

# PENKO

# FLEX™ 2100



Panel mount



Stainless steel mount

## SPECIFICATIONS

Wiring	Full Wheatstone bridge with passive connections (6-wire system).
Sense system	Passive sense system
Minimum bridge resistance	43.75 Ohm @ 5V exc.
Number of load cells	1 channel 1 - 8 Load cells 350 Ohm @ 5V exc. or 1 - 16 Load cells 1100 Ohm @ 5V exc.
Sensitivity	0.1 – 0.5 $\mu$ V minimum voltage for verification scale
A/D Conversion Speed	1600 measurements per second
Internal Resolution	24 Bits (16,777,216 parts)
A/D Converter type	Sigma-Delta, ratio metric, isolated from digital
Display Resolution	100,000 divisions max.
Display Step	x1, x2, x5, x10, x50.
Decimal Comma	Selectable between any digits of the display value
Full Scale Range	-25 mV to +25 mV
Excitation voltage	5 VDC (+2.5V and -2.5V with respect to the internal ground)
Linearity	< 0.001 % of full scale
Offset Drift	< +/- 2 ppm/°C
Span Drift	< +/- 2 ppm/°C
Digital filters	High performance Digital Filter 1-10 Hz
Overall filter	0 to -50 dB
Calibration Methods	Dead load and Span with up to 8 point linearization, Millivolt calibration G - CAL (Gravity correction)
Measurement Functions	Automatic zero tracking, motion detection, zero, tare, preset tare, net mode, peak hold, valley hold, bar graphs multi range, multi interval
Memory Allocation	Calibration data Flash, dynamic data in SRAM with battery backup.
Real-Time Clock	Standard with NiMh battery backup.

**PENKO Engineering B.V.** ■Tel +31 (0)318 525630 ■Fax +031 (0)318 529715 ■info@penko.com

**Web** ■www.penko.COM ■Copyright © 2010 ETC. All Rights Reserved. All product information and specifications subject to change. Rev. B Printed 08/10

# PENKO

# FLEX™ 2100

---

## STANDARD DI & DO

8 Digital Inputs	8 DI, optical isolated, 1 common, 18-36 VDC, PNP or NPN. Input 1 normal or counter input up to 8 kHz.
8 Digital Outputs (level cont.)	8 DO isolated PhotoMOS outputs, 2 common. max 36 VDC or AC, 0.5A Nominal, 1 A Surge (thermal fuse 0.5A), PNP or NPN.

## Optional I/O

1 Analog Output	1 Analog output 4-20 mA, 0-20 mA or 4-24 mA
-----------------	---

## ELECTRICAL

Power Supply	100 – 240 VAC 50/60Hz, 15 W max.
--------------	----------------------------------

## STANDARD COMMUNICATION PORTS

RS 232	Printer, ASCII, TP slave, TP Master, NPV Slave, NPV Master, AMI Master, Hostlink Viewteq, Hostlink PLC
RS 422 / RS 485	Printer, ASCII, TP slave, TP Master, NPV Slave, NPV Master, AMI Master, Hostlink Viewteq, Hostlink PLC
Ethernet	TCP/IP, UDP layer with PENKO TP protocol
USB	Printer, ASCII and TP slave
CANBUS	Buslink
-CAN1 port	
-CAN2 port	

## OPTIONAL COMMUNICATION PORTS

PROFIBUS DP	Profibus GSD file
-------------	-------------------

## COMMUNICATION SOFTWARE

Profibus	GSD file for Profibus. With Sub D
Penko Two phase protocol	
Printer protocol	

# PENKO

# FLEX™ 2100

---

## TOUCH SCREEN

Display type	High resolution TFT LCD 640 x 480 pixels, 256 colors, High brightness 500 cd/m2. High contrast 350:1
Display functions	Completely menu driven with graphical user interface
Display Rate	Selectable 1, 2, 3, 5, 10 or 25 updates/s
Display Filter	0, -6, -12, -18, -24, -30, -36, -42, and -50 dB
Display Filter range	Selectable in any range of the display value
Display suppression	Selectable in any range of the display value
Status enunciators	Zero, Net, No Motion
Display Digits	6 digits with leading zero suppression, selectable height = 18mm or 9 mm.
Display operation	Operate, configure and calibrate via three interfaces 1 - Front panel, (Touch screen) 2 - RS 232 3 - Ethernet
Touch screen	Glass screen, 2 mm of resistive type
Display size	5.7 inch, (145 mm)
Display material	Front foil PET 175 u

