

**ORDERING INFORMATION - MODEL IS31C**

Model	Product Description		
IS31C	Series IS31C Thermocouple - with Precious Metal Sensors in Ceramic Insert, and with High Pressure Thermowell		
Code	Explosion Proof Rating		
1	Standard		
2	EEx d IIC T6 Flameproof Approval acc. EN 50018		
3	EEx ia IIC T6 Flameproof Approval acc. EN 50020		
Code	Sensor Type		
R	R : PtRh13%-Pt		
S	S : PtRh10%-Pt		
B	B : PtRh70%-Pt Rh6%		
X	Other		
Code	Precision Class	Tolerance for R & S	Tolerance for B
1	Class 1	0 to 1100°C, ±1°C / 1100 to 1600°C ±[1+0.003x(t-1100)] °C	Not Established
2	Class 2	0 to 600°C, ±1.5°C / 600 to 1600°C, ±0.0025t°C	600 to 1700°C ±0.0025t°C
3	Class 3	Not Established	600 to 800°C, ±4°C / 800 to 1700°C, ±0.005t°C
Code	Number of Elements		
12	Single		
22	Double		
33	Three		
Code	Wire Diameter [mm]	Temperature [°C], R, S	Temperature [°C], B
35	0.35	0 to 1300	0 to 1600
50	0.5	0 to 1500	0 to 1800
XX	Other		
Code	Insulation Rod Diameter d - Material	Max. Temperature [°C]	
B	5.5 mm – KER799 <sup>(1)</sup>	1800	
X	Other		
Code	Protective Tube Material - Dimensions D2- ODxID [mm]	Inner Tuber Material OD/ID [mm]	Max. Temperature [°C]
S925	SA <sup>(2)</sup> Silicon Carbide/ Ø1"x1/2"	KER 710 – Ø10 X 7	1650
S920	SA Silicon Carbide / Ø3/4"x1/2"	KER 710 – Ø10 X 7	1650
M620	LT-1 <sup>(3)</sup> Metal Ceramic / Ø 7/8"x5/8"	C-799 - Ø 10x6	1370
M625	LT-1 <sup>(3)</sup> Metal Ceramic / Ø1"x3/8"	C-799 - Ø 9x6	1370
XXXX	Other		
Code	Holding Tube Material - Dimensions D1- OD [mm]*		
A10	AISI 316(DIN1.4401)		
A15	AISI 314(DIN1.4841)		
A18	AISI 310(DIN1.4845)		
A20	AISI 446(DIN1.4762)		
A22	INCONEL 600(DIN 2.4816)		
A23	INCOLOY 800(DIN 1.4876)		
XXX	Other *Dimensions See Process Connection Code		
Code	Assembly Type		
D1	Two Ceramic Tubes with Single Safety Sealing Assembly		
D2	Two Ceramic Tubes with Double Safety Sealing Assembly		
Code	Connection Head	IP Rating	
K	KNE, Aluminum	67	
S	KNE, AISI 316SS(DIN1.4401)	67	
E	EEx'd	67	
X	Other		
Code	Wire Entry		
N	1/2 NPT F		
M	M20x1.5 F		
X	Other		
Code	Process Connection	D1 for D2 - OD= 1" [mm]	D1 for D2 - OD= 3/4" [mm]
U21	1-1/2" ANSI 150 LBS	32	26
U22	1-1/2" ANSI 300 LBS	32	26
U31	2" ANSI 150 LBS	32	26
U32	2" ANSI 300 LBS	32	26
U33	2" ANSI 600 LBS	32	26
U34	2" ANSI 900 LBS	40	32
U35	2" ANSI 1500 LBS	40	32
U36	2" ANSI 2500 LBS	40	32
G21	DIN DN40 PN16	32	26
G23	DIN DN40 PN40	32	26
G31	DIN DN50 PN16	32	26
G33	DIN DN50 PN40	32	26
G34	DIN DN50 PN64	40	32
G35	DIN DN50 PN100	40	32
G36	DIN DN50 PN160	40	32
G37	DIN DN50 PN250	40	32
XXX	Other		
Code	Flange Finish		
RF	Raise Face		
FF	Flat Face		
RJ	Ring Joint Face		
XX	other		

Code	Process Connection - Material
A10	AISI 316(DIN1.4401)
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A22	INCONEL 600(DIN 2.4816)
A23	INCOLOY 800(DIN 1.4876)
XX	Other
Code	Extension Length "N" [mm]
200	200
XXX	Other
Code	Insertion Length "LU" [mm]
0500	500
XXXX	Other
Code	Holding Tube Insertion Length "LP" [mm]
0200	200
XXXX	Other
Code	Additional Options
G	Cable Gland
X	Other
<b>Typical Model Number: IS31C 1 B 2 12 50 B S925 A18 D1 K N U35 RJ A18 200 0500 0200</b>	

- (1) C 799: Ceramic - 99.7% Al<sub>2</sub>O<sub>3</sub>, According to DIN EN 60672
- (2) SA: Silicon Carbide - 99.1% SiC, According to DIN EN 12212

**Figure for High Temperature Thermocouples**

