

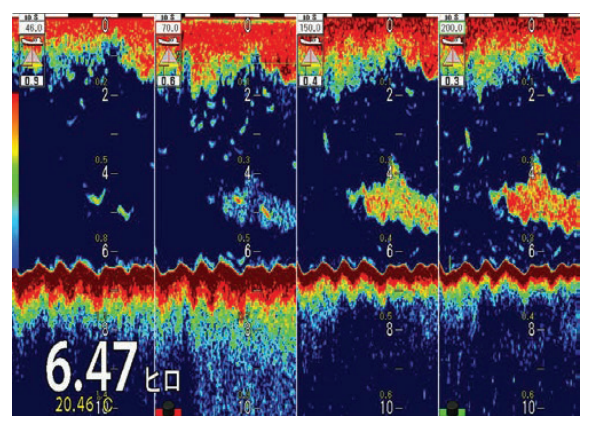
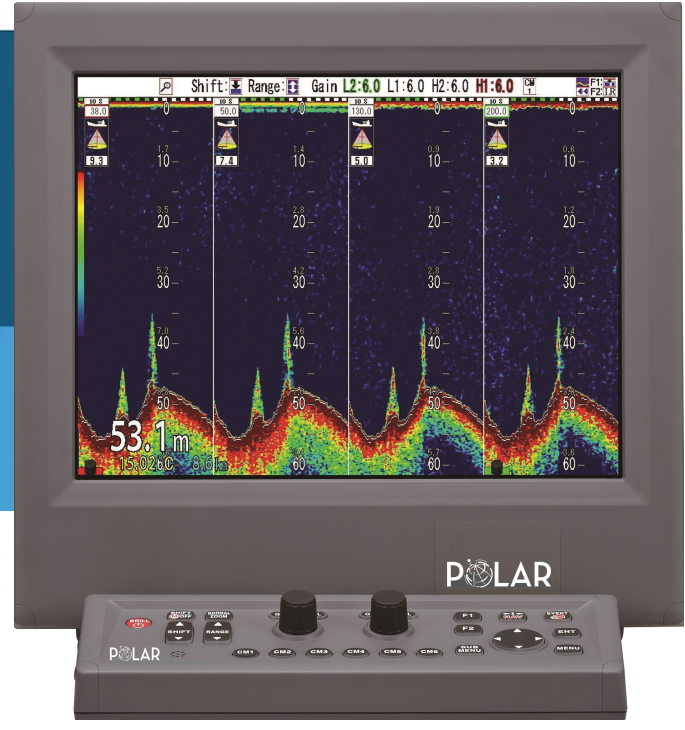


# PCF-405

## DIGITAL ECHO SOUNDER 4 FREQUENCY

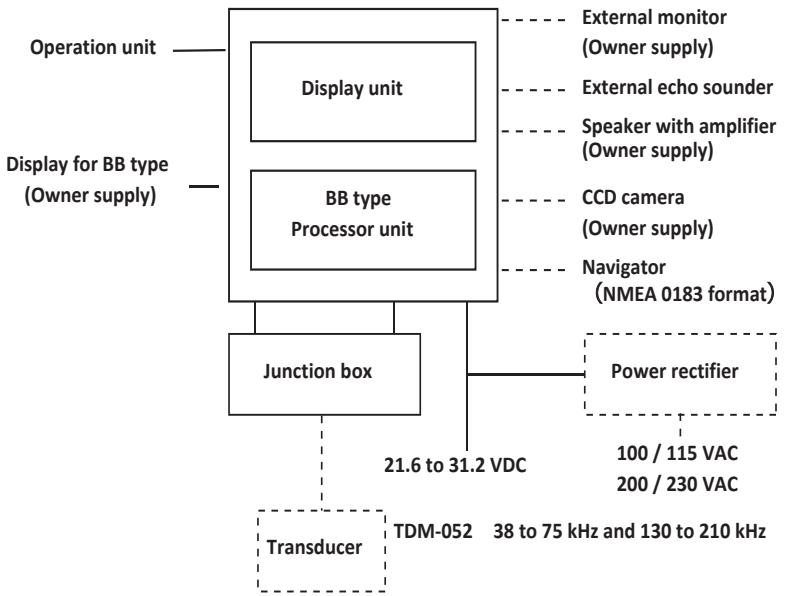
- Advanced 3 kW transducer
- Black box design
- Dedicated keyboard
- XGA display resolution output
- Flexible interfacing
- Digital signal processing technology
- Simultaneous display of four frequencies
- One touch memory buttons
- Long range detection
- Energy saving mode

Worlds first simultaneous and variable quad frequency sounder enables clear target discrimination.  
 Four frequencies are selectable in 0.1 kHz step by using the dedicated transducer.  
 Six Condition Memory keys for Immediate calling of your preferred setups.  
 Extremely high resolution and low noise materialized by Digital Filtering technology.  
 PCF-405 Black box echo sounder connects to XGA type display.



