

LED FREQUENCY / PULSE CONVERTER



- 4-digit, 14-segment LED display
- Frequency / pulse input
- 2 relays and analogue output
- Universal supply voltage
- Programmable via front keys



Application

- Display for digital readout of frequency input signals.
- Process control with 2 pairs of potential-free change-over relays and analogue output.
- For local readout in extremely wet atmospheres with a specially designed splash-proof cover.

Technical characteristics

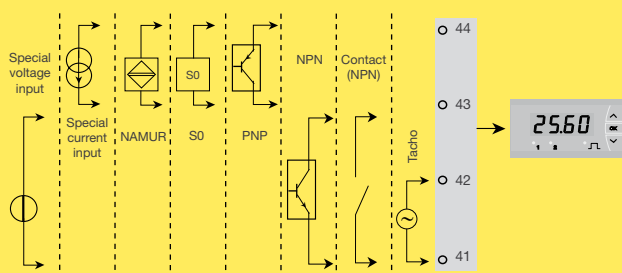
- 4-digit LED indicator with 13.8 mm 14-segment characters. Max. display readout -1999...9999 with programmable decimal point and relay ON / OFF indication.
- All standard operational parameters can be adjusted to any application by way of the front function keys.
- Help texts in eight languages can be selected via a menu item.
- A menu item allows the user to minimise the installation test time for the relay outputs by activating / deactivating each relay independently of the input signal.

Mounting / installation

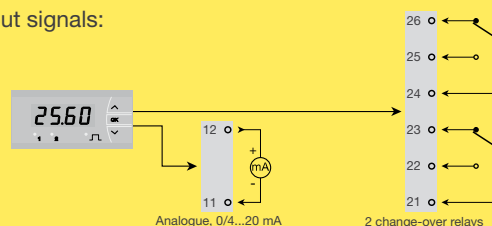
- To be mounted in panel front. The included rubber packing must be mounted between the panel cutout hole and the display front to obtain a protection degree of IP65 (type 4X). For extra protection in extreme environments, the 5725 can be delivered with a specially designed splash-proof cover as accessory.

Applications

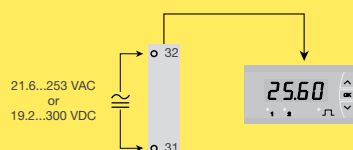
Input signals:



Output signals:



Supply:



Order: 5725

Type	Version
5725	Standard : A
	Analogue output and 2 relays : D

NB! Please order the splash-proof cover separately.
Order no. 8335.

Electrical specifications

Specifications range -20...+60°C
Storage temperature -40...+85°C

Common specifications:

Supply voltage, universal 21.6...253 VAC, 50...60 Hz
or 19.2...300 VDC

Consumption:

Type	Max. consumption
5725A	2.8 W
5725D	3.6 W

Isolation voltage, test / operation 2.3 kVAC / 250 VAC
Signal / noise ratio Min. 60 dB (0...100 kHz)
Calibration temperature 20...28°C
Wire size, pin 41...44 (max.) 1 x 1.5 mm² stranded wire
Wire size, others (max.) 1 x 2.5 mm² stranded wire
Relative humidity < 95% RH (non cond.)
Dimensions (H x W x D) 48 x 96 x 120 mm
Cutout dimensions 44.5 x 91.5 mm
Protection degree (mounted in panel). IP65 / type 4X, UL50E
Weight 230 g

Input:

General:

Frequency range 0.001...50 kHz
Period 999.9...20 µs
Response time (0...90%, 100...10%).. Period + 0.1 sec.
Max. offset 90% of selec. max. freq.
Low cut off frequency 0.001 Hz
Low cut off period time 1111 sec.
Min. pulse width (without filter) 25 µs
Min. period (without filter) 50 µs
Max. frequency (without filter) 50 kHz
Min. pulse width (with filter) 10 ms
Min. period (with filter) 20 ms
Max. frequency (with filter) 50 Hz

NAMUR input acc. to DIN 19234:

Trig-level LOW ≤ 1.2 mA
Trig-level HIGH ≥ 2.1 mA
Input impedance ≥ 1 kΩ ± 5% || ≤ 1.5 nF
Breakage detection ≤ 0.1 mA
Short-circuit detection ≥ 7.0 mA
Sensor supply (not configurable) 8.3 V ± 0.2 V

Tacho input:

Trig-level LOW ≤ -50 mV
Trig-level HIGH ≥ 50 mV
Input impedance ≥ 100 kΩ ± 5% || ≤ 1.5 nF
Max. input voltage 80 VAC pp
Sensor supply 5...17 V

NPN / PNP input:

Trig-level LOW ≤ 4.0 V
Trig-level HIGH ≥ 7.0 V
Input impedance 3.48 kΩ ± 5% || ≤ 1.5 nF
Sensor supply 5...17 V

TTL input:

Trig-level LOW ≤ 0.8 VDC
Trig-level HIGH ≥ 2.0 VDC
Input impedance ≥ 100 kΩ ± 5% || ≤ 1.5 nF
Sensor supply 5...17 V

S0 input acc. to DIN 43864:

Trig-level LOW ≤ 2.2 mA
Trig-level HIGH ≥ 9.0 mA
Input impedance 758 Ω ± 15% || ≤ 1.5 nF
Sensor supply (not configurable) 17 V ± 0.2 V

Special voltage input

User programmable trig-levels -0.05...6.50 V
Minimum hysteresis 50 mV
Input impedance Hi Z: ≥ 100 kΩ ± 5%
|| ≤ 1.5 nF
Pull up 3.48 kΩ ± 5%
|| ≤ 1.5 nF
Pull down 3.48 kΩ ± 5%
|| ≤ 1.5 nF
Sensor supply 5...17 V

Special current input

User programmable trig-levels 0.0...10.0 mA
Minimum hysteresis 0.2 mA
Input impedance ≥ 1 kΩ ± 5% || ≥ 1.5 nF
Sensor supply 5...17 V

Outputs:

Display:

Display readout -1999...9999 (4 digits)
Decimal point Programmable
Digit height 13.8 mm
Display updating 2.2 times / s
Input outside input range is indicated by Explanatory text

Current output:

Signal range (span) 0...20 mA
Programmable signal ranges 0...20, 4...20,
20...0 and 20...4 mA
Load (max.) 20 mA / 800 Ω / 16 VDC
Load stability ≤ 0.01% of span / 100 Ω
Programmable response time 1...60 sec.
Sensor error indication
(NAMUR input) 23 / 0 / 3.5 mA / none
NAMUR NE 43 Up- / Downscale 23 mA / 3.5 mA
Output limitation:
on 4...20 and 20...4 mA signals 3.8...20.5 mA
on 0...20 and 20...0 mA signals 0...20.5 mA
Current limit ≤ 28 mA

Relay outputs:

Relay function Setpoint
Hysteresis, in % / display counts 0.1...100% / 1...9999
On and Off delay 0...3600 s
Power On delay 0.60s
Sensor error action Make / Break / Hold
Max. voltage 250 VRMS
Max. current 2 A / AC
Max. AC power 500 VA
Max. current at 24 VDC 1 A

Marine approval:

Det Norske Veritas, Ships & Offshore. Standard f. Cert. No. 2.4

GOST R approval:

*VNIIM, Cert. no. Available on request

Observed authority requirements: Standard:

EMC 2004/108/EC EN 61326-1
LVD 2006/95/EC EN 61010-1
UL, Standard for Safety UL 508

* approval pending