(96*96, Predefined input)

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GENERAL SPECIFICATION SHEET
PROGRAMMABLE SCANNER MODEL 890

Introduction

Pantech's Programmable Universal/Predefined input Scanner, model 890 is an ideal instrument for providing indication as well as controlling set points for various multiple processes. It is designed to accept various process inputs (Current, Voltage, RTD, and Thermocouple) simultaneously (or predefined) with facility of all inputs onboard field configuration, calibration and displaying the same. Two scanning modes are provided AUTO/MANUAL. It is normally designed to accept UPTO 32 different channels simultaneously. The instrument allows CHANNEL TO GROUP fixings, RELAYS to GROUP fixings . Detailed functions and configurations regarding these are explained beneath. The model is also equipped with an optional 4 analog outputs facility (Isolated or non-isolated). The model has optional in built RTC for providing timed data. The scanning time can be adjusted from 1 second to 99 seconds maximum through front keys. Unused channel SKIP facility is also provided in all versions. It can be optionally equipped with serial/parallel communication facility of different open protocols. In an extended version the same scanner can also be used as a DATA LOGGER with all the capabilities of a multi channel dataloggers (Refer Model no. 891). The high end microprocessor program ensures the best and easiest possible user interactive modes. The EASE felt by the user in configuring the scanner is the real essence of product. Low drift precession components are used for long term accuracy of the instruments. All instruments undergo a burn-in for better reliability.The instrument is available in different formats and sizes. Magnified and classified Informations regarding the instrument are as below :-

1)Based on the no. of input channels and contact outputs, the scanner electronics is divided into two basic versions –
a)Maximum No. of input channels – 32 // Maximum No. of relay contact outputs – 16 – Ver.1
b)Maximum No. of input channels- 24 // Maximum No. of relay contact outputs – 32 – Ver.2
The user application must confirm with any of the two or both of the above versions. Requests beyond the above versions are subject to factory confirmation only.

2)Each version allows a perfect CHANNEL to GROUP mapping & RELAY to GROUP mapping. The user must understand this feature which empowers him to configure the scanner for any logics. Let us see an example to understand this feature –

* Suppose the User opts for 16 channel and 16 relay scanner. (Both version-1&2 are satisfied)
* Now the user can form maximum of 16 groups (No. of groups <= No. of channels). At this point the user is required to decide with no. of groups he is going for. (This depends on his application).
* Now suppose the user selects for 8 groups to be formed (grp1…grp8).
* Now each of the channel can be assigned to any of the 8 groups. Each of the grp1…grp8 can have any no. of channels. ONE CHANNEL ONCE ASSIGNED IN ONE GROUP, CANNOT BE ASSIGNED TO OTHER.
  Here say that for example.. we do as :- (grp1 = ch1, ch2 /// grp2 = ch3, ch4 // …. Grp8=ch15,ch16).
  So now after these configurations we are having 8 groups in our hand and 16 un-assigned relays.
* Now each of the relay is assigned to any of the existing 8 groups. Note that one relay once assigned to a group cannot be assigned to other. Each of the rly1…rly16 can be assigned to any of the grp1..grp8. Here say for example that we do as :- (rly1 = grp1, rly2 = grp1, rly3 = grp2 , rly4 = grp2…..rly15 = grp8, rly16=grp 8).
  This way we see that each of the relay is configured to work on a specific group. The relay can also be Configured to work on “AND” or “OR” logic for the assigned group. In above example hence we see that for each couple of channels, we have assigned a couple of relays only.
* Above is just an example of possible usage of CHANNEL to GROUP mapping // RELAY to GROUP mapping.
* Note that the user can do any type of configurations by using these functions. As of in above example only for instance, the user can configure so that all the 16 relays operate on one channel only // or say that 8 relays operate on channe-1 and rest 8 relays operate on channel-16 // or say that relay 1 operates for all the 16 channels and rest relays are unused…etc. Using this MAPPING functions to its full, is a virture of user's creativity now.
* All contact output related functions like : SETPOINT, ALARMTYPE, HYST. Can be configured for.

