






Technical Comparison - 22777X to YTA610/YTA710

Brand		Yokogawa
Part number	DWG22777X	YTA610/YTA710
Designation	JMS Ordering Codes: 8PA (Alum) 8PS (SS)	Temperature transmitter
Design		
Dimensions	Ø 110mm	
Dimensions (W x H x D)	110 X 145 X 125.5 mm	111 x 102 x 131 mm
Temperature range / silicone O-ring	-40...+85°C	-30...+80°C
Temperature range FKM O-ring	-20...+85°C	n/a
Protection degree	IP54 / IP66 / 68	IP66 / IP67
HART revision	5 & 7	7
HART 5 polling address	Up to 15 transmitters	n/a
HART 7 polling address	Up to 63 transmitters	Up to 63 transmitters
Foundation Fieldbus	No	Yes
BRAIN	No	Yes in YTA710
Display		
Diameter	60 mm diameter	unknown
Display type	Dot matrix display 64 X 96 pixels	6 digit LCD display
0,90,180 & 270 deg. position adjustment	Yes	no
Radial bar graph	Yes	Yes
"Trend" arrow indicates	Yes	no
Selectable white/red backlight.	Yes	no
LOI (local operator interface)	Yes 3 optical buttons OK for hazardous area use	Yes, no hazardous area use
LOI Password protection / simulation	Yes	no
Guided menu structure	Yes	no
Scrolling text message / advanced diagnostic	Yes	no
Input:		
RTD	Pt50, Pt100, Pt200, Pt500, Pt1000	PT100, PT200, PT500, PT1000
Ni	Ni50, Ni100, Ni120, Ni1000	Ni120
Cu	No	CU10
TC	B, E, J, K, LR, N, R, S, T, U, W3, W5	B, E, J, K, N, R, S, T, W3, W5, L, U
LinR	0...5 kOhm	0...2 kOhm
mV	-800...800 mV	-10...120 mV
Special RTD / TC custom curve	Yes	
Accuracy	+/- <0.05 % of selected range	+/- 0.1% of selected range YTA610 - +/- 0.14C for PT100 (0-400C range) YTA710 - +/- 0.10C for PT100 (0-400C range)
Output:	4...20mA	4...20mA
NE 43 (sensor error / out of range)	Yes	Yes (YTA710 adds sensor short, corrosion, temp cycle diagnostics)
Response Time	440 ms	unknown
Damping	1s...60s programmable	0s...100s programmable
Configuration		
	LOI Software or HART modem HHC, DCS or AMS via HART	HART, FF, or BRAIN (YTA710)
Supply		
Ex ia IS	10 (12 with backlight)....30 VDC	10.530 VDC
Other	10 (12 with backlight)..... 35VDC	10.542 VDC
Isolation		
Input to output (test/operation)	1.5 kV AC / 50 VAC	500 VDC
EMC		
EN 61326-1	<+/- 0,1 % of span	Yes, accuracy unknown
Namur NE21 A criteria burst	<+/- 1 % of span	unknown
Warranty	5 years	unknown
Approvals		
ATEX	Yes	Optional
IECEX	Yes	Optional
FM	Yes	Optional
CSA	Yes	Optional
INMETRO	Yes	No
EAC	EN 61326-1	EN 60079-1
NEPSI	Yes	Yes
DNV Marine	Yes	Optional
GL	Yes	Optional
SIL	SIL 2	SIL 2, SIL 3 for dual transmitter use