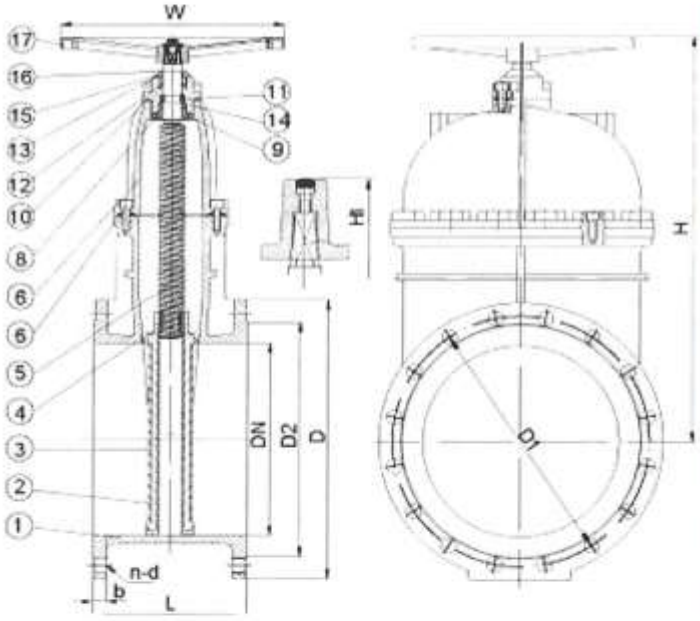
DIN3352 / EN 1171 DN350-DN800
Big Size Resilient Seated Gate Valve

■ Features:

Bolted Bonnet
Replaceable O-ring
Rubber encapsulated wedge, Brass Wedge Nut.
Fusion bonded epoxy coated inside and outside , blue RAL 5017 200 Micron thick
Working pressure from -1 to +16 Bar and working temperature from -10 to +80 °C

■ Technical Specification:

Valve design according to EN 1171, DIN3352, EN 1074-1 and 2
Face to face dimensions according to EN 558-1 、 DIN3202 F4/F5
Standard flange drilling to EN 1092-2, ISO 7005-2
Hydraulic test according to EN 12266, ISO5208



■ MATERIAL LIST

Item No	Part Name	Specification
1	Body	Ductile Iron GGG50
2	Wedge	Ductile Iron GGG50
3	Wedge Coating	NBR /EPDM EN 681-1
4	Wedge Nut	Copper Alloy
5	Stem	Stainless Steel X20 Cr13
6	Bonnet Gasket	NBR /EPDM EN 681-1
7	Bonnet	Ductile Iron GGG50
8	O Ring Back Sealing	EPDM/NBR
9	Down Bushing	Copper Alloy
10	O Ring	EPDM/NBR
11	Stem Collar	Stainless Steel / Brass
12	O-Ring	EPDM/NBR
13	O-Ring	EPDM/NBR
14	Gland Flange	Ductile Iron GGG50
15	Stuffing Cork	Copper Alloy
16	Dust Guard	EPDM/NBR
17	HandWheel	Ductile Iron GGG50
18	Stem Cap	Ductile Iron GGG50

■ Dimensions (mm)

Size	L		D	b	EN 1092-2 PN10			EN 1092-2 PN16			H	W	W T(kg)	
	F4	F5			D1	D2	n-d	D1	D2	n-d			F4	F5
DN350	290	550	520	26.5	460	429	16-23	470	429	16-28	762	450	175	220
DN400	310	600	580	28	515	480	16-28	525	480	16-31	836	450	223	290
DN450	330	650	640	30	565	530	20-28	585	548	20-31	957	640	322	420
DN500	350	700	715	31.5	620	582	20-28	650	609	20-34	1036	640	365	470
DN600	390	800	840	36	725	682	20-31	770	720	20-37	1188	640	539	700
DN700	430	900	910	39.5	840	794	24-31	840	794	24-37	1450	800	700	910
DN800	470	1000	1025	43	950	901	24-34	950	901	24-41	1660	1000	950	1235
DN1000	550	1200	1255	50	1160	1112	28-37	1170	1112	28-44	2100	1000	1400	1820

