



DIFFERENTIAL PRESSURE TRANSMITTER

General specification		Deviations list
Ref. FKC		
DIFFERENTIAL PRESSURE TRANSMITTER		** GEORGIN consider with
Floating cell using a micro-capacitance sensor		manifold 3 way
Zero and span settings are independant		/!\ FE Scale to be set
Accuracy :	± 0,065 % of calibrated span	by yourself
Measuring diaphragms:	316 Stainless Steel	Electrical con in M20x1.5
Flanges :	St.st.316L	due to St St Housing
Process connections:	½" NPT by Ovals flanges (viton gasket)	
Power supply :	11 to 45Vdc	
Electrical connection :	M20 x 1.5	
Output signal :	4-20 mA (two wire) + Hart signal	
Environmental rating :	IP67	
RFI protection according to IEC 801-3		
Construction:	See table	
Max static pressure	See table	
Equipped of a LCD indicator	yes, customer scale √	
Option:	stainless steel bracket for mounting on 2" pipe	
	st.st. Tag plate / st.st. 316L Flange screws	
	housing die cast aluminium standard	
	Explosion proof Ex d protection	
Range:	See table	
Ref. M62E2		
3 valves manifold		

Item	Tag number	Ref. GEORGIN	Requested Range (mmH ₂ O)	Construction: Exd version		Static pressure: (kg/cm ²)		Qty.
1	FT-D41	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/1000	YES		-1 to 160		1
2	FT-D14	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/1500	YES		-1 to 160		1
3	FT-D28	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160		1
4	FT-A82.1/2/3/4	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/1000	YES		-1 to 160		4
5	FT-D08	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160		1
6	FT-A33	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160		1
7	FT-A22	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/1000	YES		-1 to 160		1
8	FT-A36	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/1000	YES		-1 to 160		1
9	FT-B06.1	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/500	YES		-1 to 160		1
10	FT-A20	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160		1
11	FT-D24	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/1500	YES		-1 to 160		1
12	FT-D76	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160		1
13	FT-B66	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/1500	YES		-1 to 160		1
14	FT-A78	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160		1
15	FT-E09	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160		1
16	FT-E13/14	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160		2
17	FT-E16	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160		1
18	FT-A19	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/500	YES		-1 to 160		1
19	FT-B07	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/500	YES		-1 to 160		1
20	FT-B06.2	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/500	YES		-1 to 160		1
21	FT-E17/19	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160		2
22	FT-E60	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/5000	YES		-1 to 160		1
23	FT-A71	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	500	YES		-1 to 160		1
24	FT-E49	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/5000	YES		-1 to 160		1
25	FT-D72.2	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/1000	YES		-1 to 160		1
26	FT-M72	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160		1
27	FT-D37	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/1000	YES		-1 to 160		1
28	FT-M08.1/2/3	FKCT35V5-3XCBY-AA + M62E1 + ACCFC0A2	0/3500	YES		-1 to 160		3
29	FT-A58	FKCT35V5-3XCBY-AA + M62E1 + ACCFC0A2	0/1000	YES		-1 to 160		1
30	FT-A72	FKCT35V5-3XCBY-AA + M62E1 + ACCFC0A2	0/5000	YES		-1 to 160		1
31	FT-G28.1	FKCT35V5-2XCBY-AA + M62E1 + ACCFC0A2	0/5000	YES		-1 to 160		1
32	FT-A56	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/500	YES		-1 to 160		1
33	FT-E29	FKCT35V5-2XCBY-AA + M62E1 + ACCFC0A2	0/5000	YES		-1 to 160		1

- Nota
- Items must be installed with capillary or other accessories in order to decrease temperature.
 - GEORGIN considers with manifold 3 ways



DIFFERENTIAL PRESSURE TRANSMITTER

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Ref. FKC		
DIFFERENTIAL PRESSURE TRANSMITTER		** GEORGIN consider with
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Zero and span settings are independant		/!\ FE Scale to be set by yourself
Accuracy :	± 0,065 % of calibrated span	
Measuring diaphragms:	316 Stainless Steel	Electrical con in M20x1.5
Flanges :	St.st.316L	due to St St Housing
Process connections:	½" NPT by Ovals flanges (viton gasket)	
Power supply :	11 to 45Vdc	
Electrical connection :	M20 x 1.5	
Output signal :	4-20 mA (two wire) + Hart signal	
Environmental rating :	IP67	
RFI protection according to IEC 801-3		
Construction:		See table
Max static pressure		See table
Equipped of a LCD indicator		yes, customer scale √
Option:		stainless steel bracket for mounting on 2" pipe
		st.st. Tag plate / st.st. 316L Flange screws
		housing die cast aluminium standard
		Explosion proof Ex d protection
Range:		See table
Ref. M62E2		
3 valves manifold		

Item	Tag number	Ref. GEORGIN	Requested Range (mmH ² O)	Construction: Exd version		Static pressure: (kg/cm ²)	-		Qty.
1	FT-E24	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160			1
2	FT-E25	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160			1
3	FT-E26	FKCT33V5-2XCBY-AA + M62E1 + ACCFC0A2	0/2500	YES		-1 to 160			1
4	FT-G34	FKCT33V5-2XCBA-AA + M62E1 + ACCFC0A2 ①	0/2500	YES		-1 to 160			1
5									
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- Nota
- ① Consider oxygen cleaning
 - ② GEORGIN considers with manifold 3 ways



1 Items must be installed with capillary or other accessories in order to decrease temperature.



Nota



DIFFERENTIAL PRESSURE TRANSMITTER

General specification		Deviations list
Ref. FKC		
DIFFERENTIAL PRESSURE TRANSMITTER		** GEORGIN consider with manifold 3 way
Floating cell using a micro-capacitance sensor		/!\ FE Scale to be set by yourself
Zero and span settings are independant		Electrical con in M20x1.5 due to St St Housing
Accuracy :	± 0,065 % of calibrated span	
Measuring diaphragms:	316 Stainless Steel	
Flanges :	St.st.316L	
Process connections:	½" NPT by Ovals flanges (viton gasket)	
Power supply :	11 to 45Vdc	
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Output signal :	4-20 mA (two wire) + Hart signal	
Environmental rating :	IP67	
RFI protection according to IEC 801-3		
Construction:	See table	
Max static pressure	See table	
Equipped of a LCD indicator	yes, customer scale √	
Option:	stainless steel bracket for mounting on 2" pipe	
	st.st. Tag plate / st.st. 316L Flange screws	
	housing die cast aluminium	
	Explosion proof Ex d protection	
Range:	See table	
Ref. M62E2		
3 valves manifold		

Item	Tag number	Ref. GEORGIN	Requested Range mbar	Construction: Exd version		Static pressure: (kg/cm²)	-		Qty.	
1	FT-E92	FKCR33V5-2XCBY-AA + M62E2 + ACCFC0A2	0/320	YES		-1 to 160			1	
2	FT-M66	FKCR36V5-2XCBY-AA + M62E2 + ACCFC0A2	0/5000	YES		-1 to 160			1	
3	FT-E12	FKCR35V5-2XCBY-AA + M62E2 + ACCFC0A2	0/1300	YES		-1 to 160			1	
4										
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Nota



Indutrade Flow Technology Group
Metallvagen 2 – 49533 Mölnlycke
Suede

Y/ORDER NR 37115

O/ACKNOWLEDGEMENTS NR CO07014918

Réf : CF07018032

FKCT35V52XCBYAU

Quantity : 8

ProcessX SERIES TRANSMITTER INSPECTION REPORT

RELEVÉ D'ETALONNAGE TRANSMETTEUR SERIE ProcessX

IMPORTANT DOCUMENT

TRANSMIT TO

DEPARTMENT CONCERNED

I. SPECIFICATION

DESCRIPTION

ORIGINAL ORDER COMMANDE	CF07018032	TAG N° N° DE REPERE	FT-E60
ARTICLE TYPE	DP Lin	MODEL MODELE	FKCT35V52XCBYAU
POWER SOURCE ALIMENTATION	DC24V	RANGE ECHELLE REGLEE	0.000/5000.000 mmH2O
ORDER ACKNOW. ACCUSE DE RECEPT.	149203 64	SERIAL N° N° DE SERIE	ABF1629F / 4T17362

II. TEST & INSPECTION

ESSAIS VERIFICATION

TEST ITEMS ESSAIS	STANDARD VALUE VALEUR THEORIQUE			MEASURED VALUE VALEUR MESUREE			ACCEPTED DECISION
INPUT ENTREE			INCREASE MONTEE	DECREASE DESCENTE			
mmH2O	(mA)	(+/- %)	(mA)	(%)	(mA)	(%)	
0,000	4,000	0,065	4,000	0,000	3,999	-0,006	GOOD
1250,000	8,000	0,065	7,999	-0,006	8,000	0,000	GOOD
2500,000	12,000	0,065	12,000	0,000	12,001	0,006	GOOD
3750,000	16,000	0,065	16,000	0,000	16,001	0,006	GOOD
5000,000	20,000	0,065	20,001	0,006			GOOD
ESSAI DE PRECISION ACCURACY TEST							
INSULATION RESISTANCE RESISTANCE ISOLEMENT	DC 500V ≥ 100MΩ						GOOD
DIELECTRIC TEST TEST DIELECTRIQUE	AC 500V , 1min.						GOOD
APPEARANCE ASPECT							GOOD
PRESSURE TEST TEST EN PRESSION				240.0 bar g			GOOD

