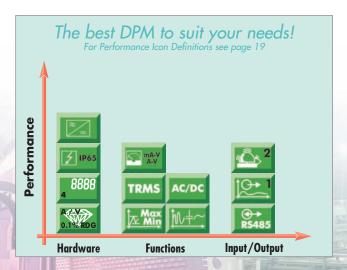
The LDM Series has now evolved to a better performing digital controller with characteristics typically found in higher class products.

The most important features which distinguish this model from the LDM35H are its extended communication capability and the 4-digit display.

The main characteristics are:

- The RS485 serial communication
- The proportional analog output

The LDM40 can be provided with either serial communication or analog signal retransmission. If needed it could be supplied with both.





#### LDM40

Description	4-DGT μP-based indicator		
-	and controller		
Housing (H x W x D)	48 x 96 x 83 mm		
Mounting	Panel mounting		
Display type	4-DGT, red LED YES		
Variables on display			
Measured signals	(0.2-2-20mA, 0.2-2-20V); (0.2-2-5A, 20-200-500V)		
Type signals	DC and AC TRMS		
Engineering units	Self adhesive label set		
Accuracy	DC: ±(0.1%RDG + 2DGT)		
•	AC: ±(0.3%RDG + 2DGT)		
Temperature drift	±150ppm/°C		
Sampling rate	5 times/second		
Command inputs	Not available		
Outputs: Alarm	Up to 2		
Analog	1 (20mA, 10VDC)		
Serial	RS485		
Other available characteristics	Signal/display scaling. Digital		
	filter, Peak and Valley.		
Power supply	90 to 260V AC/DC,		
	18 to 60V AC/DC		
Approval	CE, cURus and cCSAus pending		
Protection degree	IP65		





#### **Modular Panel Meter**



# **UDM35**

The UDM 35 is a universal Digital Panel Meter that has been developed to meet the most advanced application requirements. The UDM35 offers:

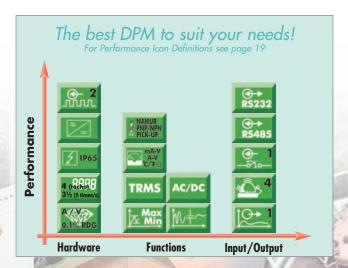
- Quick assembly and maintenance using plug and play modules
- Easy and quick parameter programming and parameter cloning on other UDMs by means of UdmSoft or PC HyperTerminal
- · Powerful variable control by means of up to four alarms
- Analog output and RS485/RS232 communication ports

The different type of alarm controls:

- Up-down functions with automatic reset
- · Up-down functions with manual reset
- Down with disable function at power-on

These alarms can be combined to offer up to four abnormal steps known as pre-alarms and alarms.







#### **UDM35**

Description		μP-based controller		
		with modular housing		
Housing (H x W x D)		48 x 96 x 105 mm		
Mounting		Panel mounting		
Display type		3 1/2-DGT or 3-DGT + dummy 0,		
		red LED (4-DGT in case of tacho function)		
Variables or	ı display	YES		
Measured s	ignals	(0.2-2-20mA, 0.2-2-20V); (0.2-2-5A,		
		20-200-500V); (TC: J-K-S-T-E, RTD, Ω);		
		speed, frequency, rate, period		
		(0.001Hz to 50kHz)		
Type signals	3	DC and AC TRMS		
Engineering	units	Self adhesive label set		
Accuracy		Pulse: ±(0.001%RDG + 3DGT)		
		DC: ±(0.1%RDG + 3DGT)		
		AC: ±(0.3%RDG + 3DGT)		
Temperature		±150ppm/°C		
Sampling ra	te	5 times/second		
<b>Command</b> in	iputs	1 (display hold, key pad lock or		
		latch alarm reset)		
Outputs:	Alarm	Up to 4		
	Analog	1 (20mA,10VDC)		
	Serial	RS485, RS232		
Other available characteristics		Signal/display scaling. Analog		
	THE RESERVE	output scaling. Digital filter, peak		
1	17117	and Valley. Burn-out control on		
	1100	temperature inputs only.		
Power supply		90 to 260 AC/DC,		
		18 to 60V AC/DC		
Approvals		CE, cCSAus, cURus		
Protection o	legree	IP65		



#### **Modular Panel Meter**

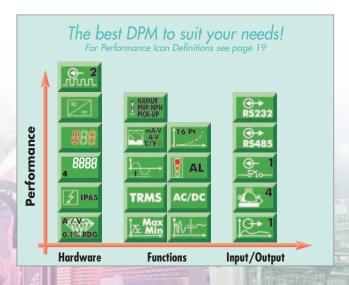


# **UDM40**

The UDM40 offers the same basic characteristics as the UDM35, but with these additional benefits:

- Display color adaptable to other existing instruments by means of a 3-color choice
- Management of non linear signals coming from special process transmitters using a 16-point linearization capability
- Provides reliable process information, working out a complex or disturbed signal by a programmable input integration time and/or a smart digital filter

Alarm status at a glance using the easy "traffic light" principle. The instrument may show the alarm status based on a sequence of colors that can be programmed by the user.





