BARRIER SELECTION CHART

SCOPE

This chart is designed to support users of RTE load cells in conjunction with the selection of shunt diode barriers for standard load cell applications in hazardous areas. For more information about shunt-diode barriers and hazardous areas, please refer to application notes 09/3-03/02 and 10/3-04/01.
For accurate advice on the barriers to be used in the application, please fax the reverse side of this form to RTE or your load cell supplier.

TERMINOLOGY

Input resistance	The resistance measured between the two input lines of the load cell. This resistance is specified on each individual RTE datasheet.
Number of load cells	The number of load cells present in the installation and connected to the specified indicator.
ac/dc	Alternating current / direct or continuous current
Excitation voltage	Voltage supplied by the indicator to the load cells. This voltage should be measured between the two excitation lines and each separate excitation line to earth.
Sense lines	The sense lines actually sense the excitation voltage at the load cell. Sense lines can also be used to sense the voltage after the shunt-diode barrier. If necessary the indicator will adjust for the voltage drop over the barrier by increasing the excitation voltage up to a certain limit (the compensation limit).
Load cell certification	RTE offers certification for the majority of load cell types produced. These load cells bear the marking EEx ib IIC T6 or EEx ib IIC T4, the latter only excludes the use of the load cell in carbon disulphide environments. If a full EExi certificate is not required then a 500 volts rms test can be performed, necessary for the status "simple apparatus".
Area Classification	The decision of the zone classification and the extent of each zone has to be made by the plant operation team. We specially refer to application note 10/3-04/01 for more information about this subject.
Cable parameters	The required cable parameters for extension cables of more then 100 metres can be obtained from the supplier of the cable.

Company **:**.....

Contact person **:**.....

Application number **:**.....

Fax number **:**.....

Date **:**.....

Pages **:**..... **(Incl. this page)**

LOAD CELL SPECIFICATIONS:

Load cell type :.....

Input resistance :..... Ω

Number of load cells :.....

INDICATOR SPECIFICATIONS:

Indicator type :.....

Power supply to the indicator :..... Vac/Vdc*

Excitation voltage :..... Vac/Vdc*

Voltage +output to earth :..... Vac/Vdc*

Voltage -output to earth :..... Vac/Vdc*

Sense lines connected : Yes/No*

Compensation limit by sense lines :..... V

APPLICATION INFORMATION

Required load cell certification : T6/T4/None*

Area classification : Zone 1/ Zone 2/ Zone Z/ Zone Y*

Cable length J-box to indicator :..... m

If cable length is more then 100 metres then specify :

Cable capacitance / metre :..... pF/m

Inductance/Resistance ratio :..... uH/Ω

* cross out what does not apply

Revere Transducers Europe
Postbus 6909, 4802 HX Breda
The Netherlands
Tel. (+31)76-5480700
Fax. (+31)76-5412854