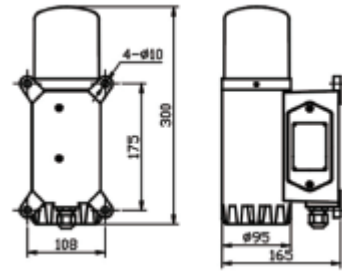
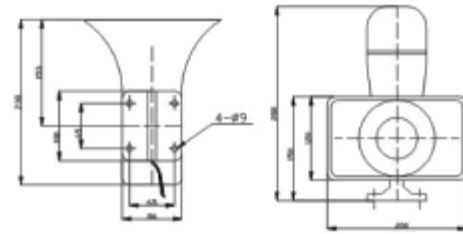


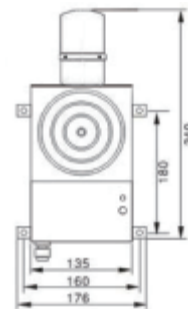
Crane Alarm System
NTB Series



Sound and Revolving Light NTBC-8 Model					
Power supply	AC24V / AC36V / AC110V AC220V / DC24V / Customized	Pitch	A/B/E/D/Y/L/F Voice (optional)	Volume	106dB
Hz	50Hz ~ 60Hz	Material	Casing :Alu-alloy Lampshade: PC	Alarm Type	Sound and Lighting
Working Temperature	-30°C ~ +70°C	Color	Red, Yellow, Green	IP Class	IP65
Operating Humidity	10% ~ 95%	Power	6W	Weight	2.7KG



Sound and Revolving Light NTBC-3B Model					
Power supply	AC220V / DC24V / Customized	Pitch	A/B/E/D/Y/L/F Voice (optional)	Volume	106dB
Hz	50Hz ~ 60Hz	Material	Casing :ABS Lampshade: PC	Alarm Type	Sound and Lighting
Working Temperature	-30°C ~ +70°C	Color	Casing: Red, White, Blue Lampshade: Red, Yellow, Green	IP Class	IP65
Operating Humidity	10% ~ 95%	Power	10W	Weight	1.8KG

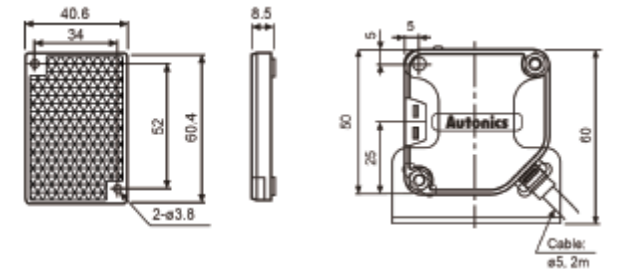


Sound and Revolving Light NTB-100 Model					
Power supply	AC24V / AC36V / AC110V AC220V / DC24V / Customized	Pitch	A/B/E/D/Y/L/F Voice (optional)	Volume	135dB
Hz	50Hz ~ 60Hz	Material	Casing : Cold-Rolled Sheet Lampshade: PC	Alarm Type	Sound and Lighting
Working Temperature	-30°C ~ +70°C	Color	Red	IP Class	IP65
Operating Humidity	10% ~ 95%	Power	25W/50W	Weight	2.9KG

Electric Parts - Photoelectric Sensor
BEN Series

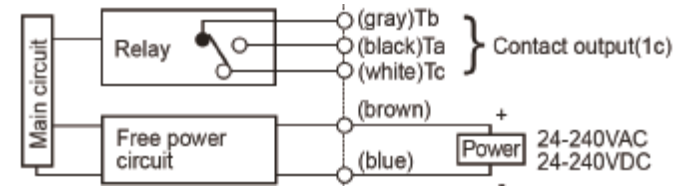
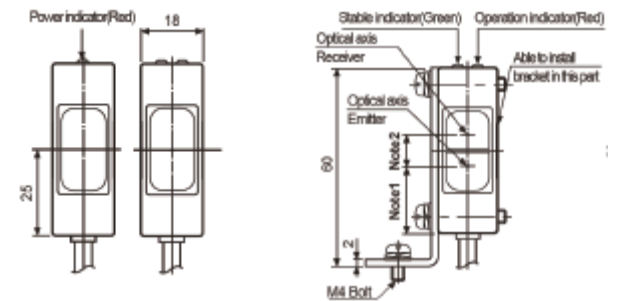