REFERENCE / NOTES :

SE 8 04/A

TEST CONDITIONS
CONDITIONS DE TEST

TEMP. °C 28,0

ATM. PRESS. mbar 977



PREPARED BY : DUCAT
REDIGE PAR :

14

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APPROUVE PAR :

DATE : 18/05/2011 15:14:21

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ProcessX SERIES TRANSMITTER INSPECTION REPORT

RELEVÉ D'ETALONNAGE TRANSMETTEUR SERIE ProcessX

I. SPECIFICATION

DESCRIPTION

ORIGINAL ORDER COMMANDE	CF07018032	TAG N° N° DE REPERE	FT-E49
ARTICLE TYPE	DP	MODEL MODELE	FKCT35V52XCBYAU
POWER SOURCE ALIMENTATION	DC24V	RANGE ECHELLE REGLEE	0.000/5000.000 mmH2O
ORDER ACKNOW. ACCUSE DE RECEPT.	149203 65	SERIAL N° N° DE SERIE	ABF1630F / 4T17336

II. TEST & INSPECTION

ESSAIS VERIFICATION

ECCAS VERIFICATION									
TEST ITEMS ESSAIS		STANDARD VALUE VALEUR THEORIQUE		MEASURED VALUE VALEUR MESUREE		ACCEPTED DECISION			
ACCUACY TEST ESSAI DE PRECISION	INPUT ENTREE	INCREASE MONTEE				DECREASE DESCENTE			
	mmH2O	(mA)	(+/- %)	(mA)	(%)	(mA)	(%)		
	0,000	4,000	0,065	4,002	0,013	4,003	0,019	GOOD	
	1250,000	8,000	0,065	8,002	0,013	8,003	0,019	GOOD	
	2500,000	12,000	0,065	12,002	0,013	12,003	0,019	GOOD	
	3750,000	16,000	0,065	16,003	0,019	16,004	0,025	GOOD	
	5000,000	20,000	0,065	20,004	0,025			GOOD	
INSULATION RESISTANCE RESISTANCE ISOLEMENT		DC 500V ≥ 100MΩ						GOOD	
DIELECTRIC TEST TEST DIELECTRIQUE		AC 500V , 1min.						GOOD	
APPEARANCE ASPECT						GOOD			
PRESSURE TEST TEST EN PRESSION		240.0 bar g				GOOD			

REFERENCE / NOTES :

SE 8 04/A

TEST CONDITIONS
CONDITIONS DE TEST

TEMP. °C 26,8

ATM. PRESS. mbar 977



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REDIGE PAR :

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APPROUVE PAR :

DATE : 18/05/2011 14:35:14

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ProcessX SERIES TRANSMITTER INSPECTION REPORT

RELEVÉ D'ETALONNAGE TRANSMETTEUR SERIE ProcessX

I. SPECIFICATION

DESCRIPTION

ORIGINAL ORDER COMMANDE	CF07018032		TAG N° N° DE REPERE	FT-A72
ARTICLE TYPE	DP	Lin	MODEL MODELE	FKCT35V52XCBYAU
POWER SOURCE ALIMENTATION	DC24V		RANGE ECHELLE REGLEE	0.000/5000.000 mmH2O
ORDER ACKNOW. ACCUSE DE RECEPT.	149203 66		SERIAL N° N° DE SERIE	ABF1631F / 4T17398

II. TEST & INSPECTION

ESSAIS VERIFICATION

TEST ITEMS ESSAIS		STANDARD VALUE VALEUR THEORIQUE		MEASURED VALUE VALEUR MESUREE		ACCEPTED DECISION		
ACCURACY TEST ESSAI DE PRECISION	INPUT ENTREE			INCREASE MONTEE	DECREASE DESCENTE			
	mmH2O	(mA)	(+/- %)	(mA)	(%)	(mA)	(%)	
	0,000	4,000	0,065	4,001	0,006	4,001	0,006	GOOD
	1250,000	8,000	0,065	8,001	0,006	8,002	0,013	GOOD
	2500,000	12,000	0,065	11,999	-0,006	12,000	0,000	GOOD
	3750,000	16,000	0,065	16,003	0,019	16,003	0,019	GOOD
	5000,000	20,000	0,065	20,000	0,000			GOOD
INSULATION RESISTANCE RESISTANCE ISOLEMENT		DC 500V ≥ 100MΩ				GOOD		
DIELECTRIC TEST TEST DIELECTRIQUE		AC 500V , 1min.				GOOD		
APPEARANCE ASPECT						GOOD		
PRESSURE TEST TEST EN PRESSION				240.0 bar g		GOOD		

REFERENCE / NOTES :

SE 8 04/A

TEST CONDITIONS
CONDITIONS DE TEST

TEMP. °C 26,7

ATM. PRESS. mbar 979



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REDIGE PAR :

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ProcessX SERIES TRANSMITTER INSPECTION REPORT

RELEVÉ D'ETALONNAGE TRANSMETTEUR SERIE ProcessX

I. SPECIFICATION

DESCRIPTION

ORIGINAL ORDER COMMANDE	CF07018032	TAG N° N° DE REPERE	FT-G28.1	
ARTICLE TYPE	DP	Lin	MODEL MODELE	FKCT35V52XCBYAU
POWER SOURCE ALIMENTATION	DC24V	RANGE ECHELLE REGLEE	0.000/5000.000 mmH2O	
ORDER ACKNOW. ACCUSE DE RECEPT.	149203 67	SERIAL N° N° DE SERIE	ABF1632F / 4T17325	

II. TEST & INSPECTION

ESSAIS VERIFICATION

TEST ITEMS ESSAIS	STANDARD VALUE VALEUR THEORIQUE			MEASURED VALUE VALEUR MESUREE				ACCEPTED DECISION
INPUT ENTREE				INCREASE MONTEE		DECREASE DESCENTE		
mmH2O	(mA)	(+/- %)		(mA)	(%)	(mA)	(%)	
0,000	4,000	0,065		4,000	0,000	3,998	-0,013	GOOD
1250,000	8,000	0,065		8,000	0,000	8,000	0,000	GOOD
2500,000	12,000	0,065		12,000	0,000	12,002	0,013	GOOD
3750,000	16,000	0,065		16,002	0,013	16,003	0,019	GOOD
5000,000	20,000	0,065		20,001	0,006			GOOD
ESSAI DE PRECISION ACCURACY TEST								
INSULATION RESISTANCE RESISTANCE ISOLEMENT	DC 500V ≥ 100MΩ							GOOD
DIELECTRIC TEST TEST DIELECTRIQUE	AC 500V , 1min.							GOOD
APPEARANCE ASPECT								GOOD
PRESSURE TEST TEST EN PRESSION				240.0 bar g				GOOD

REFERENCE / NOTES :

SE 8 04/A

TEST CONDITIONS
CONDITIONS DE TEST

TEMP. °C 23,8

ATM. PRESS. mbar 979



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REDIGE PAR :

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ProcessX SERIES TRANSMITTER INSPECTION REPORT

RELEVÉ D'ETALONNAGE TRANSMETTEUR SERIE ProcessX

I. SPECIFICATION

DESCRIPTION

ORIGINAL ORDER COMMANDE	CF07018032	TAG N° N° DE REPERE	FT-E29
ARTICLE TYPE	DP Lin	MODEL MODELE	FKCT35V52XCBYAU
POWER SOURCE ALIMENTATION	DC24V	RANGE ECHELLE REGLEE	0.000/5000.000 mmH2O
ORDER ACKNOW. ACCUSE DE RECEPT.	149203 68	SERIAL N° N° DE SERIE	ABF1633F / 4T17346

II. TEST & INSPECTION

ESSAIS VERIFICATION

TEST ITEMS ESSAIS		STANDARD VALUE VALEUR THEORIQUE		MEASURED VALUE VALEUR MESUREE		ACCEPTED DECISION		
ACCUACY TEST ESSAI DE PRECISION	INPUT ENTREE			INCREASE MONTEE		DECREASE DESCENTE		
	mmH2O	(mA)	(+/- %)	(mA)	(%)	(mA)	(%)	
	0,000	4,000	0,065	4,002	0,013	4,001	0,006	GOOD
	1250,000	8,000	0,065	8,003	0,019	8,003	0,019	GOOD
	2500,000	12,000	0,065	12,002	0,013	12,003	0,019	GOOD
	3750,000	16,000	0,065	16,004	0,025	16,004	0,025	GOOD
	5000,000	20,000	0,065	20,003	0,019			GOOD
INSULATION RESISTANCE RESISTANCE ISOLEMENT		DC 500V ≥ 100MΩ					GOOD	
DIELECTRIC TEST TEST DIELECTRIQUE		AC 500V , 1min.					GOOD	
APPEARANCE ASPECT							GOOD	
PRESSURE TEST TEST EN PRESSION		240.0 bar g					GOOD	

REFERENCE / NOTES :

