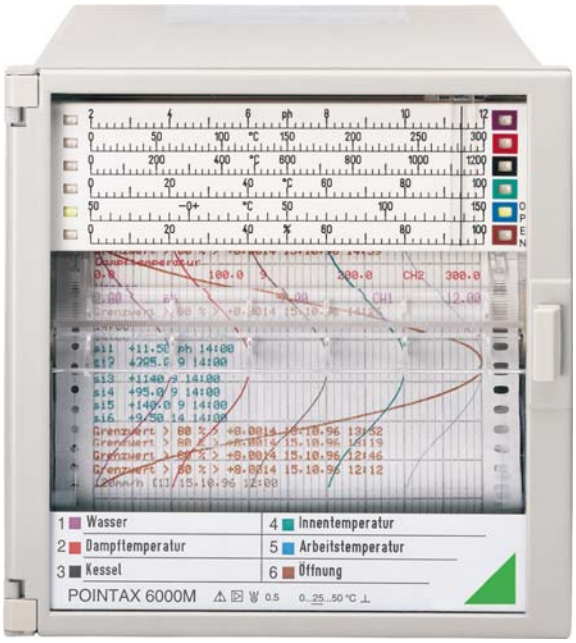
GOSSEN METRAWATT

POINTAX 6000M
Point recorder

3-348-798-03
4/8.18

Application

The configurable point recorder POINTAX 6000M serves the recording of changing measured quantities. DC current, DC voltage, thermocouples as well as resistance thermometers (Pt 100) can be connected directly.
Additionally, alphanumeric texts, date, time and events can be printed out.
The recorder is meant for panel mounting.



Essential features

- 6 measuring channels
- Last point visible from the front
- With text printout
- Measuring channels electrically isolated and earth-free
- Format 144 mm x 144 mm, mounting depth 250 mm
- Combined recording table
  for roll chart (32 m) or fanfold chart (16 m)
- RS 485 interface
- 2 limits per measuring channel
- Balancing
- 4 event markers
- Can alternatively be used as event recorder
  with 10 event markers

Description

The POINTAX 6000M is a configurable point recorder, in scale version with 1 to 6 scale divisions.

The recorder is connected to transducers and/or directly to sensors like thermocouples or resistance thermometers.

The recorder is matched to the measuring task via the internal keyboard or via the serial interface with PC and parameterizing program PARATOOL P6000M.

Supplementary functions like text printout, date, time, balancing and event marker increase the information content of the print-out process quantity. Alarm signalling and remote control make the POINTAX 6000M a device to be used in a wide range of applications.

The standby function makes triggered recording operation possible.

POINTAX 6000M
Point recorder

Applied rules and standards

A) International standards

IEC 484	DIN 43782	Potentiometric recorders
IEC 61010-1	DIN EN 61010-1	Safety requirements for electrical equipment for measurement, control and laboratory use Part 1: General requirements
IEC 664	VDE 0110	Insulation group
IEC 68-2-6	DIN IEC 68-2-6	Mechanical stress (vibrations)
IEC 68-2-27	DIN IEC 68-2-27	Mechanical stress (shock)
EN 60529	VDE 0470-1	Test instruments and test procedures Degrees of protection provided by enclosures (IP code)
EN 61326-1	VDE 0843-20-1	Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements
IEC 721-3-3	DIN IEC 721-3-3	Climatic environmental conditions
IEC 742	DIN EN 60742	Classification VDE 0551 safety transformers

B) German standards

DIN 43802	Scales
DIN 16234	Recording chart
DIN 43831	Cases

Symbols and their meaning

Symbol	Meaning
X1n / X1	Lower range limit nominal range / lower range limit
X2n / X2	Upper range limit nominal range / upper range limit
X2n – X1n / X2 – X1	Range span nominal range / range span