Dimensions:



•Through-beam type

•Retroreflective



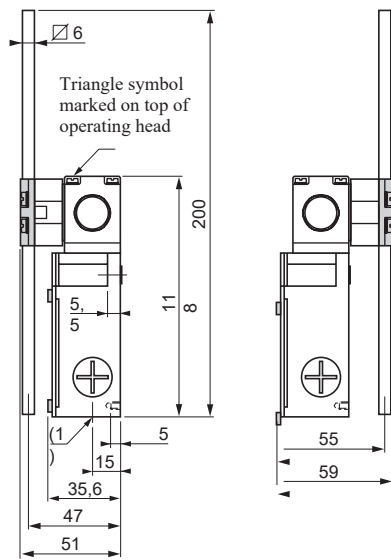
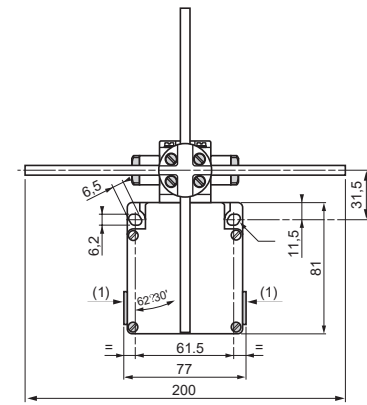
Type	Free power, Relay contact output	
	Through-beam	Retroreflective
Model	BEN10M-TFR	BEN5M-MFR
Sensing distance	10m	0.1 to 5m
Sensing target	Opaque materials of min.φ16mm	Opaque materials of min.φ60mm
Response time	Max.20ms	
Power supply	24-240VAC±10% 50/60Hz, 24-240VDC±10%(ripple P-P:max.10%)	
Power consumption	Max. 4VA	
Light source	Infrared LED (850nm)	
Sensitivity adjustment	-	Sensitivity adjuster
Operation mode	Selectable Light ON or Dark ON by switch	
Relay lifetime	Mechanically:Min.50,000,000 operation, Electrically: Min.100,000 operation	
Control output	Relay contact output •Relay contact capacity: 30VDC~3A of resistive load, 250VAC~3A of resistive load •Relat contact composition:1c	
Relay lifetime	Mechanically:Min.50,000,000 operation, Electrically: Min.100,000 operation	
Light receiving element	Photo IC	
Indication	Operation indicator: red, stable indicator: green	
Insulation resistance	Over 20MΩ (at 500VDC megger)	
Noise immunity	±1000V the square wave noise(pulse width:1μs) by the noise simulator	
Dielectric strength	1000VAC 50/60Hz for 1 minute	
Environment	Ambient illuminaton	Sunlight: max.11,000lx, incandescent lamp: max.3,000lx(receiver illumination)
	Ambient temperature	-20 to 65°C, storage: -25 to 70°C
	Ambient humidity	35 to 85%RH, storage: 35 to 85%RH
Protection structure	IP50(IEC standard)	
Material	•Case, case cover: heat resistant ABS •Sensing part: PC(with polarizing filter PMMA)	
Cable	φ5.0mm, 5-wire, length: 2m(emitter of through-beam type: φ5.0mm, 2-wire, length: 2m) (AWG22, core diameter: 0.08mm, number of cores: 60, insulator diameter: φ1.25mm)	
Accessary	Individual	-
	Common	Adjustment screwdriver, mounting bracket, M4 bolt: 4, M4 nut: 4
Unit weight	Approx.354g	Approx.208g

