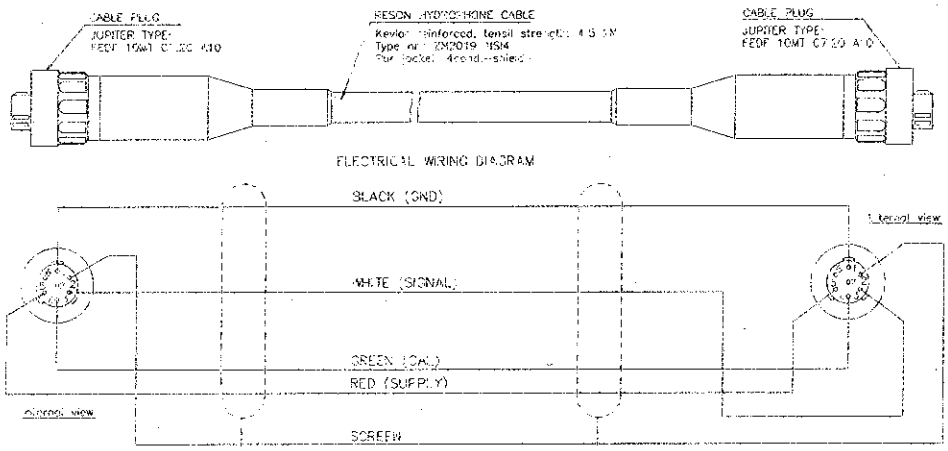
Hydrophone TC4032

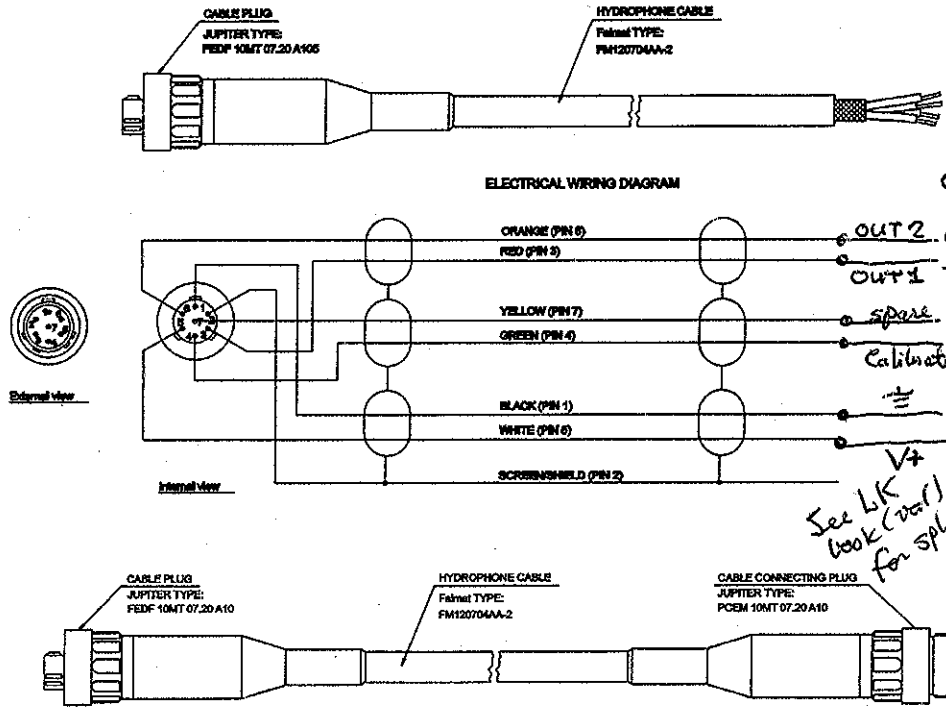
Low Noise Sea-State Zero Hydrophone

Accessories

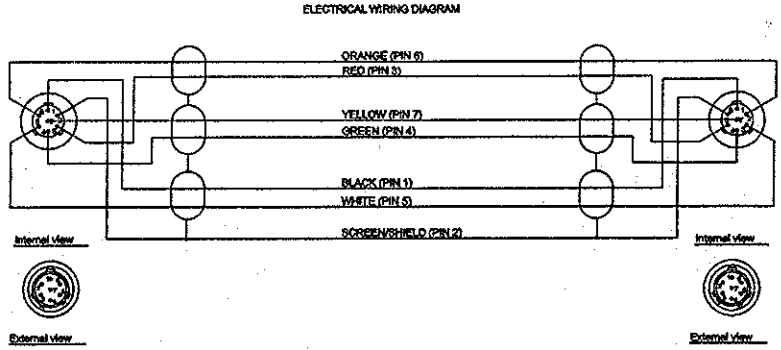
TL8091
Std.: 10m extension
Weight in ait 1400g
Only for single ended use
Opt.: Different length on request