Technical specifications

Analog inputs, nominal ranges

DC current	0...20 mA; Ri = 50 Ω 4...20 mA; Ri = 50 Ω ± 2.5 mA; Ri = 50 Ω ± 5 mA; Ri = 50 Ω ± 20 mA; Ri = 50 Ω
DC voltage	0 ... 25 mV; Ri ≥ 2 MΩ ± 25 mV; Ri ≥ 2 MΩ 0 ... 100 mV; Ri ≥ 2 MΩ ± 100 mV; Ri ≥ 2 MΩ 0 ... 500 mV; Ri ≥ 2 MΩ ± 500 mV; Ri ≥ 2 MΩ 0 ... 2.5 V; Ri ≥ 200 kΩ ± .2.5 V; Ri ≥ 200 kΩ 0 ... 5.0 V; Ri ≥ 200 kΩ ± 5.0 V, Ri ≥ 200 kΩ ± 10 V, Ri ≥ 200 kΩ ± 20 V, Ri ≥ 200 kΩ
Thermocouples, Ri ≥ 2 MΩ	Typ T –270 ... +400 °C Typ U –200 ... +600 °C Typ L –200 ... +900 °C Typ E –270 ... +1000 °C Typ J –210 ... +1200 °C Typ K –270 ... +1400 °C Typ S –50 ... +1769 °C
Thermocouples, Ri ≥ 2 MΩ	Typ R –50... +1769 °C Typ B 0 ... +1820 °C Typ N –20 ... +1300 °C Cold junction compensation internally or externally parameterizable
Resistance thermometer Pt 100 With 2-wire connection With 3-wire connection	–50 ... +150 °C; –50 ... +500 °C; –200 ... +850 °C Line resistance 40 Ω max. Line resistance 80 Ω max.

Analog inputs, measuring ranges

Lower range limit parameterizable from X1n ... X1n + 0.8(X2n – X1n) and
Range span parameterizable from 0.2(X2n – X1n) ... (X2n – X1n).
Deadband 0.25 % of the range span
Setting time 1 s
Load cycle time for all channels 3 ... 360 s selectable
Attenuation of the measured value with low-pass filter of 1st order;
Time constant 0 ... 60 s per meas. channel, parameterizable.
Root-extract. funct. can be parameterized with DC current and DC voltage measuring ranges.
User-specific linearization can be parameterized with DC current and DC voltage measuring ranges.

Reference conditions

Ambient temperature	25 °C ± 1 K
Relative humidity	45 ... 75 %
Auxiliary voltage	Hn ± 2 %, nominal frequency ± 2 %
Mounting position	Front upright ± 2°
Warm-up time	30 min

Accuracy

Deviation in acc. with DIN IEC 484	Class 0.5 referred to nominal range
With displacement of lower range limit and/or upper range limit additionally	$\pm (0.1\ \% \times \frac{X2n - X1n}{X2 - X1} - 0.1)$
With internal cold junction compensation	± 4 K additionally

Variations

Temperature	0.2 % / 10 K, additionally 0.1 % / 10 K with conn. to thermocouple
Humidity	Note influence on recording chart in acc. with DIN 16234.
Auxiliary voltage Hn	0.1 % at 24 V DC/AC ± 20 % 0.1 % at 24 V AC +10 % / –15 % 0.1 % at 115 V AC +10 % / –15 % 0.1 % at 230 V AC +10 % / –15 %
AC interf. volt. (see permiss. interf. volt.)	0.5 % of the range span
Magnetic field of ext. origin 0.5 mT	0.5 % of the range span
Mechanical stress in acc. with DIN IEC 68-2-6/27 Transport Impact: 30 g/18 ms Vibration: 2 g/5 ... 150 Hz in function Vibration: 0.5 g/± 0.04 mm/ 5...150 Hz/3 × 2 cycles	During and after the effect ± 0.5 % of the range span

Real-time clock

Function maintained in the case of power failure: 5 days (capac.).

Options (code H01)

Binary inputs

Number	6 (DI 1 ... DI 6)
Auxiliary voltage	20 ... 24 ...30 V DC
Input current	6 mA
H signal	20 ... 30 V
L signal	0 ... 1.3 V

Relay outputs

6 potential-free relay contacts (roots connected to each other)
Contact load: 30 V / 100 mA
14 additional relays available via external I/O converter.

External speed change

It is possible to switch between speed 1 and 2 and to switch the speed off, each via a freely selectable binary input.

Standby function

The standby function is activated via a freely selectable binary input. Internal deactivation via limit monitoring is possible.

Event markers

4 markers are possible
Recording at approx. 2 %, 5 %, 95 % and 98 % of the recording width.

Externally controlled recording

Recording of externally controlled channels.

10 event markers

usable (without measured value recording) via external I/O converter (also see trend recording).

Balancing

Balancing can be selected for each measuring channel. The external control of the balancing interval is via a freely selectable binary input.

End-of-chart signalling

With speeds of ≥120 mm/h, 2 hours before the chart runs out. With speeds of < 120 mm/h, at least 8 hours before the chart runs out. Signalling is via a relay contact which can be freely assigned. When changing the recording chart, enter the length of the chart roll into the recorder.

