



Technical Comparison - 22777X to 644

Brand



Rosemount

Part number

DWG22777X

644

Designation

JMS Ordering Codes: 8PA (Alum) 8PS (SS)
2-wire HART transmitter

Temperature Transmitter

Design



Dimensions

Dimensions (W x H x D)	Ø 110mm 110 X 145 X 125,5 mm	Ø 90,9 108 X 102,2 X 102,6 mm
Temperature range / silicone O-ring	-40...+85°C	-40...+85°C (Buna-N O-ring)
Temperature range FKM O-ring	-20...+85°C	
Protection degree	IP54 / IP66 / 68	IP66 /IP68/Nema Type 4X
HART revision	5 & 7	5 & 7
HART 5 polling address	Up to 15 transmitters	Up to 15 transmitters
HART 7 polling address	Up to 63 transmitters	Up to 63 transmitters
Display		
Diameter	60 mm diameter	
Dot matrix display 64 X 96 pixels	Yes	No (11 digit, 2 line integral LCD display) No (14 digit, 2 line integral 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
Optical pushbuttons	Yes	No, 11 digit only access communicator No, 14 digit 2-button directly at the display
Guided menu structure	Yes	No, 11 digit only access communicator No, 14 digit 2-button directly at the display
Scrolling text message / advanced diagnostic	Yes	No / Yes

Input:

RTD	Pt50, Pt100, Pt200, Pt500, Pt1000	Pt50, Pt100, Pt200, Pt500, Pt1000
Ni	Ni50, Ni100, Ni120, Ni1000	Ni120
Cu	No	Cu 10, Cu 50, Cu 100
TC	B, E, J, K, LR, N, R, S, T, U, W3, W5	B, E, J, K, L, N, R, S, T, U, W5, L(Gost)
LinR	0...5 kOhm	0....2 kOhm
mV	-800...800 mV	-10....100 mV
Special RTD / TC custom curve (PReset)	Yes	No

Accuracy

± <0,05 % of selected range	± <0,1 % of selected range ± <0,05 % of selected range (enhanced)
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Output:

4...20mA	4...20mA
NE 43 (sensor error / out of range)	Yes
Response Time	440 ms
Damping	1s... 60 s programmable

Configuration

Software and HART modem HHC, DCS or AMS via HART	Depending on display type (No /Yes) No Yes
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Supply

Ex ia IS	10 (12 with backlight)....30 VDC	12....42,4 VDC
Other	10 (12 with backlight)..... 35VDC	

Isolation

Input to output (test/operation)	1.5 kV AC / 50 VAC	600V RMS / ?
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EMC

EN 61326-1	<+/- 0,1 % of span	Yes, %?
Namur NE21 A criteria burst	<+/- 1 % of span	Yes, %?

Warranty

Manufacturing location	5 years	3/5 years
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Warranty

	5 years	3/5 years
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Approvals

ATEX	Yes	Yes
IECEX	Yes	Yes
FM	Yes	Yes
CSA	Yes	Yes
INMETRO	Yes	Yes
EAC TR-CU 020/2011	EN 61326-1	Yes
EAC Ex TR-CU 012/2011	Yes	Yes
NEPSI	Yes	Yes
DNV Marine	Yes	Yes
GL	Yes	
SIL	FMEDA report	IEC 61508 certified



Technical Comparison - 22777X to 3144P

Brand



Rosemount

Part number

DWG22777X

3144P

Designation

JMS Ordering Codes: 8PA (Alum) 8PS (SS)
2-wire HART Transmitter

Temperature
Transmitter

Design



Dimensions

Dimensions (W x H x D)	Ø 110mm 110 X 145 X 125,5 mm	Ø 112mm 112 X 112 X 132 mm
Temperature range / silicone O-ring	-40...+85°C	-40...+85°C (Buna-N O-ring)
Temperature range FKM O-ring	-20...+85°C	
Protection degree	IP54 / IP66 / 68	IP66 /IP68/Nema 4X
HART revision	5 & 7	5 & 7
HART 5 Polling address	Up to 15 transmitters	Up to 15 transmitters
HART 7 pulling address	Up to 63 transmitters	Up to 63 transmitters

Display

Diameter	60 mm diameter	
Dot matrix display 64 X 96 pixels	Yes	No (only five-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
Optical pushbuttons	Yes	No, only access with field communicator
Guided menu structure	Yes	No, only access with field communicator
Scrolling text message / advanced diagnostic	Yes	No / Yes

Input:

RTD	Pt50, Pt100, Pt200, Pt500, Pt1000	Pt50, Pt100, Pt200, Pt500, Pt1000
Ni	Ni50, Ni100, Ni120, Ni1000	Ni120
Cu	No	Cu 10, Cu 50, Cu 100
TC	B, E, J, K, LR, N, R, S, T, U, W3, W5	B, E, J, K, L, N, R, S, T, U, W5, L(Gost)
LinR	0...5 kOhm	0.....2 kOhm
mV	-800...800 mV	-10....100 mV
Special RTD / TC custom curve (PReset)	Yes	No

Accuracy

	± <0,05 % of selected range	± <0,1 % of selected range
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Output:

NE 43 (sensor error / out of range)	4...20mA	4...20mA
Response Time	Yes	Yes
Damping	440 ms	500 ms
	1s...60s programmable	1s... 60 s programmable

Configuration

	LOI	No
	Software and HART modem	No
	HHC, DCS or AMS via HART	Yes

Supply

Ex ia IS	10 (12 with backlight)....30 VDC	12....42,4 VDC
Other	10 (12 with backlight)..... 35VDC	

Isolation

Input to output (test/operation)	1.5 kV AC / 50 VAC	707 V peak / ?
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EMC

EN 61326-1	<+/- 0,1 % of span	Yes, %?
Namur NE21 A criteria burst	<+/- 1 % of span	Yes, %?

Warranty

	5 years	3/5 years
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Approvals

ATEX	Yes	Yes
IECEX	Yes	Yes
FM	Yes	Yes
CSA	Yes	Yes
INMETRO	Yes	Yes
EAC TR-CU 020/2011	EN 61326-1	Yes
EAC Ex TR-CU 012/2011	Yes	Yes
NEPSI	Yes	Yes
DNV Marine	Yes	Yes
GL	Yes	
SIL	FMEDA report	IEC 61508 certified