TL 8140
For differential and
single ended use



TL 8142
For differential and
single ended use

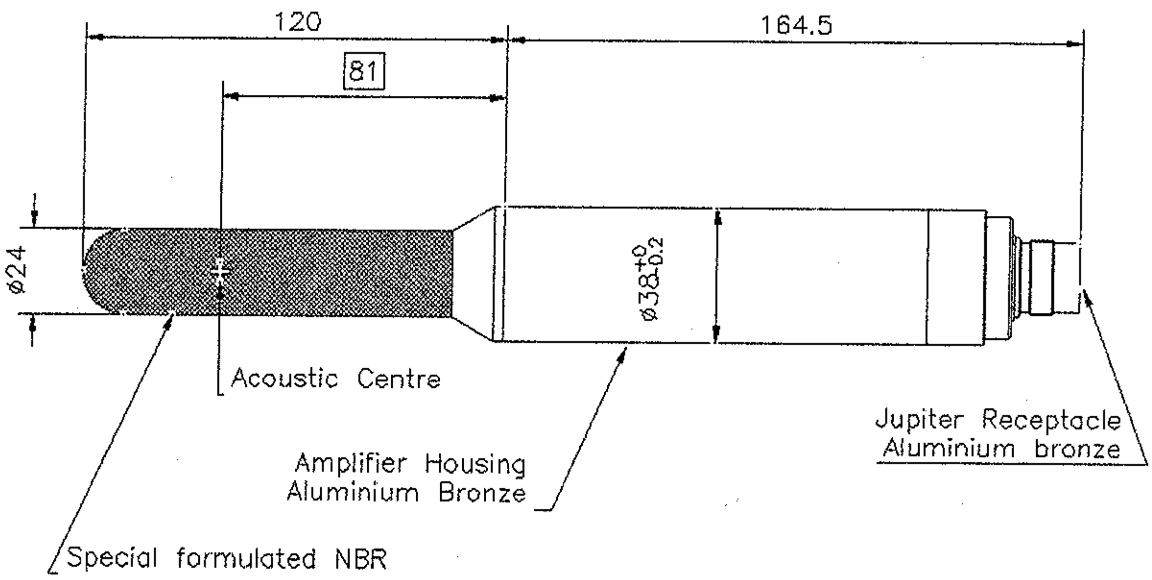


RESON

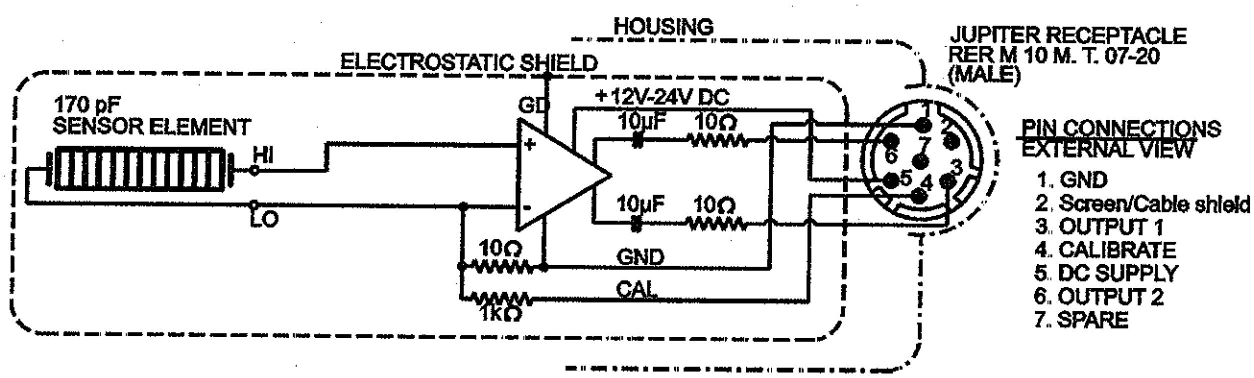
Hydrophone TC4032

Low Noise Sea State Zero Hydrophone

Outline Dimensions



Electrical Diagram



Per default the amplifier is provided with differential output. The differential output is an advantage where long cables are used in an electrically noisy environment. For use in single ended mode: Use positive output pin (3) together with GND.

Insert voltage calibration

The TC4032 preamplifier contains an insert calibration circuit. This allows for electrical calibration of the hydrophone. The calibration method is not an absolute calibration but, it provides a reliable method for testing of the hydrophone, especially for hydrophones in fixed remote installations. The insert sine signal simulates the output signal from the sensor element.

To perform an insert calibration, use an appropriate function generator. The applied calibration signal must not exceed 10 Vrms. A higher voltage may damage the calibration resistor. 2 Vrms will be appropriate for insert calibration. The attenuation of the calibration signal is 30dB for short cables.

Apply the signal to the calibrate input, connector contact 4 = green wire of cable. Connect generator ground to sine generator ground, and measure the signal on hydrophone output.

