Reference: PA18CAT20M1

Selected parameters SYSTEM Through-beam HOUSING M18 SENSING RANGE 6 ... 20 m CONNECTION M12 plug DC MATERIAL Plastic Others SENSING RANGE 20 m HOUSING M18 x 43,8 mm MATERIAL ABS

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Photoelectrics
Through-beam
Type PA18C.T..., DC
• Miniature sensor range
• Range: 20 m (Axial), 16 m (Radial)
• Sensitivity adjustment by potentiometer
• Modulated, infraredlight 850 nm
• Supply voltage: 10 to 30 VDC
• Output: 100 mA, NPN or PNP, N.O + N.C.
• Degree of protection IP67, IP69K
• LED indication for output, stability and power ON
• Protection: reverse polarity, short circuit and transients
• Cable and plug versions
• Excellent EMC performance
Product Description
Ordering Key
PA18CAT20PAM1SA
The PA18C.T... ispartofa family of inexpensive general purposethrough-beamsen- sors in industrial standard 18 mm cylindrical ABS housing. Thesensorsareusefulin applications where high- accuracy detection as well as small size is required.
Type Selection
Compact housing and high power LED for excellent performance-size ratio.
The potentiometer used for adjustment of the sensitivity makes the sensors highly flex- ible. The output type is NPN or PNP and the output switch- ing function is NO and NC.
Type
Housing style Housing size Housing material Housing type axial Detection principle Sensing distance Output type
Output configuration Connection type Sensitive adjustment
Housing type RangeConnec-Orderingno. Orderingno. ReceiverOrderingno. Receiver

SntionEmitterNPN PNP
Make or break switching Make or break switching
M18 Axial type 20 m Cable PA 18 CAT 20 PA 18 CAT 20 NASA PA 18 CAT 20 PASA M18 Axial type 20 m Plug PA 18 CAT 20M1PA 18 CAT 20 NAM1SAPA 18 CAT 20 PAM1SA
M18 Radial type 16 m Cable PA 18 CRT 16 PA 18 CRT 16 NASAPA 18 CRT 16 PASA
M18 Radial type 16 m Plug PA 18 CRT 16M1PA 18 CRT 16 NAM1SA PA 18 CRT 16 PAM1SA
Specifications Receiver according to EN60947-5-2
Rated operating distance (Sn)
Axial type (A)Up to 20 m, Radial type (R)Up to 16 m
Blind zone 0 mm
Sensitivity control Adjustable by potentiometer
Electrical adjustment 210˚ Mecanical adjustment240˚ Adjustable distance to target
Axial types1 - 20 m
Radial types 1 - 16 m
Temperature drift≤ 0.2%/ºC
Hysteresis (H)
(differential travel) ≤ 20%
Rated operational volt. (UB)10 to 30 VDC (ripple included)
Ripple (Urpp) ≤ 10%
Output current
Continuous (Ie) ≤ 100 mA Short-time (I) ≤ 100 mA
(max. load capacity 100 nF)
No load supply current (Io)≤ 15 mA @ 24 VDC
Minimum operational current (Im) 0.5 mA
OFF-state current (Ir)≤ 100 µA
Voltage drop (Ud) ≤ 2.0 VDC @ 100 mA
ProtectionShort-circuit, reverse polarity and transients
Sensing angle
Axial ± 4º Radial± 3º
Ambient light30.000 lux
Incandescent lamp
Operating frequency 500 Hz
Response time
OFF-ON (tON)≤ 1.0 ms
ON-OFF (tOFF) ≤ 1.0 ms
Power ON delay (tv) ≤ 200 ms
Output function
Type NPN or PNP
Switching function NO and NC
Indication
Output ON LED, yellow
Signal stability and power ONLED, green
Specifications are subject to change without notice (04.02.2013) 1