Limit monitoring

2 limits per channel for monitoring the absolute value.
6 internal relays can be freely assigned to the limits.
Hysteresis 2 % of the range span (X2 – X1)

Display

Scale version

Scale
1 to 6 divisions
Type size at number of divisions:

Divisions	1	2	3	4	5	6
Type size (mm)	4	4	4	2	2	2

Channel display
by vertical LED column on the right side of the scale

Assignment scales to channel
by vertical LED column on the left side of the scale

Display and control panel (behind the recording table)
Display (only for parameterization) 5-digit 7-segment display
Digit size 4 × 7 mm
Operation with 3 keys

Recording

Colors

violet, red, black, green, blue, brown

Color sequence in acc. with DIN 43838

Channel 1	violet
Channel 2	red
Channel 3	black
Channel 4	green
Channel 5	blue
Channel 6	brown

or freely assignable to the channels

Last point visible from the front
Color reservoir ≥ 1×10^6 points per color

Trend recording

The measured value recording is carried out in the form of a point line with equidistant point space.

Operating modes

Cyclic operation – Processing all channels

Recording:
all channels are updated during the cycle time
Measured value display:
a measuring channel switches continuously or channel-wise from cycle to cycle.

Externally controlled

Recording:
the externally controlled channels are recorded, recording start can be delayed from 0 ... 30 s
Measured value display:
switches channel-wise from cycle to cycle.
Option required

Cyclic operation – Processing one channel

Recording and measured value display:
the displayed channel is updated during the cycle time.
DO 1 ... DO 6 signals the measuring channel connected through.
Option required

Event recorder for 10 events

Recording:
Start, duration and end of the event are recorded in the form of an open rectangle.
I/O converter required

POINTAX 6000M
Point recorder

Text printout

only possible with chart speed ≤ 240 mm/h

Type size approx. 1.5 × 2 mm

Extent of the text printout:
1. Ten text lines, each text line optionally with
   up to 32 characters
   up to 30 characters and time printout
   up to 24 characters and time/date printout.
   Initiated cyclically, in parameterizable time intervals or depending on events by internal limits or externally controlled (binary inputs).
2. Printout of chart speed, date and time.
   Initiated by switching on the recorder and by changing the chart speed.
3. Printout of current measured values
   Initiated cyclically, in parameterizable time intervals or depending on events by internal/external control.
4. Printout of triple lines assigned to measuring points.
   First line: Scaling line with channel marking and printout of the unit of measurment.
   Second line: Measuring-point-specific text with up to 54 characters.
   Third line: Limit markings.
5. Printout of the balancing table consisting of:
   Comment line
   Start and end time of the balancing interval
   Min. / max. value during the balancing interval
   Average and cumulative value of the balancing interval
6. Lists of all active parameters
   Initiated manually in the parameterizing mode.

Chart roll speed

Speed parameterizable in mm/h	0/2.5/5/10/20/30/40/60/120/240/300/600/1200 to be switched over and off externally (Option)
Chart roll	32 m roll chart or 16 m fanfold chart
Visible diagram length	60 mm
Print span	100 mm (chart span 120 mm, DIN 16230)
Chart intake (for roll chart)	via automatic chart take-up device (daily tear-off or take-up of the 32 m possible)

Auxiliary voltage

UC power supply
   24 V DC ± 20 %
   24 V AC +10 %, –15 %
   Power consumption at max. fitting approx. 15 W / 21 VA
AC power supply
   24/115/230 V AC +10 %, –15 %
   Frequency range 47.5 ... 63 Hz
   Power consumption at max. fitting approx. 15 W / 21 VA

RS 485 interface

a) For parameterization

b) Coupling to higher order systems for bidirectional data transfer.
   The data protocol follows the PROFIBUS standard.

Climatic suitability

Ambient temperature	0 ... 25 ... 50 °C
Transport and storage temperature	–40 ... +70 °C
Relative humidity (device in function)	≤ 75 % annual average, max. ≤ 85 % prevent dewing
Climatic class	3K3 in acc. with IEC 721-3-3

Electrical safety

Test in acc. with DIN EN 61010-1 (Classification VDE 0411) and/or IEC 61010-1
Protection class I
Measuring category
   III at line input
   II at inputs
Degree of pollution
   2 in the device and at the connecting terminals
Test voltage
   3.75 kV measuring channels to power supply
   2.20 kV protective conductor to power supply

Functional extra low voltage with protective isolation (PELV)

Between power input – measuring channels, control leads, interface cables acc. to VDE 0100-410 and VDE 0106-101

Electromagnetic compatibility

The protection goals of the EMC directive 2014/30/EU as to radio interference suppression and as to immunity to interference according to EN 61326-1 are complied with.

Factory settings

Scale with a division of 0 ... 100

is supplied when no scale division is specified in the scale device order.