Intelligent Electric Actuator

For Valve Actuation and Process Automation Solutions

MME/MOE Intelligent Electric Actuators

Specifications

•Voltage supply:	3-phase AC, 380/460±10%, 50/60Hz±5%; 1-phase AC, 220±10%, 50/60Hz±5%;
• Duty mode:	On-off (MOE series,) a complete stroke, S2 - 15 min; Modulating (MME series), separate strokes, S4 - 25%, Number of starts ≤1200/h
• Motor control:	Variable frequency control technology
•Voltage input:	24V. DC (18-33V), max 500mA;
•Voltage output:	24V. DC (18-33V), max 40mA; short circuit protection.
• Input Signal:	(1)Analogue input (optional): 4...20 mA; galvanically isolated; 250Ω inherent resistance; rising characteristic (2)Digital input (BE1...B4): 4 optocoupler, potential free; freely configurable
• Output Signal:	(1)Analogue output (optional): 0/4...20 mA for position signal; load max. 500Ω; galvanical isolated; short circuit proof; rising or falling characteristic; (2)Digital output: Standard 4 (BA1...4) optional 7 (BA 5...7) or 8 (BA5...8) potential free, gold coated relay contacts,galvanical isolated, freely configurable; max. 50V,overload proof; Imax. < 150 mA; Imin. > 1 mA;
• Strokes range:	Minimum 1 circle for Multi-turn.
• Torque tripping:	40%...100% adjustbale,step 5%
• Output Speed:	40%...100% adjustbale,step5%
• Accuracy:	(1)Multi-turn（stroke≥1 circle） ≤±0.5% (2)Part-turn ≤±0.5% (3)Linear（stroke≥25mm） ≤±0.5%
• Dead zone:	1%（0.5...10% adjustable）
• Enclosure protection:	IP67 (IP68 optional)
• Explosive protection:	ExdIIBT4
• Ambient conditions:	(1)Temperature: On-off duty, MOE series, – 25 °C to +70 °C Modulating duty,MME series, –25 °C to +60 °C Separate type, MME series, –40°C to +85 °C (2)Humidity: ≤95% (3)Air media: without corrosive, flammable or explosive gas
•Anticondensation:	Anti condensation heater inside
• CE standard: CE	(1) EN 61000-6-4: 2007, EN 61000-6-2: 2005 (2) EN 61000-3-2:2006 +A1: 2009+A2: 2009, EN 61000-3-3: 2008 (3) EN 60204-1:2006+A1:2009
• Fatigue strength:	0.75g within 5...200Hz; extended strength proof with 5...150Hz,2g sinusoidal

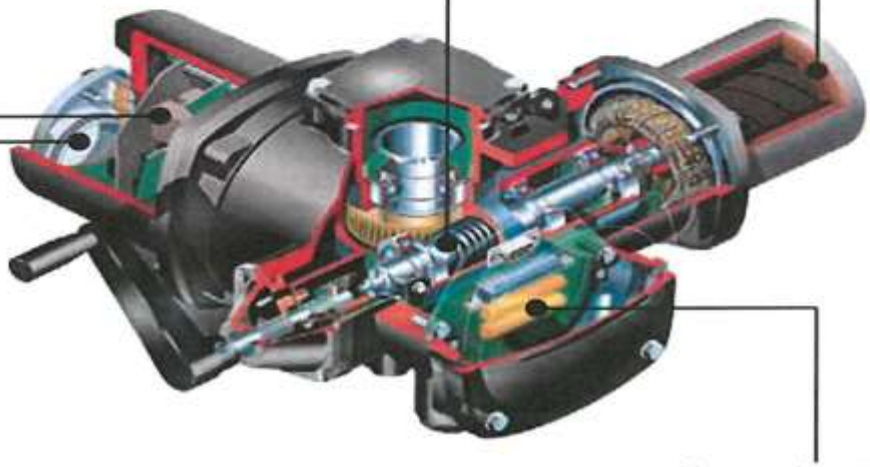
MME/MOE Intelligent Electric Actuators

Main Components

ABB advanced frequency converter and electronics technologies.

The gear unit provides high efficiency, maintenance free operation.

Motor in insulation class F. Measuring and monitoring of both current and temperature provide full protection.



Introduction of efficient Man-machine interface simplifies commissioning with user guidance.

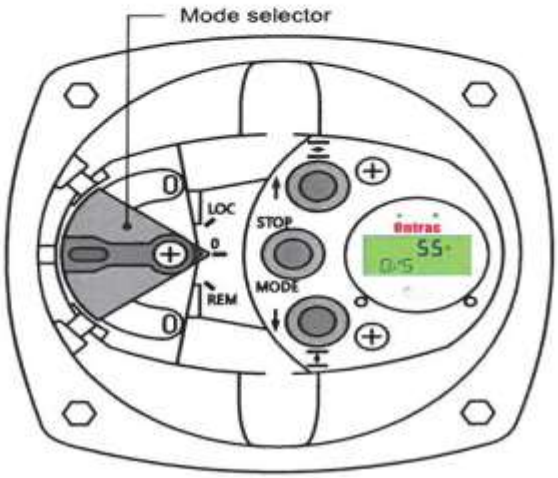
Motor and control cables are connected by using screw-type terminals or PCB plug-in terminals to ensure reliable electrical contact.