SE 8 04/A

TEST CONDITIONS
CONDITIONS DE TEST

TEMP. °C 26,4

ATM. PRESS. mbar 979



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ProcessX SERIES TRANSMITTER INSPECTION REPORT

RELEVÉ D'ETALONNAGE TRANSMETTEUR SERIE ProcessX

I. SPECIFICATION

DESCRIPTION

ORIGINAL ORDER COMMANDE	CF07018032	TAG N° N° DE REPERE	FT-M08.1
ARTICLE TYPE	DP Lin	MODEL MODELE	FKCT35V52XCBYAU
POWER SOURCE ALIMENTATION	DC24V	RANGE ECHELLE REGLEE	0.000/3500.000 mmH2O
ORDER ACKNOW. ACCUSE DE RECEPT.	149203 69	SERIAL N° N° DE SERIE	ABF1634F / 4T17391

II. TEST & INSPECTION

ESSAIS VERIFICATION

TEST ITEMS ESSAIS	STANDARD VALUE VALEUR THEORIQUE			MEASURED VALUE VALEUR MESUREE			ACCEPTED DECISION
INPUT ENTREE				INCREASE MONTEE		DECREASE DESCENTE	
mmH2O	(mA)	(+/- %)	(mA)	(%)	(mA)	(%)	
0,000	4,000	0,065	3,999	-0,006	3,998	-0,013	GOOD
875,000	8,000	0,065	8,000	0,000	8,001	0,006	GOOD
1750,000	12,000	0,065	11,998	-0,013	11,999	-0,006	GOOD
2625,000	16,000	0,065	15,998	-0,013	15,999	-0,006	GOOD
3500,000	20,000	0,065	19,998	-0,013			GOOD
ESSAI DE PRECISION ACCURACY TEST							
	INSULATION RESISTANCE RESISTANCE ISOLEMENT			DC 500V ≥ 100MΩ			GOOD
	DIELECTRIC TEST TEST DIELECTRIQUE			AC 500V , 1min.			GOOD
	APPEARANCE ASPECT						GOOD
	PRESSURE TEST TEST EN PRESSION			240.0 bar g			GOOD

REFERENCE / NOTES :

SE 8 04/A

TEST CONDITIONS
CONDITIONS DE TEST

TEMP. °C 27,5

ATM. PRESS. mbar 977



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REDIGE PAR :

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ProcessX SERIES TRANSMITTER INSPECTION REPORT

RELEVÉ D'ETALONNAGE TRANSMETTEUR SERIE ProcessX

I. SPECIFICATION

DESCRIPTION

ORIGINAL ORDER COMMANDE	CF07018032	TAG N° N° DE REPERE	FT-M08.2
ARTICLE TYPE	DP Lin	MODEL MODELE	FKCT35V52XCBYAU
POWER SOURCE ALIMENTATION	DC24V	RANGE ECHELLE REGLEE	0.000/3500.000 mmH2O
ORDER ACKNOW. ACCUSE DE RECEPT.	149203 70	SERIAL N° N° DE SERIE	ABF1635F / 4T17397

II. TEST & INSPECTION

ESSAIS VERIFICATION

TEST ITEMS ESSAIS	STANDARD VALUE VALEUR THEORIQUE			MEASURED VALUE VALEUR MESUREE			ACCEPTED DECISION
INPUT ENTREE			INCREASE MONTEE	DECREASE DESCENTE			
mmH2O	(mA)	(+/- %)	(mA)	(%)	(mA)	(%)	
0,000	4,000	0,065	4,001	0,006	4,002	0,013	GOOD
875,000	8,000	0,065	8,000	0,000	8,001	0,006	GOOD
1750,000	12,000	0,065	12,001	0,006	12,002	0,013	GOOD
2625,000	16,000	0,065	16,000	0,000	16,000	0,000	GOOD
3500,000	20,000	0,065	20,001	0,006			GOOD
ACCUACY TEST ESSAI DE PRECISION							
INSULATION RESISTANCE RESISTANCE ISOLEMENT	DC 500V ≥ 100MΩ						GOOD
DIELECTRIC TEST TEST DIELECTRIQUE	AC 500V , 1min.						GOOD
APPEARANCE ASPECT							GOOD
PRESSURE TEST TEST EN PRESSION				240.0 bar g			GOOD

REFERENCE / NOTES :

SE 8 04/A

TEST CONDITIONS
CONDITIONS DE TEST

TEMP. °C 25,9

ATM. PRESS. mbar 979



PREPARED BY : DUCAT
REDIGE PAR :

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APPROUVE PAR :

DATE : 18/05/2011 14:06:30

Dumas

ProcessX SERIES TRANSMITTER INSPECTION REPORT

RELEVÉ D'ETALONNAGE TRANSMETTEUR SERIE ProcessX

I. SPECIFICATION

DESCRIPTION

ORIGINAL ORDER COMMANDE	CF07018032	TAG N° N° DE REPERE	FT-M08.3
ARTICLE TYPE	DP	MODEL MODELE	FKCT35V52XCBYAU
POWER SOURCE ALIMENTATION	DC24V	RANGE ECHELLE REGLEE	0.000/3500.000 mmH2O
ORDER ACKNOW. ACCUSE DE RECEPT.	149203 71	SERIAL N° N° DE SERIE	ABF1636F / 4T17255

II. TEST & INSPECTION

ESSAIS VERIFICATION

TEST ITEMS ESSAIS	STANDARD VALUE VALEUR THEORIQUE			MEASURED VALUE VALEUR MESUREE			ACCEPTED DECISION
INPUT ENTREE				INCREASE MONTEE	DECREASE DESCENTE		
mmH2O	(mA)	(+/- %)	(mA)	(%)	(mA)	(%)	
0,000	4,000	0,065	4,000	0,000	4,001	0,006	GOOD
875,000	8,000	0,065	8,000	0,000	8,001	0,006	GOOD
1750,000	12,000	0,065	12,001	0,006	12,000	0,000	GOOD
2625,000	16,000	0,065	15,998	-0,013	15,998	-0,013	GOOD
3500,000	20,000	0,065	20,002	0,013			GOOD
ACCUACY TEST ESSAI DE PRECISION							
INSULATION RESISTANCE RESISTANCE ISOLEMENT	DC 500V ≥ 100MΩ						GOOD
DIELECTRIC TEST TEST DIELECTRIQUE	AC 500V , 1min.						GOOD
APPEARANCE ASPECT							GOOD
PRESSURE TEST TEST EN PRESSION				240.0 bar g			GOOD

REFERENCE / NOTES :

SE 8 04/A

TEST CONDITIONS
CONDITIONS DE TEST

TEMP. °C 26,3

ATM. PRESS. mbar 977



PREPARED BY : DUCAT
REDIGE PAR :

14

APPROVED BY :
APPROUVE PAR :

DATE : 18/05/2011 14:27:48

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DIFFERENTIAL PRESSURE (FLOW) TRANSMITTER

DATA SHEET

FKC...5

The FCX-AIII differential pressure (flow) transmitter accurately measures differential pressure, liquid level, gauge pressure or flow rate and transmits a proportional 4 to 20mA signal. The transmitter utilizes a unique micromachined capacitance silicon sensor with state-of-the-art microprocessor technology to provide exceptional performance and functionality.

FEATURES

- High accuracy up to $\pm 0.04\%$**
0.065% accuracy as standard, 0.04% accuracy as option.
Fuji's micro-capacitance silicon sensor assures this accuracy for all elevated or suppressed calibration ranges without additional adjustment.
- Minimum environmental influence**
The "Advanced Floating Cell" design which protects the pressure sensor against changes in temperature, static pressure, and overpressure substantially reduces total measurement error in actual field applications.
- Fuji/HART® bilingual communications protocol**
FCX-AIII series transmitter offers bilingual communications to speak both Fuji proprietary protocol and HART®. Any HART® compatible devices can communicate with FCX-AIII.
- Application flexibility**
Various options that render the FCX-AIII suitable for almost any process applications include.
 - Full range of hazardous area approvals
 - Built-in RFI filter and lightning arrester
 - 5-digit LCD meter with engineering unit
 - Stainless steel electronics housing
 - Wide selection of materials
- Programmable output Linearization Function**
In addition to Linear and Square Root, output signal can be freely programmable.
(Up to 14 compensated points at approximation.)
- Burnout current flexibility (Under Scale: 3.2 to 4.0mA, Over Scale: 20.0 to 22.5mA)**
Burnout signal level is adjustable using Model FXW Hand Held Communicator (HHC) to comply with NAMUR NE43.
- Dry calibration without reference pressure**
Thanks to the best combination of unique construction of mechanical parts (Sensor unit) and high performance electronics circuit (Electronics unit), reliability of dry calibration without reference pressure is at equal level as wet calibration.