Parameter presettings

If no individual parameterization is specified in the recorder order, the POINTAX 6000M is supplied with the following parameter presettings:

All measuring channels with the measuring range 0 ... 20 mA
Speed 1: 20 mm/h
Speed 2: 120 mm/h
The limits are set to end values (0 and 20 mA).
Attenuation of the measured value, zoom, print and limit functions are deactivated.
No password is defined.
This parameter presetting can be initialized again independently from the currently set parameterization.

Scope of delivery

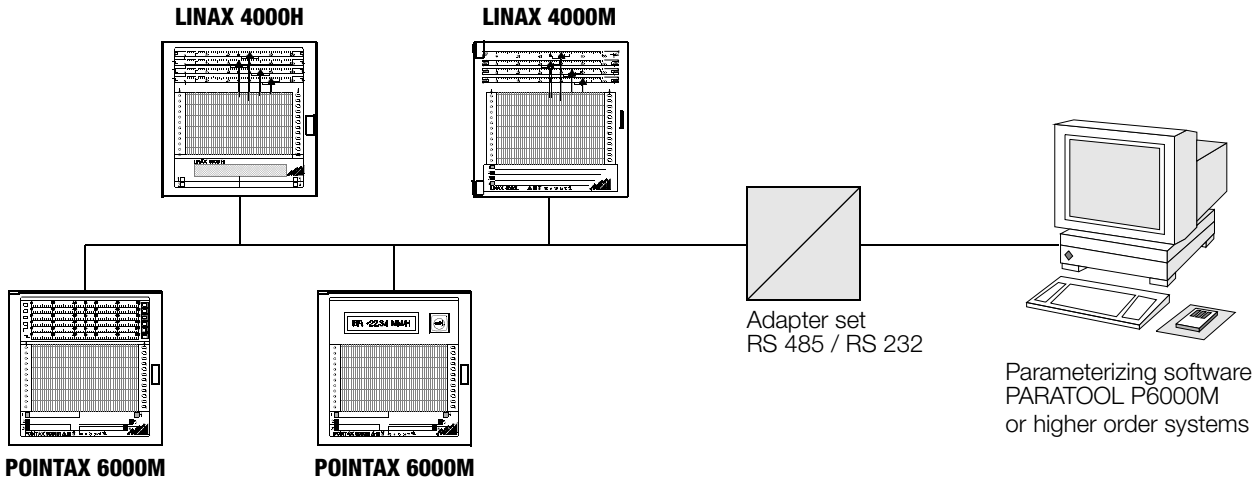
1 copy of operating instructions
2 fasteners
1 roll chart or fanfold chart, inserted in the recorder
1 color head

Additionally, depending on the order:
reading ruler(s)

Connection, case and installation

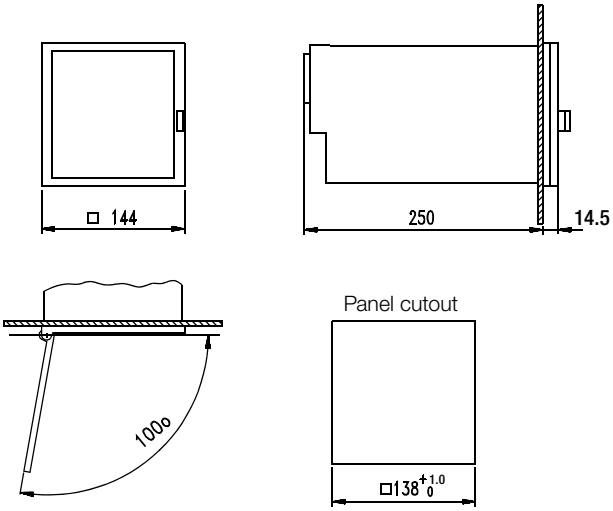
Electrical connections
Degree of protection IP 20
Screw-plug terminals for measuring inputs, control inputs and limit value relay outputs.
Max. wire cross section 2×1 mm^2
Screw terminals for line connection
Max. wire cross section 1×4 mm^2 or 2×1.5 mm^2
RS 485 interface via 9-pole SUB D plug
Case
Molded material for installation in panels or mechanical grids (see dimensional drawing for dimensions)
Degree of protection of the case in acc. with EN 60529
Front (including door) IP 54
Back IP 20
Color of the case
Silica-gray in acc. with RAL 7032
Door of the case
Metal frame (RAL 7032) with mineral glass or molded material
Fastening of the case
with 2 fasteners (optionally for installation in panel or mechanical grid) for a maximum grid width of 40 mm, centering angle brackets are required for installation in mechanical grids (Ordering number A416A)
Position of use
Inclined to the side [–30° ... 0 ... +30°], inclined to the rear 20°, inclined to the front 20°
Mounting distance
horizontal or vertical 0 mm, it must be possible to open the door of the case by 100°
Weight approx. 3.2 kg

