



Cascade regulators (contact thermometers) are designated for fluid temperature measuring, signalization and regulation in petrochemical and chemical industry, food industry, energetics, and transformer production. Being made of stainless steel, they are convenient for aggressive media, and applications where cleanliness is required. Capillary is protected by stainless steel flexible tube. The high reliability and long service life are significant features of cascade regulators.

The principle of operation is based on the fluid dilatation in a stem under thermal effect. The volume difference of the fluid is transmitted through the membrane mechanism to the micro switches and pointer. Two micro switches provide regulation and signalization of two different temperatures.

It is recommended to use thermo wells in the applications where the stems are exposed to pressure or aggressive media. Besides, they simplify replacement of the thermometer without disturbing the controlled process.

FEATURES:

Accuracy Class: $\pm 4\%$ at the ambient temperature of 20°C

Repeatability: 0.5%

On/Off differential: max 5% of a range, fixed

Ambient temperature: $-25/80^{\circ}\text{C}$

Operating pressure: 6 bar (without thermowell)

Overtemperature: 25% of a range

Degree of mechanical protection: IP 54

Stem: AISI 316 Ti $\varnothing 6; 8$

Sensitive element: AISI 304

Case: AISI 304 stainless steel

Ring: AISI 304 stainless steel

Mechanism: AISI 304, brass

Window: glass 3 mm

Gasket: EPDM

Dial: black painted aluminium with white printing

Electrical connector: Pg 13,5

Nominal voltage: 250 VAC, 28 VDC

Nominal current: 5 (1) A

OPTIONAL EXTRAS:

Thread adapters

Termowells

OPTIONS:

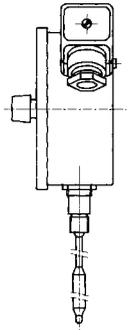
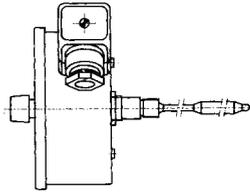
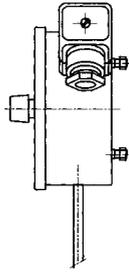
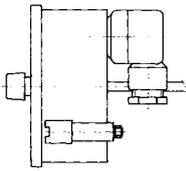
Stems: non-standard length and diameters

