



AutoLog® Cathodic Protection WRMU (Enhanced +70°C version)

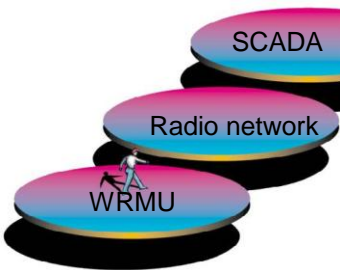
S O P H I S T I C A T E D ® A U T O M A T I O N

WRMUs are remotely programmable through network.



Radio modem
100mW-5W,
+70° operating
temperature

SCADA solutions for
Cathodic Protection.



**Wireless
Telemetry**

Introduction

AutoLog® Cathodic Protection Enhanced WRMU gives compact and high specification solution for remote monitoring and controlling of pipeline cathodic protection systems.

AutoLog WRMUs can communicate directly with SCADA or through local base stations. Base stations can be linked to SCADA using e.g. company LAN network. This gives unlimited coverage area for the system.

AutoLog WRMU is based on well proven AutoLog technology. FF-Automation has manufactured AutoLog automation products since 1976 in Finland. WRMU devices are our main business area.

The world's biggest oil and gas producer companies trust their production on AutoLog WRMU devices.

List of AutoLog references can be found from our web page.



AutoLog® Cathodic Protection WRMU

AutoLog CP WRMU



Manufactured by
FF-Automation
in Finland

THE **AUTOLOG®** FAMILY
AUTOLOG®PLC **AUTOLOG®GSM** **AUTOLOG®OEM**
AUTOLOG®RTU **AUTOLOG®TETRA** **AUTOLOG®HMI**



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WRMU

PLC Model	AutoLog 10SP (+70°C)
Analog Inputs	5 pcs 16-bit resolution, 0-800mVDC, 0-3.2VDC, 0-50VDC, 0-100VDC. 4...20mA etc.with external shunt resistor. Input ranges can be selected pointwise using software. Surge protected, opto-isolated. (+ external fuze protection)
Temperature sensors	2 on-board temperature sensors
Digital inputs	4 pcs 12/24 VDC / max. 8 mA / PNP / opto-isolated
Digital outputs	4 pcs 12/24VDC / max. 1A / NPN / opto-isolated
Serial ports	2 pcs, Modbus master / slave
HMI (I2C port)	HMI keypad & display (+70°C)
Data Logging	E.g. 16 time-stamped measurements x 3000 records
Operating temperature	For all components -30°C...+70°C
Storage temperature	-40°C...+80°C
Power supply	12 / 24 VDC or 10/18VAC max. 5VA, voltage drop alarm
UPS	12VDC, voltage drop alarm
Programming	Remote through radio network or locally using programming cable
Enclosure	IP65 / NEMA4, Stainless steel



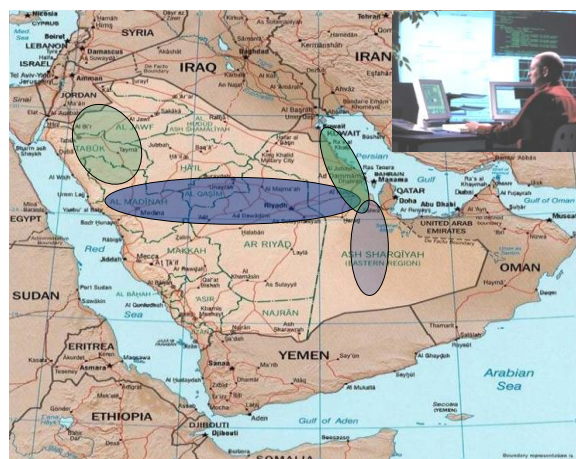
AutoLog® WRMU, Enhanced version has some changes compared to this

Communication

OPT1: Radio modem	AutoLog ZRM Radio modem (+70°C)
Max. distance	With 5W transmitting power and good antenna and clear line of sight ~40 km
Frequency range	Different radio modem models: 138-175, 406-512, 869-870, 820-950MHz
OPT2: TCP/IP	Modbus TCP protocol
OPT3: GSM	GSM GPRS and SMS
OPT4: TETRA	TETRA SDS
OPT5: RS232/485	Through cable, max. 1200m

SCADA

Software	Indusoft Web Studio SCADA, or any 3rd party SCADA with Modbus protocol.
Operation modes	Normal or Redundant
Web support	All main control room views can be seen remotely from any PC in Intranet. Configurable user levels and firewall security.



AutoLog® Cathodic Protection WRMU Systems are operating in wide areas



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