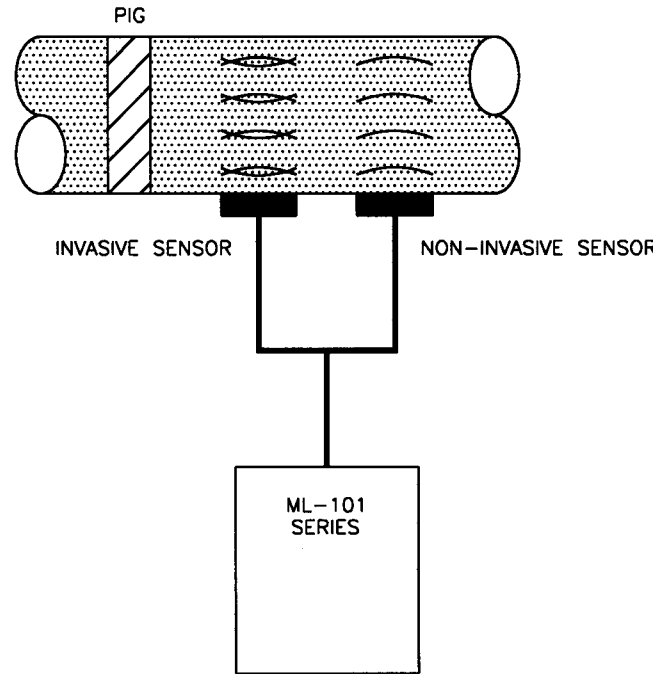
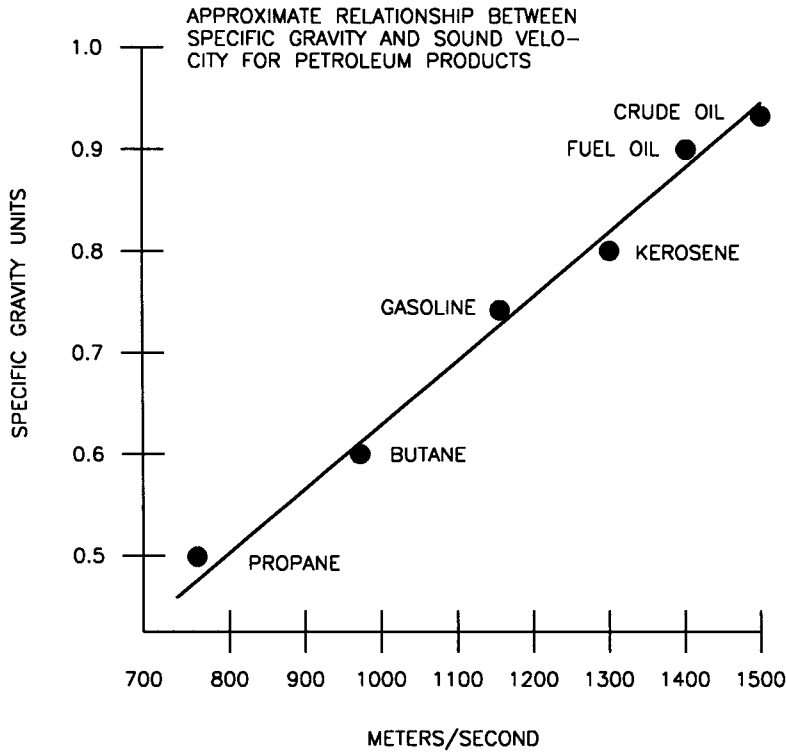




**PIPELINE INTERFACE/PIG DETECTOR
USING CONTACT TYPE OR
NON-CONTACT TYPE SENSOR**



DESCRIPTION: THE COSENSE PIPELINE INTERFACE DETECTOR SENSES CHANGES IN THE SOUND VELOCITY RATHER THAN CHANGES IN DENSITY TO DETECT DIFFERENT LIQUIDS. AT A CONSTANT TEMPERATURE AND PRESSURE, SOUND WILL TRAVEL THROUGH A LIQUID AT A CONSTANT, REPEATABLE SPEED. IF THE LIQUID COMPOSITION IS CHANGED, THE SPEED OF SOUND WILL EITHER INCREASE OR DECREASE. THE FIGURE ABOVE SHOWS THE APPROXIMATE RELATIONSHIP BETWEEN SOUND VELOCITY AND SPECIFIC GRAVITY FOR PETROLEUM PRODUCTS. THE ML-101 SERIES DETECTS THE VELOCITY CHANGE AND PROVIDES AN INDICATION OF DIFFERENT PRODUCTS FLOWING THROUGH THE SAME PIPE. IT ALSO PROVIDES ANALYTICAL INFORMATION REGARDING CHANGES IN CHEMICAL PROPERTIES DUE TO CHEMICAL REACTIONS.