HYDROPHONE DIRECTIVITY

RESON

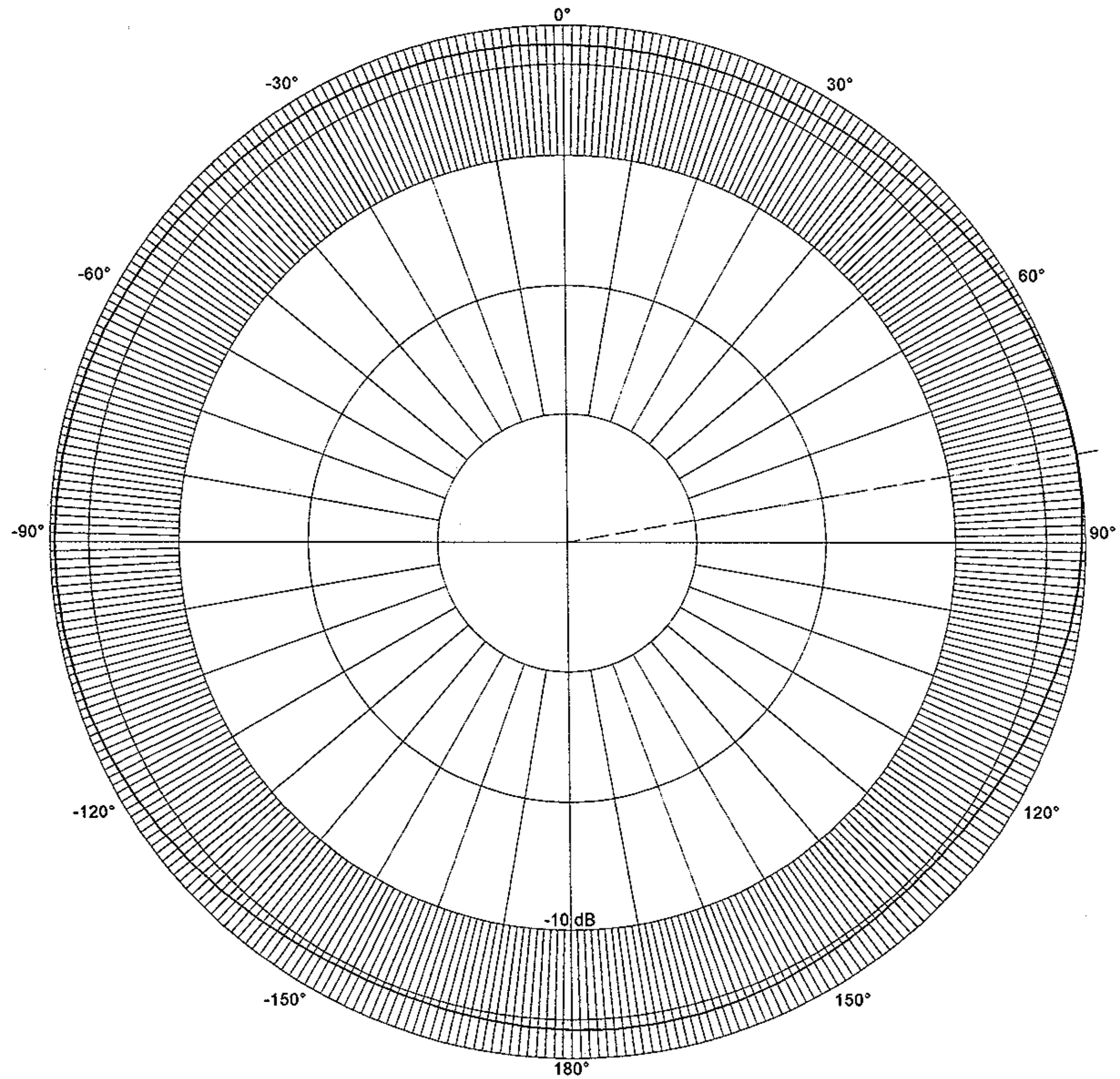
Under Test:	TC4032-1
S/N:	2507196
Reference:	TC4033
Date:	2008-11-09
Session, Run:	8853, 1
Max RR:	-170.9 dB re 1µPa/V at 1m
SL Right:	80.0°, 0.0dB dB re 1µPa/V at 1m
Comment:	Horizontal.

Amplitude:	10.0 Vrms
Pulse Width:	150.0 µs
Angle:	-180.0° to 180.0°
Frequency:	100.00 kHz

Temperature:	20.62°C
Depth:	1.2 m
Distance:	0.60 m
Tested by:	PRA

08-11-09 PRA
For all plots!