Example of interlinking

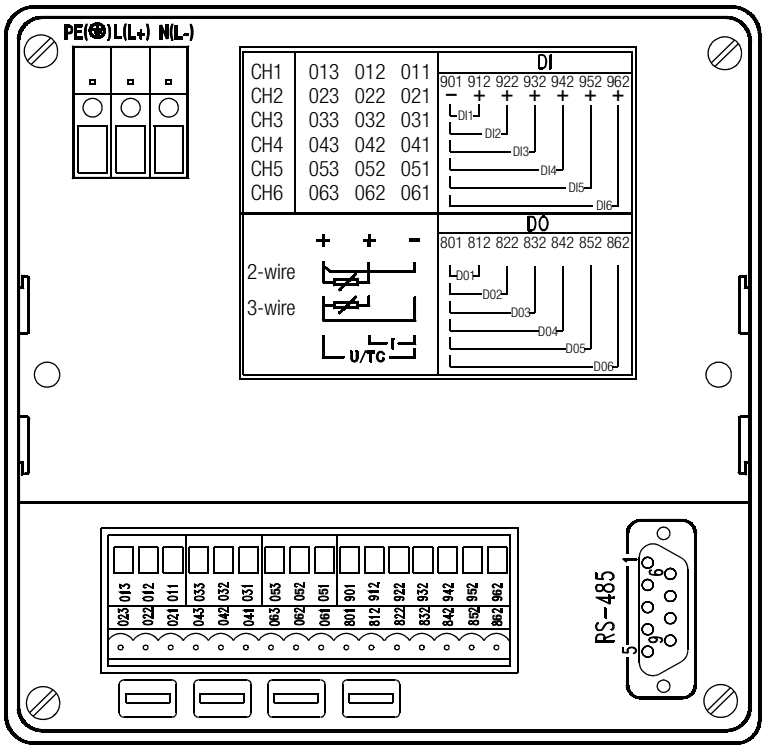


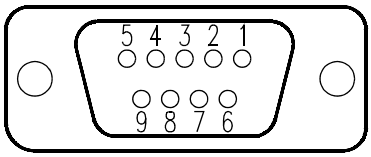
POINTAX 6000M
Point recorder

Dimensional drawing (Dimensions in mm)



Wiring diagrams





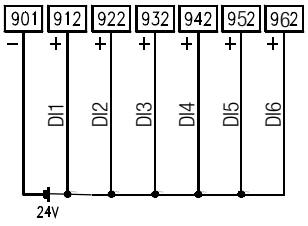
RS 485 interface

Pin 1: Screen
Pin 3: RXD (+)
Pin 5: Gnd (reference potential)
Pin 6: +5 V
Pin 8: RXD (-)
Pin 9: I/O converter (–)

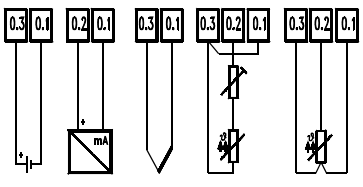
For bus operation:
The voltage +5 V at Pin 6 is required when the POINTAX 6000M is used as bus terminal.

The screen is put on a plug-in knife at the recorder case.

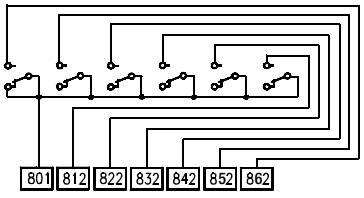
Binary inputs
Binary input = depending on the parameterization for speed change, standby, event marker initiation, text printout



