



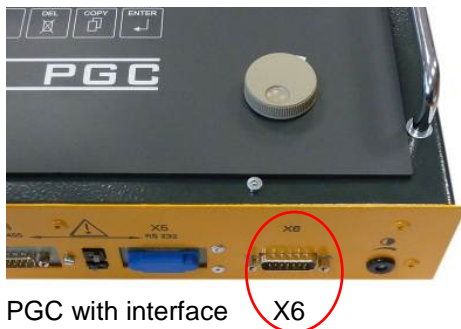
Date: 19.09.2014

Selection of Records via the Interface X6 of the PGC

Variants of the PGC

The interface X6 is only available for the following variants of the PGC:

Variants of the PGC	Article no.	for power sources	
PGC control unit for PGV 2 (binary)	.11.420.004 <u>A</u>	HiFocus 130, 160i, 161i	
PGC control unit for PGV 3 (binary)	.11.420.003 <u>A</u>	HiFocus 280i, 360i, 440i	
PGC 2-161 control unit for PGV 2-161 (binary)	.11.420.005 <u>A</u>	HiFocus 130, 161i	neo- Generation
PGC 3-440 control unit for PGV 3-440 (binary)	.11.420.006 <u>A</u>	HiFocus 280i, 360i, 440i	
PGC 3-600 control unit for PGV 3-600 (binary)	.11.420.007 <u>A</u>	HiFocus 600i	



PGC with interface



Interface X6

Advantages of Selecting Records via the Interface X6

- All functions that are available via the button „F2“ of the PGC in manual operation can also be used via the Interface X6.
- The complete cutting database is stored in the PGC only, there is no need to enter it into the external control unit (guiding system, robot control, in short: CNC).
- Only the record number required for the current cutting process is stored in the external control unit and transferred to the PGC as binary code, if needed.
- All cutting and marking data available in the database can be selected.
- If other than the standard parameters are used, it is possible to store and access user data records as before.
- The change of the cutting data is done from the external control unit and no adjustment on the PGC is required.
- All data regarding the gas processes and the power source are displayed on the PGC as before.
- The PGC automatically sends the required cutting parameters to the power source.
- The programming of the serial interface (RS485) in the external control unit is not necessary.



Date: 19.09.2014

Technical Description

The standard control of the PGC by an external control unit is realised via the serial interface RS485.