Electric Parts - Cross Limited Switch for Travelling
SNB Series

SNB -27 - SL2 - N - 180

Alu Rod Length
SL2: 200mm
SL3: 300mm

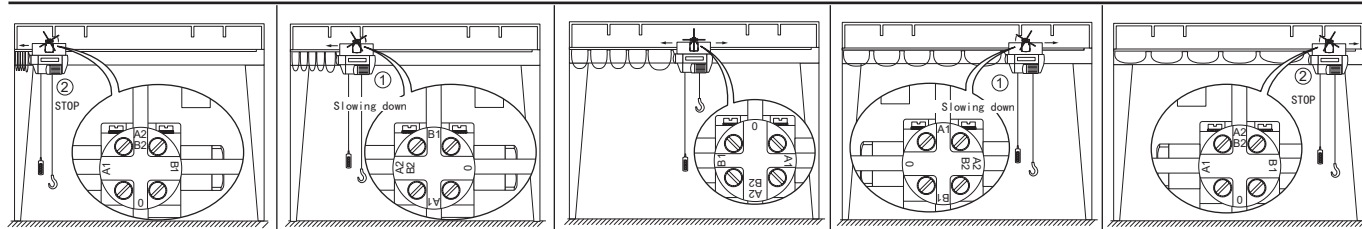
Alu Rod Rotation
180: 180°
360: 360°



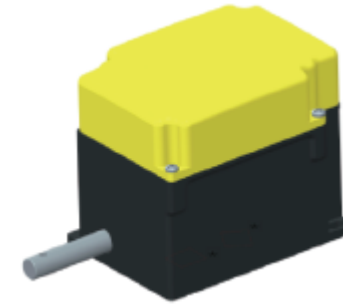
Characteristics

Conforming Standard to Products	IEC 947-5-1, EN 60 947-5-1, VDE 0660-200
Conforming Standard to Assemblies	IEC 204-1, EN 60 204-1, NF C 79-130
Resistance to Vibration	25 gn(10 - 500Hz) conforming to IEC 68-2-6
Resistance to Shock	50 gn conforming to IEC 68-2-27
Electric Shock Protection	Class I conforming to IEC 536 and NF C 20-030
Ambient air temperature	Operation : - 25 ~ 70°C — Storage: - 40 ~ 70°C
IP Class	IP66
Mechanical Durability	2 million Op. cycles
Torque for Tripping	0.5 Nm
Torque for Positive Opening	0.75 Nm
Maximum Actuation Speed	1.5m/s
Rated Operational Characteristics	AC-15 ; A300 or Ue = 240 V, Ie = 3 A
	DC-13 ; Q300 or Ue = 125 V, Ie = 0.55 A conforming to IEC 947-5-1 Appendix A,
Rated Insulation Voltage	Ui = 600 V degree of pollution 3 conforming to IEC 97-1,EN60947-5-1
Rated Impulse Withstand Voltage	U imp = 6 kV conforming to IEC 947-1, IEC 664
Positive Operation	N/C contacts with positive opening operation conforming to IEC 947-5-1, EN 60 947-5-1
Short-circuit Protection	10A cartridge fuse type gG(gl)
Conduits	1/2NPT, M20×1.5, PG13.5
Cabling	Screw and captive cable clamp terminals. Clamping capacity, min.: 1 x 0.34mm ² , max.: 2 x 1.5mm ² or 1 x 2.5mm ² depending on contact, Screw tightening torque max.:1.2Nm
Weight	0.55kg