#### **UDM40**

Description	4-DGT µP-based controller with		
2031	modular housing		
Housing (H x W x D)	48 x 96 x 105 mm		
Mounting	Panel mounting		
Display type	4-DGT, color LED		
Variables on display	YES		
Measured signals	(0.2-2-20mA, 0.2-2-20V); (0.2-2-5A,		
•	20-200-500V); (TC: J-K-S-T-E, RTD, Ω);		
	speed, frequency, rate, period (0.001Hz		
	to 50kHz)		
Type signals	DC and AC TRMS		
Engineering units	Self adhesive label set		
Accuracy	Pulse: ±(0.001%RDG + 3DGT)		
	DC: ±(0.1%RDG + 3DGT)		
	AC: ±(0.3%RDG + 3DGT)		
Temperature drift	±150ppm/°C		
Sampling rate	5 times/second		
Command inputs	1 (display hold, key pad lock or		
	latch alarm reset)		
Outputs: Alarm	Up to 4		
Analog	1 (20mA, 10VDC)		
Serial	RS485, RS232		
Other available characteristics	Signal/display scaling. Analogue		
	output scaling. Digital filter. Integra-		
	tion time. Peak and valley. Burn-		
	out control on temp. inputs only.		
	Linearization. Traffic light function.		
Power supply	90 to 260 AC/DC,		
	18 to 60V AC/DC		
Approvals	CE, cCSAus, cURus		
Protection degree	IP65		





#### **Modular Tachometer/Counter**



# UDM60

The successful and unique UDM Series now has a new complementary model, the UDM 60 - a univeral tachometer and counter with dual indication. It is an advanced panel meter capable of simultaneously displaying two independent variables, making it two instruments in one. This solution allows the user to maximize panel space, use one meter instead of two and save money. The UDM60 features an accurate digital readout, but also provides the benefits of an analog display, as the user can see the behaviour of the instaneous variable versus the meter's full scale. This allows the user to see the parameters being measured 'at a quick glance'. The heart of the instrument is the BQTFx module, which can also be combined with the UDM35 for a 4 digit (red) LED indication or the UDM40 for a 4 digit (redamber-green) indication. The same inputs (A and B) can also be connected between one another to provide specific



control and display functions like: 1/A, A/B, A-B, (A-B)/B and B/(A+B), to manage i.e. speed or frequency difference or rate.





#### **UDM60**

Description	6-DGT µP-based controller with		
	modular housing		
Housing (H x W x D)	48 x 96 x 105 mm		
Mounting	Panel mounting		
Display type	Dual 6-DGT, backlit LCD display		
	with analog indication also		
Variables on display	YES		
Measured signals	Speed, frequency, rate, period, totalizer		
	(0.001Hz to 50kHz)		
Type signals	DC or AC		
Engineering units	Self adhesive label set		
Accuracy	$\pm (0.001\%RDG + 3DGT)$		
Temperature drift	±100ppm/°C		
Sampling rate	5 times/second		
Command inputs	1 (display hold, key pad lock or		
	latch alarm reset)		
Outputs: Alarm	Up to 4		
Analog	1 (20mA, 10VDC)		
Serial	RS485, RS232		
Other available characteristics	Signal/display scaling. Analog		
7 0	output scaling. Digital filter. Peak and		
	valley. Linearization. Combination of the		
	inputs according to predefined functions.		
7	Pulse metering and totalizing.		
Power supply	90 to 260 AC/DC,		
	18 to 60V AC/DC		
Approvals	CE, cURus, cCSAus pending		
Protection degree	IP65		



#### **Modular Signal Conditioner**



# USC

The key benefit of the USC Universal Signal Conditioner is its architecture. It is created with a module holder on which it is possible to plug in modules with different functions: power supply, measurement, alarm, control and signal retransmission. The different combination of the modules allows for a simple signal conditioner or a very sophisticated controller with communication port.

#### The USC offers:

- Easy and quick parameter programming and parameter cloning on other USCs by means of UscSoft or PC HyperTerminal
- · Powerful variable control by means of up to four alarms
- Remote control via an analog output
- RS485 and RS232 communication ports
- Management of non linear signals coming from special process transmitters using a 16-point linearization capability
- Reliable process information, working out a complex or disturbed signal by a programmable input integration time and/or smart digital filter
- Interchangeable I/O modules with the UDM Series





### USC

Description	μP-based signal conditioner with		
	modular housing		
Housing (H x W x D)	44 x 113 x 107 mm		
Mounting	DIN-rail mounting		
Display type	Not Available		
Variables on display	Not Available		
Measured signals	(0.2-2-20mA, 0.2-2-20V); (0.2-2-5A,		
	20-200-500V); (TC: J-K-S-T-E, RTD, Ω);		
	Speed, frequency, rate, period, totalizer		
Type signals	DC and AC TRMS		
Engineering units	Not available		
Accuracy	DC: ±(0.1%RDG + 3DGT)		
	AC: $\pm (0.3\%RDG + 3DGT)$		
	RPM/Hz: ±(0.001%RDG + 3DGT)		
Temperature drift	±150ppm/°C		
Sampling rate	5 times/second		
Command inputs	1 (latch alarm reset)		
Outputs: Alarm	Up to 4		
Analog	1 (20mA, 10VDC)		
Serial	RS485, RS232		
Other available characteristics	Signal/display scaling. Analog		
	output scaling. Digital filter.		
	Integration time. Peak and valley.		
	Burn-out control on temp. inputs		
	only. Linearization up to 16 points.		
Power supply	90 to 260 AC/DC,		
	18 to 60V AC/DC		
Approvals	CE, cURus, cCSAus		
Protection degree	IP20		





