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RINGLINE MODBUS COMS

P/N – RLMODBUS

RINGLINE MODBUS COMMUNICATION MODULE

DESCRIPTION:

RLMODBUS is a compact DIN-Rail mounted communications module that decodes all digital and analog data from a connected Ringline system and makes it available to other devices via Modbus 485 RTU communications protocol.

FEATURES:

- **Simple, robust and functional.**
- DIP switch selectable baud rate (9600 or 19200) for easy installation into existing hardware.
- DIP switch addressable for Modbus addresses 1 to 15.
- Status indication for both Modbus and Ringline communications
- Optical isolated between Modbus and the Ringline field bus.
- Read only. Cannot interfere with the integrity of a safety critical system.

APPLICATIONS:

The Modbus protocol converted allows users of the Ringline distributed emergency stopping system to access digital and analog field transmitter data. An isolating repeater (RLISRPTR) must be used between the RLMODBUS unit and Ringline to maintain intrinsic safety for hazardous area applications.

The unit can be used in conjunction with a PLC and an array of analog and digital transmitters to provide a distributed condition monitoring system. Such a system can be maintained intrinsically safe or otherwise as the installation warrants and can gather data into a central PLC from a 7klm radius.

For non hazardous applications it can be used in conjunction with a RLSYNCEB (DINrail mounted Ringline Synchroniser & power source) in an identical housing. This combination provides a very robust, compact and cost effective wide area data acquisition capability. The two-wire circuit can gather digital (up to 192 points) and analog (up to 192 signals) data from a variety of Ringline transmitters over a 6klm radius.

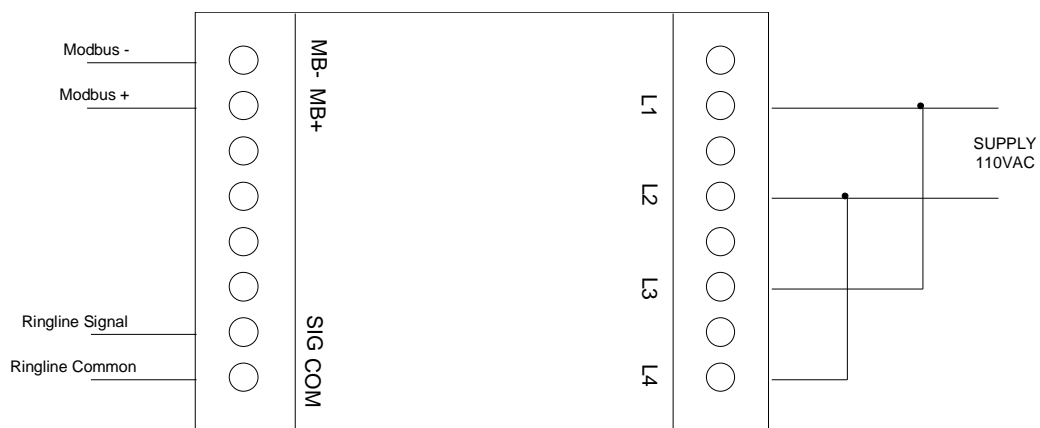
BRIEF TECHNICAL SPECIFICATIONS:

Power Supply: 110V or 240V ac
Input: Ringline field bus. 128 or 192 channels
Output: RS485 Modbus – RTU mode
Dimensions: 55mm (W), 75mm (H), 110mm (D)

TABLE SHOWING RELATIONSHIP OF MODBUS 40000 REGISTERS to RINGLINE ADDRESSES

REG	MOST SIGNIFICANT BYTE								LEAST SIGNIFICANT BYTE							
	D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1	D0
1	8B	8A	7B	7A	6B	6A	5B	5A	4B	4A	3B	3A	2B	2A	1B	1A
2	16B	16A	15B	15A	14B	14A	13B	13A	12B	12A	11B	11A	10B	10A	9B	9A
3	24B	24A	23B	23A	22B	22A	21B	21A	20B	20A	19B	19A	18B	18A	17B	17A
4	32B	32A	31B	31A	30B	30A	29B	29A	28B	28A	27B	27A	26B	26A	25B	25A
5	40B	40A	39B	39A	38B	38A	37B	37A	36B	36A	35B	35A	34B	34A	33B	33A
6	48B	48A	47B	47A	46B	46A	45B	45A	44B	44A	43B	43A	42B	42A	41B	41A
7	56B	56A	55B	55A	54B	54A	53B	53A	52B	52A	51B	51A	50B	50A	49B	49A
8	64B	64A	63B	63A	62B	62A	61B	61A	60B	60A	59B	59A	58B	58A	57B	57A
9	72B	72A	71B	71A	70B	70A	69B	69A	68B	68A	67B	67A	66B	66A	65B	65A
10	80B	80A	79B	79A	78B	78A	77B	77A	76B	76A	75B	75A	74B	74A	73B	73A
11	88B	88A	87B	87A	86B	86A	85B	85A	84B	84A	83B	83A	82B	82A	81B	81A
12	96B	96A	95B	95A	94B	94A	93B	93A	92B	92A	91B	91A	90B	90A	89B	89A
13	Ringline watchdog tic								Processor watch dog tic							
14	Module Modbus slave address								Software revision number							
15	spare								spare							
16	spare								spare							

For a table showing the relationship between Modbus 40000 addresses and Ringline analog addresses, please consult the technical manual.



Typical Termination Diagram