Switch Operation



Electric Parts - Rotating Switch
FGR Series



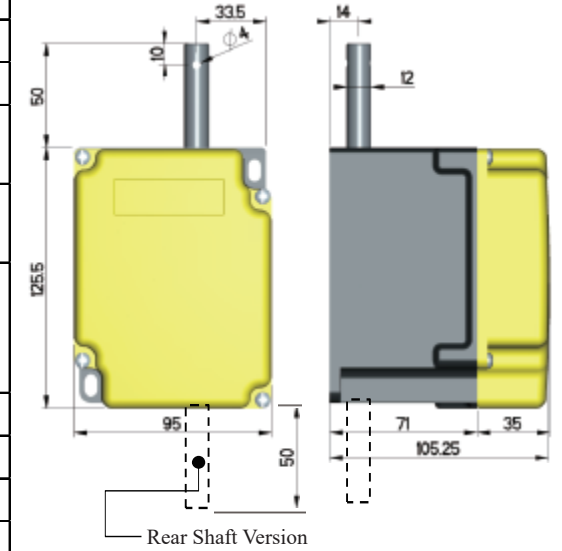
FGR 1 0 075 4

Ratio
10075: 1:75
10100: 1:100
10150: 1:150
10200: 1:200
10400: 1:400

Fixing:
4: Base
4F: Flanged

Characteristics

Case	Self extinguishing housing V0 UL94
Ratio	012=00-050-075-100-150-200-400
Protection Class	IP65
Shaft Type	-Steel -Coaxial Shaft version available
Fixing Type	-Bottom -Front (flanged version)
Microswitch	8A-250V-Silver plated contacts IEC / EN61058-1 / UL1054 1NC-1NO changeover fas trigger Self cleaning positive opening
Microswitch Max n° / note	Max 4-micrometric adjustment roller lever control (long life)
Cam Block	Self-lubricating with transparent support for easier cam viewing
Cable Entry	M20 or M16 (max4)
Options	-5 different cam shapes / 15 pinions -potentiometer (3 support version)

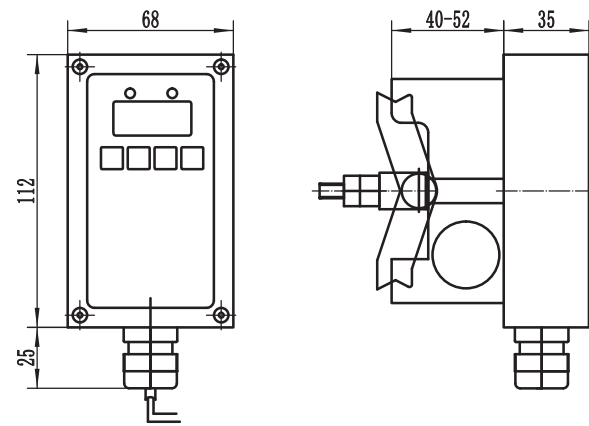
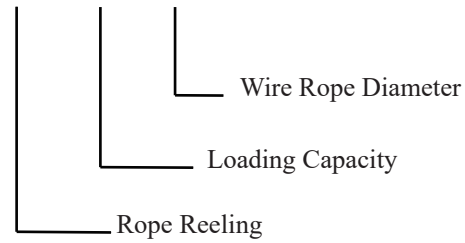


			n° of Microswitch 2 - 3 - 4	Potentiometer 2.5 / 5 / 10 kΩ	Rear Shaft	Microswitch Cams
012	FGR100124	FGR100124F	4 silver plated	NO	NO	STANDARD
033	FGR100334	FGR100334F		NO	NO	
050	FGR100504	FGR100504F		NO	NO	
075	FGR100754	FGR100754F		NO	NO	
100	FGR101004	FGR101004F		NO	NO	
150	FGR101504	FGR101504F		NO	NO	
200	FGR102004	FGR102004F		NO	NO	
400	FGR104004	FGR104004F	NO	NO		

