

HEIDENHAIN POSITIP 880

Programmable readout for up to 6 axes



The POSITIP 880 is a versatile display unit designed primarily for milling machines, drilling and boring machines and lathes with up to six axes. A separate I/O unit provides switching input/outputs for simple tasks in automation.

Design

The POSITIP 880 display unit is designed as a sturdy upright unit with splash-proof full-travel keypad for use in the workshop. It supports all operations with straightforward interactive menus on its large, easy-to-read colour flat screen. And it does it on big machines as well: the POSITIP 880 permits the connection of a separate display and control unit; you can have all position values and functions available at a remote console.

Functions

The POSITIP provides advanced features beyond those offered by the ND 780 display unit. The POSITIP supports any axis combination and helps you at 2-D machining operations with its graphic contour monitoring and magnify function. In the milling mode it supports you in machining and clearing out rectangular pockets while it takes allowances into account during turning.

The programming capabilities of POSITIP make it ideal for small-batch production on conventional machine tools: you can store up to 999 program blocks per program in its memory. Programs are created by either keying them in step by step or generating them through actual position capture (teach-in programming). With the subprogramming capability, you can enter repetitive machining sequences on the same workpiece once only. Fixed cycles keep your programs short and save you programming time.

Data Interfaces

The POSITIP 880 has an RS-232-C/V.24 serial interface for measured value transfer to a PC or printer, for input/output of parameters and compensation value lists, and for diagnostics.

Outline specifications:

POSITIP 880	
Axes	Up to 6 axes from A to Z and Zo, Zs

Encoder Inputs	6 x 1Vpp, 11µA or EnDat 2.1 (automatic interface recognition)
Signal period	0.128µm, 2µm, 4µm, 10µm, 40µm, 100µm, 10240µm, 12800µm,
Line Count	Any
Subdivision factor	Max 1024-fold
Display step	<ul style="list-style-type: none"> • Linear axis: 1mm to 0.005µm • Angular axis: 1° to 0.0001° or 00°00'01"
Display	Colour flat screen for position values, dialog and input displays, graphic functions, graphic positioning support and contour monitoring
Status display	Operating mode, REF, reference-point number, tool number, inch, scale, feed-rate display, stopwatch
For milling, drilling, boring	Tool compensation R+, R-
For turning	Radius/diameter display, separate or sum display for Z and Zo

Fu ncti ons	<ul style="list-style-type: none"> ● REF mark evaluation for distance coded or single reference marks ● Distance-to-go display with nominal position input in absolute or incremental values ● Scaling factor ● Contour monitoring with zoom function ● Any axis combination ● mm/inch switching ● HELP: on-screen operating instructions ● INFO: Stopwatch, pocket calculator, cutting data calculator (for milling), taper calculator (for turning)
For milli ng, drilli ng, bori ng	<ul style="list-style-type: none"> ● 99 datums and 99 tools ● Calculation of positions for hole patterns (circular and linear patterns) ● Tool radius compensation ● Probing function for reference-point acquisition with the KT edge finder: 'Edge', 'Centreline' and 'Circle centre' ● Positioning aids for milling and the roughing out of a rectangle pocket
For turn ing	<ul style="list-style-type: none"> ● 1 datum, 99 tools ● Freezing the tool position for back-off ● Oversize allowances
Pro gra m ope rati ng mo de	<ul style="list-style-type: none"> ● Up to 999 program blocks in each program ● Subprogramming capability ● Teach-in programming
Milli ng cycl es	Line segments, circular arcs, chamfers, circular and linear hole patterns, rectangular pockets
Tur nin g cycl es	Line segments, circular arcs, chamfers, multipass

Axi s err or co mp ens atio n	<p>Linear and multipoint, up to 128 points</p>
Dat a inte rfa ce	<p>RS232C/V24 300 to 115200baud</p> <ul style="list-style-type: none"> • For output of programs, measured values and parameters • For loading of programs and parameters <p>Centronics (parallel printer port)</p> <ul style="list-style-type: none"> • For measured value output
Swi tchi ng I/O	<ul style="list-style-type: none"> • Via IOB 89 external input/output unit • 1 input for KT edge finder
Acc ces sor ies	<p>KT edge finder (milling), tilting base, tilt/swivel mount, mounting arm, second display unit</p>