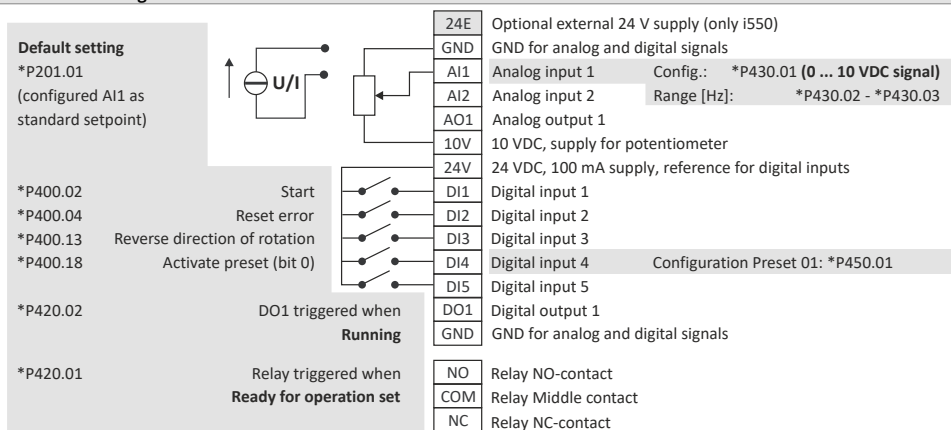
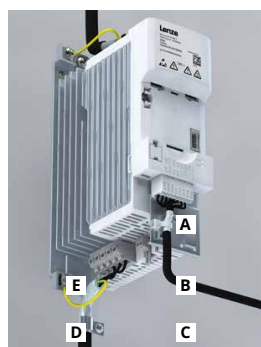


Electrical Installation

Flexible I/O configuration

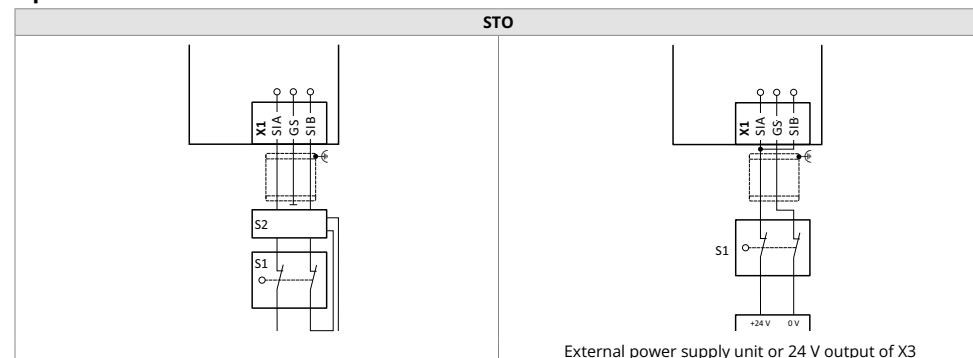


- A Shielding of control connections
- B Control cable
- C Mains cable
- D EMC cable gland
- E Low-capacitance motor cable



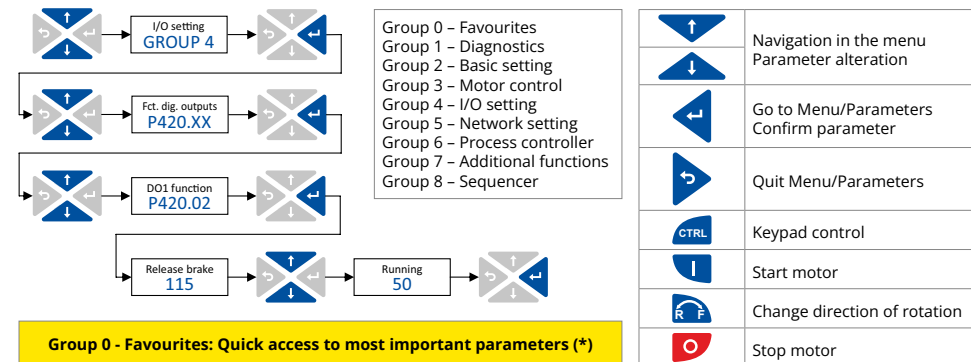
- A Shielding of control connections
- B Control cable
- C Mounting plate with conductive surface
- D Shield connection for motor cable (alternatively: shield connection on an optional motor shield plate)
- E Low-capacitance motor cable

Optional STO installation



- The transmission of the pulse width modulation is safely switched off by STO. The power drivers do not generate a rotating field anymore.
- The motor is safely switched to torqueless operation

Keypad Control

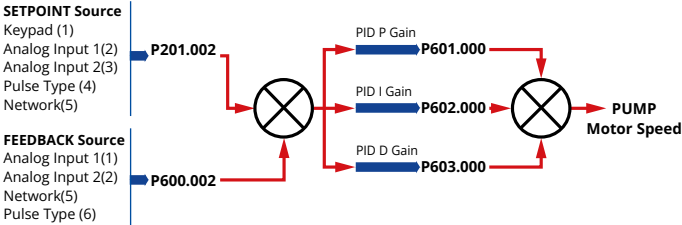


Group 0 - Favourites: Quick access to most important parameters (*)

Basic Set-Up (U/f-mode)