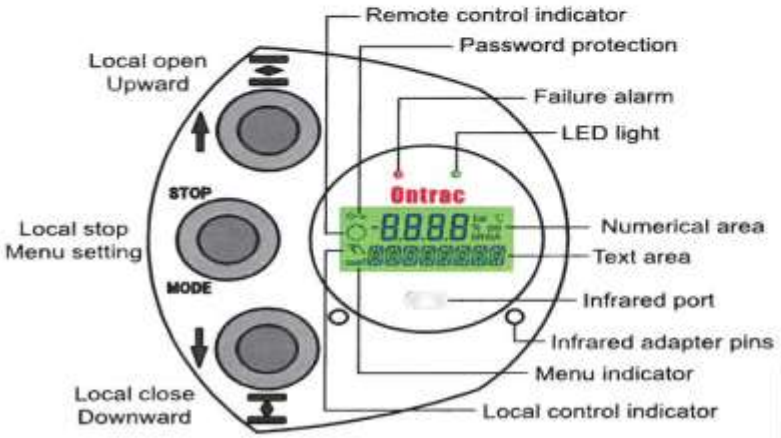
Magnetic angle sensors for contact-less position detection, are operated by means of the signaling gear to detect the current valve position and torque.

A centrifugal lock prevents the hand wheel from engaging before the motor has come to a standstill.

MME/MOE Intelligent Electric Actuators

Panel and Menu





Menu Group

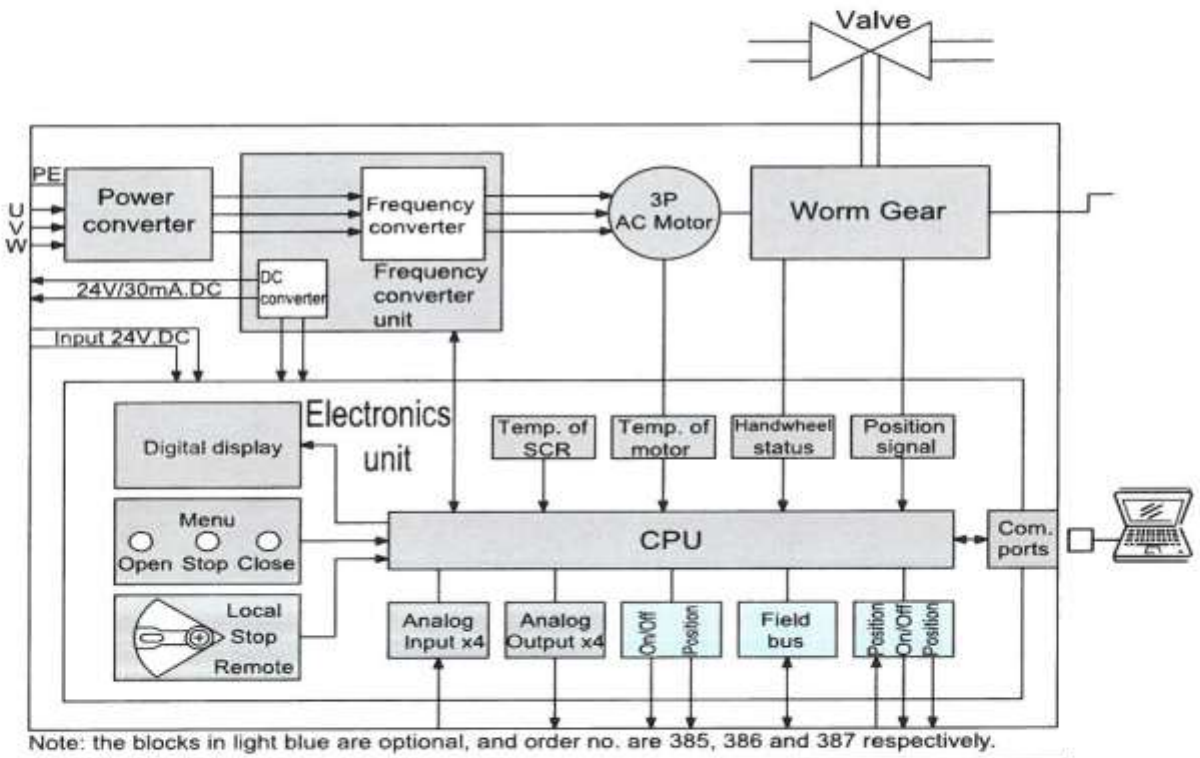
- SETUP
- travel dependent
- torque dependent
- valve control speed
- switch off mode
- switch off position
- end position
- limit value
- PARAMETER
- inchmode
- holdmode
- remote digital control
- increasing effective torque