For Three plots
2009 -03- 3 0



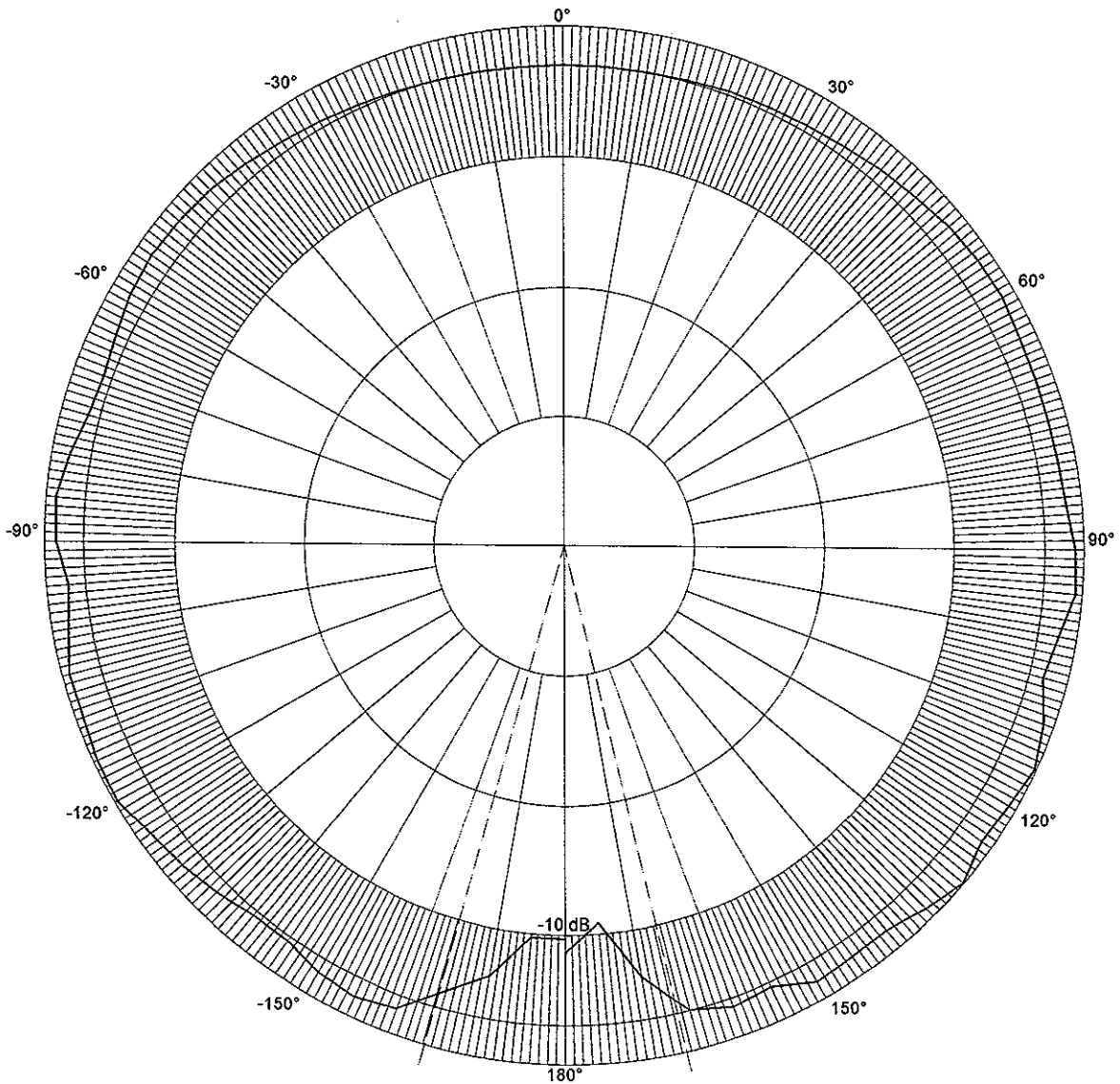
HYDROPHONE DIRECTIVITY

RESON

Under Test:	TC4032-1
S/N:	2507196
Reference:	TC4033
Date:	2008-11-06
Session, Run:	8849, 1
Max RR:	-167.7 dB re 1µPa/V at 1m
W:	330.7°
Comment:	Vertical.

Amplitude:	10.0 Vrms
Pulse Width:	800.0 µs
Angle:	-180.0° to 180.0°
Frequency:	15.00 kHz

Temperature:	20.93°C
Depth:	1.2 m
Distance:	0.60 m
Tested by:	PRA



HYDROPHONE SENSITIVITY

RESON

Under Test:	TC4032-1	Amplitude:	10.0 Vrms	Temperature:	20.62°C
S/N:	2507196	Pulse Width:	214.3 µs	Depth:	1.2 m
Reference:	TC4033	Rep Rate:	50.0 ms	Distance:	0.60 m
Date:	2008-11-09	Averages:	8	Tested by:	PRA
Session, Run:	8853, 2				
Comment:	PHO @ 250Hz: -168.2 dB.