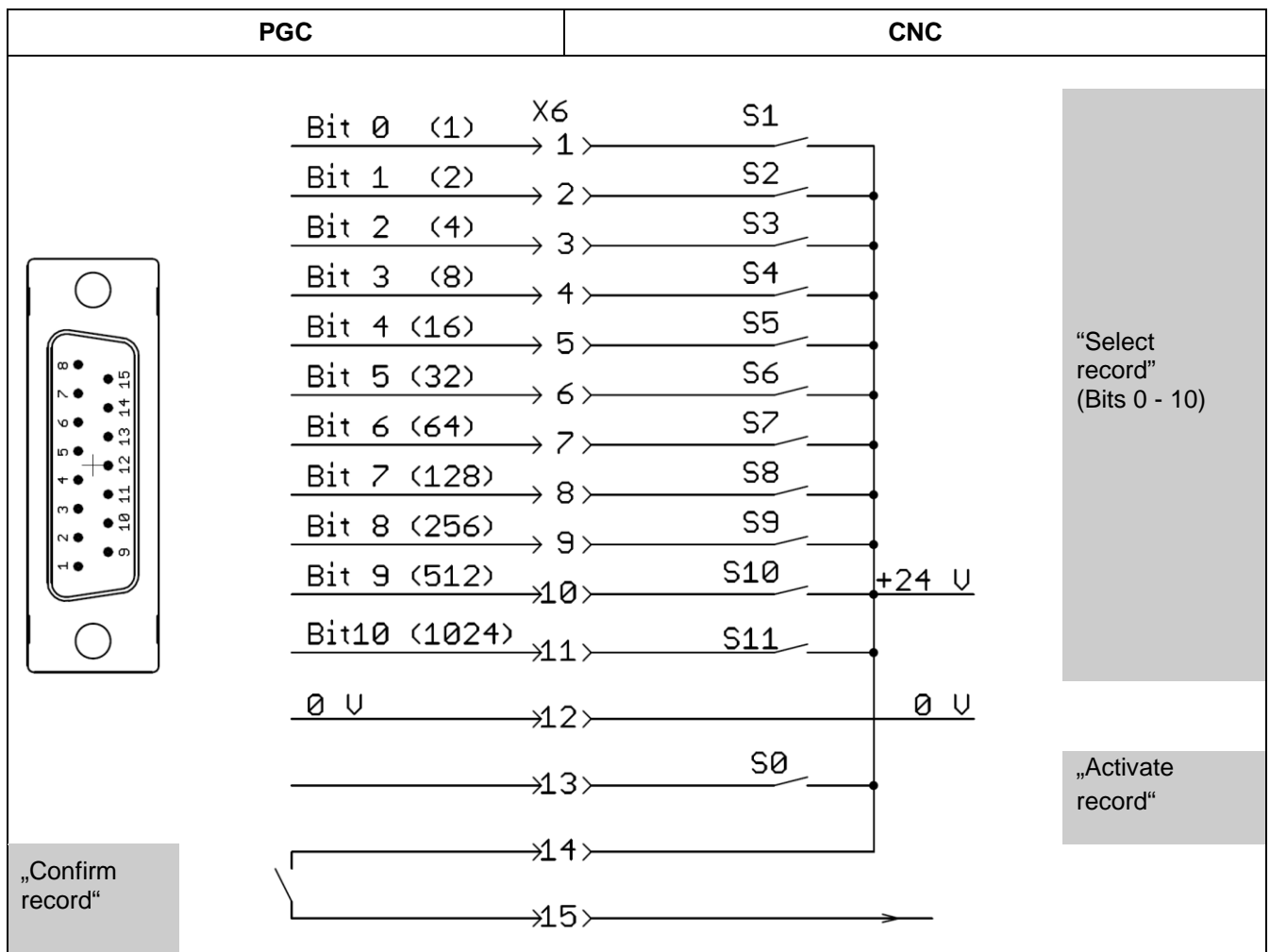
The simplified control of the PGC via the new interface X6 offers an alternative.

For this the record number has to be transferred to the PGC as binary code.

It provides 12 inputs and 1 output:

Inputs:	+24 V DC	current load:	< 10 mA
Output:	potential-free contact 24 V	current capacity:	< 0.5 A

The inputs and the output of the interface X6 are electrically isolated from the control of the PGC.



