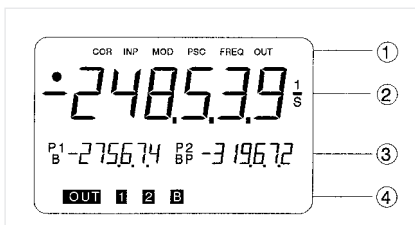
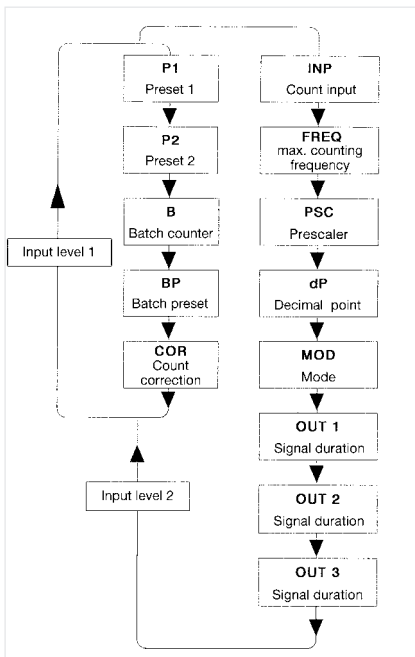




DISPLAY



PROGRAMMING



- PTB (German Federal Institute for Physics and Technology) approved design for length measuring devices appropriate for verification
- 2 continuously visible presets
- Prescaler
- Batch and batch preset counter
- Connection with plug-in screw terminals
- Small, compact design in DIN dimensions 72 x 72 mm
- Keypad can be secured against unauthorized access
- Electronic data retention, environmentally safe, without battery

6-digit LCD with 13 mm high figures indicating the count value, easy to read and with programmable decimal point.

- Line 1: Program indicators: show the current program step during programming.
- Line 2: Count display: shows the count in counting operation, parameters and operating mode during programming
- Line 3: Preset display: this line shows continuously either the preset values 1 and 2 or the batch and batch preset counter.
- Line 4: Output indicators: if one of these indicators is visible, the corresponding output is active.

The programming mode of signo 723 is split up in two input levels:

Input level 1: Comprises presets and INP numeric values which are altered more frequently.

Input level 2: Here, machine-specific parameters can be programmed which are generally only set when first starting up.

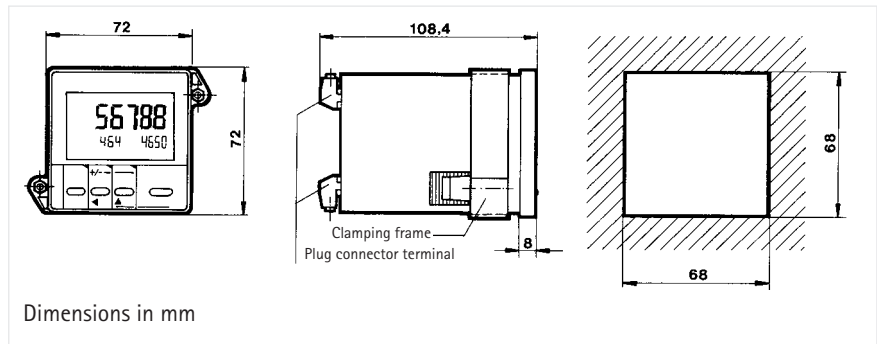
As a safeguard against unauthorized programming, signo 723 is provided with two control inputs for locking out input level 2 or the entire keypad.