Measuring inputs



Limit contacts



Order code

Description					Article number		
Point recorder POINTAX 6000M with universal signal inputs for process signals, thermocouples, resistance thermometers, display with **analog scales**, RS 485 interface, front dimensions 144 x 1444					**A4260**		
Parameterization							
Parameterization in accordance with presetting see page 5			Lower range limit X1	Upper range limit X2			
Range is the same for all channels			X1 = 0 mA	X2 = 20 mA	XH00		
Parameterization in accordance with order code							
within the listed limits (measuring ranges, texts, time, scaling line, options ...)					XH92		
Measuring range channel 1				XA9nn only in connection with XH92			
Nominal range	X1n	X2n	Lower range limit X1	Upper range limit X2			
DC current	0	20 mA	0.0 ≤ X1 ≤ 16.0 mA	X1 + 4.0 ≤ X2 ≤ 20 mA	XA901		
	4	20 mA	4.0 ≤ X1 ≤ 16.8 mA	X1 + 3.2 ≤ X2 ≤ 20 mA	XA902		
	–2.5	2.5 mA	–2.5 ≤ X1 ≤ 1.5 mA	X1 + 1.0 ≤ X2 ≤ 2,5 mA	XA903		
	–5	5 mA	–5.0 ≤ X1 ≤ 3.0 mA	X1 + 2.0 ≤ X2 ≤ 5,0 mA	XA904		
	–20	20 mA	–20.0 ≤ X1 ≤ 12 mA	X1 + 8.0 ≤ X2 ≤ 20 mA	XA905		
DC voltage	0	25 mV	0 ≤ X1 ≤ 20 mV	X1 + 5 ≤ X2 ≤ 25 mV	XA906		
	–25	25 mV	–25 ≤ X1 ≤ 15 mV	X1 + 10 ≤ X2 ≤ 25 mV	XA907		
	0	100 mV	0 ≤ X1 ≤ 80 mV	X1 + 20 ≤ X2 ≤ 100 mV	XA908		
	–100	100 mV	–100 ≤ X1 ≤ 60 mV	X1 + 40 ≤ X2 ≤ 100 mV	XA909		
	0	500 mV	0 ≤ X1 ≤ 400 mV	X1 + 100 ≤ X2 ≤ 500 mV	XA910		
	–500	500 mV	–500 ≤ X1 ≤ 300 mV	X1 + 200 ≤ X2 ≤ 500 mV	XA911		
	0	2.5 V	0 ≤ X1 ≤ 2 V	X1 + 0.5 ≤ X2 ≤ 2.5 V	XA912		
	–2.5	2.5 V	–2.5 ≤ X1 ≤ 1.5 V	X1 + 1.0 ≤ X2 ≤ 2.5 V	XA913		
	0	5 V	0 ≤ X1 ≤ 4 V	X1 + 1.0 ≤ X2 ≤ 5 V	XA914		
	–5	5 V	–5 ≤ X1 ≤ 3 V	X1 + 2.0 ≤ X2 ≤ 5 V	XA915		
	–10	10 V	–10 ≤ X1 ≤ 6 V	X1 + 4.0 ≤ X2 ≤ 10 V	XA916		
	–20	20 V	–20 ≤ X1 ≤ 12 V	X1 + 8.0 ≤ X2 ≤ 20 V	XA917		

Continued on the next page

POINTAX 6000M
Point recorder

Order code (continued)

