

PERFORMANCE CHARACTERISTICS

Type	Sensitivity (mV/A)	Peak current (kA)	Peak di/dt (kA/μS)	Noise max ¹ (A pk-pk)	DC offset max @		LF (3dB) bandwidth typ. (Hz)	Droop (%/ms)	Phase lead at 50Hz typ. (deg)
					25°C ^{*2} (mV)	55°C ^{*2} (mV)			
IRF 3	10.0	0.6	1.5	2.0	10	14	0.7	0.65	1.2
IRF 15	2.0	3.0	7.5	2.0	2	2.8	0.7	0.65	1.2
IRF 30	1.0	6.0	7.5	3.0	2	2.8	0.7	0.65	1.2
IRF 60	0.5	12.0	7.5	6.0	2	2.8	0.7	0.65	1.2
IRF 150	0.2	30.0	7.5	12.0	2	2.8	0.35	0.35	0.6
IRF 300	0.1	60.0	7.5	24.0	2	2.8	0.35	0.35	0.6

¹. Distributed around the low frequency (3dB) bandwidth.

^{*2}. Integrator temperature

HIGH FREQUENCY (3dB) BANDWIDTH >0.9 MHz

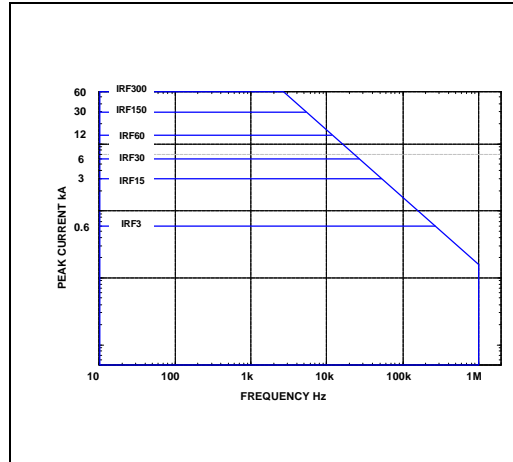
TYPICAL LINEARITY (full scale) ±0.05%

TYPICAL ACCURACY (full scale) Calibrated to **UKAS** ±0.2% with conductor central in the loop

Variation with conductor position in the coil loop less than ±1%

Variation with temperature
Integrator – ±0.012 %/ °C
Coil - - 0.020 %/ °C

ABSOLUTE MAXIMUM VALUES OF di/dt (kA/us) (value must not be exceeded)
PEAK RMS 7.5 @ 70°C
0.7 @ 70°C
(rating curve shown right for sinusoidal currents)



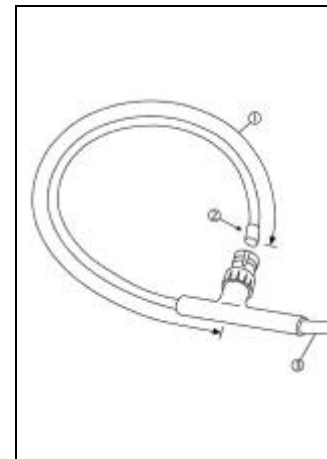
COIL AND CABLE

① COIL CIRCUMFERENCE	300, 500 or 700
② COIL CROSS SECTION (max)	8.5mm – (14mm with sleeve)
PEAK COIL VOLTAGE ISOLATION	2kV (10kV with sleeve)

The maximum peak working voltage to earth of 10kV is based on a flash test for each coil at 15kVrms for 60 seconds with the sleeve added.
For continuous operation at high-voltage de-rating may need to be applied to avoid corona damage to the coils insulation. This depends on the installation topology and environmental conditions. Further information can be obtained.

TEMPERATURE RANGE -20 to 70°C

③ **CABLE LENGTH (from box to coil)** 2.5m



INTEGRATOR

ISOLATED POWER SUPPLY
D12 - 12V (±10%) dc
Quiescent supply current – 70mA
-or-
D24 – 24V(±10%) dc
Quiescent supply current - 35mA

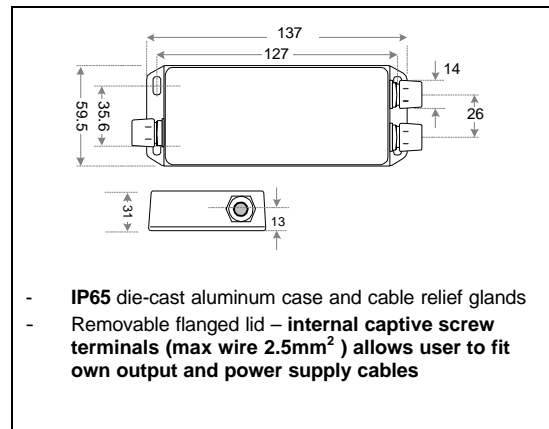
N.B. For convenience IRF supplied with 1m dual core power cable

MIN. OUTPUT LOADING 10kohm (for rated accuracy)

OUTPUT CABLE 0.5m 50 ohm BNC cable

N.B. output cable fitted for convenience. It can be changed to suit customers application (see right)

TEMPERATURE RANGE -10 to 55 °C



ORDERING

e.g. order code

Type + Power supply / **Coil circumference**

IRF3 D12 / 700

If you have any queries regarding the IRF or require specifications outside our standard ranges please do not hesitate to contact us.

May 2002