[L-Type]



[T-Type]

SPECIFICATIONS

Functional specifications

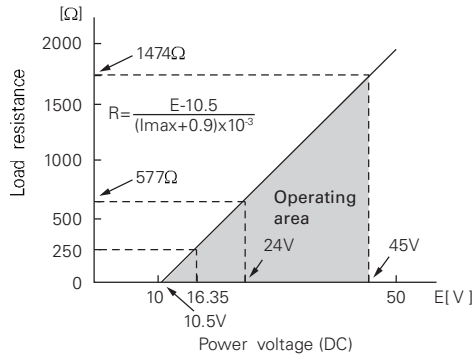
Service: Liquid, gas, or vapour
Static pressure, span, and range limit:

Type	Static pressure [MPa] {bar}	Span limit [kPa] {m bar}		Range limit [kPa] {m bar}
		Min.	Max.	
FKC□11	-0.1 to + 0.2 {-1 to + 2}	0.1 { 1 }	1 { 10 }	+/- 1 { +/- 10 }
FKC□22	-0.1 to + 10 {-1 to + 100}	0.1 { 1 }	6 { 60 }	+/- 6 { +/- 60 }
FKC□33	-0.1 to + 16 {-1 to + 160}	0.32 { 3.2 }	32 { 320 }	+/- 32 { +/- 320 }
FKC□35	-0.1 to + 16 {-1 to + 160}	1.3 { 13 }	130 { 1300 }	+/- 130 { +/- 1300 }
FKC□36	-0.1 to + 16 {-1 to + 160}	5 { 50 }	500 { 5000 }	+/- 500 { +/- 5000 }
FKC□38	-0.1 to + 16 {-1 to + 160}	30 { 300 }	3000 { 30000 }	+/- 3000 { +/- 30000 }
FKC□43	-0.1 to + 42 {-1 to + 420}	0.32 { 3.2 }	32 { 320 }	+/- 32 { +/- 320 }
FKC□45	-0.1 to + 42 {-1 to + 420}	1.3 { 13 }	130 { 1300 }	+/- 130 { +/- 1300 }
FKC□46	-0.1 to + 42 {-1 to + 420}	5 { 50 }	500 { 5000 }	+/- 500 { +/- 5000 }
FKC□48	-0.1 to + 30 {-1 to + 300}	30 { 300 }	3000 { 30000 }	+/- 3000 { +/- 30000 }
FKC□49	-0.1 to + 30 {-1 to + 300}	500 { 5000 }	20000 { 200000 }	{+20000, -100000} {+200000, -1000000}

Remark : To minimize environmental influence, span should be greater than 1/40 of the max. span in most applications.

- Lower limit of static pressure (vacuum limit) ;
Silicone fill sensor: See Fig. 1
Fluorinated fill sensor: 66kPa abs (500mmHg abs) at temperature below 60°C
- The maximum span of each sensor can be converted to different units using factors as below.
 $1\text{MPa} = 10^3\text{KPa} = 10\text{bar} = 10.19716\text{kgf/cm}^2 = 145.0377\text{psi}$
 $1\text{kPa} = 10\text{mbar} = 101.9716\text{mmH}_2\text{O} = 4.01463\text{inH}_2\text{O}$

- Over range limit:** To maximum static pressure limit
- Output signal:** 4 to 20mA DC (linear or square root) with digital signal superimposed on the 4 to 20mA signal
- Power supply:** Transmitter operates on 10.5V to 45V DC at transmitter terminals.
10.5V to 32V DC for the units with optional arrester.
- Load limitations:** see figure below



Note: For communication with HHC⁽¹⁾ (Model: FXW), min. of 250 Ω required.

Hazardous locations: (Under an application) SEE TABLE2

Zero/span adjustment:

Zero and span are adjustable from the HHC⁽¹⁾. Zero and span are also adjustable externally from the adjustment screw.

Damping: Adjustable from HHC or local configurator unit with LCD display.

The time constant is adjustable between 0.06 to 32 seconds.

Zero elevation/suppression:

–100% to +100% of URL

Normal/reverse action:

Selectable from HHC⁽¹⁾

Indication: Analog indicator or 5-digit LCD meter, as specified.

Burnout direction: Selectable from HHC⁽¹⁾

If self-diagnostic detect transmitter failure, the analog signal will be driven to either "Output Hold", "Output Overscale" or "Output Underscale" modes.

"Output Hold":

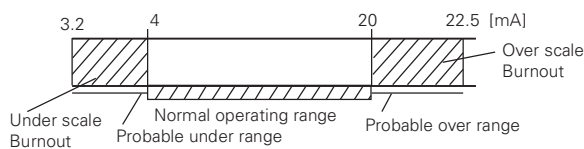
Output signal is hold as the value just before failure happens.

"Output Overscale":

Adjustable within the range 20.0mA to 22.5mA from HHC⁽¹⁾

"Output Underscale":

Adjustable within the range 3.2mA to 4.0mA from HHC⁽¹⁾



Output limits conforming to NAMUR NE43 by order.

Loop-check output:

Transmitter can be configured to provide constant signal 3.2mA through 22.5mA by HHC⁽¹⁾.

Temperature limit:

Ambient: –40 to +85°C

(–20 to +80°C for LCD indicator)

(–40 to +60°C for arrester option)

(–10 to +60°C for fluorinated oil filled transmitters)

For explosionproof units (flameproof or intrinsic safety), ambient temperature must be within the limits specified in each standard.

Process: –40 to +120°C for silicone fill sensor

–20 to +80°C for fluorinated oil fill sensor

Storage: –40 to +90°C

Humidity limit: 0 to 100% RH

Communication: With HHC⁽¹⁾ (Model FXW, consult Data Sheet No. EDS8-47), following items can be remotely displayed or configured.

Note: HHC's version must be higher than 7.0 (or FXW □□□□1–□4), for FCX–AIII.

Local configurator with LCD display (option):

Local configurator with 3 push button and LCD display can support following items.

Items	By communication with FXW		By local configurator (with 3 push button)	
	Display	Set	Display	Set
Tag No.	✓	✓	✓	✓
Model No.	✓	✓	✓	✓
Serial No. & Software Version	✓	—	✓	—
Engineering unit	✓	✓	✓	✓
Range limit	✓	—	✓	—
Measuring range	✓	✓	✓	✓
Damping	✓	✓	✓	✓
Output mode	Linear	✓	✓	✓
	Square root	✓	✓	✓
Burnout direction	✓	✓	✓	✓
Calibration	✓	✓	✓	✓
Output adjust	—	✓	—	✓
Data	✓	—	✓	—
Self diagnoses	✓	—	✓	—
Printer (In case of FXW with printer option)	✓	—	—	—
External switch lock	✓	✓	✓	✓
Transmitter display	✓	✓	✓	✓
Linearize	✓	✓	—	—
Rerange	✓	✓	✓	✓
Saturate current	✓	✓	✓	✓
Write protect	✓	✓	✓	✓
History	—	—	—	—
	—	—	—	—

Programmable output linearization function:

Output signal can be characterized with "14 points linear approximation function" from HHC⁽¹⁾.

EMC Conformity: EN61326-1: 2006 CE

Performance specifications for linear output

Reference conditions, silicone oil fill, 316SS isolating diaphragms, 4 to 20mA analog output in linear mode.

Accuracy rating: (including linearity, hysteresis, and repeatability)

Max span 32kPa to 3000kPa model:

For spans greater than 1/10 of URL:
 $\pm 0.065\%$ of span or $\pm 0.04\%$ of span
 (21th digit: H)

For spans below 1/10 of URL:

$$\pm \left(0.015 + 0.05 \frac{0.1 \times \text{URL}}{\text{Span}} \right) \% \text{ of span}$$

Max span 20MPa model:

For spans greater than 5Mpa: $\pm 0.1\%$ of span

For spans below 5MPa:

$$\pm \left(0.05 + 0.05 \frac{5\text{MPa}}{\text{Span}} \right) \% \text{ of span}$$

Max span 1kPa, 6kPa model:

For spans greater than 1/10 of URL: $\pm 0.1\%$ of span

For spans below 1/10 of URL:

$$\pm \left(0.05 + 0.05 \frac{0.1 \times \text{URL}}{\text{Span}} \right) \% \text{ of span}$$

Stability: $\pm 0.1\%$ of upper range limit (URL) for 10 years for 6th digit code 3, 5, 6, 8 and 9.

