



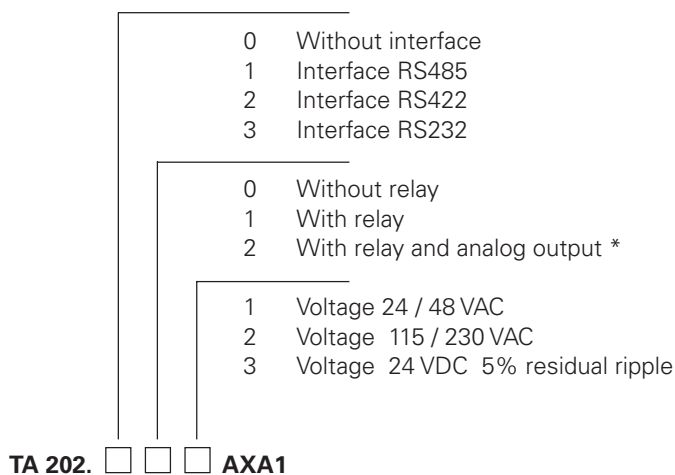
Electronic Tachometer with Calculation Funktionen and Two Adjustable Limits

Characteristics of device

Technology
Models

µP - device
Tachometer with 2 adjustable limits
Pulse valuation can be programmed
from 0.0001 to 9999.99
Sensor logic can be programmed
Frequencies processed up to 40 kHz
Precise measurement due to phase
evaluation
Measurement according to measure-
ment of length of period
Interface RS485, RS422, RS232
Analog output

Order designation



* Only possible in case of AC supply
voltage

Application

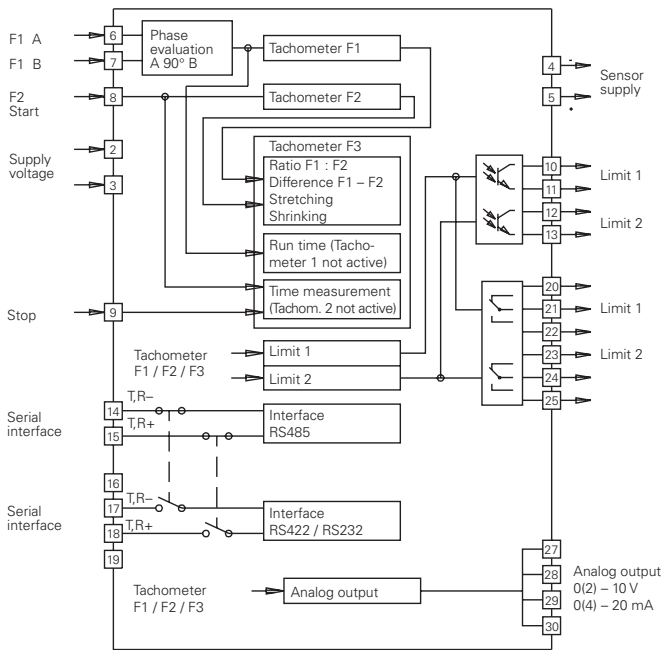
Two limits that can be deliberately defined under "P1" and "P2", allow to monitor production processes.

Two tachometers allow to capture and display, for example, the rotational speed and speed at "F1" and "F2" as well as to use a calculation function programmed by the user that can be selected via "F3" and displayed.

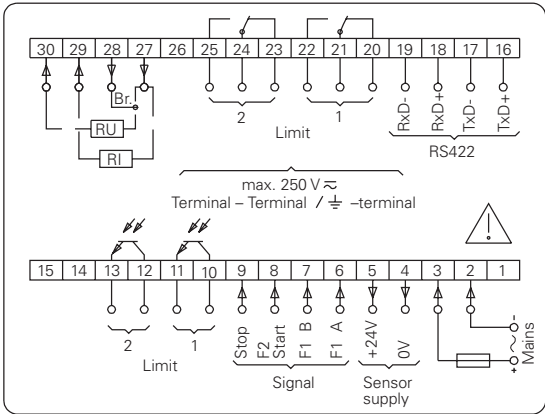
It is possible to display ratio, difference, stretching / shrinking, run time, time measurement with start and stop signal, length of period, pulse duration or measurement of pulse rate via the calculation functions.

The TA 202 is also equipped with an electronic trailing needle to be assigned by the operator to "F1", "F2" or "F3". This maximum memorized value can be selected via "SZ" and thus displayed.

Block diagram



Pin assignment



Electrical data

Supply voltage	Choice of two voltages via switch on device. Always set to higher voltage when supplied. 115 ± 10% / 230 VAC ± 10% (50 / 60 Hz) 24 / 48 VAC ± 10% (50 / 60 Hz) 24 VDC ± 10% 5% residual ripple
Power consumption	7 VA, 5 W
Sensor supply	12 ... 26 VDC / max. 100 mA
Signal inputs	Comparator inputs PNP, NPN, Sinus or NAMUR without explosion protection Voltage level 4 ... 40 V Input resistance 3 kOhm
Input frequency	F1 / F2, 10 kHz / 40 kHz or 25 Hz
Control inputs	Control inputs for Start, Stop
Electr. signal outputs	Optocoupler Max. switching voltage + 40 V Max. switching current 15 mA Residual voltage ≤ 1 V
Relay signal outputs	2 floating center-zero relays Internal spark suppression Max. switching voltage 250 VAC / 110 VDC Max. switching current 1 A under ohmic load Switching capacity 150 VA / 30 W
Analog output	0(2) - 10 V, 0(4) - 20 mA Free assignment to F1, F2 or F3 Offset as well as lower and upper analog limit can be programmed
Data back-up	> 10 years via EEPROM

TA 202

Mechanical data

Display	7-segment LED-display 6-digit display of real values, 14 mm high Decimal point can be programmed Suppression of leading zero
Operation, keypad	Front membrane with short-stroke keys
Front dimensions	DIN housing 96 x 48 mm
Mounting	Front-plate installation
Fastening	By means of clamping frame
Weight	Version AC: approx. 350 g Version DC: approx. 250 g
Connection	Plug-in screw terminals Grid 5.08 mm
Core cross-section	Max. 1.5 mm ²
Housing material	Polycarbonate black, UL 94V-0
Front membrane	Polyester

Ambient conditions

Ambient temperature	0 ... + 50 °C
Storage temperature	- 20 ... + 70 °C
Relative humidity	Max. relative humidity 80 %, at 25 °C, non-condensing
Protection	Front IP 65 to DIN 40050
Operational requirements	To contamination factor 2
Classification	According to EN 61010 Category II
Interference immunity	EN 50 082 - 2 Severity grade 2 - 3
Emitted interference	EN 50 081 - 2
General rating	EN 61 010
Overvoltage protection	II

Dimensions and cutout size