3)The RESPONSE time dedicated to each of the channel is in microseconds. This is possible because of the high speed microprocessor chips on board.
4)UNIVERSAL / PREDEFINED type inputs possible for each of the channel. Note that each of the channel is required to be calibrated individually .
5)All configurations, Calibrations, Setting of scanner functions like : A/M, SKIP, SCANTIME etc are done by front fascia keys only.
6)4 ISOALTED Retransmission outputs on selected input channels is possible.
7)The versatile pcb interconnectivities inside the instrument allows it to be manufactured in various sizes like 96*96 / 72*144 apart from the standard sizes. Kindly confirm with factory with sizes other then the standard ones,
8)Apart from all the above and other standard scanner related functions, any customized functions can also be given in the same model, however subject to factory confirmation only.

PANTECH INSTRUMENTS

Specifications

Input – Any one of the below
1)Current, 4 – 20 mA DC/ 0 – 20 mA DC/Others
(Display range = -1999 to 9999)
2)Voltage, 1 – 5 V DC/ 0 – 5 V DC/Others
(Display range = -1999 to 9999)
2)OHMS (0-10K)
3)RTD Pt 100 – 3 wire (-100.0 to 600.0)
4)T/C Type J (-110 – 1025)
5)T/C Type K (-150 – 1400)
6)T/C Type R (-25 – 1775)
7)T/C Type S (-25 – 1775)
8)T/C Type T (-200 – 400)
9)T/C Type B (450 to 1800)
10)T/C Type E (0 to 1000)
11)UNIVERSAL (all the above, configurable)
Decimal point is configurable in Linear and RTD inputs only.
T/C ranges and displays are without decimal points.
12) SPECIALS

Input impedance
200 K for Voltage, mV & T/C inputs
250 for current inputs

Number of channels / Relays
32 Channels / 16 relays --- Ver.1
24 Channels / 32 relays --- Ver.2
User's requirement should fulfill atleast one version

MAPPINGS
Groups to Channel mapping
Relay to Group mapping
* All configurations possible with this function.
* Refer Point 2 on last page for detailed desc.

Contact output configurations
Setpoint, Alarm type, Hysterisis – for each relay
AND or OR logic for the assigned group

Analog Retransmission output
Maximum 4 nos. of 4-20 mA DC / 0-10 V DC
(Isolated or Non Isolated) Specials

Display resolution
2 digit for channel display
4 digit for process value

Display accuracy
+/- 0.1% of span

Serial output with open protocol
1)RS232 With modbus RTU protocol
2)RS485 with modbus RTU protocol
Note: Any other protocol on demand

Transmitter power supply
To be confirmed with factory

Power supply
1)24 V DC
2)230/110 V AC, 50 Hz, +/- 10%
3)90-270 V AC – SMPS type
4)Specials

Contact ratings
230 V AC, 5 Amps.

Enclosure
MS metal enclosure / flameproof enclosure / IP65

Dimensions
Standard --96mm (W) * 196mm (H) – with bazel
or as required, prior to confirmation with factory
(96*96 / 72*144 subject to density of functions)

Mounting
Panel, Wall, Field / Specials

Ambient temperature
0 – 50C

Storage temperature
0 – 70C

Humidity
90% RH (non-condensing)

Basic Model No. (Specified by first 3 digits)
890 -SCANNER
Microprocessor based and
Fully configurable

Enclosure Mounting (Specified by letter following 3 digits)
P-Weatherproof - Panel
W-Weatherproof - Wall
F-Flameproof - Wall / field
I-IP65 grade – wall / field
S-Specials

Input (Specified by first digit following the letter)
1-mA DC signal input
2-V DC signal input
3-RTD type
4-Thermocouple
5-Resistances
U-UNIVERSAL (all above)
S-SPECIALS

Power Option (Specified by the second digit)
1-24 V DC
2-110 V AC
3-230 V AC
4-90-270 V AC – SMPS
S-SPECIALS
No. of channels
XY-Represents no. of chann.
No. or relay outputs
AB-Represents no. of relays
Analog O/P Option (Specified by the fourth digit)
0-None
1-4-Represents no. of outputs

Communication output
0-None
1-YES

PANTECH INSTRUMENTS

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