Temperature effect:

Effects per 28°C change between the limits of -40°C and +85°C

Range code (6th digit in Code symbols)	Zero shift	Total effect
"1" / 1kPa {10mbar} "2" / 6kPa {60mbar}	$\pm \left(0.125 + 0.1 \frac{\text{URL}}{\text{Span}} \right) \%$	$\pm \left(0.15 + 0.1 \frac{\text{URL}}{\text{Span}} \right) \%$
"3" / 32kPa {320mbar} "5" / 130kPa {1300mbar} "6" / 500kPa {5000mbar} "8" / 3000kPa {30000mbar} "9" / 20000kPa {200000mbar}	$\pm \left(0.075 + 0.0125 \frac{\text{URL}}{\text{Span}} \right) \%$	$\pm \left(0.095 + 0.0125 \frac{\text{URL}}{\text{Span}} \right) \%$

Static pressure effect:

Static pressure code (5th digit in Code symbols)	Zero shift (% of URL)
"1" / 1kPa {10m bar} sensor "2" / 6kPa {60 m bar} sensor	$\pm 0.2\%$ / 0.2MPa {2bar} $\pm 0.2\%$ / 3.2MPa {32bar}
"2" "3" "4"	$\pm 0.035\%$ / 6.9MPa {69bar} $\pm 0.2\%$ / 6.9MPa {69bar} FKCC49

Overrange effect:

Static pressure code (5th digit in Code symbols)	Zero shift (% of URL)
"1" / 1kPa {10m bar} sensor "2" / 6kPa {60m bar} sensor	$\pm 0.3\%$ / 0.2MPa {2bar} $\pm 0.1\%$ / 3.2MPa {32bar}
"2" "3" "4"	$\pm 0.1\%$ / 10MPa {100bar} FKCC3[5,6,8] $\pm 0.1\%$ / 16MPa {160bar} FKCC3[5,6,8] $\pm 0.15\%$ / 16MPa {160bar} FKCC33 $\pm 0.25\%$ / 42MPa {420 bar} FKCC4[5,6,8] $\pm 0.2\%$ / 10MPa {100bar} FKCC49

Performance specifications for square root output

Accuracy rating:

Output	Span	
	over 0.1 × URL	below 0.1 × URL
50 to 100%	$\pm 0.065\%$	$\pm (0.015 + 0.05 \times 0.1 \times \text{URL}/\text{Span})\%$
20 to 50%	$\pm 0.163\%$	$\pm 2.5 \times (0.015 + 0.05 \times 0.1 \times \text{URL}/\text{Span})\%$
10 to 20%	$\pm 0.325\%$	$\pm 5 \times (0.015 + 0.05 \times 0.1 \times \text{URL}/\text{Span})\%$

Max span 1kPa, 6kPa model:

Output	Accuracy
50 to 100%	$\pm 0.1\%$
20 to 50%	$\pm 0.25\%$
10 to 20%	$\pm 0.5\%$

Temperature effect:

Effects per 28°C change between the limits of -40°C and +85°C

Range code	Shift at 20% output point
"1" and "2"	$\pm \left(0.375 + 0.25 \frac{\text{URL}}{\text{Span}} \right) \%/28^\circ\text{C}$
"3" through "9"	$\pm \left(0.24 + 0.03125 \frac{\text{URL}}{\text{Span}} \right) \%/28^\circ\text{C}$

Low flow cut-off: Customer configurable for any point between 0 to 20% of output

Performance specifications common for both atpt modes

Supply voltage effect:

Less than 0.005% of calibrated span per 1V

Update rate: 60 msec

Step response: (without electrical damping)

Range code (6th digit in code symbols)	Time constant (at 23°C)	Dead time
"1"	0.33 s	0.12 s
"2"	0.3 s	
"3"	0.12 s	
"5" through "8"	0.08 s	

Mounting position effect:

Zero shift, less than 0.12kPa {1.2m bar} for a 10° tilt in any plane.

No effect on span.

This error can be corrected by adjusting Zero.

Dielectric strength:

500V AC, 50/60Hz 1 min., between circuit and earth.

Insulation resistance:

More than 100MΩ at 500V DC.

Internal resistance for external field indicator:

12Ω or less

Physical specifications

Electrical connections:

G1/2, 1/2-14 NPT, Pg13.5, or M20 × 1.5 conduit, as specified.

Process connections:

1/4-18 NPT or Rc1/4 on 54mm centers, as specified.

Meets DIN 19213.

Process-wetted parts material:

Process symbols	Material	Diaphragm	Wetted sensor body	Vent/drain
V	316 stainless steel(*1)	316L stainless steel	316 stainless steel	316 stainless steel
W	316 stainless steel(*1)	Hastelloy-C	316 stainless steel	316 stainless steel
H	316 stainless steel(*1)	Hastelloy-C	Hastelloy-C	316 stainless steel
J	316 stainless steel(*1)	316L stainless steel +Au coating	316 stainless steel	316 stainless steel
M	316 stainless steel(*1)	Monel	Monel lining	316 stainless steel
T	316 stainless steel(*1)	Tantalum	Tantalum lining	316 stainless steel

Notes: * (1) ASTM CF8M

Remark: Availability of above material design depends on ranges and static pressure. Refer to "Code symbols".

Non-wetted parts material:

Electronics housing: Low copper die-cast aluminum alloy finished with polyester coating (standard), or 316 stainless steel (SCS14 per JIS G5121), as specified.

Bolts and nuts: Cr-Mo alloy (standard), 304 or 316 stainless steel (for static pressure code "1", "2", and "3" only), or 630 stainless steel (for static pressure code "3" and "4" only). Static pressure rating for code "3" with 304 and 316 stainless steel bolts is degraded to 10MPa.

Fill fluid: Silicone oil (standard) or fluorinated oil

Mounting bracket: 304 or 316 stainless steel

Environmental protection:

IEC IP67 and NEMA 6/6P

Mounting:

On 60.5mm(JIS 50A) pipe using mounting bracket, direct wall mounting, or direct process mounting.

Mass(weight):

Transmitter approximately 3.1 to 3.6kg without options.

Add; 0.5kg for mounting bracket

4.5kg for stainless steel housing option

Optional features

Indicator:

A plug-in analog indicator (2.5% accuracy).

An optional 5-digit LCD meter with engineering unit is also available.

Local configurator with LCD display:

An optional 5 digits LCD meter with 3 push buttons can support items as using communication with FXW.

Arrester:

A built-in arrester protects the electronics from lightning surges.

Lightning surge immunity:

4kV (1.2 × 50μs)

Oxygen service:

Special cleaning procedures are followed throughout the process to maintain all process wetted parts oil-free.

The fill fluid is fluorinated oil.

Chlorine service:

The fill fluid is fluorinated oil.

Degreasing:

Process-wetted parts are cleaned, but the fill fluid is standard silicone oil. Not for use on oxygen or chlorine measurement.

NACE specification:

Metallic materials for all pressure boundary parts comply with NACE MR-01-75. ASTM B7M or L7M bolts and 2HM nuts (Class II) are available.

Static pressure rating for code "3" (16 MPa) is degraded to 10MPa.

Vacuum service:

Special silicone oil and filling procedure are applied.

See Fig. 1.

Optional tag plate:

An extra stainless steel tag with customer tag data is wired to the transmitter.

Coating of cell:

Cell's surface is finished with epoxy/polyurethane double coating. Specify if environment is extremely corrosive.

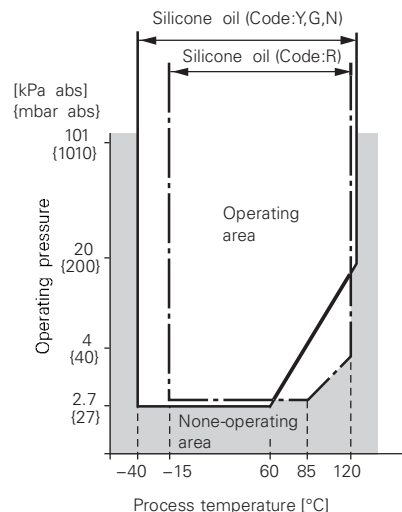


Fig. 1 Relation between process temperature and operating pressure

CODE SYMBOLS

Digit	Description				Note	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	21	← Digit No. of code
4	<Connection>					F	K	C						5								
	Process connection	Oval flange screw	Conduit connection	Case type																		
	Rc1/4	7/16-20UNF	G1/2	T type																		
	1/4-18NPT	7/16-20UNF	1/2-14NPT	T type																		
	1/4-18NPT	M10 (or M12)(*1)	Pg 13.5	T type	Note 1																	
	1/4-18NPT	M10 (or M12)(*1)	M20×1.5	T type	Note 1																	
	1/4-18NPT	7/16-20UNF	Pg 13.5	T type																		
	Rc1/4	7/16-20UNF	G1/2	L type																		
	1/4-18NPT	7/16-20UNF	1/2-14NPT	L type																		
	1/4-18NPT	M10 (or M12)(*1)	Pg 13.5	L type	Note 1																	
	1/4-18NPT	M10 (or M12)(*1)	M20×1.5	L type	Note 1																	
	1/4-18NPT	7/16-20UNF	Pg 13.5	L type																		
5, 6, 7																						
	Static pressure [MPa] {bar}	Span limit (*2) [kPa] {m bar}	Process cover	Diaphragm	Wetted cell body	Note 2																
	-0.1 to +0.2 {−1 to +2}	0.1...1 {1...10}	316 stainless steel 316 stainless steel 316 stainless steel	316L stainless steel Hast. C 316L stainless steel +Au coating Hast. C	316 stainless steel SUS316 316 stainless steel Hast. C lining									11V 11W 11J 11H								
	-0.1 to +10 {−1 to 100}	0.1...6 {1...60}	316 stainless steel 316 stainless steel 316 stainless steel	316L stainless steel Hast. C 316L stainless steel +Au coating Hast. C	316 stainless steel SUS316 316 stainless steel Hast. C lining									22V 22W 22J 22H								
	-0.1 to +16 {−1 to +160}	0.32...32 {3.2...320}	316 stainless steel 316 stainless steel 316 stainless steel	316L stainless steel Hast. C 316L stainless steel +Au coating Hast. C	316 stainless steel SUS316 316 stainless steel Hast. C lining									33V 33W 33J 33H 33M 33T								
			316 stainless steel 316 stainless steel 316 stainless steel	316L stainless steel Hast. C 316L stainless steel +Au coating Hast. C	316 stainless steel SUS316 316 stainless steel Hast. C lining									35V 35W 35J 35H 35M 35T								
			316 stainless steel 316 stainless steel 316 stainless steel	316L stainless steel Hast. C 316L stainless steel +Au coating Hast. C	316 stainless steel SUS316 316 stainless steel Hast. C lining									36V 36W 36J 36H 36M 36T								
			316 stainless steel 316 stainless steel 316 stainless steel	316L stainless steel Hast. C 316L stainless steel +Au coating Hast. C	316 stainless steel SUS316 316 stainless steel Hast. C lining									38V 38J 43V 43W 43J 43H 43M								
			316 stainless steel 316 stainless steel 316 stainless steel	316L stainless steel Hast. C 316L stainless steel +Au coating Hast. C	316 stainless steel SUS316 316 stainless steel Hast. C lining									45V 45W 45J 45H 45M 46V 46W 46J 46H 46M								
			316 stainless steel 316 stainless steel 316 stainless steel	316L stainless steel Hast. C 316L stainless steel +Au coating Hast. C	316 stainless steel SUS316 316 stainless steel Hast. C lining									48V 48J 49V								
			316 stainless steel 316 stainless steel 316 stainless steel	316L stainless steel Hast. C 316L stainless steel +Au coating Hast. C	316 stainless steel SUS316 316 stainless steel Hast. C lining																	