TECHNICAL DATA

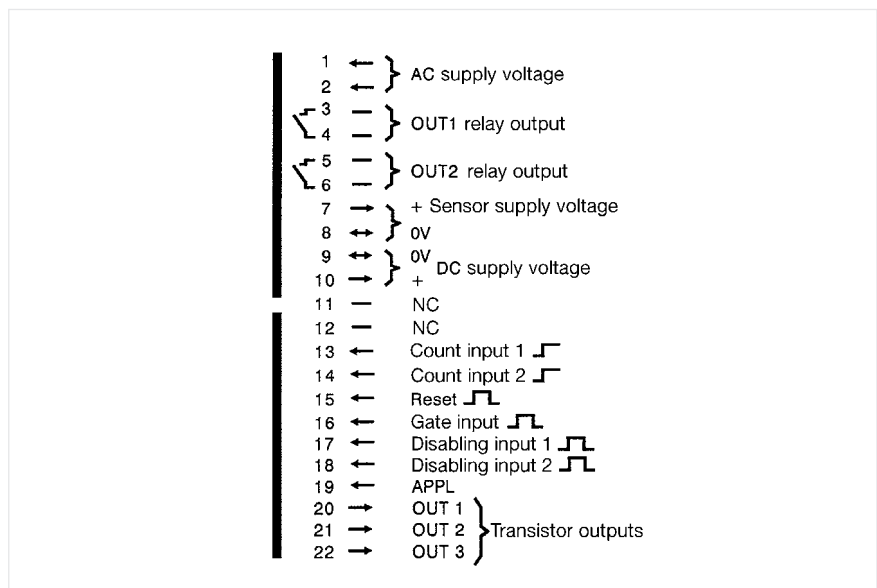
Technical data

Display	LCD, 6-digit count display, two 6-digit preset values, leading zero suppression, floating minus sign, decimal point
Digit height	13 mm (count)
Supply voltage V_{op}	12 ... 24 VDC - 5/+ 10%, 24 VAC + 10 % or 100 ... 240 VAC, depending on version
Current consumption	on 12 ... 24 VDC < 200 mA, on 24 VAC < 300 mA, on 100 ... 240 VAC < 50 mA
Sensor supply	AC operation 24 VDC + 10 %, DC operation $V_{op} - 2$ V, current consumption max. 60 mA
Value retention	approx. 10 years, without battery (NV memory)
Operating temperature	0 ... + 50 °C
Storage temperature	- 20 ... + 70 °C
Electrical connection	plug-in screw terminals
Mounting	with installation frame
Protection class (IEC 144)	front IP 65; connections IP 20
Interference immunity EMC	severity 3 acc. to IEC 801- pt. 2 + pt. 4
Vibrostability	20 m/s ² (10...150 Hz) acc. to IEC 068-2-6
Shock stability	100 m/s ² (15 ms) acc. to IEC 068-2-27
General design	acc. to VDE 0411, DIN 57 411, protection class II
Approvals	PTB: 1.22-3251.11 (Ord.code 0 723 580)
Inputs	
Amplitude thresholds	< 2 V and > 8 V, max. 40 VDC
Active edge	positive
Pulse shape	random (squarewave 1:1 for max. frequency)
Input resistance	approx. 5 k Ω
Count input	with prescaler, programmable from 0.0005 ... 99.9999 - phase discriminator with single, dual or quad evaluation - differential input - counter advance sense input
Min. pulse length	100 μ s (5 kHz), 17 ms (30 Hz)
Max. counting frequency	10 kHz or 30 Hz, programmable
Control inputs	
Reset	with static behaviour - manual via keypad - external reset, pulse length > 100 μ s, / > 20 ms - automatic after preset 2 has been reached (only if programmed accordingly)
Gate	static, pulse length: non-attenuated > 100 μ s, attenuated > 20 ms
Display memory (appl.)	static, inactive for > 200 ms when starting up pulse length > 500 μ s
Keylock	static, pulse length > 100 ms
Outputs	
Relays	OUT1 and OUT2
Contact type	make contact with snubber
Max. switching voltage	250 VAC/30 VDC ref. to ground
Switching current	max. 1A, min. 100 mA on 20 V
Transistor	OUT1, OUT2 and OUT3 (batch preset)
Switching voltage	AC operation 24 VDC, DC operation $V_{op} - 2$ V
Switching current	20 mA
Sum output current	< 90 mA, for transistor outputs and sensor supply
Interface:	RS 485 with Suconet - or Profibus Protocol FMS + DP

DIMENSIONS



CONNECTION DIAGRAM



ORDER INFORMATION

Counter

Version	Supply voltage	Ordering code	Ordering code with additional totalizer
signo 723	12 ... 24 VDC	0 723 501	0 723 505
	100 ... 240 VAC	0 723 502	0 723 506
	24 VAC	0 723 503	---
PTB version (Standard)	100 ... 240 VAC	0 723 580	---

This counter is available with several interfaces. See next pages.
PTB version see next page.