Electric Parts - Clamp type Load Limited Switch
BQX Series



BQX - 4/1 - 3T - 10



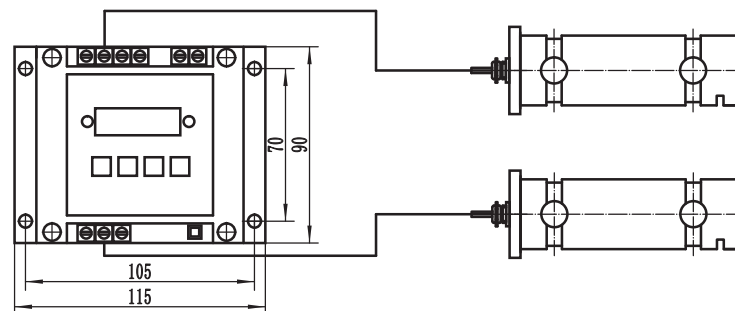
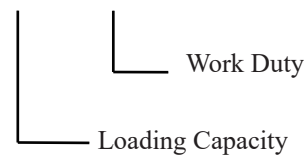
Technical Feature

Display Precision : $\leq 10\%$ F.S,
Function: 90% Pre Warning,
105% Warning and Closed the Lifting up
110% Closed Hositing Immediately
Temperature: $-20^{\circ}\text{C} \sim +60^{\circ}\text{C} / 90\text{RH}$
IP Class: Sensor IP65, Instrument IP42
Contact capacity: AC250V, 10A
Power supply: AC380V $\pm 10\%$, 50Hz

Electric Parts - Pin type Load Limited Switch
ZQX Series



ZQX - 5T - M5

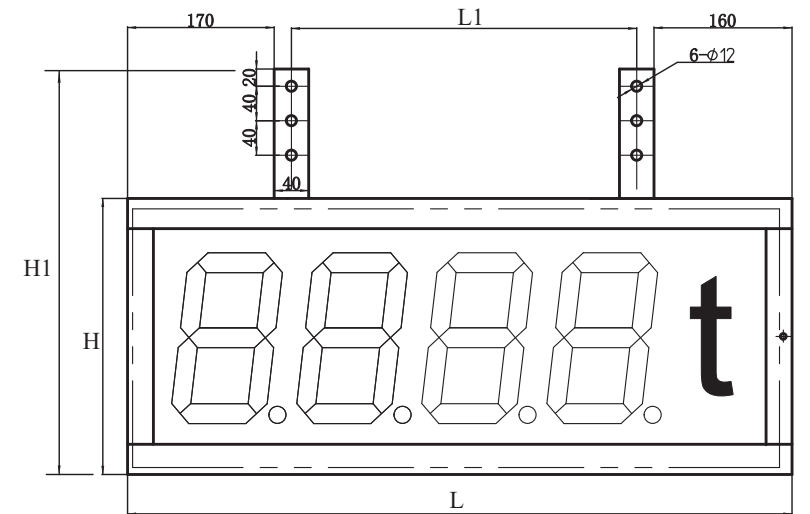
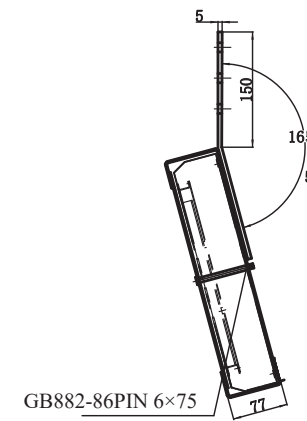


Technical Feature

Display Precision : $\leq 5\%$ F.S,
Function: 90% Pre Warning,
105% Warning and Closed the Lifting up
110% Closed Hositing Immediately
Temperature: $-20^{\circ}\text{C} \sim +60^{\circ}\text{C} / 90\text{RH}$
IP Class: Sensor IP65, Instrument IP42
Contact capacity: AC250V, 10A
Power supply: AC48V $\pm 10\%$, 50Hz

Electric Parts - Load Displayer
NTGL Series

NTGL - 5
Dimension



Technical Feature

Display with	BQX and ZQX Load Limited Switch
Signals Communication Interface:	485
IP Class:	IP54
Lighting:	Red LED
Material:	Steel Sheath with Electrical Components
Power supply:	Input AC220V; Output 12V/5V

Dimention

Model	L	L1	H	H1	Dimention
NTGL-5	620	380	240	350	5"
NTGL-8	800	400	320	450	8"
NTGL-10	960	400	390	520	10"