Note 1: (*1) The thread is M12, if 42MPa (420bar) static pressure is specified.

Note 2: (*2) 100: 1 turn down is possible, but should be used at the span greater than 1/40 of the maximum span for better performance.

Digit	Description	Note	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	21	Digit No. of code
			F	K	C					5	-								
9	<Indicator and arrester>																		
	Indicator	Arrester																	
	None	None																	
	Analog, 0 to 100% linear scale	None																	
	Analog, 0 to 100% sq. root scale (*3)	None																	
	Analog, custom scale	None																	
	Analog, double scale (Linear and sq. root)	None																	
	None	Yes																	
	Analog, 0 to 100% linear scale	Yes																	
	Analog, 0 to 100% sq. root scale (*3)	Yes																	
	Analog, custom scale	Yes																	
	Analog, double scale (Linear and sq. root)	Yes																	
	Digital, 0 to 100% linear scale	None																	
	Digital, custom scale	None																	
	Digital 0 to 100% square root scale	None																	
	Digital, 0 to 100% linear scale	Yes																	
	Digital, custom scale	Yes																	
	Digital 0 to 100% square root scale	Yes																	
	Digital, 0 to 100% linear scale																		
	(Local configurator unit with LCD display)	None																	
	Digital, custom scale																		
	(Local configurator unit with LCD display)	None																	
	Digital, 0 to 100% square root scale																		
	(Local configurator unit with LCD display)	None																	
	Digital, 0 to 100% linear scale																		
	(Local configurator unit with LCD display)	Yes																	
	Digital, custom scale																		
	(Local configurator unit with LCD display)	Yes																	
	Digital, 0 to 100% square root scale																		
	(Local configurator unit with LCD display)	Yes																	
10	<Approvals for hazardous locations>																		
	None (for ordinary locations)																		
	TIIS, Flameproof (Cable gland seal) (*12)																		
	TIIS, Intrinsic safety																		
	FM, Flameproof (or explosionproof) (*15)																		
	FM, Intrinsic safety and nonincentive																		
	FM Combined of flameproof and intrinsic safety (*15)																		
	ATEX Flameproof (*14)																		
	ATEX Intrinsic safety																		
	ATEX Type n																		
	ATEX Combined of flameproof and intrinsic safety (*14)																		
	IECEx Scheme, Flameproof (*14)																		
	IECEx Scheme, Intrinsic safety																		
	CSA, Flameproof (or explosionproof) (*15)																		
	CSA, Intrinsic safety and nonincentive																		
	NEPSI, Flameproof (or explosionproof)																		
	NEPSI, Intrinsic safety																		
	NEPSI, Combined of flameproof and intrinsic safety																		
11	<Vent/ drain and mounting bracket>																		
	Vent/drain	Mounting bracket																	
	Standard	None																	
	Standard	Yes, SUS304																	
	Standard	Yes, SUS316																	
	Side	None																	
	Side	Yes, SUS304																	
	Side	Yes, SUS316																	
12	<Options>																		
	Extra SS tag plate	Stainless steel elec, housing																	
	None	None																	
	Yes	None																	
	None	None																	
	Yes	None																	
	None	Yes																	
	Yes	Yes																	
13	<Special applications and fill fluid>																		
	Treatment	Fill fluid																	
	Standard	Silicone oil																	
	Standard	Fluorinated oil																	
	Degreasing	Silicone oil																	
	Oxygen service	Fluorinated oil (7th digit code "V", "W", "J" only)																	
	Chlorine service	Fluorinated oil (7th digit code "H", "T")																	
	NACE specification	Silicone oil (Not available for 7th digit code "T" and 15th digit code "A", "B")																	
	Vacuum service	Silicone oil for vacuum use																	
14	<Sensor O-ring / Gasket>																		
	Teflon (gasket)																		

Note 3: (*3) In case of square root output mode, square root scale is not available.

Note 4: (*4) Customer tag number can be engraved on standard stainless steel name plate. If extra tag plate is required, select "Yes".

Digit	Description	Note	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	21	← Digit No. of code
15	<Bolt/nut> (*8)	<Vent Drain plug type>	F	K	C					5									
	Cr-Mo alloy hexagon socket head cap screw/carbon steel nut	Standard																A	
	Cr-Mo alloy hexagon bolt/nut	Standard																B	
	NACE bolt/nut (ASTM A193 B7M/A194 2HM) } (*5)	Standard																C	
	NACE bolt/nut (ASTM A320 L7M/A194 2HM)	Standard																D	
	304 stainless steel bolt/304 stainless steel nut (*6)	Standard																E	
	630 stainless steel bolt/304 stainless steel nut (*7)	Standard																F	
	316 stainless steel bolt/316 stainless steel nut (*6)	Standard																U	
21	<Other options> (*9)	Note 9																	
	High accuracy type (*10)	Instruction manual attached																H	
	Opposite Vent/Drain Plug Position	Instruction manual attached																C	
	Instruction manual unattached																	L	
	Opposite Vent/Drain Plug Position	Instruction manual unattached																P	

Note 5: (*5) Static pressure should be -0.1 to +10MPa (-1 to +100bar).

Note 6: (*6) Available for 5th digit code "1" "2" "3" In case of stainless steel bolt with 5th digit code "3", static pressure should be -0.1 to +10MPa (-1 to + 100bar).

Note 7: (*7) Available for 5th digit code "3" "4"

Note 8: (*8) In case of tropical use, select stainless bolts and nuts.

Note 9: (*9) If other option is not necessary, 21st digit code is blank.
In case of 21st digit code is blank, instruction manual attached.

Note 10: (*10) Available for 5th digit code "3" "4" and 6th digit code "3" to "8".

Note 11: (*11) Not available for 10th digit code "C"

Note 12: (*12) Available for 4th digit code "S".

Note 14: (*14) Available for 4th digit code "6", "8", "T", "W".

Note 15: (*15) Available for 4th digit code "6", "T".

ACCESSORIES

Oval flanges: (Model FFP, refer to Data Sheet No. EDS6-128)
Converts process connection to 1/2-14 NPT or to Rc1/2; in carbon steel or in 316 stainless steel.

Equalizing valves: (Model FFN, refer to Data Sheet No. EDS6-128)
Available in Carbon steel or in 316 stainless steel and in pressure rating 16MPa or 42MPa.

Hand-held communicator: (Model FXW, refer to Data Sheet No. EDS 8-47)

