

**Expert Transient** 是一種暫態數據分析記錄器，可以獨立運行，用於暫態和周期性過程的同步採集。

可以長時間觸發或連續記錄測量數據。**Expert Transient** 配備了強大的 **FPGA** 技術。



## 同步檢測和高精度

該設備能夠同步採集並獨立保存取樣的測量數據，最高可達每通道 **50 KHz** 的採樣率，並結合數位信號。由於可選擇並行記錄到內部記憶體和外部儲存媒體，因此數據儲存妥善且非常安全。

**Expert Transient** 配有 **8** 或 **16** 個同步通道輸入和 **4** 個數位輸入。該系統可以通過具有高速同步協議的 **LAN** 接口並擴展到 **100** 多個輸入通道信號。並可以擴展其他同步數位訊號輸入。

ProfiSignal Go 軟體可以在  $y(t)$  時域圖中實時顯示記錄的信號。使用 ProfiSignal 軟體則即便是大量的歷史儲存數據也很容易分析。可以使用 ProfiSignal Go 輕易地聯繫到設備的內部儲存記憶體並進一步離線分析數據。這些信號序列圖形提供了故障事件時間順序與解讀上特別有用。

#### Expert Transient Spec.

##### Inputs / Outputs

<b>Analog inputs</b>	<b>8 or 16</b>
Sampling rate, adjustable per channel	20 Hz .. 50 kHz
Usable signal range	DC .. 20 kHz
Voltage / current ranges	$\pm 25$ V / 0 .. 20 mA / 4 .. 20 mA / free
Signal conditioning, software switchable	None, AC-coupling, IEPE
Resolution / input impedance	24 bit / 4 M $\Omega$
Dielectric withstand voltage	$\pm 100$ VDC
Galvanic isolation / channel to channel / channel to system / PE	$\pm 400$ VDC
Measurement accuracy	0.5 mV + 0.008 % from measurement

<b>Digital inputs</b>	<b>4</b>
Input signal	low: 0 .. 1 V / high: 5 .. 100 VDC@3.5 mA
Galvanic isolation / channel to channel / channel to system / PE	± 400 VDC
Max. input frequency / min. pulse width	1 MHz / 500 ns
<b>Analog outputs</b>	<b>4</b>
Resolution	16 bit
Output ranges	0 .. 10 V / ± 10 V / 0 .. 20 mA / 4 .. 20 mA / ± 20 mA
Galvanic isolation / channel to channel / channel to system / PE	± 400 VDC
Min. load / max. burden	650 Ω
<b>Digital outputs</b>	<b>8</b>
Switching voltage / current / PWM	50 V / 2.5 A / galvanically isolated / 5 Hz .. 10 kHz, to 1:1000

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**Data storage**

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Internal / external	2 .. 14 GB ( approximately 30 million measurements per GB) / USB, NFS, CIFS, (S)FTP
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**Signal conditioning functions****High pass / low pass / bandpass filters**

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Cut-off frequency / filter order / filter characteristics	5 Hz .. 20 kHz / 4, 6, 8, 10 / incl. Butterworth
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**Integrator / Differentiator**

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Single or double-integrator / differentiator

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**Characteristic values from time signal**

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Maximum / minimum value, peak-to-peak value, arithm. average, TRMS, max, vect. sum, local min. / max, values

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**Characteristic values on digital input**

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Frequency	1 Hz .. 1 MHz
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Counter	32 Bit, UP-Down counter, quadrantur decoder
<b>Interfaces</b>	
Physical equipment COM 1 / COM 2	RS485, 9-pole sub-D plug, DIN EN ISO 19245-1
Physical equipment COM 3	RS232, 9-pole sub-D plug
LAN	1 x 1000Base-TX
WLAN / WWAN (optional)	802.11b/g/n / GPRS, UMTS, LTE max. 100 Mbit/s
USB	Device 2.0 / host 2.0 7 low / high / full
PROFIBUS	2 x PROFIBUS DPV1 / Slave max. 12 Mbit, also redundant according to PNO 2.212 V1.2, passive PROFIBUS sniffer
CAN / RS 232/485	2 x CAN 2.0 / Modbus RTU, SCPI, ASCII
TCP/IP	Modbus TCP, OPC UA
<b>General technical information</b>	
Dimensions / weight	210 mm x 80 mm x 125 mm / 750 g

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Fixing	Rail mounting DIN EN 60715 or screw fixing
Signal connections	Plug-in screw terminals, 96 terminals in 2 rows, max. 1.5 mm <sup>2</sup>
Temperature range	-20 .. 50° C
Power supply	12 .. 24 V / ± 10%
Power input	max. 10 W

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