46kHz      70kHz      150kHz      200kHz  
 Low frequency      High frequency  
 38 to 75 kHz      130 to 210 kHz

**Quad frequency:**  
 Select four frequencies within the range of broadband transducer. Flexible selection of frequencies by 0.1 kHz step enables the user to stay away from interference with the sounders on other vessels.



Solid lines : Standard devices and connections  
 Dashed lines : Optional devices and connections  
 Dashed-dotted line: Owner supply

|                                   |   |
|-----------------------------------|---|
| Model                             | PCF-405   |
| Display unit                      | ESD-200 (Option)  |
| Processor unit                    | ESM-200   |
| Operation unit                    | ESO-200   |
| Output power (RMS)                | 3kW   |
| Transducer<br>(Output frequency)  | TDM-052 (38 to75 kHz and 130 to 210 kHz)  |
| Selectable frequency range        | 24 to 240 kHz 0.1kHz step   |
| Output method                     | Simultaneous / Alternate  |
| Display size and type             | 15 inch color XGA LCD   |
| Display resolution                | 1024 × 768 pixels (XGA)   |
| Basic ranges                      | 1 to 3000 (m), 5 to 8000 (ft), 1 to 1700 (fm), 1 to 2000 (l. fm)(8 ranges can be set to users choice)   |
| Zoom ranges                       | 1 to 260 (m), 5 to 960 (ft), 1 to140 (fm), 1 to 180 (l. fm)   |
| Range units                       | m, ft, fm, l.fm   |
| Shift step                        | Selectable: 1m, Range ratio1/5, Registered value (8 types), Shift digit input, Range dependant  |
| Presentation modes                | High frequency, Low frequency, 1 to 4 frequency, Zoom image (Bottom lock, Bottom discrimination, Bottom zoom, Zoom, Bottom follow zoom), Nav mode, Vertical split, Horizontal split, Mix A-scope can be displayed at all above modes  |
| Presentation colors               | 64 colors,16 colors, 8 colors, Monochrome   |
| Back ground colors                | Marine blue, Blue, Dark blue, Black, White, Nighttime color, Other 4 colors   |
| Alarms                            | Bottom, Fish, Temperature*, Speed**, Arrival***, XTE***   |
| Image speed                       | 9 steps & stop  |
| Functions                         | Interference rejection, Color rejection, VRM, Noise reduction, White line, Draft correct, Water temperature correct, Boat speed correct, Store image (500 images), Sona-Tone™, Fishing Hot Spot, Event memory, Simple plotter, Panel illumination, Power reduction, External trigger, Detection area display, CM key, Water Temp. graph, Individual range operation, Individual shift operation, External memory storage (SD card, USB memory) , Heaving compensation |
| Auto functions                    | Range, Shift, TVG, TX power, White line   |
| Languages                         | Chinese, English, French, Greek, Italian, Japanese, Korean, Spanish, Thai   |
| Input data formats and sentences  | NMEA0183 Ver.1.5 / 2.0 / 3.0<br>GGA, GLL, HDT, MTW, MWV, MWD, RMC, VHW, VTG, ZDA  |
| Output data formats and sentences | NMEA0183 Ver.2.0 (DBT : Ver.1.5)<br>DBT, DPT, GGA, GLL, HDT, MTW, MWV, RMC, TLL, VHW, VTG, ZDA  |
| NMEA ports                        | Total 2 : input and output  |
| Power supply                      | 21.6 to 31.2 VDC  |
| Power consumption                 | 50 W or less (24 VDC)   |
| Environmental                     |   |
| Operating temperature             | -15°C to +55°C  |
| Water protection                  | IPX5 (Operation unit)<br>n/a (Processor unit)   |

\* Requires data from Temp sensor

\*\* Requires speed data from Speed sensor or GPS sensor

\*\*\* Requires data from GPS sensor



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