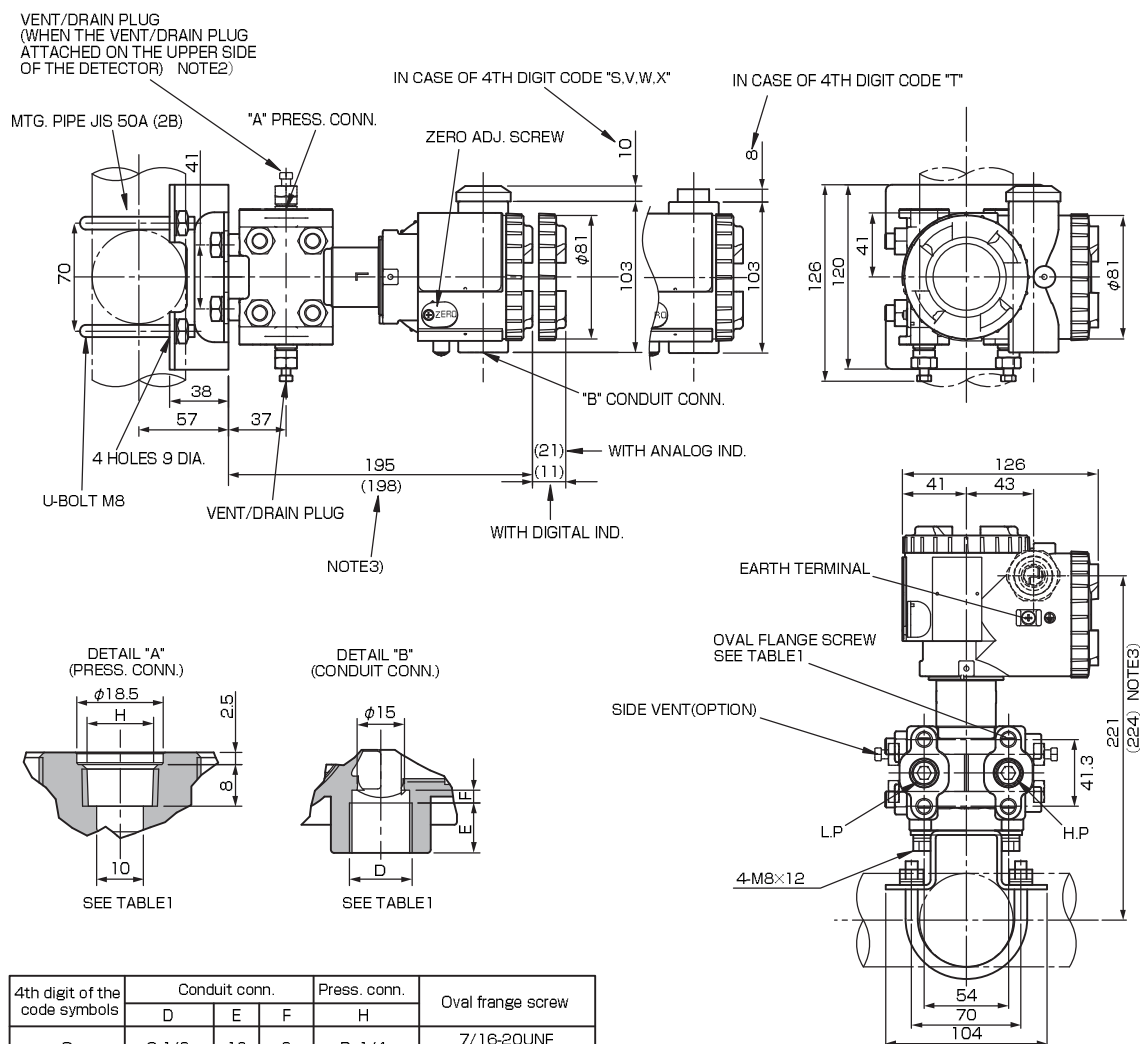
ORDERING INFORMATION

When ordering this instrument, specify:

1. CODE SYMBOLS
2. Measuring range
3. Output orientation (burnout direction) when abnormality is occurred in the transmitter.
Hold / Overscale / Underscale
Unless otherwise specified, output hold function is supplied.
4. Output mode (linear or square root output)
Unless otherwise specified, output mode is linear.
5. Indication method (indicated value and unit) in case of the actual scale (code D, H, P, S on 9th digit).
6. Tag No. (up to 14 alphanumerical characters), if required.

OUTLINE DIAGRAM (Unit:mm)

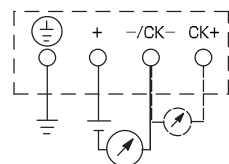
<AMP. case: L type>



4th digit of the code symbols	Conduit conn.			Press. conn.	Oval frange screw
	D	E	F	H	
S	G 1/2	18	2	Rc1/4	7/16-20UNF SCREW DEPTH15
T	1/2-14NPT	16	4	1/4-18NPT	7/16-20UNF SCREW DEPTH15
V	Pg13.5	10.5	4.5	1/4-18NPT	M10 SCREW DEPTH15
W	M20×1.5	16	4	1/4-18NPT	M10 SCREW DEPTH15
X	Pg13.5	10.5	4.5	1/4-18NPT	7/16-20UNF SCREW DEPTH15

TABLE 1

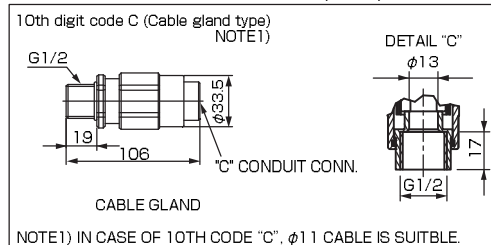
CONNECTION DIAGRAM



<SS TAG PLATE>



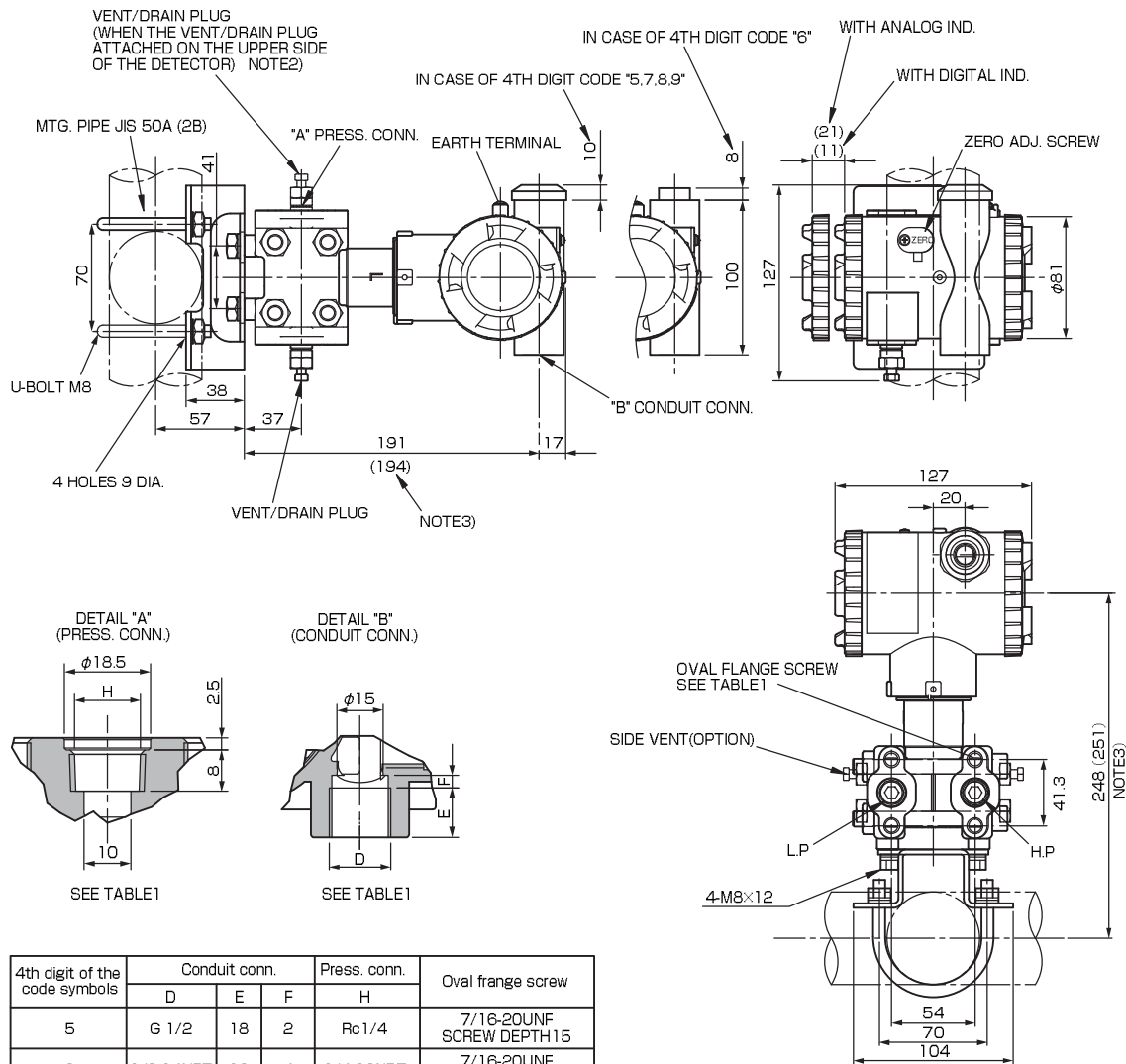
OPTION PARTS FOR FLAMEPROOF OF TIS (JAPAN)



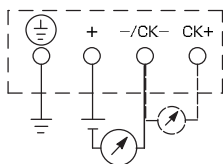
NOTE2) THE PRESSURE CONNECTOR IS LOCATED ON THE DOWN SIDE SURFACE OF THE DETECTOR. WHEN THE VENT/DRAIN PLUG IS ATTACHED ON THE UPPER SIDE OF THE DETECTOR (WHEN THE 21ST DIGIT OF THE CODE SYMBOLS : C.P.)

NOTE3) WHEN THE 7TH DIGIT OF THE CODE SYMBOLS "H.M.T"

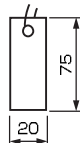
<AMP. case:T type>



CONNECTION DIAGRAM



<SS TAG PLATE>



NOTE2) THE PRESSURE CONNECTOR IS LOCATED ON THE DOWN SIDE SURFACE OF THE DETECTOR. WHEN THE VENT/RAIN PLUG IS ATTACHED ON THE UPPER SIDE OF THE DETECTOR (WHEN THE 21ST DIGIT OF THE CODE SYMBOLS : C,P).