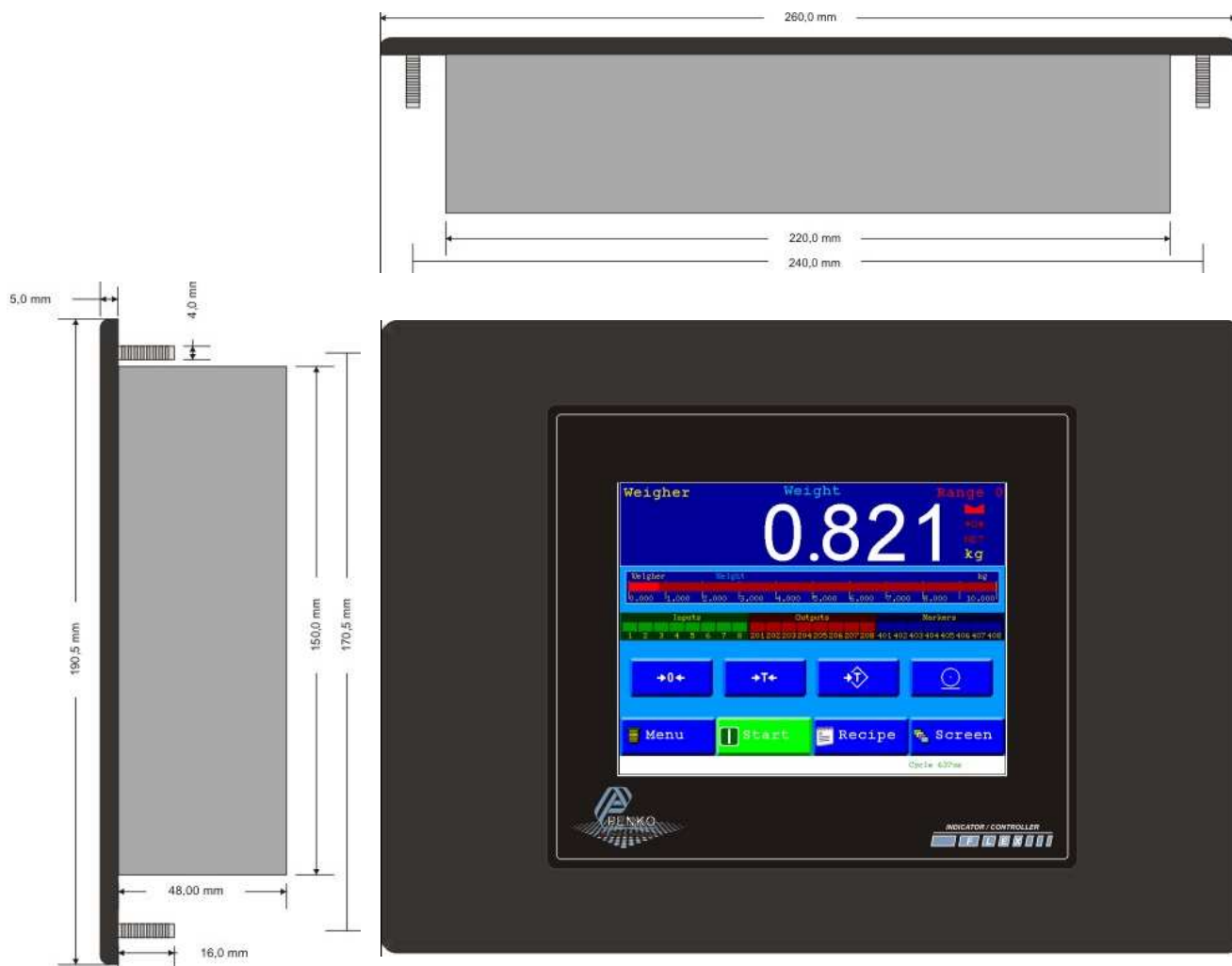
## ENVIRONMENTAL

Operating Temp	-10°C to +40°C [14°F to 104°F]
Storage Temp	-20°C to +70°C [-4°F to 158°F]
Relative Humidity	40 – 90% non-condensing.

# PENKO

# FLEX™ 2100

## Dimensions



Panel mount version

### Panel mount housing

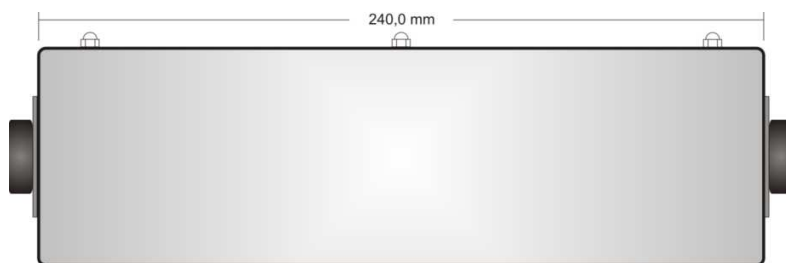
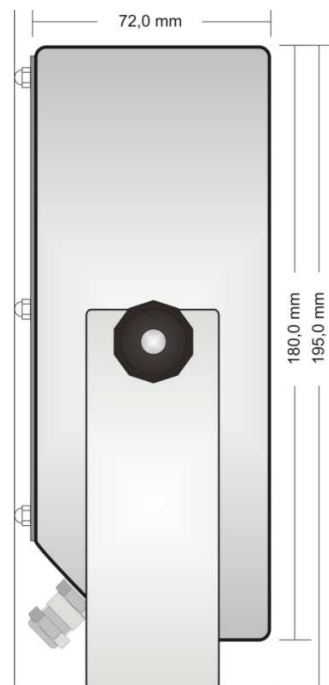
Material housing	extruded aluminum, black powder coating
Front machined aluminum,	black anodized.
Dimensions front: W x H x D	260 x 191 x 5 mm
Dimensions housing: W x H x D	220 x 150 x 48 mm
Dimensions panel cut out	224 x 154 mm
Weight approx.	1700 g.
Mounting clips	2 mounting clips
Rubber seal	O-ring of mosrubber
Built in cabinet	IP 45
If build in a cabinet (Front)	IP 65

**PENKO Engineering B.V.** ■Tel +31 (0)318 525630 ■Fax +31 (0)318 529715 ■info@penko.com

**Web** ■www.penko.COM ■Copyright © 2010 ETC. All Rights Reserved. All product information and specifications subject to change. Rev. B Printed 08/10

# PENKO

# FLEX™ 2100



Stainless steel version

### Stainless steel mount housing

Material housing

Dimensions front: W x H x D

Dimensions housing: W x H x D

Weight approx.

Protection

Stainless steel

240 x 180 x 70 mm

280 x 200 x 70 mm. (including nuts and bracket)

2300 g

IP 65

**PENKO Engineering B.V.** ■Tel +31 (0)318 525630 ■Fax +031 (0)318 529715 ■info@penko.com

**Web** ■www.penko.COM ■Copyright © 2010 ETC. All Rights Reserved. All product information and specifications subject to change. Rev. B Printed 08/10