



LEVEL TRANSMITTERS

K – 5750

- RF CAPACITANCE TYPE ● FOR LIQUIDS, SOLIDS ●
- SS WETTED PARTS WITH / WITHOUT INSULATION ● LONG LIFE ●
- HIGH ACCURACY ● WEATHERPROOF AND FLAMEPROOF (CMRS APPROVED) ●



Switzer K – 5750 SERIES RF capacitance type level transmitter provides a reliable and relatively low cost solutions to continuous level measurement of liquids or free-flowing granular products. Compact size and ease of installation combined with accurate sensing of level in both hazardous and non-hazardous locations renders this level transmitter the most versatile.

The amount of capacitance developed in any vessel is dependant on the surface area of the probe, the distance between probe and the ground reference, and the di-electric constant of the process medium. Considering that the probe's

mounting position is fixed and the di-electric value of the medium is constant, the amount of capacitance developed between the probe and the ground reference increases and decreases as the medium rises and falls in the tank. The amount of capacitance developed can be varied by adjusting the combination of the probe diameter and length and its proximity to the ground reference. The change in level is recognised and converted to an analog output signal (4 – 20 mA or 1 – 5V DC). The system will operate with standard 4 – 20 mA DC or 1 – 5V DC indicators. SWITZER also offers Digital Process and Loop Powered Indicators.

GENERAL SPECIFICATION

Enclosure		Probe Length	Min. 100 mm. Max. 3 mtrs for rigid probe & 25 mtrs for flexible probe.
GR	Cast Al. W/P to IP:66. Gr.IIA, IIB or IIC for H ₂ . Explosionproof housings for integral transmitter and only pulse unit of remote transmitter.	Process Connection	304 SS – 3/4" NPTM standard. Optional available.
GM	Pr. Die Cast Al. W/P to IP:66. For housing electronics of remote version.	Zero and Span Adjustment	Zero and Span are non interacting and independent adjustment with 20 turn potentiometer.
Finish	Powder coated Brown.	Operating Pressure and Temperature	Depending upon probe selected for the application. Stand-off can be supplied for higher temperature application. Length 300 mm std.
Probe Orientation	Vertical.	Power Supply	24V DC – 2 wire – Integral & Remote 110V / 230V AC – 4 wire – Remote only.
Wiring	Two / Four wire systems.	Output	4–20mA DC or 1–5V DC for four wire system.
Location of Electronics	Integral or remote. Max. distance of separation 15 metres.	Permissible Load	600 Ω max. for 4–20mA DC output.
Capacitance Range	0 pF (Min.) to 5000 pF (Max.)	Cable Entry	1/2" NPT(F) standard.
Accuracy	±1% of the operating span of the probe, including linearity.	Stability	0.06 pF / °C.
Response Time	100 milli seconds.	Ambient Temp. for Electronics Applications	0 – 60°C Liquids, slurries, dry bulk materials.
Probe Size	1/4, 3/8 and 1/2" dia — rigid or flexible.		
Probe Material	304 / 316 SS .		
Probe Insulation	Teflon® standard, ceramic optional based on application.		

* Teflon® is a registered trademark of E.I.Dupont de Nemours and Company

ORDERING INFORMATION

Basic Catalog No. for Level Transmitter	K - 5750	...	...	...	...	...	...	...	...	...	...
ENCLOSURE											
Weatherproof to IP : 66	_____	W									
Explosionproof to Gr.IIA and IIB (only for Integral)	_____	E									
Explosionproof to Gr.IIC (H ₂ Gas) (only for Integral)	_____	H									
POWER SUPPLY											
110V AC 50 Hz (4 wire system)	_____	1									
230V AC 50 Hz (4 wire system)	_____	2									
24V DC (2 wire system)	_____	3									
LOCATION OF ELECTRONICS											
Integral (in GR)	_____	SR									
Remote (Pulse Unit in GN & Control Unit in GM) (only weatherproof)	_____	NM									
Remote (Pulse Unit in GR & Control Unit in GR) (weatherproof & flameproof)	_____	RR									
PROBE SIZE											
1/4" dia probe without high temperature standoff	_____	1									
1/4" dia probe with high temperature standoff	_____	2									
3/8" dia probe without high temperature standoff	_____	3									
3/8" dia probe with high temperature standoff	_____	4									
1/2" dia probe without high temperature standoff	_____	5									
1/2" dia probe with high temperature standoff	_____	6									
Special	_____	9									
INSULATION											
Not required	_____	N									
Required	_____	R									
TYPE OF PROBE											
Single Probe	_____	1									
Dual Probe	_____	2									
Stillwell (centre probe 1/4", 3/4" based on application, stillwell assembly with screwed or flanged available only in 304 / 316 SS)	_____	3									
Single Flexible Probe with counter weight (specify material)	_____	4									
Dual Flexible Probe with counter weight (specify material)	_____	5									
PROCESS CONNECTION											
3/4" NPT (M)	_____	A									
3/4" BSP (M)	_____	B									
1" NPT (M)	_____	C									
1" BSP (M)	_____	D									
1 1/2" NPT (M) (standard for Stillwell and 1/4" Dual Probe)	_____	E									
1 1/2" BSP (M) (standard for Stillwell and 1/4" Dual Probe)	_____	F									
1 1/2" 150 lbs ANSI RF Flange	_____	G									
2" 150 lbs ANSI RF Flange	_____	H									
2 1/2" 150 lbs ANSI RF Flange	_____	I									
3" 150 lbs ANSI RF Flange	_____	J									
4" 150 lbs ANSI RF Flange	_____	K									
1 1/2" 300 lbs ANSI RF Flange	_____	L									
2" 300 lbs ANSI RF Flange	_____	M									
2 1/2" 300 lbs ANSI RF Flange	_____	N									
FLANGE MATERIAL											
None	_____	0									
Carbon Steel	_____	1									
Carbon Steel with Rubber Lining	_____	2									
Carbon Steel with Teflon Lining	_____	3									
304 SS	_____	4									
316 SS	_____	5									
Others	_____	9									
OUTPUT											
4 - 20 mA	_____	1									
1 - 5V DC	_____	2									
1 - 10V DC	_____	3									

Prior notification of changes in specification is impracticable due to continuous development.

FOR SWITZER'S OFFICES IN INDIA

CHECK AT: <http://www.switzerinstrument.com/offices.htm>