NOTE3) WHEN THE 7TH DIGIT OF THE CODE SYMBOLS "H,M,T"

TABLE 2

Authorities	Intrinsic safety																				
ATEX	Ex II 1 G Ex ia IIC T5 Tamb = -40°C to +50°C Ex ia IIC T4 Tamb = -40°C to +70°C Entity Parameters: Ui=28V, Ii=94.3mA, Pi=0.66W, Ci=26nF (Without Arrester), Li=0.6mH (Without analog indicator), Ci=36nF (With Arrester), Li=0.7mH (With analog indicator)																				
Factory Mutual	Class I II III Div.1 Groups A, B, C, D, E, F, G T4 Entity Type 4X <table><tr><th colspan="2">Model code</th><th rowspan="2">Tamb</th></tr><tr><th>9th digit</th><th>13th digit</th></tr><tr><td>A,B,C,D,J</td><td>Y,G,N,R</td><td>-40°C to +85°C</td></tr><tr><td>L,PM,1,2,3</td><td>Y,G,N,R</td><td>-20°C to +80°C</td></tr><tr><td>Q,S,N,4,5,6</td><td>Y,G,N,R</td><td>-20°C to +60°C</td></tr><tr><td>E,F,G,H,K</td><td>Y,G,N,R</td><td>-40°C to +60°C</td></tr><tr><td>-</td><td>W,A,D</td><td>-10°C to +60°C</td></tr></table> Entity Parameters: Vmax=28V, Imax=94.3mA, Pi=0.66W, Ci=35.98nF, Li=0.694mH	Model code		Tamb	9th digit	13th digit	A,B,C,D,J	Y,G,N,R	-40°C to +85°C	L,PM,1,2,3	Y,G,N,R	-20°C to +80°C	Q,S,N,4,5,6	Y,G,N,R	-20°C to +60°C	E,F,G,H,K	Y,G,N,R	-40°C to +60°C	-	W,A,D	-10°C to +60°C
Model code		Tamb																			
9th digit	13th digit																				
A,B,C,D,J	Y,G,N,R	-40°C to +85°C																			
L,PM,1,2,3	Y,G,N,R	-20°C to +80°C																			
Q,S,N,4,5,6	Y,G,N,R	-20°C to +60°C																			
E,F,G,H,K	Y,G,N,R	-40°C to +60°C																			
-	W,A,D	-10°C to +60°C																			
CSA	Class I Div.1 Groups A, B, C, D Class II Div.1 Groups E, F, G Class III Div.1 Temp Code T5 Tamb max = +50°C Temp Code T4 Tamb max = +70°C Entity Parameters: Vmax=28V, Imax=94.3mA, Ci=25nF (Without Arrester), Ci=36nF (With Arrester), Li=0.6mH (Without analog meter), Li=0.7mH (With analog meter)																				
TIIS	Ex ia IIC T4 Tamb max = +60°C Entity Parameters: Ui=28V, Ii=94.3mA, Pi=0.66W, Ci=38.4nF, Li=0.694mH																				
IECEX Scheme	Ex ia IIC T4 Tamb = -40°C to +70°C Ex ia IIC T5 Tamb = -40°C to +50°C Entity Parameters: Ui=28V, Ii=94.3mA, Pi=0.66W, Ci=26nF (Without Arrester), Li=0.6mH (Without analog indicator), Ci=36nF (With Arrester), Li=0.7mH (With analog indicator)																				
NEPSI	Ex ia IIC T4 Ex d IIB+H2 T6 / Ex ia IIC T4 <table><tr><th colspan="2">Model code</th><th rowspan="2">Tamb</th></tr><tr><th>9th digit</th><th>13th digit</th></tr><tr><td>A,B,C,D,J</td><td>Y,G,N,R</td><td>-40°C to +85°C</td></tr><tr><td>L,PM,1,2,3</td><td>Y,G,N,R</td><td>-20°C to +80°C</td></tr><tr><td>Q,S,N,4,5,6</td><td>Y,G,N,R</td><td>-20°C to +60°C</td></tr><tr><td>E,F,G,H,K</td><td>Y,G,N,R</td><td>-40°C to +60°C</td></tr><tr><td>-</td><td>W,A,D</td><td>-10°C to +60°C</td></tr></table> Entity Parameters: Ui=42.4V, Ii=113mA, Pi=1W, Ci=35.98nF, Li=0.694mH	Model code		Tamb	9th digit	13th digit	A,B,C,D,J	Y,G,N,R	-40°C to +85°C	L,PM,1,2,3	Y,G,N,R	-20°C to +80°C	Q,S,N,4,5,6	Y,G,N,R	-20°C to +60°C	E,F,G,H,K	Y,G,N,R	-40°C to +60°C	-	W,A,D	-10°C to +60°C
Model code		Tamb																			
9th digit	13th digit																				
A,B,C,D,J	Y,G,N,R	-40°C to +85°C																			
L,PM,1,2,3	Y,G,N,R	-20°C to +80°C																			
Q,S,N,4,5,6	Y,G,N,R	-20°C to +60°C																			
E,F,G,H,K	Y,G,N,R	-40°C to +60°C																			
-	W,A,D	-10°C to +60°C																			

Authorities	Flameproof
ATEX	Ex II 2 GD Ex d IIC T6 IP66/67 T85°C Tamb = -40°C to +65°C Ex d IIC T5 IP66/67 T100°C Tamb = -40°C to +85°C
Factory Mutual	Class I Div.1 Groups B, C, D T6 Type 4X Class II III Div.1 Groups E, F, G T6 Type 4X Tamb max = +60°C
CSA	Class I Div.1 Groups C, D Class II Div.1 Groups E, F, G Class III Div.1 Note) “Seal Not Required” enclosure is allowed.
TIIS	Ex do IIB+H ₂ T4 Tamb max = +60°C Maximum process temp. = +120°C
IECEX Scheme	Ex d IIC T5 IP66/67 Tamb = -40°C to +85°C Ex d IIC T6 IP66/67 Tamb = -40°C to +65°C
NEPSI	Ex d IIB+H ₂ T6 Tamb = -40°C to +60°C

Authorities	Type n Nonincendive																				
ATEX	Ex II 3 GD EEx nL IIC T5 Tamb = -40°C to +50°C EEx nL IIC T4 Tamb = -40°C to +70°C Specific Parameters: Model without arrester: Ui=42.4V, Ii=113mA, Pi=1W, Ci=25.18nF, Li=0.694mH Model with arrester: Ui=32V, Ii=113mA, Pi=1W, Ci=35.98nF, Li=0.694mH EEx nAL IIC T5 Tamb = -40°C to +50°C EEx nAL IIC T4 Tamb = -40°C to +70°C Specific Parameters: Model without arrester: Umax=42.4V, Imax=113mA, Pmax=1W Model with arrester: Umax=32V, Imax=113mA, Pmax=1W																				
Factory Mutual (pending)	Class I II III Div.2 Groups A, B, C, D, F, G T4 Entity Type 4X <table><tr><th colspan="2">Model code</th><th rowspan="2">Tamb</th></tr><tr><th>9th digit</th><th>13th digit</th></tr><tr><td>A,B,C,D,J</td><td>Y,G,N,R</td><td>-40°C to +85°C</td></tr><tr><td>L,P,M,1,2,3</td><td>Y,G,N,R</td><td>-20°C to +80°C</td></tr><tr><td>Q,S,N,4,5,6</td><td>Y,G,N,R</td><td>-20°C to +60°C</td></tr><tr><td>E,F,G,H,K</td><td>Y,G,N,R</td><td>-40°C to +60°C</td></tr><tr><td>-</td><td>W,A,D</td><td>-10°C to +60°C</td></tr></table>	Model code		Tamb	9th digit	13th digit	A,B,C,D,J	Y,G,N,R	-40°C to +85°C	L,P,M,1,2,3	Y,G,N,R	-20°C to +80°C	Q,S,N,4,5,6	Y,G,N,R	-20°C to +60°C	E,F,G,H,K	Y,G,N,R	-40°C to +60°C	-	W,A,D	-10°C to +60°C
Model code		Tamb																			
9th digit	13th digit																				
A,B,C,D,J	Y,G,N,R	-40°C to +85°C																			
L,P,M,1,2,3	Y,G,N,R	-20°C to +80°C																			
Q,S,N,4,5,6	Y,G,N,R	-20°C to +60°C																			
E,F,G,H,K	Y,G,N,R	-40°C to +60°C																			
-	W,A,D	-10°C to +60°C																			
CSA	Class I Div.2 Groups A, B, C, D Class II Div.2 Groups E, F, G Class III Div.2 Temp Code T5 Tamb max = +50°C Temp Code T4 Tamb max = +70°C Entity Parameters: Vmax=28V, Ci=25.18nF (Without Arrester), Ci=35.98nF (With Arrester), Li=0.694mH																				

⚠ Caution on Safety

*Before using this product, be sure to read its instruction manual in advance.

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