Description					Article number		
					A4260		
Thermocouple type B	0	1820 °C	0 ≤ X1 ≤ 1456 °C	X1 + 364 ≤ X2 ≤ 1820 °C	XA918		
Thermocouple type E	–270	1000 °C	–270 ≤ X1 ≤ 746 °C	X1 + 254 ≤ X2 ≤ 1000 °C	XA919		
Thermocouple type J	–210	1200 °C	–210 ≤ X1 ≤ 918 °C	X1 + 282 ≤ X2 ≤ 1200 °C	XA920		
Thermocouple type K	–270	1400 °C	–270 ≤ X1 ≤ 1066 °C	X1 + 334 ≤ X2 ≤ 1400 °C	XA921		
Thermocouple type L	–200	900 °C	–200 ≤ X1 ≤ 680 °C	X1 + 220 ≤ X2 ≤ 900 °C	XA922		
Thermocouple type N	–20	1300 °C	–20 ≤ X1 ≤ 1036 °C	X1 + 264 ≤ X2 ≤ 1300 °C	XA923		
Thermocouple type R	–50	1769 °C	–50 ≤ X1 ≤ 1405 °C	X1 + 364 ≤ X2 ≤ 1769 °C	XA924		
Thermocouple type S	–50	1769 °C	–50 ≤ X1 ≤ 1405 °C	X1 + 364 ≤ X2 ≤ 1769 °C	XA925		
Thermocouple type T	–270	400 °C	–270 ≤ X1 ≤ 266 °C	X1 + 134 ≤ X2 ≤ 400 °C	XA926		
Thermocouple type U	–200	600 °C	–200 ≤ X1 ≤ 440 °C	X1 + 160 ≤ X2 ≤ 600 °C	XA927		
Resist. thermometer 2-wire	–50	150 °C	–50 ≤ X1 ≤ 110 °C	X1 + 40 ≤ X2 ≤ 150 °C	XA928		
Resist. thermometer 2-wire	–50	500 °C	–50 ≤ X1 ≤ 390 °C	X1 + 110 ≤ X2 ≤ 500 °C	XA929		
Resist. thermometer 2-wire	–200	850 °C	–200 ≤ X1 ≤ 640 °C	X1 + 210 ≤ X2 ≤ 850 °C	XA930		
Resist. thermometer 3-wire	–50	150 °C	–50 ≤ X1 ≤ 110 °C	X1 + 40 ≤ X2 ≤ 150 °C	XA931		
Resist. thermometer 3-wire	–50	500 °C	–50 ≤ X1 ≤ 390 °C	X1 + 110 ≤ X2 ≤ 500 °C	XA932		
Resist. thermometer 3-wire	–200	850 °C	–200 ≤ X1 ≤ 640 °C	X1 + 210 ≤ X2 ≤ 850 °C	XA933		
Scale channel 1			without division		FA001		
			same as measur. channel		FA002		
			0 ... 100		FA003		
			as requested		FA090		
Reading ruler channel 1			without reading ruler		GA001		
			same as scale		GA002		
			0 ... 100		GA003		
			as requested		GA090		
Meas. range channel 2	same as meas. range channel 1, but markings XB...			only in connection with XH92	XB9nn		
Scale channel 2	same as scale channel 1, but markings FB...				FBnnn		
Read. ruler channel 2	same as channel 1, but markings GB...				GBnnn		
Meas. range channel 3	same as meas. range channel 1, but markings XC...			only in connection with XH92	XC9nn		
Scale channel 3	same as scale channel 1, but markings FC...				FCnnn		
Read. ruler channel 3	same as channel 1, but markings GC...				GCnnn		
Meas. range channel 4	same as meas. range channel 1, but markings XD...			only in connection with XH92	XD9nn		
Scale channel 4	same as scale channel 1, but markings FD...				FDnnn		
Read. ruler channel 4	same as channel 1, but markings GD...				GDnnn		
Meas. range channel 5	same as meas. range channel 1, but markings XE...			only in connection with XH92	XE9nn		
Scale channel 5	same as scale channel 1, but markings FE...				FEnnn		
Read. ruler channel 5	same as channel 1, but markings GE...				GEnnn		
Meas. range channel 6	same as meas. range channel 1, but markings XF...			only in connection with XH92	XF9nn		
Scale channel 6	same as scale channel 1, but markings FF...				FFnnn		
Read. ruler channel 6	same as channel 1, but markings GF...				GFnnn		
Further parameters deviating from the parameterization			none	only in connection with XH92	XP000		
			as requested, within the listed limits		XP901		

Continued on the next page

Order code (continued)

Description			Article number	
			A4260	
Options (binary inputs / binary outputs, limits, see page 3)	No		H000	
	Yes		H001	
Recording	For roll chart (32 m)		P001	
	For fanfold chart (16 m)		P002	
Auxiliary voltage	24 V ... 85 V AC/DC		J001	
	95 V ... 240 V AC/DC		J002	
Front door	Plastic		K001	
	Metal		K002	
Label for measuring points	Blank with GOSSEN METRAWATT logo		L000	
	Blank without logo		L001	
	With inscription as requested, 1 line / measuring point with up to 31 characters		L090	
Test report	None		M000	
	With factory test certificate M according to DIN 55350-18-4.2.2 and reading test certificate B according to EN 10204-3.1B		M001	
Operating instructions	German		N000	
	None		N001	
	English		N002	
	French		N003	
	Italian		N004	

Ordering example

Point recorder POINTAX 6000M with universal signal inputs for process signals, thermocouples, resistance thermometers, display with **analog scales**, RS 485 interface, front dimensions 144 x 1444				A4260	
Measuring range channel 1	Resist. thermometer 2-wire	0	100 °C	XA928	
Measuring range channel 2	Resist. thermometer 2-wire	0	300 °C	XB929	
Measuring range channel 3	DC current	0	20 mA	XC901	
Measuring range channel 4	DC current	0	20 mA	XD901	
Measuring range channel 5	DC current	0	20 mA	XE901	
Measuring range channel 6	DC current	0	20 mA	XF901	
Scale channel 1	same as measuring range			FA002	
Scale channel 2	same as measuring range			FB002	
Scale channel 3	0 ... 50 l/s			FC090	
Scale channel 4	0 ... 100 %			FD090	
Scale channel 5	0 ... 100			FE003	
Scale channel 6	0 ... 100			FF003	
Reading ruler channel 1 ... 6	Without reading ruler			GA001 ... GF001	
Options (binary inputs / binary outputs, limits)				H001	
Recording	With roll chart (32 m)			P001	
Auxiliary voltage	230 V AC			J003	
Front door	Metal			K002	

A4260 /XH92 /
XA928 0 ... 100 °C / XB929 0 ... 300 °C / XC901 / XD901 / XE901 / XF901 /
FA002 / FB002 / FC090 0 ... 50 l/s /FD090 0 ... 100 % FE003 / FF003 /
GA001 / GB001 / GC001 / GD001 / GE001 / GF001 / H001 / P001 / J003 / K002

POINTAX 6000M
Point recorder

Accessories

Article numbers ending with a letter are complete and need not be commented.
Article numbers ending with a **numeral** must be commented with the **following** texts.