Pointer: Microadjustable

Ranges: non-standard upon request

Max temperature

VERSIONS

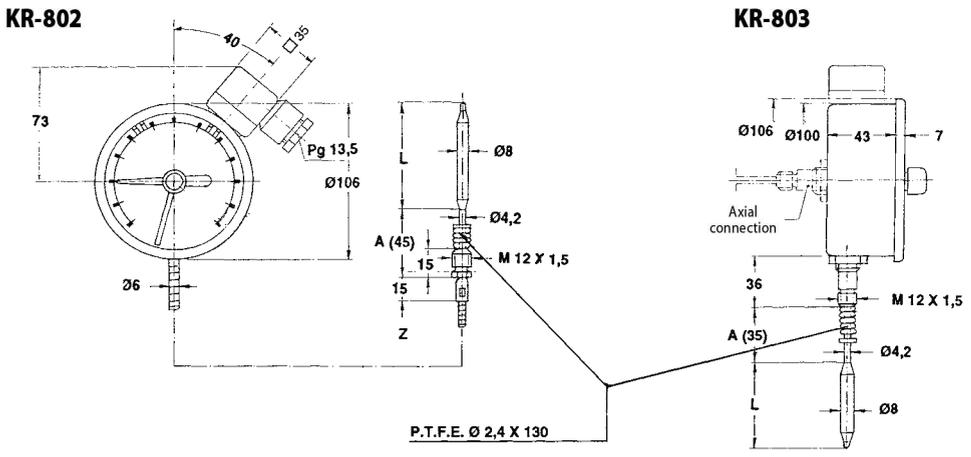
		KR-803				KR-802			
									
Y \ X	DOUBLE	SINGLE	DOUBLE	SINGLE	DOUBLE	SINGLE	DOUBLE	SINGLE	
H -40 ... +40	803 JH	803 LH	803 KH	803 MH	802 AHZ	802 FHZ	802 DHZ	802 IHZ	
A 0 ... 60	803 JA	803 LA	803 KA	803 MA	802 AAZ	802 FAZ	802 DAZ	802 IAZ	
B -20 ... +60	803 JB	803 LB	803 KB	803 MB	802 ABZ	802 FBZ	802 DBZ	802 IBZ	
C 0 ... 120	803 JC	803 LC	803 KC	803 MC	802 ACZ	802 FCZ	802 DCZ	802 ICZ	
Z 0...160	803 JZ	803 LZ	803 KZ	803 MZ	802 AZZ	802 FZZ	802 DZZ	802 IZZ	
N 20...160	803 JN	803 LN	803 KN	803 MN	802 ANZ	802 FNZ	802 DNZ	802 INZ	
J 40 ... 160	803 JJ	803 LJ	803 KJ	803 MJ	802 AJZ	802 FJZ	802 DJZ	802 IJZ	
D 0 ... 200	803 JD	803 LD	803 KD	803 MD	802 ADZ	802 FDZ	802 DDZ	802 IDZ	
K 50 ... 250	803 JK (A+L ≥ 250)	803 LK (A+L ≥ 250)	803 KK (A+L ≥ 250)	803 MK (A+L ≥ 250)	802 AKZ	802 FKZ	802 DKZ	802 IKZ	
F 0...300	803 JF (A+L ≥ 250)	803 LF (A+L ≥ 250)	803 KF (A+L ≥ 250)	803 MF (A+L ≥ 250)	802 AFZ	802 FFZ	802 DFZ	802 IFZ	
E 50 ... 350	803 JE (A+L ≥ 250)	803 LE (A+L ≥ 250)	803 KE (A+L ≥ 250)	803 ME (A+L ≥ 250)	802 AEZ	802 FEZ	802 DEZ	802 IEZ	

RANGES IN °C, STEM DIMENSIONS AND THE SCALE RESOLUTION

Temperature Code Y	A	B	C	N	Z	D	F	E	H	J	K
Temperature Range (°C)	0 ... 60	-20 ... + 60	0 ... 120	-20... 160	0...160	0 ...200	0...300	50 ... 350	-40 ... +40	40 ... 160	50 ... 250
Stem length (mm)	- Ø8	111	107	76	60	76	60		107	94	60
	- Ø6	206	200	130	100	130	100	71	71	200	178
Scale resolution (°C)	1	1	2	2	2	5	5	5	1	2	5

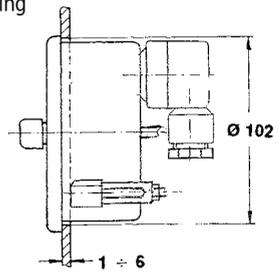


DIMENSIONS

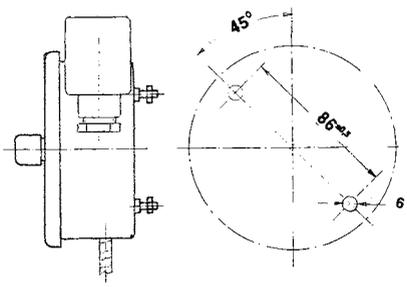


MAUNTING MODES KR-802

panel mounting



wall mounting



Remark: Length A max 900 mm

MOUNTING MODES, STEM CONNECTION AND ELECTRICAL CONNECTOR

KR-802

VARIABLE X	A	D	F	I
Electrical connector	Radial	Axial	Radial	Axial
Stem	Radial	Axial	Radial	Axial
Number of micro switches	2	2	1	1

KR-803

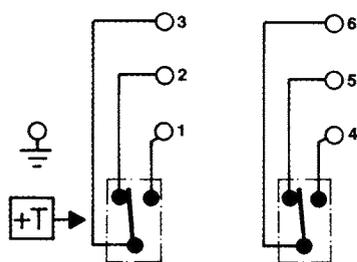
VARIABLE X	J	K	L	M
Electrical connector	Radial	Radial	Radial	Radial
Stem	Radial	Axial	Radial	Axial
Number of micro switches	2	2	1	1

CAPILLARY LENGTH

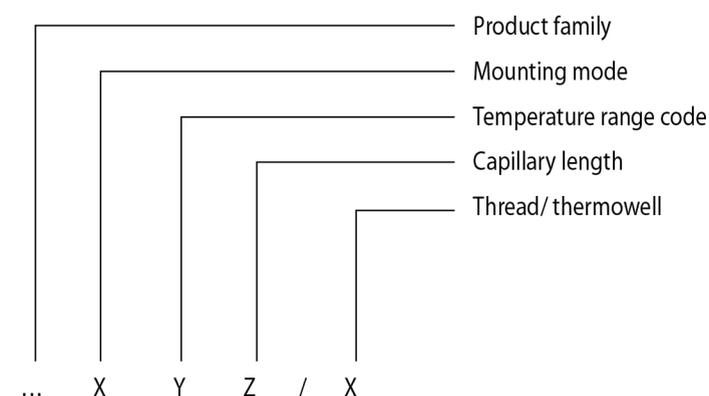
Code Z	1	2	3	4	5	6
Length (m)	1	2	3	4	5	6



ELECTRICAL DIAGRAM



HOW TO ORDER



SAMPLE ORDER:

802FD3/760D

KR 802	Cascade regulator Ø 100 mm, capillary
F	Radial connection, single regulation
D	Temperature range from 0 to +200 °C
6	Capillary length 3 m
760D	Thread adapter, male 1/2" – 14 NPT