



6890.5060, 6890.5061, 6890.5066, 6890.5067, 6890.5069

Monitor for speed, standstill and direction of rotation with incremental encoder signals

Product Features:

- Compact and versatile monitor for control of overspeed, underspeed, standstill and direction of rotation
- Universal inputs for incremental encoders, proximity switches, photocells or sensors
- Conversion of quadrature signals (A, B, 90°) as well as single-channel signals (HTL, TTL or RS422)
- Logical monitoring of remote motion enable signals
- Available with programmable transistor outputs, relays outputs or analog output
- All models include serial RS232 interface
- Extremely wide frequency range, operating from 0.1 Hz up to 1 MHz
- Easy setup by means of four keys and LCD menu or by PC operator software

Available Devices:

- **6890.5060:** Monitor with 3 output relays and 1 analog output
- **6890.5061:** Monitor with 3 fast switching transistor outputs and 1 analog output
- **6890.5066:** Monitor with 1 analog output
- **6890.5067:** Monitor with 3 output relays
- **6890.5069:** Monitor with 3 fast switching transistor outputs

Technical Specifications:		
Power supply:	Input voltage: Protection circuit: Ripple: Consumption:	17 ... 30 VDC reverse polarity protection ≤ 10 % at 24 VDC approx. 70 mA (unloaded)
Connections:	Connector type:	screw terminals, 1,5 mm ² / AWG 16
Encoder supply:	Output voltage: Output current:	approx. 5.2 V max. 70 mA
Incremental input:	Signal levels: HTL Characteristic: Internal resistance: Channels: Frequency:	RS422, differential voltage > 1 V TTL: LOW 0 ... 0.5 V / HIGH: 3 ... 5.3 V HTL: LOW 0 ... 4 V / HIGH: 10 ... 30 V NPN / PNP Ri ≈ 4.75 kOhm A, /A, B, /B max. 1 MHz at RS422 and TTL symmetrical max. 350 kHz at HTL and TTL asymmetrical
Control inputs:	Number of inputs: Application: Signal levels: Internal resistance: min. time of dynamic signals: min. time of static signals:	2 connection of inductive proximity switches or control commands LOW < 2.5 V, HIGH > 10 V (max.30 V), Ri ≈ 3.9 kOhm 50 μs 2 ms
Analog output: (not with 6890.5067 and 6890.5069)	Voltage output: Current output: Resolution: Accuracy: Oscillation time:	-10 ... +10 V / 0 ... +10 V (max. 2 mA) 0 ... 20 mA / 4 ... 20 mA (burden: max. 270 Ohm) 14 Bit (±13 Bit) 0.1 % approx. 200 μs (reaction after 2 x sampling time + 200 μs)
Relay outputs: (only with 6890.5060 and 6890.5067)	Number of relays: Operating capacity: Reaction time:	3 potential free changeover contacts 30 VDC / 2 A or 115 VAC / 0.6 A or 230 VAC / 0.3 A approx. 4 ms
Transistor outputs: (not with 6890.5061 and 6890.5069)	Number of outputs: Signal levels: Output current: Protection: Reaction time:	3 5 ... 30 VDC (depends on COM+ voltage), PNP max. 350 mA per output short circuit proof < 1 ms
Serial interface:	Format: Baud rate:	RS232 2400 ... 38400 Baud
Display:	Type: Characteristic:	Background lightened LCD 2 lines, each 16 characters, 3,5 mm
Housing:	Material: Mounting: Dimensions (w x h x d): Protection class: Weight:	Plastic 35 mm top hat rail (according to EN 60715) 72 x 91 x 76 mm IP20 approx. 200 g
Temperature range:	Operation: Storage:	0 °C ... +45 °C / +32 ... +113 °F (not condensing) -25 °C ... +70 °C / -13 ... +158 °F (not condensing)
Failure rate:	MTBF in years:	23.4 a (long-term usage at 60 °C / 140 °F)
Conformity and standards:	EMC 2014/30/EU: LV 2014/35/EU: (Only for option AC and RL) RoHS (II) 2011/65/EU RoHS (III) 2015/863:	EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61326-1 EN 61010-1 EN IEC 63000