Description		Article number										
RS232/RS485 Converter	for top-hat rail mounting	A403B										
RS485 Cable	for connection recorder converter (2x 9pole SUB-D plug)		A420C									
RS232 Cable	for connection converter-PC (2x 9pole SUB-D plug)			GTZ3241000R0001								
Scale without division, beginning and end marked				**A429A**								
Scale, up to 6 divisions as requested					**A4300**							
	Division Channel 1: without				BA001							
	Division Channel 1:				BA900							
	Division Channel 2: without				BB001							
	Division Channel 2:				BB900							
	Division Channel 3: without				BC001							
	Division Channel 3:				BC900							
	Division Channel 4: without				BD001							
	Division 4:				BD900							
	Division Channel 5: without				BE001							
	Division Channel 5:				BE900							
	Division Channel 6: without				BF001							
	Division Channel 6:				BF900							
Reading ruler, 1 division as requested						**A4310**						
	Division:					AA900						
Label for measuring points							**A4320**					
	with GOSSEN METRAWATT logo						AA000					
	without GOSSEN METRAWATT logo						AA001					
	Channel 1 (violet) without inscription						BA001					
	Channel 1 (violet) with inscription						BA900					
	Channel 2 (red) without inscription						BB001					
	Channel 2 (red) with inscription						BB900					
	Channel 3 (black) without inscription						BC001					
	Channel 3 (black) with inscription						BC900					
	Channel 4 (green) without inscription						BD001					
	Channel 4 (green) with inscription						BD900					
	Channel 5 (blue) without inscription						BE001					
	Channel 5 (blue) with inscription						BE900					
	Channel 6 (brown) without inscription						BF001					
	Channel 6 (brown) with inscription						BF900					

Continued on the next page

Accessories (continued)

Article numbers ending with a letter are complete and need not be commented.
Article numbers ending with a **numeral** must be commented with the **following** texts.

Description			Article number										
Screw terminal with 3 connectors										**A404B**			
Bus termination resistors Package with 2 × 390 ohms and 1 × 150 ohms											**A409A**		
Z-diode combination	Protection against interruption of unipolar and bipolar signals during plug-in module removal, for unipolar / bipolar inputs (4 each)											**A421A**	

Consumable items

Article numbers ending with a letter are complete and need not be commented.
Article numbers ending with a **numeral** must be commented with the **following** texts.

Description			Article number										
Recording chart, chart width 120 mm, recording width 100 mm													
Roll chart 32 m, division 0 ... 100, min. ordering quantity 25 rolls													
	Time division / speed	None	A401A										
		10 mm/h	A401B										
		20 mm/h	A401C										
		60 mm/h	A401D										
		120 mm/h	A401E										
		as requested	A4070										
			CA90										
Roll chart 32 m, with calibrated division, min. ordering quantity 25 rolls					**A4071**								
	Calibrated division	as requested			AA900								
	Inscription	as requested			BA900								
	Time division / speed	as requested			CA900								
Fanfold chart 16 m, division 0 ... 100, min. ordering quantity 25 packages													
	Time division / speed	None					A401L						
		20 mm/h					A401N						
		as requested					A4075						
							CA90						

Continued on the next page

POINTAX 6000M
Point recorder

Consumable items (continued)

Article numbers ending with a letter are complete and need not be commented.
Article numbers ending with a **numeral** must be commented with the **following** texts.

Description			Article number										
Fanfold chart 16 m, with calibrated divis., min. ordering quantity 25 packages											**A4074**		
	Calibrated division	as requested									AA900		
	Inscription	as requested									BA900		
	Time division / speed	as requested									CA900		
Print head												**A405B**	

GOSSEN METRAWATT

GMC-I Messtechnik GmbH
Südwestpark 15
90449 Nürnberg • Germany

Phone +49 911 8602-111
Fax +49 911 8602-777
E-Mail info@gossenmetrawatt.com
www.gossenmetrawatt.com