Parameter	Description	Default	Proposal	Comment
P700:001	Load factory defaults	0	1	
P200:001	Control Source	0	0	Flexible
P201:001	Frequency Setpoint	2	11	Preset Speed 1
P203:001	START Methode	0	0	Normal
P203:003	STOPP Methode	1	1	Standard-Ramp
P210:000	Minimum Frequency	0.00	10.00	
P211:000	Maximum Frequency	50.00	50.00	
P220:000	Acceleration Ramp 1	5.00	2.00	
P221:000	Deceleration Ramp 1	5.00	2.00	
P303:001	Motor Voltage	-	400	Volts
P320:004	Motor Parameter: Rated Speed	1450	1450	According to the motor plate
P320:005	Motor Parameter: Rated Frequency	50	50	According to the motor plate
P323:000	Motor Parameter: Rated Current	variable	45.70	According to the motor plate
P400:001	Enable Inverter	0	1	
P400:002	Run	0	11	Digital Input 1
P400:006	Start Forward	0	12	Digital Input 2
P400:018	Preset 1	14	14	Digital Input 4
P400:045	PID control - OFF	0	14	Digital Input 4
P420:001	Digital outputs function: Relay	51	51	Ready for operation
P420:002	Digital outputs function: DO	115	50 Alternatively: 155	Inverter is "running" Alternatively: STO active
P430:001	Configuration Analogue Input 1	0	0	Depend on the setpoint source
P430:004	Transducer Min. PID Value	0	0	PID units
P430:005	Transducer Max. PID Value	100	100	PID units
P450:001	Preset Speed 1	20	20	Fixed speed
P605:001	PID Min. setpoint limit Transducer	-300	-300	PID units
P605:002	PID Max. setpoint limit Transducer	300	300	PID units
P700:003	Save User Data	0	1	Saves Parameters to Memory Alternatively: Press enter-button on keypad for 3 seconds

PID Set-UP



Parameter	Description	Default	Proposal	Comment
P201:002	Setpoint Source	1	2	Analogue Input 1
P600:001	Operating mode	0	1	Normal operation
P600:002	Feedback Source	1	2	Analogue Input 2
P601:000	PID P-Gain	5.0	5.0	Adjusts the actual value to the setpoint
P602:000	PID I-Gain	400	400	Adjusts the accuracy of PID controller
P603:000	PID D-Gain	0	0	Do not change the value
P610:001	Sleep Entry Mode	0	2	Feedback > (P610:004)
P610:002	Sleep Entry STOP Type	0	0	Coast to Stop
P610:003	Sleep Freq. Threshold	0	32	
P610:004	Sleep Feedback Threshold	0.00	50	PID units
P610:005	Sleep Delay	0	10	time until the inverter wakes up from sleep mode
P610:006	Sleep Recovery Mode	0	0	(Speed setpoint >P610:003)
P610:007	Sleep Bandwidth	0	0	Depend from the pump type
P610:008	Feedback Recovery from Sleep Threshold	0	32	PID units

Flying Restart Set-UP in Fan applications

Parameter	Description	Default	Proposal	Comment
P203:001	Start Methode	0	2	Flying Restart Circuit
P718:001	Motor Current by Flying Restart	30	30	30% of the nominal motor current
P718:002	Start Frequency by Flying Rest.	20	10	Start frequency to synchronize on running motor
P718:003	Restart time by Flying Restart	-	1000	1000ms is good time to restart the motor

Diagnostics

Diagnostics		
*P100.00 Output frequency [Hz] P102.00 Frequency setpoint [Hz]	*P103.00 Actual current [%] (100 % = Rated motor current)	P125.01 Active control source P125.02 Active setpoint source

LED "RDY" (blue)	LED "ERR" (red)	State/meaning
off	off	No supply voltage
		Initialisation (inverter is started)
blinking	off	Safe torque off (STO) active. The inverter has been disabled by the integrated functional safety. (Optional, i550 only)
	blinking fast	Safe torque off (STO) active, warning present. The inverter has been disabled by the integrated functional safety. (Optional, i550 only)
	off	Inverter disabled
blinking	blinking fast	Inverter disabled, warning present.
		Inverter disabled, error active.
	on briefly every 1.5 s	Inverter disabled, no DC-bus voltage.
	off	Inverter enabled. The motor rotates according to the specified setpoint or quick stop active.
	blinking fast	Inverter enabled, warning present. The motor rotates according to the specified setpoint or quick stop active.
	blinking	Inverter enabled, quick stop active as response to a fault.

Error message	Cause (W. = Warning, T. = Fault, F. = Error)	Remedy
.2382/.2383	Ixt error/Ixt warning	Reduce load, adapt ramps
.3210/.3211	Overvoltage DC bus/ Warning Overvoltage DC bus	Reduce dynamic performance of the load profile, check mains voltage, check settings for brake energy management
.3220/.3221	Undervoltage DC bus/ Warning Undervoltage DC bus	Check mains voltage, check DC-bus voltage (P105.00), check mains settings, check fuses
.3222	DC-bus voltage to low for switch-on	
.4310	Motor overtemperature problem (PTC)	Check ambient temperature and motor load
.6280	Trigger/functions incorrectly connected	In the case of Flexible I/O configuration (*P200.01), Inverter enable (*P400.01) or Start (*P400.02) must have been assigned to an I/O. Do not use Start forwards/reverse and Run forwards/reverse at the same time!
.FF37	Automatic start inhibited	Deactivate starting command and reset error