

**SPECIFICATIONS OF U-AIS TRANSPONDER
FA-170**

1 TRANSPONDER UNIT

- 1.1 TX/RX frequency 156.025 MHz to 162.025 MHz
- 1.2 Class of emission F1D, F2B
- 1.3 Output power 1 W or 12.5 W selectable
- 1.4 Impedance 50 ohms
- 1.5 DSC receiver CH70 fixed, 156.525 MHz
- 1.6 Bandwidth 25 kHz

2 MONITOR UNIT

- 2.1 Screen 4.3-inch color LCD, 480 x 272 dots (WQVGA)
- 2.2 Brilliance control 18 steps
- 2.3 Visible distance 0.7 m nominal
- 2.4 Buzzer volume 75 to 85 dB (A)

3 GPS RECEIVER

- 3.1 Receiving frequency 1575.42 MHz
- 3.2 Tracking code C/A code
- 3.3 Number of channel 12 channels parallel, 12 satellites
- 3.4 Accuracy (dependent on ionospheric activity and multipath)
 - GPS 13 m max. (2drms, HDOP < 4)
 - DGPS 5 m max. (2drms, HDOP < 4)
- 3.5 Tracking speed 1000 kn
- 3.6 Position fixing time Warm start: 12 s, Cold start: 90 s
- 3.7 Position update interval 1 second typical
- 3.8 DGPS data receiving RTCM SC-104 ver-2.1

4 INTERFACE

- 4.1 Number of ports
 - Serial 6 ports, IEC61162-1 Ed.4 or IEC61162-2 Ed.1
 - Sensor input 3 port, IEC61162-1 Ed.4, 4800 bps
 - Alarm I/O 1 port, Contact closure (normal close or open),
Output level: 50 V, 80 mA max.
 - LAN 1 port, Ethernet, 100Base-TX, RJ45 connector, Auto MDI/MDIX,
for IEC61162-450 Ed.1
 - BLUESIGN input 1 port, Relay contact
- 4.2 Data sentences IEC61162-1/2/450
 - Input ABM, ACA, ACK, ACM, ACN, AIQ, AIR, BBM, DTM, EPV, GBS,
GGA, GLL, GNS, HBT, HDT, LRF, LRI, OSD, PIWWIVD,
PIWWSPW, PIWWSSD, PIWWVSD, RMC, ROT, SPW, SSD, THS,
VBW, VSD, VTG

- Output ABK, ACA, ACS, ALC, ALF, ALR, ARC, EPV, HBT, LR1, LR2, LR3, LRF, LRI, NAK, PIWWIVD, PIWWSPR, PIWWSSD, PIWWVSD, SSD, TRL, TXT, VER, VDM, VDO, VSD
- 4.3 Proprietary sentences (output only)
 - PFEC LBK, Alcmd, idatr, ident, idfnc, pidat, pireq
- 4.4 IEC61162-450 transmission group
 - Input MISC, TGTD, SATD, NAVD, PROP
 - Output Arbitrary (default: TGTD)
- 4.5 Network function (except IEC61162-450)
 - Data format SNMP, HTTP, Syslog, Furuno Management Protocol (FMP)
 - Data sentences same as 4.2 sentences

5 POWER SUPPLY

- 3.1 Transponder unit 12-24 VDC: 6-3 A
- 3.2 Monitor unit 12 VDC: 0.3 A max. (supplied from transponder unit)
- 3.3 AC/DC power supply unit (PR-240, option)
100-115/200-230 VAC, 1 phase, 50/60 Hz

6 ENVIRONMENTAL CONDITIONS

- 6.1 Ambient temperature
 - GPS/VHF antenna -30°C to +70°C (storage: -30°C to +85°C)
 - Other units -15°C to +55°C
- 6.2 Relative humidity 93% or less at +40°C
- 6.3 Degree of protection
 - GPS/VHF antenna IP56
 - Transponder unit IP20, IP22 (bulkhead mount)
 - Monitor unit IP22, IP35 (option)
 - Pilot plug unit IP22 (front panel), IPX0 (chassis)
- 6.4 Vibration IEC 60945 Ed.4

7 UNIT COLOR

- 7.1 GPS/VHF antenna N9.5
- 7.2 Transponder/ Monitor unit N2.5
- 7.3 Pilot plug unit N2.5