Wiring of the interface X6



Date: 19.09.2014

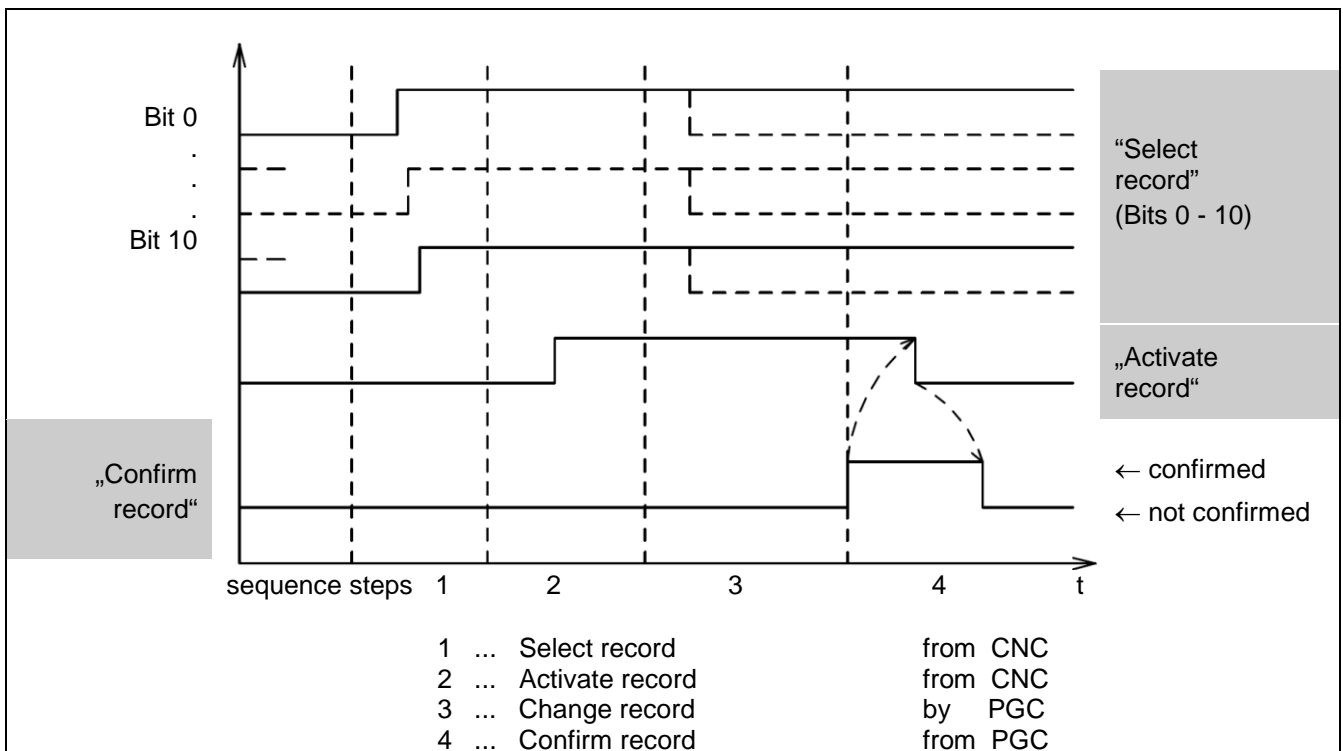
Application Example

Via the external control unit, the record no. 200 is to be selected from the internal database of the PGC.

Preconditions

- In the field „Torch“ of the start screen of the PGC, the desired record area has been adjusted.
- On the operation screen „Configuration data“ „X6 record selection“ has been selected.
- The serial connection RS485 between PGC and power source is present and correct.
- The CAN connection between PGC and PGV is present and correct.

Sequences:



Signals flow chart of the interface X6

1. Select record

Via the external control unit the Bits 7, 6 and 3 are switched to +24 V DC (record no. 200):

+24 V DC at input		Valence
X6:8	Bit 7	$2^7 = 128$
X6:7	Bit 6	$2^6 = 64$
X6:4	Bit 3	$2^3 = 8$
Total:		200



Date: 19.09.2014

2. Activate record

- Via the external control unit the input „Activate record“ (X6:13) is switched to +24 V DC.
- The record no. 200 is now activated in the PGC.
- The activated record number is displayed on the operation screen „Configuration data“ of the PGC:
„X6 Record selection 200“.
- The signal „Activate record“ may only be reset if the signal „Confirm record“ from the PGC to the external control unit has issued.

3. Change record

- The PGC checks whether the activated record exists in the internal database.
- If the record exists, the change is carried out to this record.
- After the change is complete the signal „Ready for cutting operation“ is reported to the external control unit via the interface X102 of the power source.
- If the record doesn't exist the error message „invalid record“ is displayed on the operation screen „Cutting“ of the PGC.

4. Confirm record

- If the record is changed and there are no errors in the PGC, the contact X6:14 to X6:15 is closed (signal: „Confirm record“ from the PGC to the external control unit).
- After resetting the signal „Activate record“ by the external control unit, the signal "Confirm record" reset by the PGC.

