

# MOTTECH DECODER SYSTEM (MDS)

The MDS, a reliable, high efficiency, 2-wire decoder solution providing a substantial reduction of buried wire used for valve control and true flexibility for future expansion of existing systems

Each decoder connected to the 2-wire cable, functions as both a switching mechanism providing 24VAC to each valve and in a supervisory role monitoring critical solenoid parameters.

True two-way communications between the interface and the decoders, provide diagnostic capabilities for monitoring the general health of the 2-wire cable, decoders, and valve solenoids.



## MAIN FEATURES



**ADVANCED  
DIAGNOSTIC TOOLS**



**ROBUST, WATERPROOF  
AND RELIABLE**



**DIGITAL AND ANALOG  
SENSOR DECODER**

**200**  
DECODERS  
PER IRRI-M

**200/400**  
DECODERS PER ACE

**30**  
DECODERS ACTIVE  
AT THE SAME TIME

**4**  
TYPES OF OUTPUT  
DECODER

The MDS is an integral part of the IRRInet system and the ICC PRO platform. The decoders can be mixed with existing and future Motorola IRRInet products, providing a highly flexible, expandable solution for any application including new installations and retrofits of existing systems.

# SPECIFICATIONS

Output Decoders	1, 2, 4, 6 Solenoids
Sensor Decoders	Inputs: 1
Capacity	200 decoders p/ 2-wire interface IRRI-M: 200 decoders max. ACE: 400 decoders max.
Approvals	CE (European) marked and compliant
Output Voltage	24VAC solenoids
Input Formats	Digital: Contact or pulses Analog: 4-20mA, 0-10VDC or 0-xVDC
Surge Protection Decoders	Lightning and Surge Protection Built-in Surge Protection (in models 2,4,6 outputs)
Compatibility with the IRRInet system	ICC PRO - 5.5 and above IRRIV - 8.5 and above

## 2-WIRE SIZING

Maximum length of critical wire path

Nominal wire size - metric wire size	Maximum length of critical wire path			
	Loop		Star	
	km	miles	km	miles
1.5mm <sup>2</sup>	8.8	5.5	2.2	1.3
2.0mm <sup>2</sup>	11.6	7.2	2.9	1.8
2.5mm <sup>2</sup>	14.8	9.2	3.7	2.3
3.0mm <sup>2</sup>	17.6	10.8	4.4	2.7
3.5mm <sup>2</sup>	20.4	12.8	5.1	3.2
4.0mm <sup>2</sup>	23.2	14.4	5.8	3.6

Nominal wire size - imperial wire size	Maximum length of critical wire path			
	Loop		Star	
	km	miles	km	miles
16 AWG	9.2	5.6	2.3	1.4
14 AWG	14	8.8	3.5	2.2
12 AWG	22.4	14	5.6	3.5