signo 723.5

PTB-APPROVAL

SIGNO 723 PTB VERSION

Set-up of the measuring system

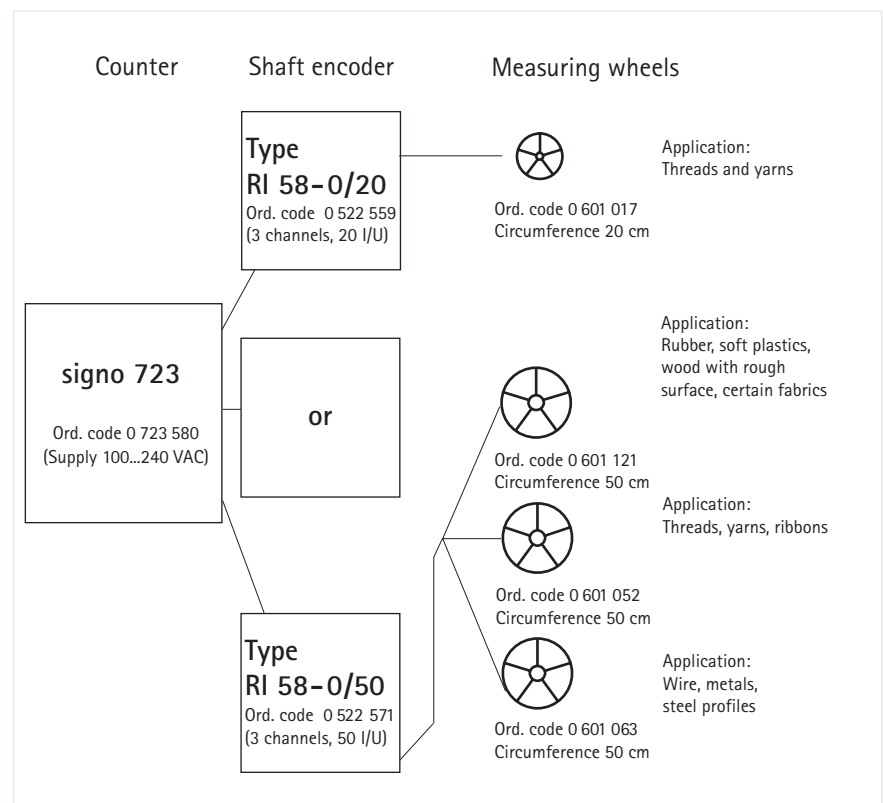
Technical data

1.3
91.01

Approval certificate No. 1.22-3251.11

The Physikalisch-Technische Bundesanstalt (PTB, German Federal Institute for Physics and Technology) in Braunschweig has tested and approved signo 723 for its suitability for use with measuring equipment appropriate for verification in conjunction with shaft encoders and measuring wheels (see "Order information").

In the "PTB version", input level 2 of the counter is permanently programmed to fulfil PTB requirements. In reset mode, the counter cannot be reset automatically.



Variable Preset Counter signo 723.5 with Interface



TECHNICAL DATA

- 2 continuously visible presets
- Prescaler
- Batch and batch preset counter
- Connection with plug-in screw terminals
- Small, compact design in DIN dimensions 72 x 72 mm
- Keypad can be secured against unauthorized access
- Electronic data retention, environmentally safe, without battery

Power Supply Voltage	12...24 V DC or 100...240 V AC Sensor
Supply	AC operation: 24 V DC, DC operation: V DC - 2 V, I _{max.} = 60mA

Inputs:	
Switching Level	< 2 V and > 8 V, max. 40 V DC
Active Edge	positive pnp
Count Input	with prescaler, programmable 0.0001 to 99.9999 - as phase discriminator input with single, double, or quadruple evaluation - as differential input - as up/down input
Count Frequency max.	10 kHz, 5 kHz or 30 Hz
Control Inputs	Reset, Gate, Hold, Keylock,

Outputs:	
Outputs: Relay	Out 1, Out 2, Out Trail, each as n. o. contact, 1 A, 250 V AC/ 30 V Dc'
Transistor	Out 1, Out 2, Out Batch, PNP, max. 20 mA
Total output current	Transistor output plus Sensor Supply current must not exceed 90 mA

Interface RS 485	
Wiring:	twisted and shielded
Maximum length:	600 m for Suconet, 1200 - 200 m for Profibus (depending on baud rate)
Noise Immunity EMC:	Data transfer may be disturbed temporarily by EMC, which is recognised and automatically repeated by the protocol.