- SERVICE
- 4mA input calibration
- 20mA input calibration
- 4mA output calibration
- 20mA output calibration
- delete current range
- dead-zone adjustment
- output polarity setting
- analog signal range
- ESD target position
- reset
- SELF-DIAGNOSIS
- error info.
- alarm info.

- SYSTEM INFO.
- travel time
- maximun torque
- software version
- hardware version
- actuator model
- phases of AC power
- extended func. board
- temperature
- valve position
- PASSWORD PROTECTION
- INPUT PORTS SETTING
- OUTPUT PORTS SETTING

MME/MOE Intelligent Electric Actuators

Functional Block



Note: the blocks in light blue are optional, and order no. are 385, 386 and 387 respectively.

BE1 ~ BE4 digital input ports can be set from "01" to "10" function. See table below.

Menu
Open
Close
Shutdown
Alarm reset
Allow to open
Allow to close
Local lock
Analog/ON/OFF control switch
ESD
Fast run

Input Ports
BE1
BE2
BE3
BE4

Status output	
Basic	BA1
	BA2
	BA3
	BA4
385	BA5
	BA6
	BA7
	BA8

387

BA1 ~ BA8 digital output ports can set from "01" to "20" function. See table right.

Menu
Ready to run
Failure alarm
Open to end position
Closed to end position
Exceeded torque in OPEN
Exceeded torque in CLOSED
Intermediate position 1
Intermediate position 2
Remote control
Local control
Continuous signal
Pulse signal
OPEN (pulse signal) end (continuous signal)
CLOSED (pulse signal) end (continuous signal)
Analog/digital control
"OPEN" indication
"CLOSED" indication
ESD indication
Manual/automatic state
Alarm if analog failure

Basic: Four digital output ports.
385: Four digital output ports and one analog output for valve position.
386: Fieldbus system, Profibus-DP or MODBUS.
387: Analog input and output of valve position and three digital output.

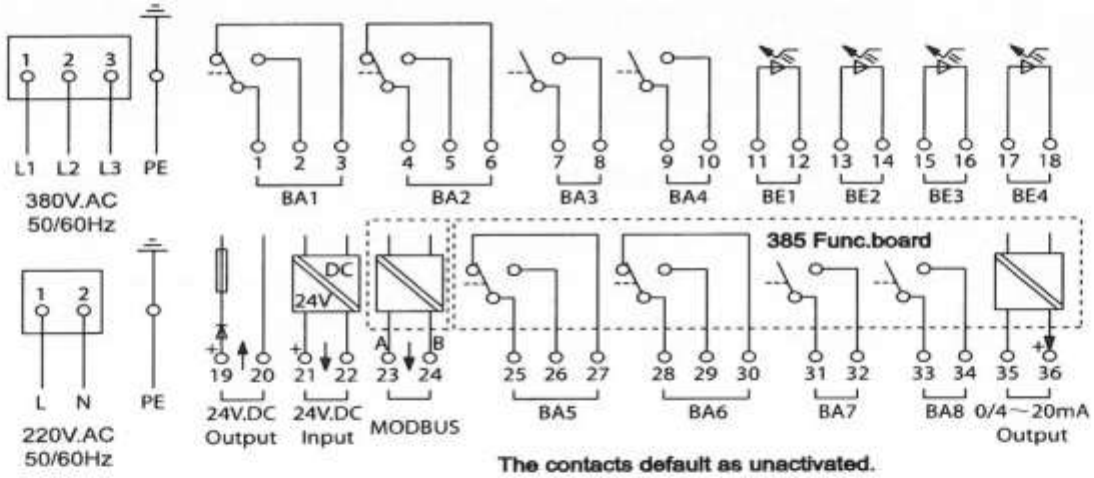
MME/MOE Intelligent Electric Actuators

Electrical Wiring

Waterproof cable connector is provided in the attached zipper bag, protection class is IP67.
There are several connectors available:

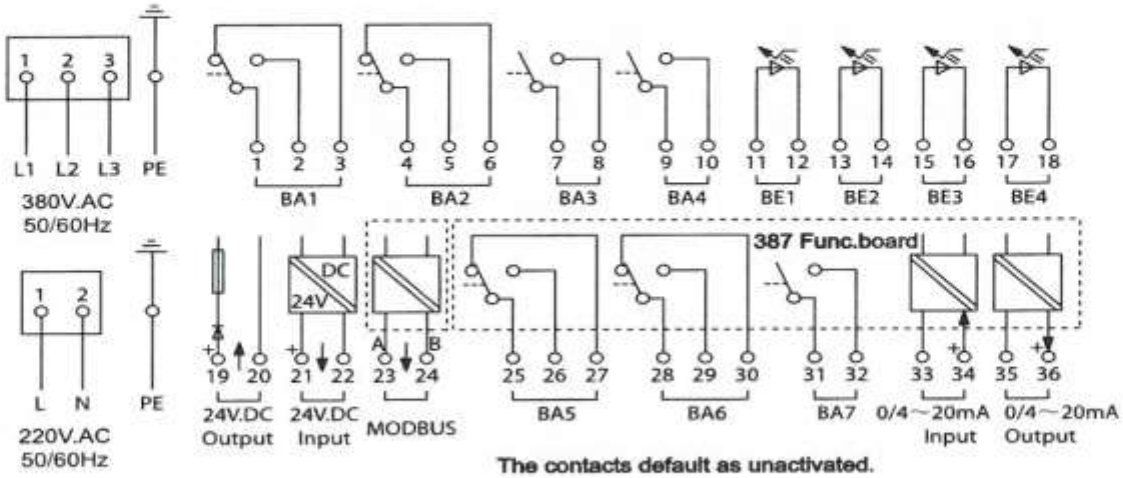
Note 1: Exclusively use same protection level cable connector with Ontrac actuator in order to ensure stated protection level.
Note 2: All of the signal cable must be shielded.
Note 3: cable connecting seperate type actuators should not exceed more than 15 meters.
Note 4: After wiring, please use the plastic cover in attached zipper bag to screw unused cable hole.

Electrical wiring for digital signal input:



The contacts default as unactivated.

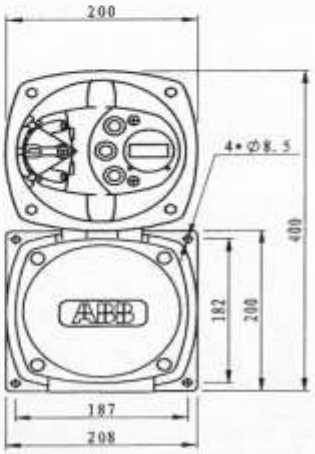
Electrical wiring for analog signal input:

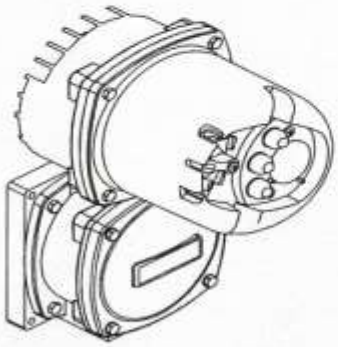


The contacts default as unactivated.

MME/MOE Intelligent Electric Actuators

Installation





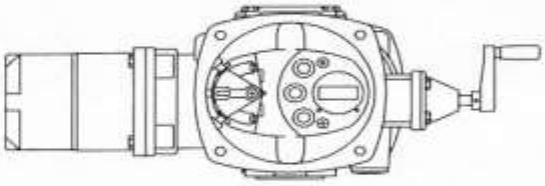
In some strong vibration or super high/low temperature fields, Ontrac split actuator is recommended, to ensure the normal operation.

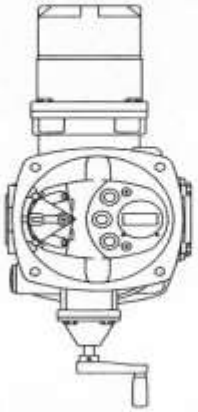
Stardard terminals

Plug-in terminals

Screw terminals

We offer three terminals connections as the following pictures. Stardard terminals connection is fast and reliable, plug-in terminals easy to maintain, and screw terminals for explosion-proof products.





For different installation sites,Ontrac' operation panel is designed to be rotatable four direcitons. See the pictures above.When actuator is side-mounted, the operation panel still faces to the operator.