#### **Current Transformers**

Types	TADK	TADK2	CTD-1X	CTD-2X	CTD-3X
Class	0.5	0.5	0.5	0.5	0.5
Bus-bar size/Cable diam.		25X5 mm	max ∅ 23 mm	max 32x5mm; Ø 24mm	max 51x15mm; Ø 41mm
Dimensions (H x W x D)	115.5x75x44 mm	115.5x75x44 mm	65x44x44 mm	86x56x63 mm	109x77x63 mm
Standards	IEC60185 / EN60185	IEC60185 / EN60185	EN 60044-1	EN 60044-1	EN 60044-1
Accuracy class depending on	Burden (VA)	Burden (VA)	Burden (VA)	Burden (VA)	Burden (VA)
the burden output	Class 0.5	Class 0.5	Class 0.5 1 3	Class 0.5 1 3	Class 0.5 1 3
Primary current at	1A 10	1A 10	40A 1	40A 1.25	50A 1.75
rated output	5A 10	5A 10	50A 1 1.25	50A 1.5	60A 2
current of 1A/5A	60A 10	60A 10	60A 1.25 1.5	60A 2	70A 2.5
	10A 10	10A 10	70A 1.5 1.75	70A 2.5	75A 3
	15A 10	15A 10	75A 1 1.25 1.75	75A 1.75 2.5	80A 3
	25A 10	25A 10	80A 1.25 1.5 2	80A 2 2.75	100A 2 3.5
	40A 10	40A 10	100A 1.5 1.75 2.25	100A 2.5 3	120A 2.25 4
		50A 10	120A 1.75 2 2.5	120A 2.75 3.75	125A 2.5 4.5
		60A 10	125A 2 2.25 2.75	125A 2 2.75 3.75	150A 2.25 3 6
		80A 10	150A 2.25 2.5 3	150A 3 4 5	160A 2.5 3.5 6.5
		100A 10	160A 2.5 2.75 3.25	160A 3 4 5	200A 3 4.5 8.5
		150A 10	200A 3 3.25 3.75	200A 4 5 6.5	250A 3.5 6.5 10.5
		200A 10	250A 4.5 4.75 5.25	250A 5.5 7 8	300A 7 10 13
		250A 10	300A 5 5.5 6	300A 7 8.5 9.5	400A 9 14 17
				400A 12 13.5 14.5	500A 14 18 21
				500A 14 15.5 16.5	600A 17 21 24
				600A 17.5 19 20	700A 22 26 29
					750A 24 28 31
					800A 25 29 32
					1000A 35 39 42
					1200A 40 44 47
Types	CTD-4X	TAD 8	TAD 12	TACO 110	TACO 200
Class	0.5	0.5/1/5P10	0.5/1/5P10	0.5/1/5P10	0.5/1/5P10
Bus-bar size/Cable diam.	max 64x20mm; Ø 51mm	82x32mm or 65x34mm	127x51mm or 102x53mm	max Ø 110 mm	max Ø 200 mm

Types	CTD-4X	TAD 8	TAD 12	TACO 110	TACO 200
Class	0.5	0.5/1/5P10	0.5/1/5P10	0.5/1/5P10	0.5/1/5P10
Bus-bar size/Cable diam.	max 64x20mm: Ø 51mm	82x32mm or 65x34mm	127x51mm or 102x53mm	max Ø 110 mm	max Ø 200 mm

Dimensions (H x W x D) Standards Accuracy class depending on the burden output Primary current at rated output current of 1A/5A

113x90x63 mm EN 60044-1 Burden (VA) Class 0.5 5P5 150A 2.5 5 cl.3 200A 3.25 6 cl.3 250A 2.5 4.5 2 300A 3 4 3 400A 6 9 500A 10 12.5 4 600A 11 13.5 700A 12.5 15 5 750A 13 15.5 5 800A 14 5 16.5 1000A 17.5 20 1200A 20 22.5 6 1250A 20 22.5 6 1500A 27.5 30 8 1600A 27.5 30 8

140x120x55 mm IEC60185 / EN60185 Burden (VA)

183x170x65 mm IEC60185 / EN60185 Burden (VA)

183x170x65 mm IEC60185 / EN60185 Burden (VA)

295x280x45 mm IEC60185 / EN60185 Burden (VA)

Cable and/or bus-bar type AC current transformers; operating frequency: 45 to 65 Hz; max system voltage: 0.72 kV; rated insulation level: 3kV/1min @ 50Hz; security factor: 5; rated secondary current: 5A standard (1A on request); DIN-rail, bus-bar or back-panel mounting. All the products are CE marked.