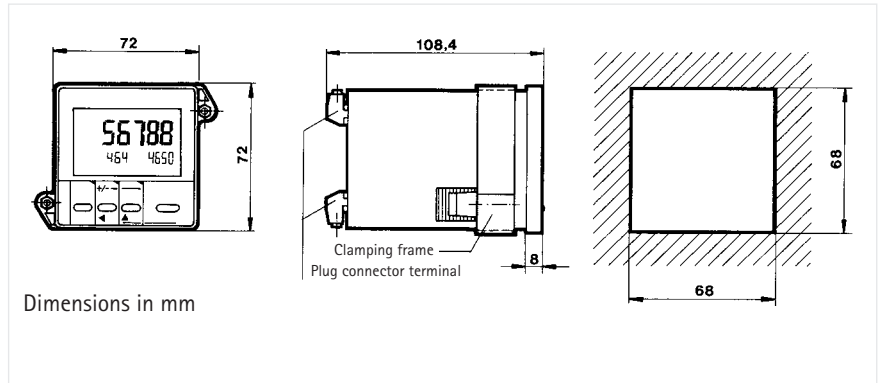
Protocol (RS 485)	
Data transfer rate	187,51 kBd Suconet/ 9.6, 19.2, 500 kBd Profibus
Data format (Protocol)	Suconet - K, class 1 /Profibus DP and FMS
Counters/Interface	31 per interface
Bus structure	Line, must be terminated on both ends with a resistor

Refer to chapter "Preset Counter signo 723.5" for more technical data

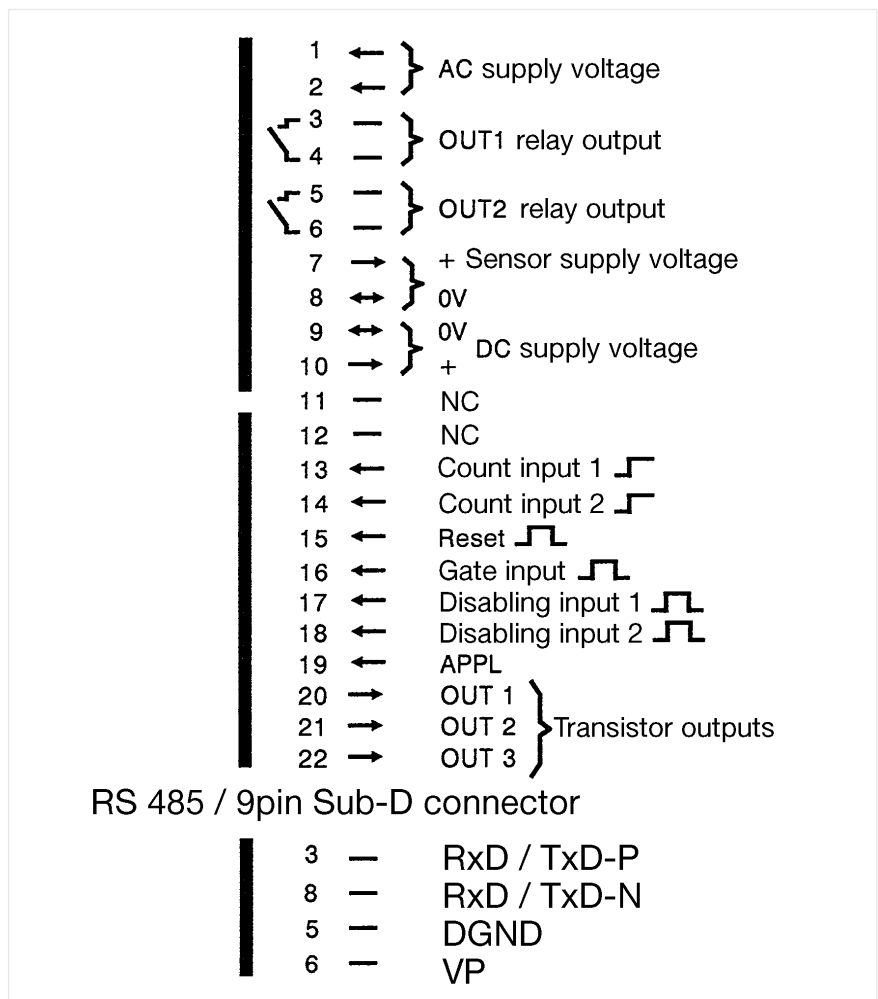
signo 723.5

Technical data

DIMENSIONS



CONNECTION DIAGRAM



ORDER INFORMATION Counter

Version	12 ... 24 VDC	100 ... 240 VAC
SUCONET interface RS 485	0 723 591	0 723 592
PROFIBUS interface RS 485 FMS + DP	0 723 593	0 723 594

Accessories

PC card SUCONET EPC 335	0 070 701
Software PROFIBUS (GSD-Data)	0 723 595

"Preset Counter signo 723.5" for more versions