

TRANSMITTER TOTAL PROBABLE ERROR CALCULATOR

Project: FT 3101 DP flow loop

Calc no: CALC ACC 001 Rev: 0

Yellow cells: enter data. Grey cells: calculated automatically. Free template from instrumentationblog.in

Transmitter

Upper range limit URL	250	Calibrated span	100
Unit	mbar	Model	Smart DP transmitter (example values)

Error sources (enter values from the data sheet for your conditions)

Error source	Value ($\pm$)	Basis	In % of span	Squared	In units
Reference accuracy	0.065	% span	0.065	0.00423	0.065
Ambient temperature effect (URL part)	0.025	% URL	0.063	0.00391	0.063
Ambient temperature effect (span part)	0.125	% span	0.125	0.01563	0.125
Static pressure effect	0.100	% URL	0.250	0.06250	0.250
Long term stability	0.125	% URL	0.313	0.09766	0.313
Power supply effect	0.005	% span	0.005	0.00003	0.005
DCS analog input card	0.100	% span	0.100	0.01000	0.100
Total probable error, RSS (% of span)					0.440
Total probable error (units)					0.440
Worst case, simple sum (% of span)					0.920

Example values are typical of smart DP transmitters and are for illustration only. Temperature effects are usually stated per 28 °C (50 °F) change; scale them for your expected ambient range.

Prepared by	Checked by
Name:	Name:
Signature:	Signature:
Date:	Date: